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The global burden of falls: global, regional and national estimates of morbidity and mortality from the Global Burden of Disease Study 2017

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ABSTRACT

Background Falls can lead to severe health loss including death. Past research has shown that falls are an important cause of death and disability worldwide. The Global Burden of Disease Study 2017 (GBD 2017) provides a comprehensive assessment of morbidity and mortality from falls.

Methods Estimates for mortality, years of life lost (YLLs), incidence, prevalence, years lived with disability (YLDs) and disability-adjusted life years (DALYs) were produced for 195 countries and territories from 1990 to 2017 for all ages using the GBD 2017 framework. Distributions of the bodily injury (eg, hip fracture) were estimated using hospital records.

Results Globally, the age-standardised incidence of falls was 2238 (1990–2532) per 100 000 in 2017, representing a decline of 3.7% (7.4 to 0.3) from 1990 to 2017. Age-standardised prevalence was 5186 (4622–5849) per 100 000 in 2017, representing a decline of 6.5% (7.6 to 5.4) from 1990 to 2017. Age-standardised mortality rate was 9.2 (8.5–9.8) per 100 000 which equated to 695 771 (644 927–741 720) deaths in 2017. Globally, falls resulted in 16 688 088 (15 101 897–17 636 830) YLLs, 19 252 699 (13 725 429–26 140 433) YLDs and 35 940 787 (30 185 695–42 903 289) DALYs across all ages. The most common injury sustained by fall victims is fracture of patella, tibia or fibula, or ankle. Globally, age-specific YLD rates increased with age.

Conclusions This study shows that the burden of falls is substantial. Investing in further research, fall prevention strategies and access to care is critical.

disability may be governed by a wide array of factors ranging from drug and alcohol intoxication in younger populations to frailty and comorbidities in older adult populations. Falls pose sufficient risk in modern high-resource healthcare settings to necessitate the use of safety devices such as bed alarms and traction socks in inpatient wards and dedicated physical and occupational therapy services. Falls in young, otherwise healthy populations can produce lifelong disability in the form of traumatic brain injuries or spinal cord injuries and can also cause severe injuries that necessitate advanced surgical care, such as intra-abdominal organ injury or complicated skeletal fractures.¹ In older populations, the morbidity experienced by falls may be further modulated by comorbid conditions such as osteoporosis, osteopenia, or usage of anticoagulant or antiplatelet medications.^{2,3} Given that many fall incidents are preventable, occur in any population and can lead to substantial morbidity and mortality, it is surprising that falls do not draw more attention as an important global issue.

In the Global Burden of Diseases, Injuries and Risk Factors Study 2017 (GBD 2017), global estimates of the burden of falls show that falls were ranked as the 18th leading cause of age-standardised rates of disability-adjusted life years in 2017, outranking conditions such as chronic kidney disease, Alzheimer's disease and other dementias, and asthma.⁴ Additionally, falls were noted to be the second leading cause of death due to unintentional injuries in 2017, following road injuries and outranking causes such as interpersonal violence and drowning.⁵ Research outside of the GBD Study on the epidemiology of falls has largely focused on older populations as this is where the global burden of falls is thought to be most concentrated. The World Health Organization (WHO) reports that most deaths from falls happen in those aged 65 and

INTRODUCTION

Falls are one of the most common mechanisms of injury and endure as a persistent risk to morbidity and mortality across all ages. The risk of an injurious fall in a population as well as the resulting



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older.⁶ For those 70 years or older, falls are the leading category in injury-related deaths.⁷ With a burden highly concentrated in older adults, many recent studies have discussed the effects of population ageing, recognising the potential for far more incident cases and deaths from falls as people live longer.^{8–10} In addition, several studies have focused on younger populations as they are an important high-risk group to consider as well. An injury surveillance system pilot study conducted in 4 low/middle-income countries found that falls accounted for the largest percentage (56%) of recorded injuries among children.¹¹ A study conducted in India similarly found that the most common type of home injury in children aged 0–14 was falling.¹²

Given the known extent of this burden, it is important to measure and understand how the burden of falls is distributed in terms of morbidity and mortality, across all age groups and between both sexes, and in every geographical region of the world. In addition, since the disability that results from falls may vary by location, it is of interest to systematically measure how the distribution of injuries resulting from falls varies by region.

The GBD Study represents the efforts of a global research collaboration that produces comprehensive estimates of hundreds of diseases, injuries and risk factors in 195 countries and territories using data and methods that are updated on an annual basis, most recently in GBD 2017. The specific estimates produced by the GBD include annual estimates of all-cause mortality, causes of death, non-fatal health outcomes (ie, incidence, prevalence and years lived with disability (YLDs)) and risk factors. These measures are estimated for all countries and territories, age groups and sexes, across a range of years. The intent of providing this level of estimation detail is to allow focused and nuanced analyses of death and disability across demographics, locations and causes of injuries. Falls is a category of injury in the GBD cause hierarchy and was included in the GBD 2017 results, but to date there have been no known studies that examined the findings for this cause in detail. Additionally, the injuries resulting from falls have not previously been reported using GBD 2017 results.

In this study, we use the GBD 2017 framework to analyse the morbidity and mortality caused by falls as reported in GBD 2017 and explore the burden of injuries resulting from falls.

METHODS

GBD Study 2017

Methods used in the GBD Study 2017 have been described in extensive detail elsewhere, including description of the analytical estimation framework used to measure mortality, incidence, prevalence, years of life lost (YLLs), years lived with disability (YLDs) and disability-adjusted life years (DALYs).^{4 5 13–16} Online supplementary appendix 1 provides a methodological overview of different components used in the GBD Study design and analytical framework. The methodological components specific to the estimation of falls within the GBD framework are summarised below.

GBD injury classification

The GBD 2017 reported estimates in terms of *external cause* of injury (eg, falls) and measured disability based on *nature* of injury (eg, hip fracture). Causes of injury were defined in accordance with the International Classification of Diseases (ICD). For this study, falls were defined as ICD-9 codes E880–E886, E888 and ICD-10 codes W00–W19.9. In terms of the nature-of-injury codes, falls had 47 mutually exclusive and collectively exhaustive nature-of-injury categories which were specified with chapters S

and T in ICD-10 and codes 800–999 in ICD-9 to quantify the various disabling outcomes that can occur with a fall.

Mortality and YLLs due to falls

For deaths due to falls, we estimated both mortality and YLLs due to premature mortality. Our approach for estimating causes of death for every cause, including falls, is provided in the GBD 2017 cause of death literature.¹⁷

First, we identified and obtained all available cause-of-death data sources. These sources included complete vital registration systems shared by countries; verbal autopsy studies published in literature; and mortality surveillance, censuses, surveys, hospital records and mortality data. The cause of death estimates from these sources were mapped to the GBD cause list such that the corresponding ICD codes listed above were mapped to our ‘falls’ cause, as were non-ICD-coded reporting systems where ‘falls’ were designated as a cause of death, for example, in verbal autopsy studies which are typically not ICD coded but include a textual cause list.

Second, we conducted estimation models using the GBD Cause of Death Ensemble model (CODEm) to estimate cause-specific mortality for falls by age, sex, country and year. CODEm is an ensemble modelling approach for producing a large variety of possible models to estimate trends in causes of death using an algorithm that selects a wide array of combinations of covariates and different modelling methods.¹⁸

Third, we calculated YLLs by multiplying deaths by the residual life expectancy using the global maximum life expectancy at the age of death as derived from the GBD standard model life table. For example, if an individual dies at age 60 from a fall and their residual life expectancy is 20 years, then there were 20 YLLs due to that fall.

Injury incidence, prevalence and YLDs

The method for estimating non-fatal injury outcomes including falls in GBD 2017 is described in more detail in related publications.¹⁹ A methodological summary is as follows.

First, we used DisMod-MR 2.1 to measure incidence of falls that lead to any form of medical care (inpatient or outpatient). DisMod-MR 2.1 is a meta-regression tool for epidemiological modelling built on a Bayesian compartmental model framework that solves differential equations that modulate the relationships between a susceptible population becoming injured (incidence) and then either recovering (remission) or dying (excess mortality). For incidence data, we used emergency department records, hospital records, survey data and literature studies to estimate fall incidence by location, year, age and sex, and used the coefficient from outpatient care to split subsequent estimation processes into inpatient and outpatient incidence estimates so that inpatient and outpatient-specific data could be used where possible to preserve differences in incidence and severity. Since survey items for falls can include non-injurious falls, we included an indicator variable for falls that resulted in injury. Since excess mortality is calculated based on locations where there are overlapping incidence and cause-specific mortality data, its computation also allows for estimation of incidence in locations with cause-specific mortality data but no incidence data, requiring an assumption that case fatality rates among falls are affected by income.

Second, we estimated the distribution of nature-of-injury categories among the incidence of all falls. To do this, we created a hierarchy of nature-of-injury categories. We assumed that the disability experienced by an individual who has an injurious fall

was determined by the most severe nature-of-injury sustained due to this fall. For example, a fall resulting in a spinal cord injury would determine disability due to the fall instead of a co-occurring wrist sprain. The nature-of-injury hierarchy represents a combination of the likelihood of long-term disability and the corresponding GBD disability weight. To estimate the hierarchy, we used data from pooled follow-up studies in which we translated each individual's health status measure at 1 year after injury into a disability weight.^{20–26}

Third, we used a Dirichlet regression method to estimate the proportion of falls that result in each nature-of-injury category being the most severe injury for each fall, since Dirichlet methods enforce coefficient estimates for proportions that must sum to 1.²⁷ These matrices were derived from dual-coded hospital and emergency department data sets from multiple countries and data from the China injury surveillance system where both cause-of-injury and nature-of-injury diagnosis codes are present. The use of these data sources to inform this estimation process is described in more detail elsewhere.^{1 28} Separate cause-nature matrices were created for falls warranting hospital admission versus falls warranting other healthcare, high and low-income countries, male and female, and age category.

Fourth, we estimated short-term disability for falls by nature-of-injury category. For each nature-of-injury category and inpatient and outpatient injury, we used the Dutch Injury Surveillance System to derive average duration for treated cases, since for GBD 2017 this was the only available data source that could inform this parameter.^{23 24} These estimates were supplemented by expert-driven estimates of short-term duration for nature-of-injury categories that had insufficient numbers in the Dutch data set and for untreated injuries.

Fifth, we estimated the proportion of falls resulting in permanent disability for each nature-of-injury category by admission status and age. Disability due to falls was assumed to affect all injurious falls in the short term with a proportion having long-term (permanent) outcomes, defined as having persistent disability 1 year after the injury greater than the preinjury health status.

Sixth, we applied the ordinary differential equation solver used as the computational engine in DisMod-MR 2.1 to estimate the long-term prevalence for each fall-related nature-of-injury from incidence and the long-term mortality risk in cases with long-term disability based on meta-analyses of studies providing standardised mortality ratios. For example, since individuals with severe traumatic brain injuries die at a higher rate than the underlying population, we integrated the corresponding standardised mortality ratios to account for decreasing prevalence due to higher mortality risk in this injured population.

Finally, we calculated YLDs as prevalence of each health state multiplied by a disability weight for each nature-of-injury and corrected for comorbidity with other non-fatal diseases using microsimulation methods employed in GBD 2017.

Socio-demographic index

Socio-demographic index (SDI) is a composite indicator of development that is calculated based on income per capita, average educational attainment over age 15 and total fertility rate under age 25.¹⁵ The SDI has a scale that ranges from 0 representing the lowest income *per capita*, lowest educational attainment and highest fertility observed across all GBD locations from 1980 to 2017, to 1, representing the point at which the higher income per capita, higher educational attainment and lower fertility under age 25 are no longer associated with improved health.

We used SDI values for each country and territory to categorise our estimates in this study by SDI quintile to help illustrate how burden trends differ by development level.

GATHER compliance

This study complies with the Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER) recommendations (online supplementary appendix 2). Analyses were completed using Python version 2.7, Stata version 13.1, or R version 3.3. Statistical code used for GBD estimation is publicly available online at healthdata.org.

RESULTS

Results tables are listed as web appendix tables. Results by age, sex, year, subnational location and nature of injury are also available online via the GBD Results Tool (<http://ghdx.healthdata.org/gbd-results-tool>) and GBD Compare (<https://vizhub.healthdata.org/gbd-compare/>).

Incidence

Figure 1 shows age-standardised incidence of falls by country and territory in 2017. This map illustrates the higher incidence rates in Eastern and Central European countries as well as Australia and New Zealand. Online supplementary appendix table 1 shows the all-ages incidence counts and the age-standardised incidence rates for 2017 as well as the percentage change in age-standardised rates from 1990 to 2017. Globally, the age-standardised incidence rate was 2238 (95% uncertainty interval 1990 to 2532) per 100 000 in 2017, representing a decline of 3.7% (7.4 to 0.3) from 1990 to 2017, and equating to 171 691 220 (152 472 652–194 061 874) new injuries from falls in 2017. The age-standardised incidence rate decreased in the high-middle and high SDI quintiles and increased in the middle, low-middle and low SDI quintiles. The largest decline was in the high SDI quintile, which decreased by 8.8% (–12.3 to –5.3). The geographic regions with the highest age-standardised incidence rates were Central Europe with 11 434 (10 103–12 996) cases per 100 000, Australasia with 8187 (6978–9553) cases per 100 000 and Eastern Europe with 8029 (7010–9233) cases per 100 000. Among the 21 GBD regions, 12 experienced significant increases in age-standardised incidence rates (Australasia, High-income Asia Pacific, Andean Latin America, Caribbean, Central Latin America, Tropical Latin America, South Asia, East Asia, Oceania, Southeast Asia, Central Sub-Saharan Africa, Southern Sub-Saharan Africa), 2 experienced significant decreases (Central Europe, High-income North America) and the remaining 7 regions experienced no significant change in age-standardised incidence rates (Central Asia, Eastern Europe, Southern Latin America, Western Europe, North Africa and Middle East, Western Sub-Saharan Africa).

Prevalence

Online supplementary appendix table 1 also shows the all-ages prevalence counts and the age-standardised prevalence rate for 2017 as well as the percentage change in age-standardised prevalence from 1990 to 2017. Globally, the age-standardised prevalence rate was 5186 (4622–5849) per 100 000 in 2017, representing a decline of 6.5% (7.6 to 5.4) from 1990 to 2017. There were 411 711 999 (366 390 987–465 354 952) prevalent cases in 2017. East Asia had the highest number of prevalent cases in 2017 with 62 282 056 (54 985 517–70 760 535) cases across all ages and both sexes. The age-standardised prevalence decreased in the high and high-middle SDI quintiles

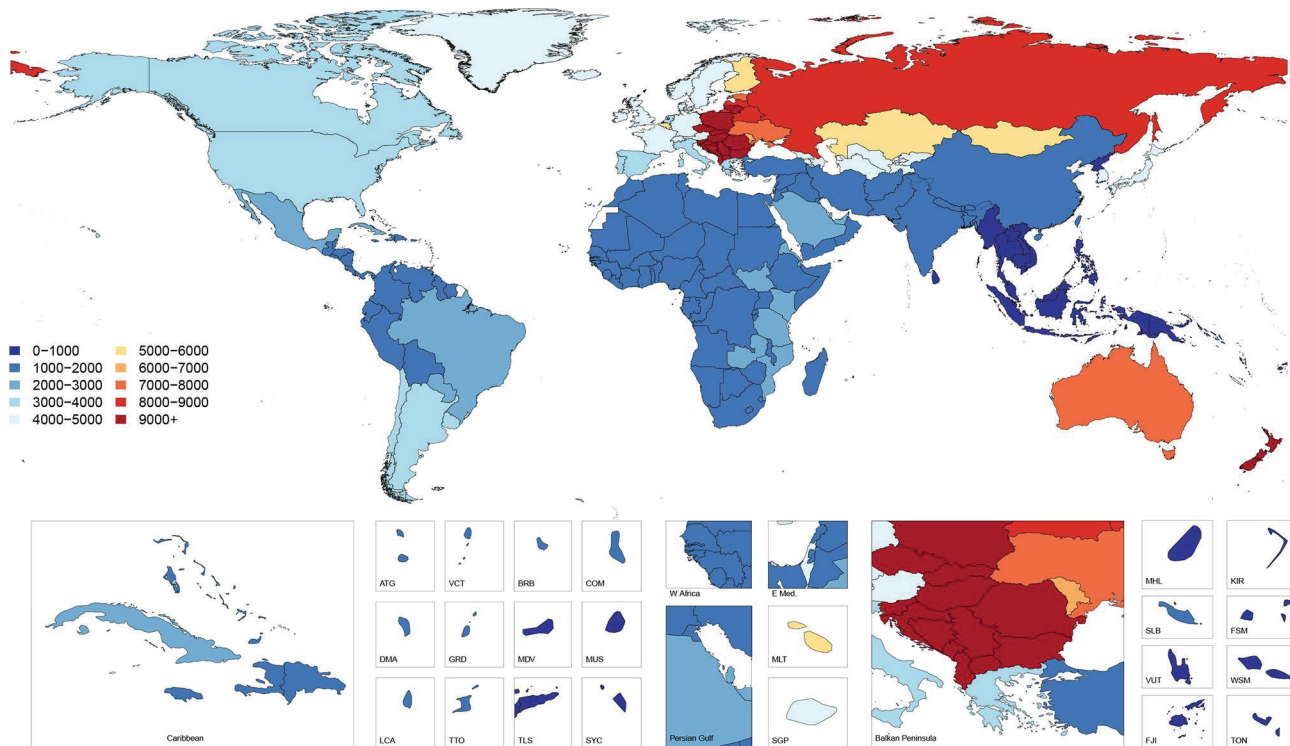


Figure 1 Age-standardised incidence rates per 100 000 of falls, 2017, both sexes.

and increased in the low, low-middle and middle SDI quintiles. The regions with the highest age-standardised prevalence were Central Europe with 23 428 (20 453–26 911) cases per 100 000, Eastern Europe with 17 429 (15 114–20 228) cases per 100 000 and Australasia with 16 175 (13 641–19 647) cases per 100 000. Among the 21 GBD regions, 14 experienced significant increases in age-standardised prevalence rates (East Asia, Oceania, Tropical Latin America, South Asia, Caribbean, Andean Latin America, Australasia, Southeast Asia, High-income Asia Pacific, Southern Sub-Saharan Africa, Central Latin America, Central Sub-Saharan Africa, Eastern Europe, Eastern Sub-Saharan Africa), 6 experienced significant decreases in age-standardised prevalence rates (High-income North America, Southern Latin America, Central Asia, Western Sub-Saharan Africa, Central Europe, Western Europe) and the remaining region experienced no significant change in age-standardised prevalence (North Africa and Middle East).

Cause-specific mortality

Figure 2 shows age-standardised cause-specific mortality rates for falls in 2017 by country. This map illustrates how the countries with the highest incidence do not necessarily have the highest cause-specific mortality, with countries such as India, Vietnam and Burkina Faso having markedly higher cause-specific mortality than the areas of Eastern and Central Europe that had the highest incidence. These patterns are further revealed in figure 3, which shows country-specific ratios of age-standardised mortality rates to age-standardised incidence rates in 2017, approximating the risk of death given a fall. This figure shows how mortality-to-incidence ratios (MIR) vary across the world. The ratio is highest in countries in Southeast Asia such as Indonesia, Cambodia, Myanmar and Vietnam, which have MIRs exceeding 0.03, meaning on average more than three deaths occur per 100 falls. MIRs also appear high throughout much of sub-Saharan Africa, in Afghanistan and across India.

Online supplementary appendix table 2 shows the all-ages deaths and the age-standardised mortality rates for 2017 as well as the percentage change in age-standardised rates from 1990 to 2017. Globally, the age-standardised mortality rate was 9.2 (8.5–9.8) per 100 000 which equated to 695 771 (644 927–741 720) deaths in 2017 and represented a non-significant decrease of 5.9% (–13.7 to 3.5) in age-standardised mortality from 1990 to 2017. Across SDI quintiles, only the high SDI quintile experienced a significant decrease in age-standardised mortality rate with a decline of 16.6% (18.8 to 14.4) from 1990 to 2017. All other quintiles experienced a non-significant decline in age-standardised mortality rates. The regions with the highest age-standardised mortality rates were South Asia with 22.0 (20.0–25.0) deaths per 100 000, Eastern Sub-Saharan Africa with 12.2 (11.2–13.5) deaths per 100 000 and Southeast Asia with 10.5 (9.8–11.3) deaths per 100 000. South Asia had the highest number of deaths, with 239 791 (220 244–270 634) deaths estimated in 2017.

YLDs, YLLs and DALYs

Online supplementary appendix table 3 shows the counts, age-standardised rates and per cent change from 1990 to 2017 of YLDs, YLLs and DALYs. Globally, falls resulted in 16 688 088 (15 101 897–17 636 830) YLLs, 19 252 699 (13 725 429–26 140 433) YLDs and 35 940 787 (30 185 695–42 903 289) DALYs, reflecting age-standardised rates of 217 (196–229) per 100 000, 243 (173–330) per 100 000 and 459 (387–547) per 100 000, respectively. Age-standardised YLLs, YLDs and DALYs declined by 18.5% (31.7 to 6.2), 9.3% (10.7 to 7.9) and 13.9% (21.3 to 8.0), respectively, between 1990 and 2017. The percentage of age-standardised DALYs caused by YLDs varied by region, with a high of 89% in Australasia and a low of 16% in Southeast Asia. The region with the highest age-standardised DALY rate was Central Europe with 1174 (875–1559) DALYs per 100 000

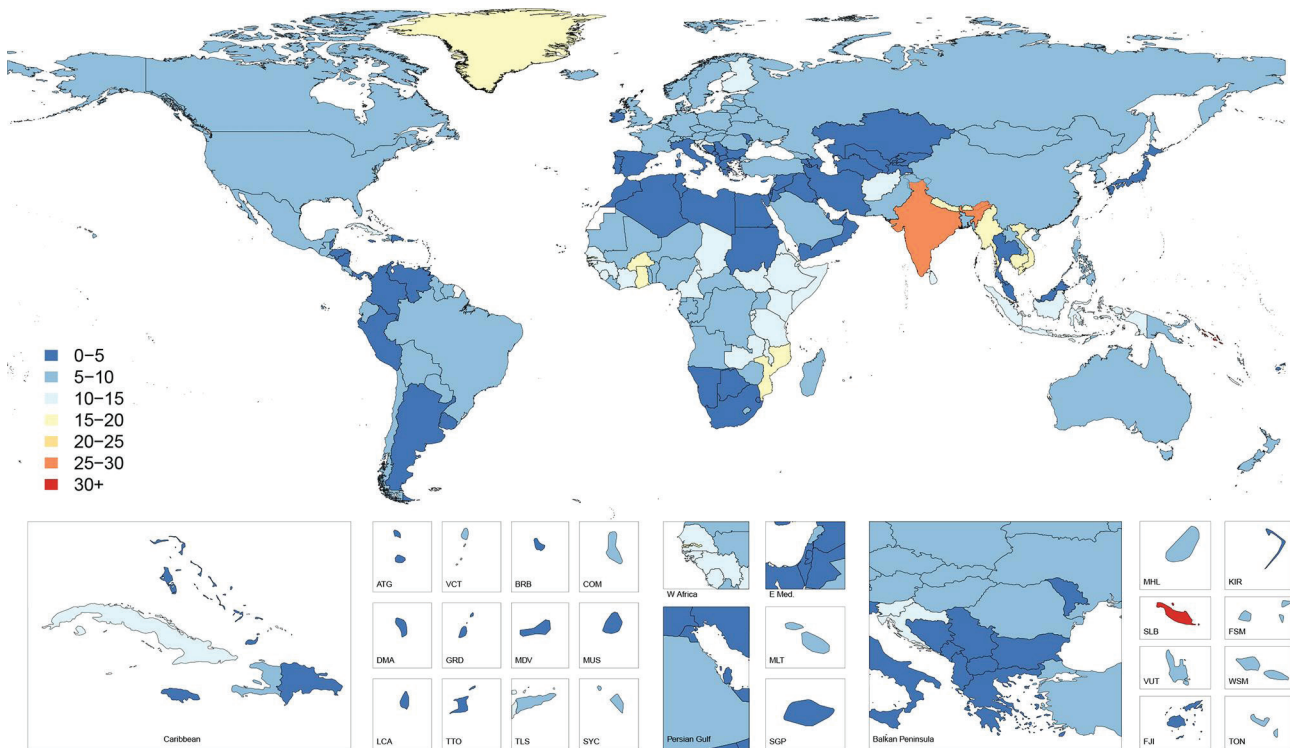


Figure 2 Age-standardised cause-specific mortality rate per 100 000 of falls, 2017, both sexes.

which represented 159 (153–165) YLLs per 100 000 and 1015 (713–1405) YLDs per 100 000.

Nature of injuries caused by falls

Globally, the average disability weight used in computing YLDs after comorbidity adjustment was 4%, meaning that the average

person suffering from a fall lost 4% of their full health status. **Figure 4** shows the distribution of nature-of-injury codes among all falls for age-standardised YLDs by region. This figure shows that for all 21 of the GBD regions, the leading cause of disability among fall victims is fracture of patella, tibia or fibula, or ankle. Fracture of hip and moderate/severe traumatic brain injury are the

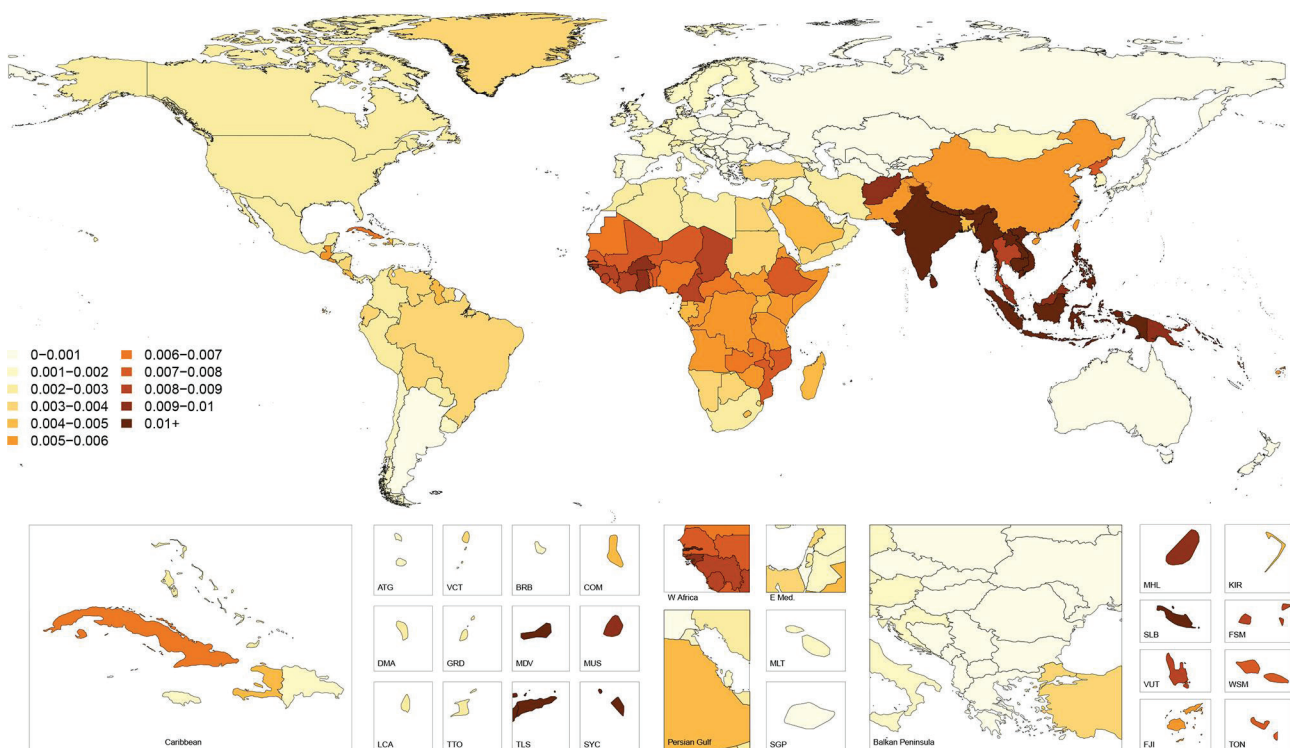


Figure 3 Ratio of age-standardised mortality to incidence rates, 2017, both sexes.

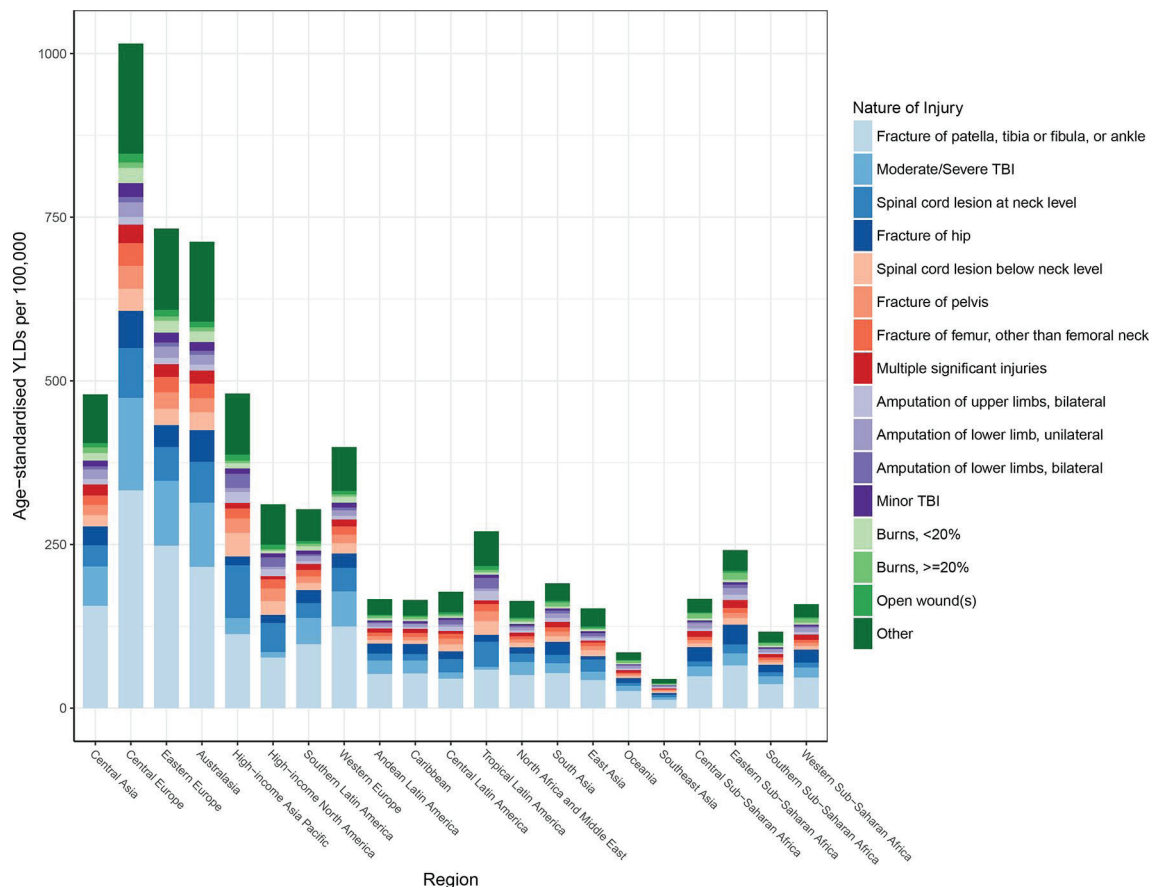


Figure 4 Age-standardised nature-of-injury composition of falls by region. TBI, traumatic brain injury; YLDs, years lived with disability.

next leading causes of disability among fall victims across regions. Global age-specific distributions of nature-of-injury codes are shown in figure 5. This figure shows that fractures of patella, tibia or fibula, or ankle are the most common causes of disability after an injurious fall in all age groups, though fracture of hip and femur fracture increasingly contribute to disability in older age groups.

DISCUSSION

This study represents the first time that GBD estimates for falls have been reported in this level of detail through recent years, and illustrates the substantial amount of mortality and health loss in every country, age group and sex. Globally, total deaths and DALYs due to falls have increased steadily since 1990, with death counts nearly doubling by 2017. Conversely, age-standardised mortality rates and DALY rates have slightly decreased over the same period. At the country level, age-standardised mortality due to falls was highest in the Solomon Islands, India and Vietnam. The patterns of MIRs described in the results of our study emphasise how mortality risk per fall varies substantially by country and reveal that certain areas of the world likely have inadequate capabilities of responding to injurious falls. Since mortality from falls is associated with age and since global populations are generally ageing, it is important for all countries to ensure that their older adult populations as well as their ageing populations have adequate access to caretaking and treatment resources now and in the future.¹⁰ More focused research in the countries with the highest MIRs should investigate the specific causes of injury deaths from falls, the associated risk factors, and the circumstances and context of falls in order to target prevention efforts and appropriately allocate treatment resources. We

additionally describe how falls have improved in terms of incidence and cause-specific mortality in the highest SDI countries, but that these improvements have not necessarily been experienced in lower SDI countries. This pattern emphasises how it is critical for lower SDI countries to more thoroughly investigate patterns of falls and to invest in prevention and treatment programmes.

Among clinicians, falls are known to be an important risk in certain populations, as they can be an origin of injury that leads to more complex care, such as the otherwise healthy older adult who slips, falls, sustains a femur fracture and then is admitted to the hospital for surgical repair and develops a condition like healthcare-acquired pneumonia. Such vignettes emphasise how a fall can precipitate significant health loss and potentially death.²⁹ However, a young person who falls can also suffer disability the rest of his or her life, leading to income loss, dependence on caretakers and adequate accessibility options. Among the countries with highest incidence in 2017 were Slovenia, Czech Republic and Slovakia—countries with high percentages of rural populations.³⁰ In Slovenia, nearly half of the population lives in a rural area, and there is evidence that falls are less fatal and more frequent in rural older people.^{31,32} Age-standardised DALY rates were particularly high in specific regions, including Central Europe, Eastern Europe and Australasia. Many of these regions are experiencing intensive ageing of the population.³³ Poland, for example, is projected to increase the population aged 65 and over by 4.9 million in the years 2015–2050, requiring significant public healthcare expenditure on therapeutic rehabilitation.³⁴

Research suggests that falls can cause physical harm and psychological and financial harm. A 3-year longitudinal study

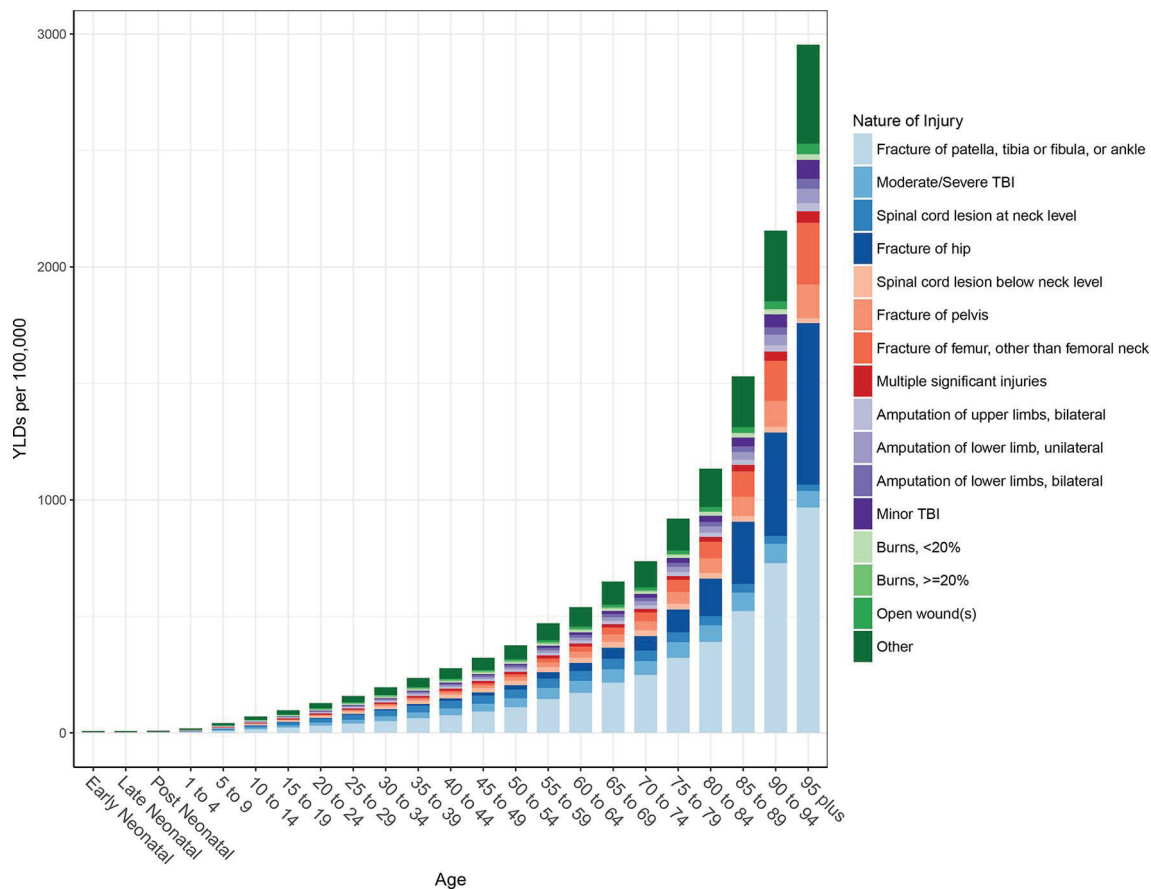


Figure 5 Age-specific nature-of-injury composition of falls globally. TBI, traumatic brain injury; YLDs, years lived with disability.

conducted by Tinetti and Williams explored the short and long-term effects of a fall on the well-being of those 65 and older. Among the participants, injurious falls resulted in a variety of conditions, including hip fractures, other fractures and soft tissue injuries; ultimately these injurious falls led to a decline in daily functional status.³⁵ Other research has shown that falling often triggers a fear of falling again, likely impairing one's sense of mobility and autonomy.⁹ This fear is a proven risk factor for future falls; thus, one fall can initiate a cascade of negative health outcomes.⁹ Ultimately, the initial morbidity of a fall can manifest into significant health loss over time, amounting to considerable treatment and care costs.³⁶ Future GBD research may provide estimates on the probability of long-term disability for individuals who sustain injurious falls.

In general, research on the prevention of falls has shown that improving personal health as well as addressing unsafe external factors can be effective in preventing falls. For example, exercise programmes have been shown to reduce falls among community-dwelling individuals aged 65 and older.^{8 37} A person's surrounding environment has also been identified as a leading cause of falls,^{9 10} meaning it is possible to prevent falls through the improvement of living conditions and public spaces, especially if older adults and universal design principles attending to safety are kept in mind when spaces are designed, altered and maintained.³⁸ While some external hazards for falls are well known (eg, slippery surfaces or poor lighting), others are less visible or obvious. For example, in the inpatient setting, a study by Vassallo *et al* found that the hospital wards with more inpatient beds within the sightline of the nursing station had fewer falls than the ward with poor visibility between beds and

the nursing station.³⁹ Location-specific research in falls prevention has also shown that exercise, home modification, educational materials and vision correction are all important.^{40 41} It is also important to consider how morbidity or mortality resulting from falls might be mitigated. Clinical literature has supported frequent medication review with avoidance of polypharmacy,⁴² and dietary supplementation with cholecalciferol (vitamin D₃) for select patients as methods to both prevent fall incidents and to help minimise fracture risk, though more recent assessments and recommendations by the US Preventive Services Task Force have revealed mixed results in terms of the benefits of vitamin D supplementation.^{43–46}

Our study has several limitations. The first limitation is a function of our case definition in non-fatal models, where we estimate the incidence of falls that require medical care. While not every fall leads to injury, it is possible that care-seeking behavior with similar injuries could vary by location. Similarly, it is possible that in survey data or routine outpatient care visits, a patient may not report falls in the past year even if they led to minor injuries. Since our case definition includes only falls that lead to injury, our MIR estimates are likely lower than if we included all falls regardless of whether they led to injury requiring medical care. However, since the purpose of estimating those ratios is to illustrate patterns in severity and access to treatment, this limitation does not impact the key themes highlighted in our study. In addition, a general limitation in GBD analysis is that some areas of the world that may have high burden of various diseases and injuries do not have reliable incidence and cause-of-death data, and therefore our estimation process relies more heavily on covariates and regional trends in those areas. Similarly, the

nature-of-injury distributions and injury duration parameters rely more heavily on data from higher income locations and Dutch injury data, and therefore may benefit in the future from adding more data sources from lower income locations so that these parameters can be refined with greater location heterogeneity in future studies. Accordingly, an emphasis of GBD estimation going forward is to continue seeking additional data sources to be used in our modelling process.

CONCLUSION

As reported in prior GBD literature, falls have persisted over the past three decades as a leading cause of morbidity and mortality globally. This study, which examines the burden of falls in more detail in terms of location and age-specific patterns, reveals that falls are concentrated in certain locations, but the burden of fall mortality reliably corresponds with burden of fall incidence. In other words, it appears that morbidity and mortality of falls are influenced by geographic factors that likely pertain to care access and fall severity. Further research should be conducted to better define and measure these relationships so that future policy and investment can be appropriately designed and implemented.

What is already known on the subject

- ▶ Prior research has shown that every region of the world experiences health loss from falls.
- ▶ Falls have consistently been a leading cause of fatal and non-fatal health loss in the Global Burden of Disease Study (GBD).

What this study adds

- ▶ While age-standardised incidence of injuries from falls decreased by 8.8% in the high socio-demographic index (SDI) quintile from 1990 to 2017, incidence increased in the middle, low-middle and low SDI quintiles during that time.
- ▶ Countries with the highest incidence of injuries from falls do not necessarily have the highest cause-specific mortality.
- ▶ For all 21 GBD regions, the most common nature of injury sustained by fall victims is fracture of patella, tibia or fibula, or ankle.

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Appendix 1

Summary of General Global Burden of Disease Study Methods

The Institute for Health Metrics and Evaluation with a growing collaboration of scientists produces annual updates of the Global Burden of Disease study. Estimates span the period from 1990 to the most recent completed year (2017). By the time of the release of GBD 2017 in November 2018, there were 3,676 collaborators in 144 countries and 2 territories who contributed to this global public good. Annual updates allow incorporation of new data and method improvements to ensure that the most up-to-date information is available to policy makers in a timely fashion to help make resource allocation decisions.

The guiding principle of GBD is to assess health loss due to mortality and disability comprehensively, where we define disability as any departure from full health. In GBD 2017, estimates were made for 195 countries and territories, and 579 subnational locations, for 28 years starting from 1990, for 23 age groups and both sexes. Deaths were estimated for 282 diseases and injuries, while prevalence and incidence were estimated for 355 diseases and injuries. In order to allow meaningful comparisons between deaths and non-fatal disease outcomes as well as between diseases, the data on deaths and prevalence are summarised in a single indicator, the disability-adjusted life-year (DALY). DALYs are the sum of years of life lost (YLLs) and years lived with disability (YLDs). YLLs are estimated as the multiplication of counts of death and a standard, “ideal”, remaining life expectancy at the age of death. The standard life expectancy is derived from the lowest observed mortality rates in any population in the world greater than 5 million. YLDs are estimated as the product of prevalence of individual consequences of disease (or “sequelae”) times a disability weight that quantifies the relative severity of a sequela as a number between zero (representing “full health”) and 1 (representing death). Disability weights have been estimated in nine population surveys and an open-access internet survey in which respondents are asked to choose the “healthier” between random pairs of health states that are presented with a short description of the main features.

All-cause mortality rates are estimated from vital registration data in countries with complete coverage¹. For other countries, the probabilities of death before age 5 and between ages 15 and 60 are estimated from censuses and surveys asking mothers to provide a history of children ever born and those still alive, and surveys asking adults about siblings who are alive or have passed away. Using model life tables, these probabilities of death are transformed into age-specific death rates by location, year, and sex.

For cause of death estimation, GBD has collated a large database of cause of death data from vital registrations and verbal autopsy surveys in which relatives are asked a standard set of questions to ascertain the likely cause of death, supplemented with police and mortuary data for injury deaths in countries with no other data². For countries with vital registration data, the completeness is assessed with demographic methods based on comparing recorded deaths with population counts between two successive censuses. The cause of death information is provided in a large number of different classification systems based on versions of the

International Classification of Diseases or bespoke classifications in some countries. All data are mapped into the disease and injury categories of GBD. All classification systems contain codes that are less informative because they lack a specific diagnosis (eg, unspecified cancer) or refer to codes that cannot be underlying cause of death (eg, low back pain or senility) or are intermediate causes (eg, heart failure or sepsis). Such deaths are redistributed to more precise underlying causes of death. After these redistributions and corrections for under-registration, the data are analysed in CODEm (cause of death ensemble model), a highly systematised tool that runs many different models on the same data and chooses an ensemble of models that best reflects all the available input data. Models are chosen with variations in the statistical approach (“mixed effects” of spatiotemporal Gaussian Process Regression), in the unit of analysis (rates or cause fractions), and the choice of predictive covariates. The statistical performance of all models is tested by holding out 30% of the data and checking how well a model covers the data that were held out. To enforce consistency from CODEm, the sum of all cause-specific mortality rates is scaled to that of the all-cause mortality rates in each age, sex, location, and year category.

Non-fatal estimates are based on systematic reviews of published papers and unpublished documents, survey microdata, administrative records of health encounters, registries, and disease surveillance systems³. Our Global Health Data Exchange (GHDx, <http://ghdx.healthdata.org/>) is the largest repository of health data globally. We first set a reference case definition and/or study method that best quantifies each disease or injury or consequence thereof. If there is evidence of a systematic bias in data that used different case definitions or methods compared to reference data we adjust those data points to reflect what its value would have been if measured as the reference. This is a necessary step if one wants to use all data pertaining to a particular quantity of interest rather than choosing a small subset of data of the highest quality only. DisMod-MR 2.1, a Bayesian meta-regression tool, is our main method of analyzing non-fatal data. It is designed as a geographical cascade where a first model is run on all the world’s data, which produces an initial global fit and estimates coefficients for predictor variables and the adjustments for alternative study characteristics. The global fit adjusted by the values of random effects for each of seven GBD super-regions, the coefficients on sex and country predictors, are passed down as data to a model for each super-region together with the input data for that geography. The same steps are repeated going from super-region to 21 region fits and then to 195 fits by country and where applicable a further level down to subnational units. Below the global fit, all models are run separately by sex and for six time periods: 1990, 1995, 2000, 2005, 2010, and 2017. During each fit all data on prevalence, incidence, remission, and mortality are forced to be internally consistent. For most diseases, the bulk of data on prevalence or incidence is at the disease level with fewer studies providing data on the proportions of cases of disease in each of the sequelae defined for the disease. The proportions in each sequela are pooled using DisMod-MR 2.1 or meta-analysis, or derived from analyses of patient-level datasets. The multiplication of prevalent cases for each disease sequela and the appropriate disability weight produces YLD estimates that do not yet take into account comorbidity. To correct for comorbidity, these data are used in a simulation to create hypothetical individuals in each age, sex, location, and year combination who experience no, one, or multiple sequelae simultaneously. We assume that disability weights are

multiplicative rather than additive as this avoids assigning a combined disability weight value in any individual to exceed 1, ie, be worse than a “year lost due to death”. This comorbidity adjustment leads to an average scaling down of disease-specific YLDs ranging from about 2% in young children up to 17% in oldest ages.

All our estimates of causes of death are categorical: each death is assigned to a single underlying cause. This has the attractive property that all estimates add to 100%. For risks, we use a different, “counterfactual” approach, ie, answering the question: “what would the burden have been if the population had been exposed to a theoretical minimum level of exposure to a risk”. Thus, we need to define what level of exposure to a risk factor leads to the lowest amount of disease. We then analyse data on the prevalence of exposure to a risk and derive relative risks for any risk-outcome pair for which we find sufficient evidence of a causal relationship. Prevalence of exposure is estimated in DisMod-MR 2.1, using spatiotemporal Gaussian Process Regression, or from satellite imagery in the case of ambient air pollution. Relative risk data are pooled using meta-analysis of cohort, case-control and/or intervention studies. For each risk and outcome pair, we evaluate the evidence and judge if the evidence falls into the categories of “convincing” or “probable” as defined by the World Cancer Research Fund⁴.

From the prevalence and relative risk results, population attributable fractions are estimated relative to the theoretical minimum risk exposure level (TMREL). When we aggregate estimates for clusters of risks, eg, metabolic or behavioural risks, we use a multiplicative function rather than simple addition and take into account how much of each risk is mediated through another risk. For instance, some of the risk of high body mass index is directly onto stroke as an outcome but much of its impact is mediated through high blood pressure, high cholesterol, or high fasting plasma glucose, and we would not want to double count the mediated effects when we estimate aggregates across risk factors⁵.

Uncertainty is propagated throughout all these calculations by creating 1,000 values for each prevalence, death, YLL, YLD, or DALY estimate and performing aggregations across causes and locations at the level of each of the 1,000 values for all intermediate steps in the calculation. The lower and upper bounds of the 95% uncertainty interval are the 25th and 975th values of the ordered 1,000 values. For all age-standardised rates, GBD uses a standard population estimated elsewhere in the GBD analytical process.

GBD uses a composite indicator or sociodemographic development, SDI, which reflects the geometric mean of normalised values of a location’s income per capita, the average years of schooling in the population 15 and over, and the total fertility rate under age 25. Countries and territories are grouped into five quintiles of high, high-middle, middle, low-middle, and low SDI based on their 2017 values.

1 GBD 2017 Collaborators. Global, regional, and national age- and sex-specific mortality and life expectancy for 195 countries and territories, 1950–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet* 2018.

- 2 GBD 2017 Collaborators. Global, regional, and national age-sex-specific mortality for 282 causes of death for 195 countries and territories, 1980–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet* 2018.
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Appendix 2

GATHER checklist of information that should be included in reports of global health estimates, with description of compliance and location of information for GBD 2017.

#	GATHER checklist item	Description of compliance	Reference
Objectives and funding			
1	Define the indicators, populations, and time periods for which estimates were made.	Narrative provided in paper and appendix describing indicators, definitions, and populations	Main text (Methods) and appendix
2	List the funding sources for the work.	Funding sources listed in paper	Summary (Funding)
Data Inputs			
<i>For all data inputs from multiple sources that are synthesised as part of the study:</i>			
3	Describe how the data were identified and how the data were accessed.	Narrative description of data seeking methods provided	Main text (Methods) and appendix
4	Specify the inclusion and exclusion criteria. Identify all ad-hoc exclusions.	Narrative about inclusion and exclusion criteria by data type provided; ad hoc exclusions in cause-specific write-ups	Main text (Methods) and appendix
5	Provide information on all included data sources and their main characteristics. For each data source used, report reference information or contact name/institution, population represented, data collection method, year(s) of data collection, sex and age range, diagnostic criteria or measurement method, and sample size, as relevant.	An interactive, online data source tool that provides metadata for data sources by component, geography, cause, risk, or impairment has been developed	Online data citation tools: http://ghdx.healthdata.org/gbd-2017
6	Identify and describe any categories of input data that have potentially important biases (e.g., based on characteristics listed in item 5).	Summary of known biases by cause included in appendix	Appendix
<i>For data inputs that contribute to the analysis but were not synthesised as part of the study:</i>			
7	Describe and give sources for any other data inputs.	Included in online data source tool	http://ghdx.healthdata.org/gbd-2017
<i>For all data inputs:</i>			
8	Provide all data inputs in a file format from which data can be efficiently extracted (e.g., a spreadsheet as opposed to a PDF), including all relevant meta-data listed in item 5. For any data inputs that cannot be shared due to ethical or legal reasons, such as third-party ownership, provide a contact name or the name of the institution that retains the right to the data.	Downloads of input data available through online tools, including data visualisation tools and data query tools; input data not available in tools will be made available upon request	Online data visualisation tools, data query tools, and the Global Health Data Exchange
Data analysis			

9	Provide a conceptual overview of the data analysis method. A diagram may be helpful.	Flow diagrams of the overall methodological processes, as well as cause-specific modelling processes, have been provided	Main text (Methods) and appendix
10	Provide a detailed description of all steps of the analysis, including mathematical formulae. This description should cover, as relevant, data cleaning, data pre-processing, data adjustments and weighting of data sources, and mathematical or statistical model(s).	Flow diagrams and corresponding methodological write-ups for each cause, as well as the databases and modelling processes, have been provided	Main text (Methods) and appendix
11	Describe how candidate models were evaluated and how the final model(s) were selected.	Provided in the methodological write-ups	Appendix
12	Provide the results of an evaluation of model performance, if done, as well as the results of any relevant sensitivity analysis.	Provided in the methodological write-ups	Appendix
13	Describe methods for calculating uncertainty of the estimates. State which sources of uncertainty were, and were not, accounted for in the uncertainty analysis.	Appendix	Appendix
14	State how analytic or statistical source code used to generate estimates can be accessed.	Appendix	http://ghdx.healthdata.org/gbd-2017/code
Results and Discussion			
15	Provide published estimates in a file format from which data can be efficiently extracted.	GBD 2017 results are available through online data visualisation tools, the Global Health Data Exchange, and the online data query tool	Main text, and online data tools (data visualisation tools, data query tools, and the Global Health Data Exchange)
16	Report a quantitative measure of the uncertainty of the estimates (e.g. uncertainty intervals).	Uncertainty intervals are provided with all results	Main text, appendix, and online data tools (data visualisation tools, data query tools, and the Global Health Data Exchange)
17	Interpret results in light of existing evidence. If updating a previous set of estimates, describe the reasons for changes in estimates.	Discussion of methodological changes between GBD rounds provided in the narrative of the manuscript and appendix	Main text (Methods and Discussion) and appendix
18	Discuss limitations of the estimates. Include a discussion of any modelling assumptions or data limitations that affect interpretation of the estimates.	Discussion of limitations provided in the narrative of the main paper, as well as in the methodological write-ups in the appendix	Main text (Limitations) and appendix

Location	Incidence (95% UI)			Prevalence (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
	Global	171 691 220 (152 472 652 to 194 061 874)	2 238 (1 990 to 2 532)	-3.7 (-7.4 to -0.3)	411 711 999 (366 390 987 to 465 354 952)	5 186 (4 622 to 5 849)
Low SDI	17 499 653 (14 975 887 to 20 547 072)	1 597 (1 400 to 1 824)	16.0 (11.3 to 20.6)	31 022 660 (27 331 173 to 35 024 800)	3 393 (3 010 to 3 836)	15.3 (13.7 to 17.0)
Low-middle SDI	24 401 866 (21 203 237 to 28 302 838)	1 581 (1 390 to 1 805)	26.0 (21.2 to 30.6)	47 883 747 (41 829 874 to 53 737 565)	3 379 (3 010 to 3 807)	23.6 (21.9 to 25.6)
Middle SDI	28 246 597 (24 926 685 to 32 295 306)	1 353 (1 195 to 1 544)	41.1 (36.3 to 45.7)	65 634 605 (58 297 959 to 74 204 118)	2 956 (2 634 to 3 335)	38.7 (36.1 to 41.5)
High-middle SDI	43 941 932 (38 932 641 to 49 520 075)	3 133 (2 758 to 3 570)	-4.0 (-7.9 to -0.2)	116 716 021 (102 845 012 to 132 955 230)	7 029 (6 191 to 7 997)	-10.1 (-11.5 to -8.7)
High SDI	57 175 600 (51 319 808 to 63 910 608)	4 307 (3 770 to 4 929)	-8.8 (-12.3 to -5.3)	149 790 629 (133 521 836 to 170 195 274)	9 316 (8 135 to 10 647)	-7.6 (-8.0 to -6.1)
Central Europe, Eastern Europe, and Central Asia	36 244 565 (32 310 224 to 40 669 642)	8 240 (7 262 to 9 388)	-4.1 (-8.4 to 0.1)	93 942 180 (82 524 124 to 108 293 264)	17 959 (15 660 to 20 662)	-1.7 (-3.6 to 1.2)
Central Asia	4 253 163 (3 692 253 to 4 883 974)	4 761 (4 146 to 5 475)	-4.2 (-10.6 to 1.9)	9 249 220 (7 998 797 to 10 645 734)	10 653 (9 274 to 12 223)	-5.4 (-6.8 to -3.9)
Armenia	141 308 (122 550 to 162 828)	4 670 (3 988 to 5 473)	-18.4 (-25.7 to -11.1)	378 950 (329 119 to 438 804)	10 471 (9 051 to 12 106)	-17.9 (-19.9 to -15.6)
Azerbaijan	476 025 (407 964 to 551 195)	4 705 (4 051 to 5 457)	5.6 (-2.6 to 14.4)	1 116 858 (961 605 to 1 296 298)	10 544 (9 131 to 12 206)	4.1 (1.8 to 6.4)
Georgia	184 261 (164 254 to 208 007)	4 668 (4 137 to 5 332)	15.4 (-22.0 to -7.8)	9 921 (419 041 to 541 441)	9 921 (8 726 to 11 347)	-18.7 (-20.4 to -16.9)
Kazakhstan	937 158 (826 507 to 1 067 295)	5 306 (4 690 to 6 076)	0.2 (-7.3 to 8.1)	2 077 867 (1 807 985 to 2 394 836)	11 489 (10 029 to 13 190)	1.8 (-3.3 to -0.1)
Kyrgyzstan	263 893 (222 094 to 311 221)	4 188 (3 571 to 4 890)	-25.1 (-32.7 to -16.8)	548 570 (470 213 to 635 527)	9 708 (8 370 to 11 198)	-22.5 (-24.9 to -20.2)
Mongolia	189 074 (166 033 to 216 155)	5 915 (5 223 to 6 747)	11.8 (5.8 to 17.9)	395 668 (342 567 to 456 194)	13 234 (11 568 to 15 192)	10.7 (8.6 to 13.2)
Tajikistan	267 827 (235 070 to 299 518)	4 660 (4 082 to 5 425)	11.6 (-17.4 to 4.9)	811 887 (700 577 to 937 562)	10 968 (9 476 to 12 448)	-10.9 (-12.7 to -9.2)
Turkmenistan	223 612 (190 766 to 260 932)	4 586 (3 934 to 5 352)	4.6 (-3.9 to 12.2)	485 983 (417 368 to 564 662)	10 396 (8 996 to 12 001)	3.1 (1.0 to 5.1)
Uzbekistan	1 415 182 (1 200 497 to 1 651 819)	4 451 (3 816 to 5 176)	0.5 (-8.0 to 8.4)	2 959 650 (2 547 463 to 3 438 521)	10 088 (8 752 to 11 624)	-0.8 (-2.7 to 1.5)
Central Europe	14 767 638 (13 282 613 to 16 427 055)	11 434 (10 103 to 12 996)	-5.9 (-11.2 to -0.8)	37 233 284 (33 073 677 to 42 407 489)	23 428 (20 453 to 26 911)	-3.9 (-5.4 to -2.2)
Albania	267 827 (234 155 to 305 388)	9 528 (8 188 to 11 053)	20.2 (23.9 to 36.7)	714 463 (620 728 to 827 904)	20 964 (18 128 to 24 261)	22.2 (19.8 to 24.6)
Bosnia and Herzegovina	325 989 (285 952 to 372 233)	9 556 (8 216 to 11 168)	-29.3 (-23.9 to 34.7)	960 384 (835 505 to 1 112 321)	21 321 (18 395 to 24 752)	22.8 (20.6 to 25.3)
Bulgaria	782 650 (701 965 to 878 893)	10 252 (8 954 to 11 755)	-4.8 (-11.5 to 2.5)	2 241 967 (1 975 487 to 2 580 312)	21 980 (19 035 to 25 361)	-7.7 (-9.0 to -5.9)
Croatia	532 044 (498 864 to 569 372)	9 356 (8 814 to 10 029)	-3.0 (-11.7 to 6.7)	1 140 021 (1 036 701 to 1 269 180)	17 368 (15 655 to 19 446)	-7.3 (-10.6 to -4.3)
Czech Republic	1 601 099 (1 419 768 to 1 809 994)	13 389 (11 519 to 15 469)	-11.9 (-19.7 to -4.6)	4 018 820 (3 557 410 to 4 581 118)	27 302 (23 797 to 31 517)	2.1 (-0.3 to 5.1)
Hungary	1 377 645 (1 226 330 to 1 542 949)	11 783 (10 312 to 13 538)	-23.0 (-29.7 to -16.2)	3 260 122 (2 897 693 to 3 720 297)	23 372 (20 420 to 26 906)	-9.8 (-12.9 to -6.4)
Macedonia	217 944 (191 778 to 246 425)	9 873 (8 563 to 11 447)	29.3 (23.9 to 35.0)	593 523 (516 649 to 687 735)	21 535 (18 620 to 24 957)	23.0 (21.1 to 25.0)
Montenegro	63 348 (55 787 to 71 924)	9 879 (8 484 to 11 465)	17.8 (12.3 to 23.9)	170 139 (147 824 to 197 611)	21 556 (18 574 to 25 063)	17.3 (15.4 to 19.0)
Poland	5 206 349 (4 680 507 to 5 801 280)	11 933 (10 506 to 13 597)	-0.6 (-7.5 to 6.8)	12 756 978 (11 331 892 to 14 475 960)	24 118 (21 141 to 27 664)	-13.0 (-21.1 to 3.3)
Romania	2 335 397 (2 096 120 to 2 593 540)	10 889 (9 551 to 12 429)	-16.8 (-23.1 to -9.6)	6 231 936 (5 525 360 to 7 109 467)	22 887 (19 963 to 26 243)	-20.2 (-22.1 to -18.2)
Serbia	935 472 (828 128 to 1 057 295)	10 013 (8 637 to 11 598)	22.9 (16.7 to 28.8)	2 524 792 (2 212 807 to 2 919 389)	21 561 (18 658 to 24 978)	20.4 (18.1 to 22.9)
Slovakia	738 806 (661 530 to 825 576)	12 239 (10 806 to 13 916)	-11.2 (-16.9 to -5.5)	1 774 767 (1 578 271 to 2 018 410)	24 425 (21 482 to 27 965)	-8.4 (-10.4 to -6.2)
Slovenia	383 068 (340 080 to 432 286)	14 790 (12 950 to 16 774)	-1.0 (-8.9 to 7.1)	845 372 (763 593 to 942 614)	28 254 (24 953 to 32 226)	4.6 (2.6 to 6.6)
Eastern Europe	17 223 763 (15 097 423 to 19 546 254)	8 029 (7 010 to 9 233)	3.6 (-1.4 to 8.6)	47 459 675 (41 508 361 to 55 020 220)	17 429 (15 114 to 20 228)	3.2 (1.7 to 4.7)
Belarus	836 348 (752 621 to 931 024)	8 433 (7 448 to 9 491)	2.8 (-3.9 to 9.9)	2 259 393 (1 990 759 to 2 598 887)	17 965 (15 690 to 20 674)	-0.1 (-1.7 to 1.7)
Estonia	112 476 (100 762 to 126 160)	7 995 (6 982 to 9 154)	-21.9 (-28.7 to -14.5)	313 546 (276 019 to 361 654)	17 231 (14 939 to 19 945)	-18.2 (-20.6 to -15.7)
Latvia	181 592 (162 291 to 201 400)	8 437 (7 417 to 9 528)	-22.7 (-29.1 to -15.5)	492 351 (436 833 to 564 524)	17 725 (15 518 to 20 317)	-19.8 (-22.5 to -17.3)
Lithuania	304 680 (274 072 to 337 700)	9 236 (8 175 to 10 379)	-6.8 (-13.8 to 0.9)	785 538 (699 256 to 896 628)	18 919 (16 631 to 21 733)	-8.0 (-10.7 to -5.4)
Moldova	246 915 (218 517 to 279 575)	6 749 (5 856 to 7 797)	-16.7 (-23.8 to -9.0)	710 311 (620 107 to 822 168)	15 209 (13 194 to 17 556)	-14.4 (-16.7 to -11.6)
Russian Federation	12 075 603 (10 555 676 to 13 773 029)	8 082 (7 057 to 9 203)	9.3 (4.4 to 14.2)	32 823 200 (28 687 609 to 38 056 625)	17 542 (15 203 to 20 362)	8.4 (7.8 to 11.0)
Ukraine	3 466 149 (2 998 287 to 3 979 301)	7 785 (6 725 to 9 006)	-6.4 (-11.7 to -0.9)	10 075 335 (8 786 177 to 11 720 903)	17 029 (14 737 to 19 813)	-7.2 (-8.7 to -5.5)
High-income	49 103 178 (43 975 014 to 54 930 253)	3 900 (3 415 to 4 469)	-8.5 (-11.9 to -5.0)	128 475 940 (114 333 653 to 146 380 526)	8 516 (7 433 to 9 743)	-8.4 (-10.2 to -6.6)
Australasia	2 680 001 (2 368 150 to 3 030 484)	8 187 (6 978 to 9 553)	25.5 (18.8 to 32.7)	5 709 338 (4 924 777 to 6 795 061)	16 175 (13 641 to 19 647)	19.7 (16.9 to 22.3)
Australia	2 159 427 (1 892 073 to 2 460 772)	7 888 (6 638 to 9 269)	26.0 (18.6 to 34.0)	4 702 711 (4 049 255 to 5 591 701)	15 785 (13 277 to 19 200)	21.0 (19.0 to 23.4)
New Zealand	520 575 (462 937 to 584 568)	9 799 (8 577 to 11 062)	-25.9 (-16.6 to 35.6)	1 006 627 (874 748 to 1 186 462)	18 269 (15 521 to 22 017)	15.1 (8.3 to 21.6)
High-income Asia-Pacific	8 907 346 (7 810 673 to 10 058 576)	4 450 (3 810 to 5 197)	7.5 (2.2 to 12.6)	28 152 727 (24 660 093 to 32 450 922)	10 300 (8 816 to 12 086)	12.3 (10.3 to 14.8)
Brunei	20 115 (17 507 to 22 960)	5 065 (4 413 to 5 814)	7.5 (1.6 to 12.8)	46 270 (39 697 to 54 145)	11 009 (9 552 to 12 820)	6.2 (4.4 to 8.1)
Japan	6 424 809 (5 588 243 to 7 321 969)	4 501 (3 833 to 5 277)	19.8 (15.4 to 24.4)	20 945 728 (18 408 357 to 24 193 741)	10 612 (9 060 to 12 470)	25.6 (22.9 to 29.0)
South Korea	2 238 628 (1 985 828 to 2 508 127)	4 423 (3 807 to 5 103)	-10.0 (-17.8 to -1.5)	6 508 161 (5 674 209 to 7 516 082)	9 628 (8 289 to 11 311)	-14.3 (-16.3 to -12.1)
Singapore	223 793 (195 607 to 255 803)	4 401 (3 771 to 5 155)	5.8 (-0.1 to 11.8)	652 569 (558 380 to 759 874)	10 048 (8 595 to 11 773)	5.8 (3.1 to 8.2)
High-income North America	13 844 032 (12 097 284 to 15 788 708)	3 135 (2 751 to 3 565)	-25.1 (-31.3 to -19.1)	33 970 923 (29 874 085 to 39 104 635)	6 653 (5 843 to 7 600)	-29.8 (-35.2 to -24.4)
Canada	1 465 341 (1 307 300 to 1 647 918)	3 271 (2 892 to 3 738)	8.2 (2.5 to 13.7)	3 462 624 (3 094 832 to 3 919 349)	6 663 (5 909 to 7 547)	6.7 (5.2 to 8.4)
Greenland	2 551 (2 274 to 2 851)	4 297 (3 841 to 4 806)	-24.6 (-29.1 to -20.2)	5 505 (4 888 to 6 232)	8 550 (7 623 to 9 649)	-28.9 (-30.7 to -27.2)
USA	12 375 898 (10 788 202 to 14 145 067)	3 122 (2 734 to 3 561)	-27.4 (-34.0 to -21.2)	30 502 200 (26 747 366 to 35 199 706)	6 658 (5 835 to 7 611)	-32.3 (-37.9 to -26.6)
Southern Latin America	2 187 890 (1 989 360 to 2 427 548)	3 250 (2 925 to 3 653)	-3.8 (-8.0 to 0.7)	5 005 794 (4 420 487 to 5 653 636)	6 798 (5 978 to 7 711)	-7.5 (-8.8 to -6.3)
Argentina	1 457 216 (1 280 419 to 1 662 038)	3 239 (2 816 to 3 743)	-13.3 (-7.7 to 3.5)	3 379 574 (2 953 650 to 3 846 931)	6 973 (6 067 to 7 960)	3.7 (5.8 to 1.8)
Chile	601 770 (577 618 to 633 697)	3 223 (3 092 to 3 398)	-10.5 (-18.5 to -1.7)	1 325 549 (1 199 546 to 1 478 324)	6 340 (5 705 to 7 107)	-18.5 (-21.0 to -15.7)

Location	Incidence (95% UI)			Prevalence (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Uruguay	128 808 (114 320 to 145 427)	3 369 (2 944 to 3 838)	3.5 (-1.8 to 9.5)	300 649 (267 360 to 340 315)	7 004 (6 155 to 7 964)	0.7 (-0.9 to 2.4)
Western Europe	21 483 909 (19 383 395 to 24 007 380)	4 267 (3 704 to 4 935)	-2.3 (-6.1 to 1.5)	55 637 159 (49 150 798 to 63 388 923)	9 142 (7 914 to 10 580)	-1.0 (-1.7 to -0.3)
Andorra	3 866 (3 443 to 4 350)	4 572 (3 965 to 5 256)	1.0 (-4.2 to 6.3)	10 590 (9 305 to 12 081)	9 820 (8 507 to 11 333)	0.7 (-0.8 to 2.3)
Austria	461 202 (415 458 to 514 214)	4 583 (3 996 to 5 298)	-17.1 (-22.9 to -11.2)	1 202 772 (1 064 392 to 1 370 161)	9 745 (8 420 to 11 288)	-14.2 (-16.0 to -12.5)
Belgium	738 406 (660 137 to 830 740)	5 378 (4 689 to 6 166)	14.9 (8.5 to 22.1)	1 784 786 (1 583 131 to 2 027 425)	11 191 (9 723 to 12 923)	12.7 (11.1 to 14.5)
Cyprus	51 237 (45 147 to 58 060)	4 176 (3 594 to 4 862)	-0.3 (-5.0 to 5.1)	142 633 (123 796 to 163 843)	9 203 (7 900 to 10 664)	0.5 (-1.1 to 2.0)
Denmark	275 778 (243 153 to 312 177)	4 346 (3 729 to 5 072)	-8.0 (-14.3 to -1.4)	714 858 (625 618 to 819 450)	9 312 (7 996 to 10 829)	0.8 (-1.2 to 2.7)
Finland	369 102 (331 439 to 415 951)	5 435 (4 769 to 6 269)	5.4 (-0.8 to 12.7)	903 704 (805 416 to 1 020 509)	11 297 (9 869 to 13 082)	7.9 (6.3 to 9.4)
France	3 776 416 (3 382 461 to 4 212 943)	4 619 (4 013 to 5 327)	8.4 (-13.3 to -2.8)	9 019 607 (8 009 442 to 10 268 965)	9 718 (8 426 to 11 223)	4.9 (-6.3 to -3.5)
Germany	4 435 165 (3 996 472 to 4 949 163)	4 447 (3 852 to 5 147)	-0.3 (-6.3 to 5.8)	11 574 449 (10 236 811 to 13 190 387)	9 468 (8 195 to 10 131)	1.2 (-0.2 to 2.9)
Greece	416 500 (372 994 to 465 633)	3 861 (3 281 to 4 522)	-6.8 (-12.1 to -2.2)	1 284 041 (1 126 871 to 1 470 521)	8 752 (7 510 to 10 155)	-5.3 (-6.9 to -3.8)
Iceland	15 635 (13 869 to 17 665)	4 378 (3 786 to 5 075)	3.3 (-1.7 to 2.8)	39 418 (34 439 to 45 300)	9 493 (8 185 to 11 006)	5.5 (2.0 to 5.3)
Ireland	207 341 (183 484 to 235 879)	4 231 (3 656 to 4 928)	2.8 (-2.0 to 7.5)	539 897 (470 349 to 623 617)	9 322 (8 053 to 10 887)	4.1 (2.1 to 6.1)
Israel	368 373 (316 292 to 430 370)	4 015 (3 419 to 4 710)	10.1 (4.2 to 15.8)	865 519 (744 674 to 1 003 947)	9 048 (7 736 to 10 554)	10.8 (8.0 to 13.1)
Italy	2 841 180 (2 553 045 to 3 170 734)	3 802 (3 331 to 4 382)	-15.4 (-10.5 to -5.3)	7 461 482 (6 645 747 to 8 466 579)	8 111 (7 054 to 9 331)	-9.2 (-11.0 to -7.4)
Luxembourg	23 160 (27 401 to 34 096)	5 007 (4 101 to 5 407)	-12.1 (-14.6 to -2.7)	63 947 (66 190 to 85 833)	10 794 (8 518 to 11 307)	12.3 (-10.7 to -7.6)
Malta	721 872 (659 797 to 793 950)	3 676 (3 223 to 4 125)	4.1 (-4.2 to 13.2)	1 765 054 (1 573 989 to 2 000 060)	7 565 (6 616 to 8 739)	1.5 (-1.3 to 4.1)
Norway	299 873 (259 974 to 339 786)	4 995 (4 301 to 5 752)	-1.6 (-5.2 to 1.7)	749 990 (659 212 to 859 692)	10 815 (9 321 to 12 589)	-0.9 (-2.2 to 0.1)
Portugal	371 169 (320 725 to 415 610)	3 112 (2 695 to 3 627)	27.4 (33.0 to -21.1)	1 054 998 (934 591 to 1 201 872)	6 810 (5 909 to 7 857)	-29.7 (-31.5 to -27.7)
Spain	1 922 262 (1 716 547 to 2 154 504)	3 826 (3 281 to 4 475)	-1.1 (-6.2 to 4.5)	5 498 483 (4 826 112 to 6 271 470)	8 497 (7 306 to 9 828)	-1.1 (-2.6 to 0.3)
Sweden	539 643 (466 549 to 614 803)	4 634 (3 976 to 5 367)	11.7 (7.6 to 15.9)	1 432 049 (1 256 323 to 1 647 133)	10 367 (8 882 to 10 294)	11.9 (10.1 to 13.9)
Switzerland	497 728 (458 772 to 547 216)	4 594 (4 167 to 5 142)	-26.6 (-31.8 to -20.1)	1 154 454 (1 035 156 to 1 300 314)	9 217 (8 117 to 10 476)	-27.3 (-29.2 to -25.2)
United Kingdom	3 095 384 (2 704 973 to 3 500 866)	4 290 (3 678 to 4 985)	14.4 (10.8 to 17.9)	9 241 612 (7 720 907 to 9 439 086)	9 419 (8 109 to 10 926)	15.2 (13.8 to 16.9)
Latin America and Caribbean	11 776 802 (10 571 218 to 13 159 361)	2 059 (1 843 to 2 297)	29.6 (26.4 to 32.8)	25 073 723 (22 386 743 to 28 287 435)	4 286 (3 837 to 4 840)	29.5 (27.5 to 31.9)
Andean Latin America	975 728 (855 995 to 1 111 401)	1 642 (1 446 to 1 868)	25.7 (19.0 to 31.7)	1 984 980 (1 770 537 to 2 236 342)	3 444 (3 083 to 3 878)	23.2 (20.8 to 26.5)
Bolivia	167 244 (145 638 to 192 298)	1 588 (1 402 to 1 799)	16.6 (9.4 to 23.9)	324 413 (288 205 to 364 319)	3 304 (2 955 to 3 699)	15.2 (16.6 to 18.3)
Ecuador	302 697 (267 916 to 343 348)	1 885 (1 674 to 2 130)	14.3 (6.1 to 23.3)	610 719 (548 029 to 688 230)	3 885 (3 497 to 4 371)	11.3 (8.9 to 14.1)
Peru	505 793 (441 152 to 576 364)	1 548 (1 351 to 1 763)	36.3 (29.0 to 43.9)	1 049 848 (934 637 to 1 188 225)	3 277 (2 924 to 3 712)	33.1 (29.7 to 37.8)
Caribbean	823 052 (731 226 to 928 599)	1 716 (1 520 to 1 940)	30.0 (24.5 to 36.3)	1 707 204 (1 528 010 to 1 923 194)	3 441 (3 077 to 3 885)	30.0 (27.4 to 33.3)
Antigua and Barbuda	1 293 (1 114 to 1 493)	1 430 (1 238 to 1 655)	42.2 (36.2 to 48.7)	2 985 (2 641 to 3 371)	3 007 (2 658 to 3 400)	39.7 (35.5 to 43.8)
The Bahamas	5 595 (4 897 to 6 403)	1 537 (1 352 to 1 757)	30.7 (24.4 to 36.4)	12 017 (10 665 to 13 559)	3 099 (2 762 to 3 504)	31.0 (27.2 to 35.2)
Barbados	4 873 (4 249 to 5 634)	1 457 (1 263 to 1 685)	39.7 (33.8 to 46.6)	11 917 (10 644 to 13 429)	3 033 (2 683 to 3 417)	38.5 (34.3 to 42.6)
Belize	5 352 (4 592 to 6 193)	1 508 (1 326 to 1 711)	50.8 (41.2 to 53.4)	10 442 (9 210 to 11 888)	3 174 (2 828 to 3 572)	46.9 (42.7 to 52.1)
Bermuda	2 299 (1 140 to 1 494)	1 582 (1 381 to 1 818)	25.3 (19.3 to 31.4)	3 135 (2 801 to 3 560)	3 217 (2 868 to 3 645)	26.4 (23.0 to 30.1)
Cuba	315 328 (283 323 to 351 233)	2 130 (1 907 to 2 402)	27.8 (20.5 to 36.5)	625 959 (562 627 to 704 614)	3 886 (3 487 to 4 378)	25.9 (22.5 to 29.3)
Dominica	1 062 (935 to 1 215)	1 435 (1 251 to 1 649)	48.0 (42.2 to 54.7)	2 506 (2 234 to 2 831)	3 072 (2 729 to 3 472)	47.1 (42.8 to 52.2)
Dominican Republic	146 235 (125 939 to 168 242)	1 453 (1 259 to 1 673)	50.0 (43.2 to 57.1)	311 474 (274 376 to 353 721)	3 115 (2 754 to 3 534)	44.4 (39.6 to 49.9)
Grenada	1 881 (1 662 to 2 132)	1 535 (1 342 to 1 749)	37.3 (30.4 to 43.9)	4 271 (3 822 to 4 821)	3 215 (2 871 to 3 624)	38.0 (33.5 to 42.3)
Guyana	11 312 (9 939 to 12 961)	1 642 (1 452 to 1 866)	37.5 (30.1 to 44.8)	22 743 (20 250 to 25 523)	3 363 (3 008 to 3 766)	36.8 (32.4 to 41.1)
Haiti	128 573 (109 188 to 150 412)	1 285 (1 119 to 1 474)	30.2 (23.2 to 37.2)	245 488 (215 380 to 277 676)	2 707 (2 414 to 3 025)	29.7 (26.2 to 33.3)
Jamaica	40 860 (35 361 to 47 156)	1 475 (1 271 to 1 700)	46.0 (40.3 to 51.7)	94 065 (83 351 to 106 483)	3 219 (2 847 to 3 648)	43.3 (38.9 to 48.6)
Puerto Rico	91 170 (81 236 to 102 808)	1 940 (1 700 to 2 212)	35.9 (28.4 to 44.5)	210 801 (188 473 to 238 359)	3 842 (3 426 to 4 333)	34.8 (31.4 to 38.7)
Saint Lucia	2 562 (2 233 to 2 928)	1 418 (1 235 to 1 625)	38.1 (32.5 to 44.5)	5 987 (5 332 to 6 742)	3 009 (2 672 to 3 395)	38.3 (34.3 to 43.0)
Saint Vincent and the Grenadines	1 938 (1 718 to 2 183)	1 610 (1 423 to 1 826)	51.6 (44.6 to 58.1)	4 350 (3 888 to 4 892)	3 384 (3 016 to 3 802)	51.1 (45.8 to 56.0)
Suriname	8 965 (7 832 to 10 247)	1 587 (1 390 to 1 806)	42.2 (35.0 to 49.9)	18 863 (16 795 to 21 246)	3 231 (2 882 to 3 628)	40.5 (36.5 to 45.4)
Trinidad and Tobago	23 013 (20 156 to 26 218)	1 569 (1 367 to 1 785)	26.1 (19.1 to 33.6)	54 029 (48 180 to 60 799)	3 291 (2 933 to 3 699)	27.6 (24.4 to 31.8)
Virgin Islands	2 144 (1 889 to 2 437)	1 690 (1 482 to 1 926)	37.2 (31.3 to 43.6)	4 781 (4 253 to 5 437)	3 262 (2 908 to 3 696)	32.6 (28.6 to 36.4)
Central Latin America	4 365 274 (3 891 450 to 4 938 440)	1 810 (1 614 to 2 044)	10.9 (7.1 to 15.0)	8 704 856 (7 732 689 to 9 912 609)	3 576 (3 182 to 4 074)	9.9 (8.0 to 12.4)
Colombia	639 271 (563 674 to 733 681)	1 261 (1 105 to 1 448)	-8.0 (-15.1 to -0.7)	1 345 985 (1 194 928 to 1 530 954)	2 544 (2 233 to 2 901)	-6.2 (-8.6 to -3.9)
Costa Rica	73 314 (65 346 to 82 701)	1 586 (1 406 to 1 802)	8.6 (1.8 to 15.8)	145 159 (129 533 to 163 783)	2 958 (2 635 to 3 348)	13.2 (10.7 to 16.4)
El Salvador	91 859 (81 906 to 103 738)	1 580 (1 406 to 1 789)	24.9 (16.5 to 34.1)	171 514 (152 981 to 194 992)	2 902 (2 591 to 3 291)	17.1 (14.1 to 20.1)
Guatemala	208 164 (180 559 to 240 469)	1 461 (1 292 to 1 657)	8.2 (1.8 to 15.3)	382 640 (335 380 to 439 929)	2 862 (2 556 to 3 250)	6.9 (4.5 to 10.0)
Honduras	100 651 (86 007 to 118 499)	1 193 (1 046 to 1 376)	29.3 (22.2 to 36.4)	190 567 (165 038 to 221 735)	2 497 (2 195 to 2 843)	23.2 (19.8 to 27.0)
Mexico	2 697 567 (2 389 537 to 3 043 225)	2 276 (2 016 to 2 566)	20.7 (15.8 to 24.9)	5 357 266 (4 779 128 to 6 112 974)	4 482 (4 002 to 5 130)	17.6 (15.1 to 21.1)
Nicaragua	73 151 (63 266 to 85 697)	1 300 (1 141 to 1 497)	17.1 (10.7 to 24.2)	137 756 (120 960 to 157 881)	2 537 (2 251 to 2 872)	16.6 (13.4 to 19.8)

Location	Incidence (95% UI)			Prevalence (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Panama	53 715 (47 145 to 60 506)	1 359 (1 201 to 1 549)	13.6 (7.3 to 20.4)	107 674 (95 861 to 121 838)	2 706 (2 405 to 3 064)	16.1 (13.0 to 19.4)
Venezuela	428 082 (375 802 to 486 515)	1 497 (1 318 to 1 707)	0.5 (-6.1 to 7.8)	866 296 (764 916 to 993 630)	2 929 (2 596 to 3 336)	2.3 (-0.5 to 5.3)
Tropical Latin America	5 612 748 (5 035 668 to 6 288 061)	2 522 (2 266 to 2 814)	48.7 (44.6 to 52.8)	12 676 683 (11 247 927 to 14 408 324)	5 402 (4 803 to 6 117)	48.0 (44.5 to 51.8)
Brazil	5 480 139 (4 920 456 to 6 134 580)	2 536 (2 280 to 2 826)	49.2 (45.1 to 53.5)	12 412 805 (11 011 375 to 14 113 681)	5 430 (4 827 to 6 149)	48.6 (45.0 to 52.4)
Paraguay	132 608 (113 800 to 152 872)	2 032 (1 776 to 2 311)	28.0 (21.8 to 33.9)	263 875 (232 752 to 298 429)	4 287 (3 805 to 4 829)	20.6 (17.6 to 23.8)
North Africa and Middle East	9 084 601 (7 746 853 to 10 562 639)	1 562 (1 349 to 1 793)	3.2 (-1.5 to 7.5)	19 413 992 (16 874 777 to 22 281 107)	3 582 (3 144 to 4 081)	-0.1 (-1.5 to 1.6)
North Africa and Middle East	9 084 601 (7 746 853 to 10 562 639)	1 562 (1 349 to 1 793)	3.2 (-1.5 to 7.5)	19 413 992 (16 874 777 to 22 281 107)	3 582 (3 144 to 4 081)	-0.1 (-1.5 to 1.6)
Afghanistan	503 769 (423 506 to 595 609)	1 528 (1 334 to 1 740)	-0.9 (-5.7 to 4.0)	803 232 (687 686 to 939 871)	3 634 (3 203 to 4 134)	-2.2 (-4.4 to 0.3)
Algeria	591 550 (508 284 to 679 527)	1 504 (1 301 to 1 743)	-2.5 (-8.2 to 3.1)	1 351 184 (1 176 579 to 1 553 355)	3 486 (3 049 to 3 982)	4.3 (-6.5 to -1.9)
Bahrain	21 480 (18 176 to 25 283)	1 558 (1 317 to 1 838)	9.4 (3.7 to 15.5)	58 143 (49 952 to 67 491)	3 711 (3 217 to 4 280)	9.4 (6.0 to 12.8)
Egypt	1 323 510 (1 115 031 to 1 559 706)	1 410 (1 215 to 1 627)	8.8 (2.7 to 14.7)	2 647 936 (2 288 725 to 3 056 336)	3 249 (2 844 to 3 701)	4.1 (1.3 to 6.9)
Iran	1 344 586 (1 151 472 to 1 567 985)	1 701 (1 462 to 1 976)	7.9 (3.4 to 12.4)	3 229 617 (2 806 087 to 3 697 598)	3 899 (3 411 to 4 454)	5.1 (3.6 to 6.9)
Iraq	626 536 (512 072 to 759 959)	1 378 (1 153 to 1 631)	14.2 (5.7 to 22.8)	1 218 473 (1 040 997 to 1 424 301)	3 437 (2 979 to 3 958)	19.4 (14.9 to 24.4)
Jordan	147 491 (122 800 to 175 900)	1 384 (1 183 to 1 618)	1.7 (-5.1 to 8.0)	293 031 (250 836 to 341 424)	3 230 (2 805 to 3 700)	-0.8 (-3.5 to 2.2)
Kuwait	74 673 (64 300 to 86 138)	1 815 (1 570 to 2 110)	-4.9 (-10.3 to 0.5)	180 593 (156 081 to 207 999)	4 251 (3 720 to 4 860)	-4.9 (-7.3 to -2.3)
Lebanon	134 232 (113 643 to 158 436)	1 631 (1 407 to 1 906)	8.9 (2.7 to 15.0)	3 275 078 (2 343 315 to 3 17 558)	3 574 (3 109 to 4 104)	9.1 (5.8 to 13.0)
Libya	107 284 (91 898 to 123 652)	1 615 (1 400 to 1 844)	-6.0 (-11.6 to -0.6)	230 536 (200 236 to 265 410)	3 622 (3 175 to 4 132)	-7.6 (-9.6 to -5.6)
Morocco	487 872 (417 555 to 570 750)	1 408 (1 210 to 1 636)	8.7 (2.2 to 14.5)	1 149 026 (999 534 to 1 314 358)	3 275 (2 861 to 3 725)	5.5 (3.3 to 7.8)
Palestine	70 758 (58 259 to 85 605)	1 431 (1 224 to 1 672)	3.7 (-2.6 to 10.1)	130 092 (112 403 to 150 085)	3 397 (2 969 to 3 871)	3.8 (1.8 to 5.9)
Oman	66 261 (55 336 to 80 190)	1 582 (1 362 to 1 849)	-5.3 (-0.5 to 11.3)	148 726 (126 285 to 174 723)	3 574 (3 109 to 4 112)	5.4 (2.7 to 8.1)
Qatar	54 445 (45 831 to 64 277)	2 011 (1 744 to 2 313)	-3.2 (-9.8 to 4.0)	125 405 (106 851 to 146 810)	4 603 (4 029 to 5 271)	-3.5 (-6.1 to -0.1)
Saudi Arabia	695 984 (606 109 to 802 551)	2 191 (1 922 to 2 493)	-6.4 (-11.4 to -1.0)	1 412 818 (1 232 967 to 1 613 742)	4 688 (4 161 to 5 312)	-8.6 (-10.5 to -6.9)
Sudan	527 474 (439 000 to 639 987)	1 303 (1 121 to 1 509)	8.9 (3.2 to 14.5)	945 064 (817 590 to 1 105 440)	3 198 (2 802 to 3 670)	7.7 (5.0 to 10.7)
Syria	259 893 (213 922 to 316 693)	1 404 (1 177 to 1 651)	23.4 (16.6 to 30.4)	545 105 (464 701 to 630 683)	3 328 (2 880 to 3 833)	20.8 (16.7 to 25.1)
Tunisia	163 409 (140 390 to 189 712)	1 474 (1 256 to 1 722)	4.7 (2.8 to 15.0)	413 032 (359 236 to 473 833)	3 377 (2 932 to 3 881)	4.6 (1.8 to 7.4)
Turkey	1 276 654 (1 112 675 to 1 452 784)	1 610 (1 393 to 1 859)	-11.6 (-17.3 to -5.0)	3 045 977 (2 669 478 to 3 499 517)	3 515 (3 072 to 4 038)	-17.9 (-21.1 to -14.7)
United Arab Emirates	191 722 (161 644 to 226 252)	2 010 (1 743 to 2 313)	-15.0 (-19.3 to -9.5)	495 721 (426 385 to 574 778)	4 616 (4 041 to 5 262)	-16.4 (-18.3 to -14.2)
Yemen	405 535 (337 920 to 490 550)	1 319 (1 157 to 1 546)	2.6 (-2.4 to 8.4)	701 073 (602 668 to 813 602)	3 177 (2 783 to 3 610)	1.3 (-1.1 to 4.3)
South Asia	27 645 658 (23 929 866 to 31 790 195)	1 709 (1 495 to 1 959)	33.4 (27.9 to 38.9)	54 501 408 (48 091 376 to 61 867 360)	3 585 (3 184 to 4 064)	30.4 (28.2 to 32.9)
South Asia	27 645 658 (23 929 866 to 31 790 195)	1 709 (1 495 to 1 959)	33.4 (27.9 to 38.9)	54 501 408 (48 091 376 to 61 867 360)	3 585 (3 184 to 4 064)	30.4 (28.2 to 32.9)
Bangladesh	1 879 191 (1 600 626 to 2 201 983)	1 237 (1 064 to 1 431)	38.8 (30.2 to 47.4)	3 975 599 (3 470 320 to 4 541 326)	2 801 (2 465 to 3 176)	42.5 (36.9 to 48.5)
Bhutan	13 737 (12 000 to 15 729)	1 627 (1 439 to 1 836)	12.6 (6.1 to 19.7)	26 689 (23 565 to 30 111)	3 383 (3 020 to 3 804)	9.9 (7.3 to 12.7)
India	22 618 646 (19 574 098 to 26 132 069)	1 793 (1 567 to 2 059)	31.4 (25.8 to 37.1)	44 741 891 (39 434 255 to 50 716 561)	3 723 (3 313 to 4 225)	28.0 (25.9 to 30.4)
Nepal	349 043 (302 584 to 403 990)	1 291 (1 136 to 1 468)	15.8 (8.7 to 23.3)	677 787 (600 780 to 764 528)	2 726 (2 435 to 3 064)	14.2 (11.3 to 17.0)
Pakistan	2 785 040 (2 384 681 to 3 254 158)	1 475 (1 288 to 1 681)	44.9 (37.3 to 52.4)	5 079 442 (4 444 064 to 5 716 010)	3 244 (2 879 to 3 654)	39.4 (35.6 to 43.1)
Southeast Asia, East Asia, and Oceania	24 523 775 (21 530 658 to 27 957 854)	1 104 (971 to 1 262)	85.4 (77.8 to 93.1)	68 124 841 (60 201 836 to 77 289 748)	2 658 (2 375 to 3 036)	83.2 (75.8 to 91.3)
East Asia	21 903 706 (19 252 383 to 24 912 373)	1 462 (1 275 to 1 672)	111.4 (102.8 to 121.3)	62 282 056 (54 985 517 to 70 760 535)	3 375 (2 972 to 3 834)	99.1 (90.5 to 108.9)
China	21 032 439 (18 488 797 to 23 929 008)	1 477 (1 288 to 1 691)	113.2 (104.4 to 123.6)	59 820 373 (52 811 012 to 67 990 803)	3 411 (3 004 to 3 874)	100.4 (91.6 to 110.4)
North Korea	239 052 (206 380 to 274 852)	935 (803 to 1 075)	78.5 (66.4 to 90.6)	661 540 (578 846 to 755 182)	2 217 (1 930 to 2 515)	80.9 (71.5 to 90.8)
Taiwan (Province of China)	279 358 (248 092 to 314 981)	1 126 (978 to 1 288)	12.6 (30.2 to 55.8)	796 814 (706 078 to 903 269)	2 502 (2 203 to 2 827)	39.3 (33.5 to 45.4)
Oceania	85 737 (73 359 to 101 145)	708 (616 to 824)	89.2 (80.1 to 98.9)	164 350 (144 178 to 187 668)	1 690 (1 498 to 1 916)	91.9 (83.9 to 101.8)
American Samoa	431 (366 to 508)	781 (672 to 910)	65.8 (56.4 to 75.0)	907 (795 to 1 029)	1 797 (1 581 to 2 037)	64.8 (58.6 to 72.1)
Federated States of Micronesia	708 (599 to 839)	692 (596 to 806)	91.1 (79.5 to 104.4)	1 477 (1 292 to 1 685)	1 637 (1 441 to 1 849)	92.3 (83.5 to 102.5)
Fiji	6 054 (5 095 to 7 141)	670 (568 to 787)	100.9 (89.8 to 113.0)	13 907 (12 174 to 15 879)	1 612 (1 416 to 1 830)	100.3 (89.3 to 112.9)
Guam	1 534 (1 334 to 1 783)	907 (791 to 1 052)	89.5 (80.3 to 100.3)	3 579 (3 165 to 4 029)	2 031 (1 795 to 2 290)	89.2 (80.2 to 98.3)
Kiribati	685 (567 to 832)	574 (481 to 688)	118.0 (104.1 to 134.7)	1 402 (1 223 to 1 598)	1 450 (1 274 to 1 647)	118.7 (105.5 to 133.5)
Marshall Islands	385 (326 to 452)	702 (608 to 813)	99.7 (88.6 to 111.1)	770 (675 to 880)	1 653 (1 463 to 1 875)	100.3 (90.5 to 110.2)
Northern Mariana Islands	379 (323 to 442)	833 (717 to 971)	83.3 (50.7 to 67.9)	972 (854 to 1 021)	1 873 (1 651 to 2 131)	58.5 (52.4 to 65.0)
Papua New Guinea	58 834 (50 099 to 69 931)	661 (573 to 772)	102.3 (90.0 to 115.5)	109 907 (96 082 to 125 691)	1 583 (1 400 to 1 802)	103.8 (93.9 to 116.7)
Samoa	1 438 (1 211 to 1 710)	739 (632 to 856)	92.7 (82.3 to 104.1)	2 872 (2 521 to 3 273)	1 752 (1 548 to 1 989)	93.1 (84.6 to 103.5)
Solomon Islands	719 (6 839 to 8 769)	704 (1 204 to 1 507)	34.0 (28.8 to 44.1)	1 344 (12 309 to 15 687)	3 051 (2 726 to 3 441)	37.6 (33.9 to 41.8)
Tonga	719 (607 to 860)	704 (600 to 827)	89.1 (78.8 to 99.5)	1 526 (1 339 to 1 731)	1 678 (1 478 to 1 900)	93.9 (84.2 to 104.3)
Vanuatu	2 126 (1 813 to 2 511)	776 (673 to 900)	94.3 (84.1 to 105.9)	4 075 (3 591 to 4 632)	1 844 (1 644 to 2 077)	95.1 (86.7 to 104.3)
Southeast Asia	2 534 331 (2 181 508 to 2 958 504)	988 (844 to 1 463)	15.0 (10.5 to 20.2)	5 678 435 (5 027 741 to 6 452 084)	882 (786 to 1 002)	16.2 (13.9 to 18.6)
Cambodia	770 411 (66 794 to 89 252)	573 (461 to 598)	116.7 (37.1 to 56.8)	1 125 (136 024 to 174 333)	1 125 (1 004 to 1 277)	45.5 (42.3 to 50.8)
Indonesia	652 968 (543 971 to 789 394)	273 (231 to 326)	-29.5 (-33.9 to -24.6)	1 478 919 (1 300 607 to 1 728 999)	613 (541 to 711)	-28.3 (-30.5 to -26.3)

Location	Incidence (95% UI)			Prevalence (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Laos	27 395 (23 238 to 32 211)	426 (368 to 493)	63.0 (51.8 to 74.4)	54 750 (48 334 to 62 213)	966 (861 to 1 089)	59.0 (53.7 to 64.3)
Malaysia	123 322 (102 861 to 147 763)	417 (351 to 496)	70.1 (58.7 to 81.8)	276 611 (243 961 to 317 962)	276 611 (832 to 1 075)	938 (60.2 to 76.9)
Maldives	1 836 (1 528 to 2 213)	424 (359 to 498)	29.7 (20.1 to 42.1)	4 071 (3 578 to 4 670)	955 (845 to 1 086)	27.4 (23.2 to 32.1)
Mauritius	5 928 (5 154 to 6 933)	465 (397 to 544)	60.0 (50.0 to 70.4)	16 068 (14 236 to 18 316)	1 053 (929 to 1 199)	57.5 (51.0 to 64.2)
Myanmar	271 773 (238 553 to 312 106)	536 (473 to 610)	40.7 (33.3 to 49.9)	581 330 (516 566 to 655 758)	1 161 (1 038 to 1 306)	38.1 (34.2 to 41.8)
Philippines	364 928 (308 087 to 434 894)	369 (315 to 433)	87.7 (74.5 to 102.1)	751 580 (658 588 to 863 634)	837 (738 to 955)	81.7 (73.7 to 89.5)
Sri Lanka	115 106 (100 678 to 132 382)	523 (456 to 601)	50.3 (39.6 to 61.1)	261 390 (232 626 to 297 059)	1 104 (984 to 1 253)	43.9 (39.5 to 49.1)
Seychelles	511 (445 to 595)	495 (432 to 582)	56.8 (47.7 to 67.1)	1 213 (1 071 to 1 375)	1 099 (974 to 1 246)	54.8 (49.2 to 61.2)
Thailand	329 474 (283 509 to 380 917)	447 (382 to 523)	32.7 (23.6 to 42.8)	879 742 (782 178 to 999 750)	492 (880 to 1 125)	34.7 (30.2 to 39.9)
Timor-Leste	5 119 (4 262 to 6 119)	428 (367 to 500)	80.3 (67.9 to 92.5)	9 540 (8 439 to 10 869)	970 (864 to 1 098)	72.9 (66.3 to 80.4)
Vietnam	555 596 (487 358 to 634 919)	592 (520 to 677)	53.8 (45.3 to 63.5)	1 202 264 (1 073 553 to 1 355 875)	1 231 (1 102 to 1 387)	53.7 (48.8 to 59.1)
Sub-Saharan Africa	13 312 641 (11 202 194 to 15 911 838)	1 585 (1 387 to 1 917)	0.6 (-3.4 to 4.5)	22 799 916 (19 338 138 to 25 333 682)	3 365 (2 988 to 3 792)	1.3 (0.2 to 2.3)
Central sub-Saharan Africa	1 384 416 (1 159 424 to 1 647 365)	1 439 (1 254 to 1 643)	5.4 (0.8 to 10.0)	2 308 971 (2 016 706 to 2 627 336)	3 047 (2 712 to 3 430)	6.0 (4.3 to 7.5)
Angola	337 738 (284 330 to 401 232)	1 645 (1 447 to 1 861)	1.8 (-3.3 to 7.2)	534 079 (469 414 to 607 797)	3 357 (2 988 to 3 776)	-0.4 (-2.0 to 1.4)
Central African Republic	49 775 (41 838 to 59 024)	1 302 (1 137 to 1 493)	7.5 (1.5 to 13.3)	87 815 (76 841 to 100 310)	2 816 (2 504 to 3 161)	10.8 (8.2 to 13.4)
Congo (Brazzaville)	60 930 (51 862 to 71 202)	1 534 (1 332 to 1 753)	-1.8 (-7.1 to 3.5)	109 468 (96 246 to 124 071)	3 169 (2 820 to 3 549)	-0.4 (-2.2 to 1.3)
DR Congo	894 868 (744 923 to 1 072 234)	1 365 (1 181 to 1 568)	6.9 (1.5 to 12.5)	1 507 505 (1 315 899 to 1 719 802)	2 941 (2 614 to 3 310)	8.4 (6.2 to 10.5)
Equatorial Guinea	16 784 (14 064 to 20 174)	1 683 (1 477 to 1 916)	30.0 (22.8 to 37.4)	25 192 (22 071 to 28 225)	3 291 (2 930 to 3 707)	19.8 (17.0 to 22.7)
Gabon	24 321 (20 955 to 28 161)	1 696 (1 485 to 1 929)	-11.4 (-16.7 to -5.8)	44 911 (39 614 to 50 755)	3 471 (3 091 to 3 900)	-9.0 (-10.6 to -7.3)
Eastern sub-Saharan Africa	6 257 478 (5 253 032 to 7 503 431)	2 026 (1 780 to 2 315)	1.5 (-2.5 to 5.1)	10 221 577 (8 919 131 to 11 657 411)	4 269 (3 786 to 4 813)	2.1 (1.6 to 4.4)
Burundi	159 367 (132 203 to 193 238)	1 835 (1 595 to 2 096)	9.0 (-14.0 to -3.7)	261 510 (227 444 to 300 475)	3 942 (3 496 to 4 447)	-4.5 (-6.5 to -2.2)
Comoros	12 392 (10 567 to 14 644)	1 952 (1 705 to 2 245)	-5.7 (-11.2 to -0.5)	23 561 (20 684 to 26 718)	4 172 (3 707 to 4 708)	-5.1 (-7.1 to -2.9)
Djibouti	18 893 (16 201 to 22 165)	2 079 (1 830 to 2 378)	-5.5 (-10.9 to 0.2)	36 025 (31 538 to 41 136)	4 390 (3 899 to 4 945)	-4.3 (-5.9 to -2.5)
Eritrea	93 626 (79 068 to 110 944)	2 028 (1 790 to 2 297)	2.5 (-2.8 to 8.1)	154 710 (134 738 to 177 045)	4 167 (3 708 to 4 675)	1.8 (0.2 to 3.6)
Ethiopia	1 462 066 (1 219 718 to 1 768 436)	1 861 (1 614 to 2 167)	-7.3 (-11.6 to -2.7)	2 378 021 (2 071 706 to 2 715 632)	3 908 (3 457 to 4 411)	-4.9 (-6.6 to -3.1)
Kenya	953 132 (803 115 to 1 132 723)	2 437 (2 121 to 2 803)	11.2 (6.8 to 15.1)	1 638 927 (1 417 177 to 1 896 755)	5 268 (4 636 to 6 012)	13.4 (11.2 to 15.6)
Madagascar	406 930 (338 817 to 489 470)	1 902 (1 661 to 2 177)	-2.5 (-8.6 to 3.0)	679 831 (591 095 to 777 498)	4 120 (3 638 to 4 638)	-3.1 (-5.3 to -0.6)
Malawi	267 854 (226 087 to 319 449)	1 932 (1 712 to 2 190)	1.1 (-3.7 to 6.2)	435 216 (382 584 to 498 067)	3 998 (3 554 to 4 498)	2.8 (0.7 to 4.7)
Mozambique	489 770 (409 743 to 587 058)	2 152 (1 891 to 2 444)	9.9 (4.0 to 16.0)	748 843 (654 444 to 851 070)	4 364 (3 889 to 4 898)	7.1 (5.2 to 9.4)
Rwanda	198 008 (166 126 to 238 037)	1 938 (1 699 to 2 225)	-8.4 (-13.9 to -2.9)	338 370 (295 308 to 387 167)	4 053 (3 591 to 4 559)	-6.6 (-8.7 to -4.8)
Somalia	248 751 (206 588 to 303 438)	1 842 (1 608 to 2 109)	8.1 (2.9 to 12.8)	404 757 (351 109 to 464 115)	4 001 (3 534 to 4 505)	9.7 (7.7 to 11.9)
South Sudan	160 057 (134 678 to 194 096)	2 035 (1 785 to 2 337)	1.6 (-3.8 to 6.5)	255 470 (222 993 to 291 637)	4 347 (3 859 to 4 901)	4.4 (2.3 to 6.5)
Tanzania	906 582 (773 546 to 1 081 057)	2 099 (1 857 to 2 376)	2.6 (-2.9 to 8.0)	1 496 145 (1 310 157 to 1 703 384)	4 362 (3 885 to 4 911)	3.4 (1.7 to 5.0)
Uganda	590 422 (491 649 to 721 514)	1 886 (1 651 to 2 170)	13.0 (8.2 to 17.7)	905 569 (785 266 to 1 042 560)	3 998 (3 537 to 4 494)	15.1 (12.8 to 17.6)
Zambia	285 704 (243 159 to 342 294)	2 193 (1 946 to 2 487)	4.5 (-10.1 to 0.4)	457 210 (398 984 to 525 604)	4 458 (3 965 to 5 011)	-3.7 (-5.7 to -1.7)
Southern sub-Saharan Africa	783 539 (660 901 to 927 509)	1 094 (934 to 1 277)	6.9 (3.4 to 10.3)	1 588 819 (1 386 207 to 1 814 625)	2 364 (2 084 to 2 685)	10.0 (8.2 to 12.1)
Botswana	22 497 (18 858 to 26 839)	1 121 (961 to 1 304)	3.9 (-1.4 to 9.4)	44 067 (38 357 to 50 964)	2 349 (2 071 to 2 672)	3.6 (1.3 to 6.4)
Lesotho	18 638 (15 651 to 22 158)	1 081 (933 to 1 248)	16.9 (12.1 to 21.9)	35 456 (30 871 to 40 448)	2 285 (2 018 to 2 583)	15.0 (12.6 to 17.9)
Namibia	23 192 (19 459 to 27 532)	1 110 (959 to 1 289)	1.3 (-4.3 to 6.6)	42 942 (37 528 to 49 369)	2 335 (2 072 to 2 645)	2.1 (-0.3 to 4.7)
South Africa	565 374 (477 501 to 669 633)	1 086 (928 to 1 278)	7.7 (3.6 to 11.5)	1 139 313 (1 048 571 to 1 371 373)	2 354 (2 076 to 2 674)	10.6 (8.6 to 12.9)
Swaziland	10 647 (8 842 to 12 717)	1 102 (955 to 1 271)	6.1 (1.2 to 11.6)	18 886 (16 545 to 21 681)	2 314 (2 054 to 2 623)	6.7 (4.4 to 9.0)
Zimbabwe	143 192 (119 532 to 172 513)	1 168 (1 018 to 1 349)	11.6 (1.1 to 11.7)	248 155 (214 732 to 283 358)	2 469 (2 181 to 2 789)	9.9 (7.3 to 12.4)
Western sub-Saharan Africa	4 887 207 (4 090 246 to 5 814 346)	1 377 (1 202 to 1 573)	-4.6 (-9.4 to 0.4)	8 060 548 (7 056 412 to 9 186 624)	2 964 (2 631 to 3 333)	-5.2 (-6.3 to -4.1)
Benin	124 717 (103 339 to 150 605)	1 291 (1 115 to 1 487)	-5.6 (-11.7 to 0.0)	205 588 (178 823 to 234 573)	2 842 (2 513 to 3 193)	4.7 (-3.3 to 12.9)
Burkina Faso	261 546 (224 754 to 307 546)	1 620 (1 436 to 1 830)	-4.0 (-8.9 to 1.1)	421 164 (371 412 to 475 402)	3 334 (2 980 to 3 739)	-4.1 (-5.7 to -2.5)
Cameroon	316 255 (265 044 to 377 492)	1 382 (1 211 to 1 587)	-11.5 (-17.0 to -6.1)	524 826 (458 218 to 600 423)	2 977 (2 642 to 3 355)	-10.2 (-11.9 to -8.4)
Cape Verde	160 558 (5 539 to 7 758)	1 325 (1 049 to 1 425)	6.5 (6.7 to 16.3)	250 268 (12 003 to 15 484)	2 962 (2 396 to 3 067)	8.6 (7.4 to 12.1)
Chad	132 985 to 194 187 (132 985 to 194 187)	1 325 (1 156 to 1 520)	6.5 (1.0 to 11.8)	250 268 (218 617 to 283 549)	2 962 (2 625 to 3 329)	8.6 (6.3 to 10.9)
Cote d'Ivoire	280 607 (235 856 to 334 523)	1 369 (1 193 to 1 563)	-8.3 (-13.7 to -2.6)	486 432 (424 637 to 558 341)	2 991 (2 652 to 3 366)	-7.3 (-8.9 to -5.3)
The Gambia	24 003 (19 807 to 28 674)	1 319 (1 139 to 1 514)	-2.8 (-8.4 to 2.0)	40 273 (35 115 to 45 899)	2 885 (2 554 to 3 246)	-2.8 (-4.6 to -0.8)
Ghana	393 890 (337 465 to 462 131)	1 584 (1 396 to 1 796)	10.2 (4.6 to 16.1)	680 807 (608 315 to 781 358)	3 246 (2 888 to 3 645)	6.3 (4.2 to 8.4)
Guinea	129 686 (108 858 to 154 865)	1 304 (1 135 to 1 497)	-5.1 (-10.2 to -0.2)	219 808 (192 536 to 250 433)	2 895 (2 573 to 3 263)	-4.5 (-6.3 to -2.4)
Guinea-Bissau	18 835 (15 649 to 22 676)	1 234 (1 077 to 1 422)	-11.3 (-16.9 to -5.9)	31 297 (27 174 to 36 023)	2 713 (2 397 to 3 059)	-10.4 (-12.2 to -8.7)
Liberia	49 085 (40 484 to 59 226)	1 204 (1 038 to 1 400)	-7.6 (-14.3 to -1.4)	84 817 (73 614 to 97 168)	2 702 (2 374 to 3 044)	-6.5 (-8.4 to -4.5)
Mali	214 790 (176 951 to 259 269)	1 276 (1 103 to 1 469)	-3.2 (-9.5 to 2.4)	346 839 (302 244 to 397 309)	2 841 (2 504 to 3 208)	-2.7 (-5.0 to -0.6)
Mauritania	45 865 (38 411 to 54 923)	1 352 (1 175 to 1 566)	-11.8 (-17.7 to -5.4)	79 675 (69 860 to 90 178)	2 965 (2 635 to 3 323)	-10.2 (-12.0 to -8.1)

Location	Incidence (95% UI)			Prevalence (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Niger	216 174 (176 516 to 268 586)	1 248 (1 081 to 1 452)	-5.5 (-11.6 to 1.0)	331 276 (288 335 to 378 987)	2 805 (2 485 to 3 159)	-5.1 (-7.0 to -3.1)
Nigeria	2 309 653 (1 926 332 to 2 758 290)	1 370 (1 183 to 1 576)	-5.9 (-12.0 to -0.1)	3 751 042 (3 287 478 to 4 287 688)	2 937 (2 604 to 3 310)	-7.2 (-8.9 to -5.4)
Sao Tome and Principe	3 436 (3 000 to 3 979)	1 975 (1 755 to 2 234)	-1.4 (-7.1 to 4.9)	6 000 (5 300 to 6 800)	4 192 (3 724 to 4 736)	-6.3 (-8.5 to -4.0)
Senegal	166 558 (139 141 to 197 758)	1 331 (1 155 to 1 532)	-6.9 (-12.4 to -0.5)	290 933 (255 447 to 329 724)	2 917 (2 597 to 3 276)	-7.1 (-8.6 to -5.5)
Sierra Leone	83 184 (69 008 to 99 780)	1 258 (1 086 to 1 447)	-5.6 (-11.5 to -0.2)	142 636 (124 135 to 162 832)	2 772 (2 449 to 3 129)	-5.8 (-7.6 to -4.1)
Togo	81 738 (67 864 to 98 041)	1 256 (1 088 to 1 452)	-5.8 (-11.7 to -0.1)	144 156 (125 451 to 164 284)	2 754 (2 438 to 3 094)	-5.0 (-6.8 to -3.0)

Table 2: Mortality for 2017 and percentage change of age-standardised rates between 1990 and 2017 by location for falls			
Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Global	695 771 (644 927 to 741 720)	9.2 (8.5 to 9.8)	-5.9 (-13.7 to 3.5)
Low SDI	93 850 (86 459 to 104 963)	15.1 (13.9 to 17.1)	-10.8 (-22.4 to 6.0)
Low-middle SDI	157 311 (144 698 to 175 240)	15.3 (14.1 to 17.2)	-2.7 (-19.3 to 18.3)
Middle SDI	192 591 (167 707 to 212 051)	10.1 (8.9 to 11.0)	-8.3 (-17.6 to 5.7)
High-middle SDI	105 593 (93 147 to 112 263)	6.7 (5.9 to 7.1)	-2.2 (-19.4 to 9.2)
High SDI	143 826 (140 311 to 147 243)	5.7 (5.6 to 5.9)	-16.6 (-18.8 to -14.4)
Central Europe, Eastern Europe, and Central Asia	35 374 (34 224 to 36 301)	6.3 (6.1 to 6.5)	-25.8 (-28.2 to -23.6)
Central Asia	2 868 (2 682 to 3 094)	3.6 (3.4 to 3.9)	-33.5 (-38.0 to -27.9)
Armenia	88 (83 to 94)	2.4 (2.2 to 2.5)	-68.5 (-71.1 to -65.8)
Azerbaijan	258 (205 to 360)	2.9 (2.3 to 3.8)	-32.3 (-48.4 to -3.1)
Georgia	262 (243 to 280)	5.1 (4.7 to 5.4)	-17.4 (-24.8 to -9.6)
Kazakhstan	780 (706 to 851)	4.5 (4.1 to 4.8)	-18.0 (-25.3 to -11.0)
Kyrgyzstan	132 (120 to 144)	2.5 (2.3 to 2.7)	-65.3 (-68.5 to -61.8)
Mongolia	206 (149 to 253)	6.9 (5.1 to 8.4)	-9.1 (-27.4 to 14.5)
Tajikistan	311 (269 to 388)	4.0 (3.5 to 4.9)	-34.6 (-45.7 to -11.4)
Turkmenistan	106 (94 to 118)	2.6 (2.3 to 2.8)	-35.7 (-43.5 to -28.0)
Uzbekistan	725 (635 to 820)	2.9 (2.6 to 3.3)	-36.1 (-43.7 to -28.2)
Central Europe	14 438 (13 990 to 14 908)	7.1 (6.9 to 7.4)	-47.0 (-48.9 to -45.0)
Albania	80 (64 to 101)	2.2 (1.8 to 2.7)	-3.1 (-24.2 to 21.2)
Bosnia and Herzegovina	118 (103 to 136)	2.2 (2.0 to 2.5)	-21.3 (-41.6 to 15.0)
Bulgaria	501 (462 to 540)	4.2 (3.9 to 4.6)	-30.7 (-36.3 to -24.6)
Croatia	1 150 (1 072 to 1 237)	12.8 (11.9 to 13.7)	24.9 (14.4 to 35.9)
Czech Republic	1 461 (1 346 to 1 580)	7.2 (6.6 to 7.7)	-72.5 (-74.6 to -70.2)
Hungary	1 874 (1 767 to 1 984)	9.4 (8.8 to 9.9)	-69.1 (-71.1 to -67.1)
Macedonia	99 (80 to 112)	3.2 (2.6 to 3.7)	36.5 (-12.3 to 73.0)
Montenegro	26 (22 to 30)	2.9 (2.5 to 3.4)	-19.0 (-31.6 to -4.0)
Poland	5 567 (5 195 to 5 967)	8.2 (7.7 to 8.8)	-31.9 (-36.9 to -26.3)
Romania	1 677 (1 567 to 1 787)	5.4 (5.0 to 5.8)	-39.8 (-44.2 to -35.6)
Serbia	584 (485 to 649)	3.9 (3.3 to 4.3)	3.2 (-11.3 to 19.9)
Slovakia	758 (638 to 856)	9.1 (7.7 to 10.3)	-46.1 (-53.3 to -34.9)
Slovenia	543 (501 to 589)	11.6 (10.7 to 12.5)	-33.3 (-38.9 to -27.2)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Eastern Europe	18 067 (17 367 to 18 629)	6.3 (6.0 to 6.5)	-0.6 (-4.5 to 2.5)
Belarus	982 (884 to 1 076)	7.3 (6.5 to 8.0)	7.7 (-3.6 to 18.5)
Estonia	119 (103 to 136)	5.4 (4.7 to 6.2)	-54.6 (-61.0 to -47.6)
Latvia	244 (216 to 274)	7.3 (6.4 to 8.2)	-49.5 (-55.9 to -42.8)
Lithuania	474 (441 to 506)	9.5 (8.8 to 10.2)	-17.3 (-23.9 to -10.2)
Moldova	249 (232 to 267)	4.8 (4.5 to 5.2)	-45.9 (-49.8 to -41.7)
Russian Federation	12 477 (12 058 to 12 822)	6.3 (6.1 to 6.5)	11.6 (4.9 to 15.3)
Ukraine	3 522 (3 290 to 3 790)	5.8 (5.4 to 6.3)	-16.7 (-22.8 to -9.3)
High-income	131 213 (127 836 to 134 821)	5.4 (5.3 to 5.6)	-12.9 (-15.4 to -10.4)
Australasia	3 739 (3 431 to 4 043)	6.5 (5.9 to 7.0)	32.1 (20.8 to 44.4)
Australia	3 172 (2 863 to 3 476)	6.5 (5.8 to 7.1)	41.8 (28.0 to 58.0)
New Zealand	567 (527 to 610)	6.6 (6.1 to 7.1)	0.6 (-7.2 to 8.7)
High-income Asia-Pacific	16 160 (15 448 to 16 859)	3.4 (3.2 to 3.5)	-24.1 (-27.9 to -20.1)
Brunei	19 (17 to 22)	5.9 (5.3 to 7.0)	-16.5 (-29.7 to 2.7)
Japan	12 142 (11 671 to 12 623)	2.9 (2.8 to 3.1)	-20.3 (-23.7 to -16.6)
South Korea	3 834 (3 477 to 4 196)	5.0 (4.6 to 5.5)	-22.1 (-29.6 to -14.5)
Singapore	165 (151 to 179)	2.6 (2.3 to 2.8)	-26.8 (-33.5 to -20.1)
High-income North America	44 300 (43 240 to 45 357)	6.6 (6.4 to 6.7)	57.2 (52.9 to 61.3)
Canada	5 922 (5 481 to 6 406)	7.6 (7.0 to 8.2)	22.0 (11.6 to 33.0)
Greenland	8 (8 to 10)	15.8 (14.3 to 18.0)	-22.5 (-33.1 to -7.7)
USA	38 368 (37 389 to 39 312)	6.4 (6.3 to 6.6)	61.0 (56.5 to 65.2)
Southern Latin America	3 143 (2 919 to 3 379)	3.8 (3.5 to 4.1)	-22.9 (-29.0 to -16.5)
Argentina	1 619 (1 464 to 1 798)	3.0 (2.7 to 3.3)	-37.6 (-44.0 to -30.4)
Chile	1 274 (1 147 to 1 411)	5.6 (5.0 to 6.2)	8.8 (-3.1 to 20.9)
Uruguay	250 (223 to 277)	4.2 (3.8 to 4.7)	-16.3 (-25.8 to -5.9)
Western Europe	63 871 (61 445 to 66 265)	5.9 (5.7 to 6.1)	-28.2 (-31.3 to -25.1)
Andorra	9 (7 to 11)	5.6 (4.6 to 6.9)	-16.0 (-31.2 to 3.6)
Austria	1 408 (1 302 to 1 522)	7.1 (6.6 to 7.6)	-43.8 (-48.3 to -39.1)
Belgium	2 156 (1 993 to 2 329)	8.1 (7.5 to 8.7)	9.5 (0.1 to 19.2)
Cyprus	87 (75 to 98)	4.7 (4.1 to 5.3)	-36.1 (-47.6 to -18.9)
Denmark	827 (765 to 898)	6.5 (6.0 to 7.0)	-58.7 (-62.1 to -54.6)
Finland	1 339 (1 252 to 1 433)	10.2 (9.5 to 10.9)	-15.1 (-21.4 to -8.0)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
France	13 812 (12 711 to 14 953)	7.8 (7.2 to 8.4)	-38.6 (-44.1 to -32.5)
Germany	14 328 (12 997 to 15 881)	6.5 (5.9 to 7.2)	-23.6 (-31.9 to -14.6)
Greece	672 (626 to 723)	2.8 (2.6 to 3.0)	-41.0 (-45.2 to -36.6)
Iceland	35 (33 to 38)	5.8 (5.4 to 6.2)	-7.1 (-14.7 to 1.5)
Ireland	323 (296 to 352)	4.4 (4.0 to 4.8)	-32.5 (-38.4 to -25.6)
Israel	369 (339 to 399)	2.9 (2.7 to 3.2)	-29.3 (-35.4 to -22.5)
Italy	7 665 (7 068 to 8 314)	4.2 (3.9 to 4.5)	-45.4 (-50.0 to -40.4)
Luxembourg	82 (73 to 92)	7.7 (6.9 to 8.6)	-17.0 (-26.8 to -6.6)
Malta	55 (51 to 60)	6.4 (5.9 to 6.9)	-17.8 (-25.2 to -10.0)
Netherlands	3 465 (3 203 to 3 740)	9.2 (8.6 to 10.0)	41.6 (29.3 to 55.3)
Norway	1 014 (973 to 1 055)	8.8 (8.4 to 9.2)	-21.4 (-25.1 to -17.9)
Portugal	784 (722 to 843)	3.2 (2.9 to 3.4)	-52.4 (-56.6 to -48.4)
Spain	3 996 (3 708 to 4 301)	3.6 (3.3 to 3.8)	-19.7 (-26.0 to -13.5)
Sweden	1 670 (1 560 to 1 786)	6.6 (6.2 to 7.0)	2.8 (-4.8 to 11.1)
Switzerland	1 929 (1 785 to 2 083)	9.3 (8.6 to 10.0)	-41.1 (-46.0 to -35.7)
United Kingdom	7 781 (7 617 to 7 958)	5.4 (5.3 to 5.6)	12.3 (9.5 to 15.1)
Latin America and Caribbean	35 929 (34 977 to 36 769)	6.5 (6.3 to 6.6)	-22.5 (-25.0 to -20.3)
Andean Latin America	2 568 (2 263 to 2 824)	4.6 (4.1 to 5.1)	-14.8 (-27.1 to -3.1)
Bolivia	518 (387 to 653)	6.2 (4.7 to 7.8)	-22.0 (-38.3 to -0.3)
Ecuador	966 (870 to 1 070)	6.5 (5.9 to 7.2)	-19.8 (-27.8 to -10.6)
Peru	1 084 (818 to 1 312)	3.4 (2.6 to 4.1)	-5.8 (-34.1 to 20.5)
Caribbean	3 800 (3 485 to 4 103)	7.4 (6.8 to 8.0)	2.8 (-5.5 to 11.6)
Antigua and Barbuda	2 (2 to 2)	2.2 (2.1 to 2.4)	7.9 (-3.0 to 20.0)
The Bahamas	13 (12 to 15)	4.1 (3.7 to 4.5)	7.9 (-3.5 to 20.7)
Barbados	13 (12 to 14)	2.7 (2.5 to 3.0)	9.9 (-1.2 to 21.5)
Belize	12 (11 to 12)	4.5 (4.1 to 4.8)	11.4 (-2.3 to 24.8)
Bermuda	4 (3 to 4)	3.0 (2.7 to 3.2)	-17.7 (-26.5 to -8.7)
Cuba	2 592 (2 341 to 2 852)	12.9 (11.6 to 14.2)	12.2 (0.4 to 25.2)
Dominica	3 (3 to 3)	3.3 (3.0 to 3.6)	37.0 (22.0 to 52.3)
Dominican Republic	188 (152 to 245)	2.0 (1.6 to 2.6)	-17.1 (-34.3 to 13.9)
Grenada	7 (7 to 8)	4.3 (4.0 to 4.6)	-4.6 (-13.6 to 5.1)
Guyana	40 (35 to 45)	7.3 (6.5 to 8.2)	-2.6 (-15.1 to 10.8)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Haiti	315 (223 to 425)	5.6 (4.1 to 7.6)	-17.1 (-32.6 to 2.3)
Jamaica	69 (57 to 79)	2.2 (1.8 to 2.6)	35.0 (9.5 to 58.0)
Puerto Rico	304 (280 to 328)	4.3 (3.9 to 4.6)	0.9 (-7.6 to 10.0)
Saint Lucia	6 (6 to 7)	3.2 (2.9 to 3.4)	-4.6 (-13.6 to 5.5)
Saint Vincent and the Grenadines	7 (7 to 8)	5.3 (4.8 to 5.7)	24.8 (11.9 to 38.9)
Suriname	27 (24 to 30)	5.2 (4.7 to 5.8)	10.5 (-3.0 to 23.9)
Trinidad and Tobago	54 (44 to 64)	3.3 (2.8 to 4.0)	-26.5 (-39.5 to -12.4)
Virgin Islands	8 (7 to 9)	5.2 (4.4 to 5.8)	5.2 (-13.8 to 22.4)
Central Latin America	12 069 (11 495 to 12 478)	5.3 (5.0 to 5.4)	-43.0 (-46.7 to -40.8)
Colombia	1 808 (1 606 to 2 037)	3.4 (3.0 to 3.8)	-52.6 (-58.3 to -46.5)
Costa Rica	324 (289 to 350)	6.4 (5.7 to 7.0)	-32.7 (-40.5 to -25.7)
El Salvador	486 (398 to 582)	8.2 (6.7 to 9.8)	-8.1 (-25.8 to 22.2)
Guatemala	849 (754 to 946)	7.7 (6.9 to 8.5)	-27.5 (-36.1 to -18.8)
Honduras	185 (139 to 253)	3.0 (2.2 to 4.2)	-18.5 (-42.7 to 15.2)
Mexico	6 827 (6 405 to 7 016)	6.2 (5.8 to 6.4)	-43.3 (-47.9 to -41.5)
Nicaragua	220 (190 to 253)	4.7 (4.1 to 5.4)	-19.2 (-30.8 to -2.9)
Panama	154 (142 to 167)	3.8 (3.5 to 4.1)	-32.5 (-39.0 to -25.6)
Venezuela	1 216 (1 064 to 1 400)	4.6 (4.0 to 5.2)	-35.4 (-43.9 to -25.6)
Tropical Latin America	17 493 (16 920 to 17 936)	7.9 (7.7 to 8.1)	-8.2 (-11.8 to -5.2)
Brazil	17 200 (16 626 to 17 651)	8.0 (7.7 to 8.2)	-8.8 (-12.5 to -5.8)
Paraguay	293 (224 to 349)	5.8 (4.5 to 7.0)	34.2 (1.7 to 69.1)
North Africa and Middle East	21 444 (17 796 to 23 324)	4.9 (4.0 to 5.4)	-19.0 (-28.7 to 5.0)
North Africa and Middle East	21 444 (17 796 to 23 324)	4.9 (4.0 to 5.4)	-19.0 (-28.7 to 5.0)
Afghanistan	2 540 (2 091 to 3 098)	13.8 (12.0 to 16.0)	-20.1 (-40.7 to 38.9)
Algeria	1 274 (1 017 to 1 635)	3.7 (3.1 to 4.7)	-18.9 (-31.9 to 7.1)
Bahrain	18 (12 to 22)	1.6 (1.2 to 2.0)	-37.9 (-50.1 to -15.4)
Egypt	2 750 (1 971 to 3 597)	4.4 (3.1 to 5.8)	-13.5 (-31.5 to 10.3)
Iran	2 715 (2 547 to 3 135)	3.9 (3.7 to 4.5)	-26.3 (-36.1 to -5.2)
Iraq	352 (308 to 427)	1.3 (1.1 to 1.4)	-56.9 (-69.2 to -34.3)
Jordan	165 (144 to 192)	2.4 (2.1 to 2.8)	-34.2 (-46.8 to -14.1)
Kuwait	94 (84 to 105)	2.4 (2.1 to 2.6)	-23.9 (-32.0 to -14.8)
Lebanon	304 (186 to 496)	5.8 (3.6 to 8.8)	-25.0 (-52.7 to 12.3)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Libya	239 (149 to 325)	4.6 (3.0 to 6.2)	-15.5 (-46.5 to 13.4)
Morocco	1 251 (975 to 1 571)	4.1 (3.2 to 5.1)	-11.3 (-28.9 to 16.7)
Palestine	115 (82 to 137)	3.5 (2.8 to 4.0)	-29.9 (-43.9 to -11.4)
Oman	75 (60 to 93)	3.2 (2.5 to 3.9)	-26.8 (-47.4 to 6.6)
Qatar	78 (41 to 108)	3.6 (2.6 to 4.6)	-25.3 (-46.1 to 3.6)
Saudi Arabia	1 785 (1 159 to 2 522)	8.8 (5.5 to 12.2)	-18.4 (-52.1 to 33.1)
Sudan	1 199 (886 to 1 609)	4.5 (3.3 to 6.1)	-21.8 (-41.9 to 10.4)
Syria	274 (218 to 337)	2.1 (1.7 to 2.7)	-24.1 (-41.8 to 3.1)
Tunisia	347 (265 to 434)	3.1 (2.4 to 3.9)	-17.6 (-37.2 to 10.0)
Turkey	4 536 (3 290 to 5 270)	5.4 (3.9 to 6.2)	-25.1 (-40.6 to 5.8)
United Arab Emirates	423 (228 to 610)	4.6 (3.1 to 6.0)	-23.1 (-51.1 to 18.4)
Yemen	889 (610 to 1 225)	4.9 (3.3 to 6.5)	-16.1 (-40.0 to 42.5)
South Asia	239 791 (220 244 to 270 634)	22.0 (20.0 to 25.0)	-2.7 (-19.6 to 20.4)
South Asia	239 791 (220 244 to 270 634)	22.0 (20.0 to 25.0)	-2.7 (-19.6 to 20.4)
Bangladesh	6 304 (5 349 to 7 374)	5.9 (5.1 to 6.8)	-28.9 (-48.0 to 0.1)
Bhutan	95 (70 to 124)	17.6 (13.1 to 22.3)	-22.9 (-40.3 to 4.6)
India	221 298 (201 395 to 251 201)	25.4 (23.0 to 29.2)	-7.4 (-23.6 to 15.4)
Nepal	2 911 (2 253 to 3 619)	16.4 (12.8 to 20.1)	-12.5 (-29.5 to 13.6)
Pakistan	9 182 (6 111 to 11 763)	8.8 (6.0 to 11.2)	-0.3 (-31.3 to 41.4)
Southeast Asia, East Asia, and Oceania	193 933 (158 885 to 209 800)	8.9 (7.4 to 9.6)	-3.8 (-24.8 to 12.1)
East Asia	140 843 (107 347 to 155 273)	8.5 (6.6 to 9.3)	12.1 (-23.6 to 32.2)
China	134 773 (102 016 to 148 952)	8.6 (6.7 to 9.5)	12.8 (-23.9 to 33.4)
North Korea	1 757 (1 355 to 2 219)	6.7 (5.2 to 8.3)	28.5 (-5.1 to 68.0)
Taiwan (Province of China)	2 045 (1 921 to 2 182)	5.7 (5.3 to 6.0)	-26.7 (-31.8 to -21.2)
Oceania	506 (367 to 661)	7.5 (6.0 to 9.0)	12.7 (-7.0 to 33.9)
American Samoa	2 (1 to 2)	4.8 (4.2 to 5.4)	5.7 (-13.7 to 29.8)
Federated States of Micronesia	4 (3 to 5)	6.1 (4.7 to 7.4)	11.9 (-16.6 to 45.6)
Fiji	21 (18 to 24)	3.4 (3.0 to 3.9)	7.4 (-13.9 to 42.0)
Guam	7 (6 to 8)	4.6 (4.0 to 5.2)	26.8 (-0.6 to 57.4)
Kiribati	2 (1 to 2)	2.4 (1.9 to 2.9)	-0.8 (-18.0 to 19.4)
Marshall Islands	2 (1 to 3)	7.0 (5.6 to 8.6)	16.9 (-9.0 to 47.1)
Northern Mariana Islands	2 (2 to 2)	5.2 (4.4 to 5.9)	4.2 (-22.9 to 32.0)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Papua New Guinea	317 (193 to 460)	6.5 (4.4 to 8.5)	20.3 (-11.8 to 51.7)
Samoa	7 (5 to 8)	5.4 (4.2 to 6.7)	24.4 (-4.9 to 59.3)
Solomon Islands	101 (85 to 119)	31.2 (27.0 to 35.4)	-11.5 (-28.5 to 8.1)
Tonga	4 (3 to 4)	5.3 (4.3 to 6.3)	-5.8 (-29.3 to 23.0)
Vanuatu	10 (7 to 13)	6.2 (4.5 to 8.1)	22.6 (-11.6 to 60.4)
Southeast Asia	52 585 (49 148 to 57 098)	10.5 (9.8 to 11.3)	-29.8 (-39.8 to -13.0)
Cambodia	1 681 (1 452 to 1 944)	17.5 (15.3 to 20.1)	-6.4 (-23.7 to 17.9)
Indonesia	18 244 (16 924 to 20 366)	10.9 (10.1 to 12.0)	-44.8 (-54.6 to -28.5)
Laos	406 (311 to 508)	9.9 (7.7 to 12.4)	5.5 (-28.6 to 39.9)
Malaysia	831 (626 to 978)	3.8 (2.9 to 4.5)	-18.3 (-36.6 to 14.4)
Maldives	15 (13 to 17)	5.0 (4.4 to 5.7)	-44.2 (-58.7 to -8.6)
Mauritius	65 (59 to 72)	4.4 (3.9 to 4.8)	31.5 (17.8 to 45.4)
Myanmar	6 872 (5 953 to 7 929)	17.4 (15.3 to 19.9)	-15.7 (-32.6 to 7.9)
Philippines	3 921 (3 478 to 4 411)	6.2 (5.5 to 6.9)	57.5 (39.7 to 77.6)
Sri Lanka	2 147 (1 783 to 2 568)	10.4 (8.7 to 12.3)	-3.3 (-27.4 to 24.6)
Seychelles	6 (5 to 7)	6.2 (5.2 to 7.1)	-3.6 (-21.4 to 13.8)
Thailand	3 602 (3 161 to 4 143)	4.0 (3.5 to 4.6)	-50.6 (-60.1 to -32.0)
Timor-Leste	63 (47 to 77)	8.4 (6.7 to 10.2)	18.6 (-15.9 to 60.4)
Vietnam	14 662 (12 524 to 17 136)	18.0 (15.4 to 21.0)	-2.7 (-26.5 to 29.4)
Sub-Saharan Africa	38 086 (34 089 to 44 273)	9.5 (8.6 to 11.1)	-14.1 (-24.6 to 0.0)
Central sub-Saharan Africa	3 387 (2 742 to 4 773)	7.5 (6.2 to 9.7)	-8.1 (-23.9 to 13.9)
Angola	855 (677 to 1 174)	9.2 (7.3 to 12.3)	-10.9 (-32.5 to 20.3)
Central African Republic	146 (94 to 249)	7.9 (5.9 to 11.2)	-10.5 (-33.5 to 12.6)
Congo (Brazzaville)	168 (110 to 257)	8.1 (5.3 to 12.1)	-16.9 (-39.9 to 11.8)
DR Congo	2 111 (1 564 to 3 049)	7.0 (5.4 to 9.1)	-5.4 (-26.2 to 20.5)
Equatorial Guinea	33 (20 to 53)	7.5 (4.8 to 11.8)	-18.8 (-49.6 to 30.2)
Gabon	75 (54 to 109)	8.3 (6.0 to 11.7)	-20.0 (-44.2 to 7.5)
Eastern sub-Saharan Africa	16 221 (14 760 to 17 956)	12.2 (11.2 to 13.5)	-16.9 (-28.4 to -2.3)
Burundi	389 (305 to 487)	12.0 (9.6 to 14.7)	-26.2 (-40.8 to -1.1)
Comoros	35 (28 to 45)	9.6 (7.8 to 12.4)	-21.4 (-38.7 to -0.2)
Djibouti	41 (29 to 58)	10.0 (7.4 to 13.6)	-18.1 (-40.8 to 8.2)
Eritrea	207 (153 to 282)	11.6 (8.8 to 15.1)	-16.4 (-37.1 to 10.9)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Ethiopia	4 461 (3 845 to 5 132)	13.1 (11.5 to 14.9)	-27.5 (-42.9 to -3.3)
Kenya	2 125 (1 898 to 2 485)	12.7 (11.3 to 14.5)	-8.2 (-33.4 to 15.7)
Madagascar	726 (564 to 939)	8.6 (6.8 to 10.9)	-22.8 (-35.3 to -8.1)
Malawi	923 (797 to 1 077)	13.2 (11.4 to 15.4)	-14.5 (-31.2 to 20.0)
Mozambique	1 471 (1 085 to 1 821)	15.5 (12.1 to 19.0)	-7.4 (-29.4 to 25.4)
Rwanda	499 (404 to 629)	11.1 (9.1 to 13.8)	-31.8 (-46.7 to -5.7)
Somalia	500 (363 to 694)	10.3 (7.8 to 13.6)	-10.8 (-31.4 to 22.0)
South Sudan	346 (261 to 466)	10.8 (7.9 to 14.4)	-10.7 (-32.0 to 21.5)
Tanzania	2 585 (2 240 to 3 029)	11.5 (9.8 to 13.8)	-12.0 (-26.8 to 9.2)
Uganda	1 094 (846 to 1 351)	9.3 (7.4 to 11.3)	-14.5 (-39.0 to 16.4)
Zambia	811 (701 to 933)	14.7 (12.7 to 17.0)	-18.9 (-36.3 to 0.2)
Southern sub-Saharan Africa	1 569 (1 461 to 1 796)	3.1 (2.9 to 3.6)	-20.6 (-36.9 to -2.0)
Botswana	44 (34 to 56)	3.7 (3.0 to 4.6)	-22.2 (-40.7 to 5.3)
Lesotho	54 (41 to 68)	5.1 (3.9 to 6.3)	-2.1 (-35.7 to 38.2)
Namibia	57 (49 to 68)	4.3 (3.7 to 5.1)	-23.5 (-38.7 to -2.9)
South Africa	1 036 (933 to 1 186)	2.6 (2.3 to 2.9)	-25.4 (-38.9 to -5.1)
Swaziland	22 (17 to 28)	4.4 (3.4 to 5.5)	-20.0 (-42.2 to 8.5)
Zimbabwe	356 (262 to 455)	6.7 (5.0 to 8.7)	8.0 (-22.0 to 34.7)
Western sub-Saharan Africa	16 911 (14 329 to 20 729)	10.2 (8.6 to 12.4)	-14.4 (-26.5 to 3.3)
Benin	411 (330 to 501)	9.7 (7.9 to 11.8)	-19.0 (-34.7 to 0.9)
Burkina Faso	1 249 (1 081 to 1 438)	15.7 (13.8 to 17.7)	-12.7 (-25.9 to 6.1)
Cameroon	1 164 (933 to 1 429)	11.8 (9.6 to 14.5)	-18.0 (-34.4 to 1.4)
Cape Verde	11 (9 to 13)	2.2 (1.9 to 2.7)	-35.1 (-48.2 to -17.3)
Chad	592 (452 to 792)	11.0 (8.1 to 15.2)	-1.9 (-20.0 to 23.4)
Cote d'Ivoire	984 (792 to 1 248)	11.3 (9.1 to 14.2)	-12.9 (-31.6 to 8.9)
The Gambia	129 (106 to 155)	15.4 (12.9 to 18.3)	-2.4 (-27.5 to 23.0)
Ghana	1 865 (1 580 to 2 141)	15.0 (12.9 to 17.2)	14.0 (-10.8 to 49.6)
Guinea	554 (461 to 661)	11.0 (9.1 to 13.1)	-9.3 (-32.1 to 17.3)
Guinea-Bissau	68 (55 to 89)	11.2 (9.4 to 13.8)	-24.5 (-39.5 to -5.3)
Liberia	152 (115 to 193)	8.9 (6.9 to 11.0)	-26.6 (-41.4 to -5.8)
Mali	709 (546 to 977)	9.1 (7.0 to 12.8)	-22.8 (-36.6 to -2.2)
Mauritania	156 (121 to 206)	8.8 (7.0 to 11.5)	-23.6 (-39.6 to -1.0)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Niger	599 (430 to 884)	9.1 (6.4 to 13.7)	-22.5 (-36.3 to -3.1)
Nigeria	7 018 (5 103 to 9 772)	8.7 (6.3 to 12.1)	-21.2 (-41.4 to 7.2)
Sao Tome and Principe	14 (10 to 19)	13.4 (8.6 to 18.8)	9.9 (-23.5 to 49.1)
Senegal	662 (518 to 805)	10.3 (8.3 to 12.3)	-14.1 (-28.4 to 5.1)
Sierra Leone	323 (264 to 400)	10.5 (8.7 to 12.8)	-10.9 (-30.5 to 13.9)
Togo	252 (204 to 316)	9.3 (7.7 to 11.2)	-20.9 (-37.9 to -0.3)

Table 3 YLLs, YLDs, and DALYs for 2017 and percentage change of age-standardized rates between 1990 and 2017 by location for falls

Location	YLL (95% UI)				YLD (95% UI)				DALY (95% UI)			
	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017
Global	16 688 088	217	15.7	19 252 699	243	9.3	35 940 787	459	15.8	50 929 476	618	18.9
Low SDI	(15 101 897 to 17 336 830)	(136 to 229)	(31.7 to 4.3)	(13 725 429 to 16 400 433)	(173 to 230)	(10.7 to 7.9)	(30 185 695 to 42 903 289)	459	15.8	(47 404 566)	618	18.9
Low-middle SDI	(2 776 545 to 3 10 498)	(295 to 353)	(29.5 to 1.7)	(2 337 007 to 2 886 036)	(125 to 247)	(7.6 to 12.1)	(4 178 155 to 5 354 911)	202	7.2	(4 648 557)	272	8.2
High-middle SDI	(4 047 237 to 5 182 512)	(95 to 247)	(18.4 to 6.6)	(2 283 322 to 3 338 877)	(109 to 193)	(16.1 to 26.7)	(6 733 895 to 9 216 910)	459	15.8	(13 170 428)	618	18.9
High SDI	(1 884 181 to 1 989 251)	(100 to 106)	(31.5 to 17.3)	(8 240 390 to 9 250 655)	(296 to 376)	(9.6 to 6.9)	(6 780 205 to 11 772 346)	459	15.8	(13 170 428)	618	18.9
Central Europe, Eastern Europe, and Central Asia	(928 580 to 997 962)	(189 to 204)	(31.1 to 25.8)	(8 240 390 to 9 250 655)	(296 to 376)	(9.6 to 6.9)	(6 780 205 to 11 772 346)	459	15.8	(13 170 428)	618	18.9
Central Asia	(113 988 to 134 465)	(26 to 149)	(60.2 to 40.3)	(299 878 to 574 794)	(379 to 658)	(4.2 to 9.2)	(417 543 to 695 466)	655	27.2	(675 to 922)	875	26.5 to 19.2
Armenia	276	69	-75.9	45 942	404	24.9	18 605	67	1.7	18 605	67	1.7
Azerbaijan	10 720	188	-45.0	45 942	404	24.9	18 605	67	1.7	18 605	67	1.7
Georgia	(8 267 to 16 408)	(84 to 160)	(59.6 to 12.8)	(35 164 to 68 858)	(333 to 646)	(10.2 to 2.3)	(45 580 to 78 483)	439	15.7	(44 830 to 75 7)	439	15.7
Kazakhstan	7014	164	40.2	21 028	442	26.9	28 042	606	27.1	31 607	677	27.1
Kyrgyzstan	(6 504 to 7513)	(10 to 127)	(45.2 to 32.2)	(14 874 to 26 703)	(312 to 604)	(22.6 to 18.7)	(21 907 to 35 656)	470	16.0	(40 750 to 765)	541	19.3 to 14.1
Tajikistan	(9 140 to 36 155)	(158 to 196)	(37.9 to 27.0)	(63 819 to 124 290)	(352 to 689)	(12.4 to 6.1)	(95 768 to 157 545)	541	19.3	(152 to 866)	541	19.3
Mongolia	(5 361 to 6 546)	(98 to 106)	(75.2 to 69.3)	(17 964 to 34 850)	(316 to 609)	(28.3 to 23.4)	(24 081 to 40 499)	564	24.4	(44 140 to 704)	564	24.4
Turkmenistan	(2 283 to 2 651)	(20 to 25)	(29.1 to 25.4)	(11 503 to 25 831)	(450 to 851)	(3.5 to 3.9)	(22 486 to 36 248)	712	24.8	(712 to 1158)	712	24.8
Uzbekistan	(16 810)	176	-39.7	39 965	397	17.0	56 775	704	24.2	70 400	875	24.2
Central Europe	(4 315 to 21 166)	(132 to 321)	(50.9 to 35.5)	(28 320 to 34 777)	(178 to 228)	(19.7 to 14.4)	(44 640 to 70 704)	541	19.3	(108 to 887)	541	19.3
Albania	(4 010 to 5 277)	(33 to 106)	(6.7 to 41.9)	(15 372 to 45 456)	(332 to 645)	(10.0 to 3.3)	(20 143 to 34 644)	442	16.3	(424 to 736)	442	16.3
Bosnia and Herzegovina	32 339	105	-93.4	15 920	453	4.8	14 649	54	0.8	14 649	54	0.8
Bulgaria	(28 580 to 36 336)	(93 to 119)	(59.6 to 46.5)	(44 945 to 185 084)	(320 to 621)	(11.9 to 5.4)	(62 724 to 217 536)	427	14.2	(42 724 to 217 536)	427	14.2
Croatia	249 888	179	-16.2	1 623 449	1 015	-10.6	1 891 234	1 174	-7.2	2 174 744	1 462	-10.6
Czech Republic	(1 605 to 2 623)	(54 to 85)	(33.4 to 0.0)	(1 145 319 to 2 456 574)	(713 to 1 405)	(14.3 to 8.6)	(1 413 944 to 2 688 615)	875	26.5	(875 to 1 462)	875	26.5
Hungary	2160	69	-15.7	30 503	632	8.1	32 663	965	5.9	32 663	965	5.9
Macedonia	(1 462 to 2 623)	(54 to 85)	(33.4 to 0.0)	(1 145 319 to 2 456 574)	(713 to 1 405)	(14.3 to 8.6)	(1 413 944 to 2 688 615)	875	26.5	(875 to 1 462)	875	26.5
Poland	2589	55	-49.9	40 939	513	8.4	43 527	968	6.8	46 944	1 008	6.8
Romania	(2 283 to 2 651)	(20 to 25)	(29.1 to 25.4)	(11 503 to 25 831)	(450 to 851)	(3.5 to 3.9)	(22 486 to 36 248)	712	24.8	(712 to 1158)	712	24.8
Slovakia	(1 884 181 to 1 989 251)	(100 to 106)	(31.5 to 17.3)	(8 240 390 to 9 250 655)	(296 to 376)	(9.6 to 6.9)	(6 780 205 to 11 772 346)	459	15.8	(13 170 428)	618	18.9
Slovenia	14 195	117	-2.3	51 864	578	7.8	56 600	951	1.0	60 810	1 010	1.0
Eastern Europe	(3 113 to 15 147)	(18 to 185)	(9.8 to 4.1)	(26 803 to 71 016)	(550 to 1 069)	(8.3 to 3.2)	(50 913 to 85 858)	732	23.6	(732 to 1 216)	732	23.6
Belarus	21 769	126	-67.7	177 369	1 192	4.2	199 139	1 318	-13.8	219 139	1 462	-13.8
Estonia	(20 110 to 21 408)	(116 to 130)	(7.0 to 6.4)	(173 350 to 248 115)	(843 to 1 455)	(4.6 to 2.4)	(146 807 to 205 547)	968	17.5	(968 to 1 770)	968	17.5
Lithuania	(26 210 to 29 231)	(161 to 161)	(14.1 to 14.8)	(200 120 to 200 260)	(1 212 to 1 422)	(22.1 to 16.3)	(1 301 172 to 227 092)	884	15.9	(884 to 1 578)	884	15.9
Moldova	1 983	19	-39.1	19 137	192	12.1	21 137	219	10.7	21 137	219	10.7
Russian Federation	(16 420 to 139)	(100 to 80)	(20.0 to 50.5)	(17 222 to 35 055)	(464 to 1 269)	(8.6 to 16.7)	(16 625 to 36 957)	718	14.3	(718 to 1 343)	718	14.3
Ukraine	60	0.7	-9.4	194	1.4	33.4	760	983	12.7	983	12.7	
High-income	(486 to 668)	(59 to 82)	(39.9 to 21.6)	(5 075 to 9 994)	(643 to 1 274)	(11.2 to 15.9)	(5 650 to 10 339)	707	14.6	(5 650 to 10 339)	707	14.6
Australia	105 048	34.6	-56.0	560 199	7.6	-10.9	665 246	1 239	-13.0	665 246	1 239	-13.0
Austria	(97 365 to 113 222)	(174 to 203)	(40.3 to 29.5)	(895 305 to 1 74 489)	(740 to 1 455)	(10.7 to 4.5)	(899 241 to 975 965)	929	14.1	(929 to 1 611)	929	14.1
Canada	46 311	150	-99.6	1 995	26.1	-1.5	3 117	54	0.8	3 117	54	0.8
Denmark	(43 140 to 49 665)	(188 to 193)	(53.5 to 48.4)	(186 496 to 367 238)	(881 to 1 350)	(28.9 to 23.4)	(23 675 to 412 957)	865	15.2	(865 to 1 528)	865	15.2
Finland	100 800	165	-106.7	1 065 677	16	-92.4	1 065 677	16	-92.4	1 065 677	16	-92.4
France	(8 785 to 12 181)	(66 to 92)	(75.0 to 147 982)	(262 to 1 261)	(642 to 1 744)	(10.8 to 17.4)	(85 851 to 159 741)	724	13.4	(724 to 1 354)	724	13.4
Germany	15 786	208	-46.5	77 917	1 069	-12.2	93 709	1 277	-20.5	1 277	-20.5	
Italy	(2 875 to 18 267)	(55 to 125)	(55.9 to 105.4)	(55 199 to 108 045)	(753 to 1 480)	(14.4 to 12.0)	(70 102 to 124 080)	892	16.0	(892 to 1 650)	892	16.0
Japan	6895	182	-45.1	39 828	1 279	3.9	46 724	1 461	6.5	46 724	1 461	6.5
Netherlands	(6 311 to 6 444)	(10 to 136)	(50.0 to 40.1)	(23 310 to 48 481)	(908 to 1 788)	(13.6 to 6.1)	(35 179 to 61 455)	1 088	14.8	(1 088 to 1 948)	1 088	14.8
Sweden	5915	214	-24.4	1 981 984	738	-2.4	2 457 071	964	-10.7	2 457 071	964	-10.7
Switzerland	(549 117 to 596 079)	(230 to 240)	(12.6 to 8.3)	(2 388 110 to 2 749 579)	(514 to 1 013)	(5.2 to 6.0)	(1 966 184 to 3 16 952)	(747 to 1 245)	(6.4 to 2.2)	(747 to 1 245)	(6.4 to 2.2)	
Belgium	21 617	75	-11.4	1 981 984	738	-2.4	2 457 071	964	-10.7	2 457 071	964	-10.7
Denmark	(2 749 to 4 297)	(27 to 295)	(21.5 to 1.1)	(66 861 to 131 733)	(533 to 1 047)	(7.5 to 2.4)	(88 270 to 162 801)	80	0.9	(80 to 1 311)	80	0.9
Estonia	2975	173	-59.3	13 355	734	20.9	16 310	907	37.9	16 310	907	37.9
Finland	(2 517 to 4 481)	(45 to 141)	(45.0 to 22.0)	(15 161 to 21 016)	(516 to 1 016)	(23.1 to 18.5)	(22 310 to 31 395)	618	18.9	(618 to 1 387)	618	18.9
France	6 029	228	-52.8	20 854	23.6	-28.3	26 883	981	-33.2	26 883	981	-33.2
Germany	(1 100 to 8 893)	(136 to 262)	(43.4 to 45.8)	(14 724 to 28 890)	(327 to 1 046)	(26.0 to 21.2)	(20 778 to 34 581)	758	14.0	(758 to 1 260)	758	14.0
Italy	11 582	218	-31.2	31 622	385	8.5	34 946	424	10.8	34 946	424	10.8
Lithuania	(10 646 to 12 561)	(48 to 314)	(38.9 to 28.4)	(23 882 to 46 493)	(168 to 1 201)	(12.7 to 7.8)	(35 135 to 57 887)	865	15.2	(865 to 1 402)	865	15.2
Moldova	745	33	-65.3	30 864	367	10.9	30 864	367	10.9	30 864	367	10.9
Russian Federation	(1 220 to 8 592)	(159 to 385)	(56.4 to 47.8)	(75 506 to 147 982)	(642 to 1 261)	(10.8 to 17.4)	(85 851 to 159 741)	724	13.4	(724 to 1 354)	724	13.4
Ukraine	199 675	229	-6.6	1 375 571	1 069	-12.2	1 465 677	1 277	-20.5	1 465 677	1 277	-20.5
High-income North America	(278 231 to 405 484)	(202 to 265)	(17.6 to 24.1)	(2 065 500 to 6 065 677)	(5 190 to 10 323)	(10.2 to 5.1)	(3 360 to 6 227 059)	718	14.3	(718 to 1 232)	718	14.3
Australia	112 893	235	-42.2	412 760	705	-13.0	534 635	1 040	-16.1	534 635	1 040	-16.1
Canada	(112 893 to 132 443)	(174 to 256)	(30.8 to 16.9)	(289 243 to 575 717)	(495 to 979)	(15.6 to 10.5)	(408 488 to 698 091)	718	14.3	(718 to 1 216)	718	14.3
Europe	1 905 180	86	-84.0	3 840 893	272	-23.9	5 946 234	479	-19.2	5 946 234	479	-19.2
Australia	(1 655 481 to 1 749 551)	(20 to 240)	(12.6 to 8.3)	(2 388 110 to 2 749 579)	(514 to 1 013)	(5.2 to 6.0)	(1 966 184 to 3 16 952)	(747 to 1 245)	(6.4 to 2.2)	(747 to 1 245)	(6.4 to 2.2)	
Austria	21 617	75	-11.4	1 981 984	738	-2.4	2 457 071	964	-10.7	2 457 071	964	-10.7
Belgium	(2 749 to 4 297)	(27 to 295)	(21.5 to 1.1)	(66 861 to 131 733)	(533 to 1 047)	(7.5 to 2.4)	(88 270 to 162 801)	80	0.9	(80 to 1 311)	80	0.9
Denmark	2975	173	-59.3	13 355	734	20.9	16 310	907	37.9	16 310	907	37.9
Finland	(2 517 to 4 481)	(45 to 141)	(45.0 to 22.0)	(15 161 to 21 016)	(516 to 1 016)	(23.1 to 18.5)	(22 310 to 31 395)	618	18.9	(618 to 1 387)	618	18.9
France	6 02											

Location	YLLs (95% UI)			YLDs (95% UI)			DALYs (95% UI)		
	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017
United Kingdom	99 475	91	6.6	358 687	286	16.1	458 163	497	11.1
Latin America and Caribbean	831 990	189 to 931	(2.2 to 4.4)	2 546 001 to 4 055 507	206 to 561	(14.6 to 17.4)	3 378 to 5 093 849	357	(2.7 to 12.6)
Andean Latin America	73 666	(805 313 to 853 332)	(4.0 to 14.8)	(33 910 to 29 519)	(893 099 to 1 558 044)	(51.1 to 23.3)	(1 728 233 to 2 486 729)	(298 to 427)	(14.2 to 5.0)
Bolivia	15 971	157	-32.0	16 734	171	3.7	32 705	328	-17.1
Ecuador	28 705	179	-24.9	29 188	186	5.5	57 893	365	-15.7
Peru	29 932	(25 462 to 32 280)	(5.9 to 20.1)	(33 310 to 15 319)	(20 843 to 9 978)	(13.3 to 25.6)	(18 900 to 68 161)	(308 to 431)	(12.1 to 9.9)
Caribbean	41	148	7.3	43 024	140	22.1	143 984	291	(15.8 to 14.7)
Antigua and Barbuda	62	45	1.6	135	28.9	1.7	181	22.2	0.4
Bahamas	187	45	2.7	543	127	37.4	720	211	(18.4 to 27.6)
Barbados	(17 116 to 205)	(41 to 50)	(7.6 to 13.7)	(86 to 744)	(7 to 187)	(23.5 to 33.6)	(570 to 932)	(143 to 233)	(15.3 to 26.5)
Belize	(28 to 40)	(92 to 107)	(6.9 to 36.1)	(36 to 241)	(6 to 285)	(23.0 to 33.6)	(13 to 227)	(18 to 231)	(18.4 to 27.6)
Bermuda	54	52	-28.6	143	144	18.7	197	197	0.9
Cuba	(29 529 to 36 385)	61	45.8	(20 550 to 10 057)	(226 to 246)	(14.3 to 21.5)	(52 440 to 73 158)	(308 to 434)	(5.3 to 17.0)
Dominica	(6 to 69)	(73 to 88)	(0.0 to 63.0)	(84 to 161)	(101 to 197)	(14.6 to 23.3)	(146 to 233)	(181 to 274)	(84.1 to 47.1)
Dominican Republic	(8 290 to 6 184)	(39 to 62)	(4.1 to 10.9)	(10 400 to 19 876)	(104 to 199)	(15.9 to 29.9)	(14 921 to 24 537)	(150 to 246)	(13.2 to 16.5)
Grenada	125	90	-10.4	208	156	29.6	332	245	(11.4 to 14.4)
Guyana	1 099	166	1.9	1 140	169	2.6	2 240	335	10.9
Haiti	(90 to 26)	(44 to 188)	(17.4 to 7.3)	(817 to 1 311)	(37 to 276)	(23.7 to 12.8)	(1 860 to 2 639)	(281 to 395)	(15.9 to 19.7)
Jamaica	1 549	118	-27.4	1 346	150	24.1	2 415	201	7.3
Puerto Rico	5 173	96	0.2	9 617	172	29.9	14 890	269	17.4
Saint Lucia	(4 850 to 5 746)	(89 to 103)	(8.9 to 10.3)	(6 748 to 2 265)	(121 to 239)	(26.3 to 35.6)	(12 071 to 18 427)	(272 to 334)	(18.1 to 24.0)
Saint Vincent and the Grenadines	166	130	3.1	141	265	20.5	406	259	(8.8 to 20.4)
Suriname	599	10	7.5	1 460	160	30.8	1 539	200	20.0
Trinidad and Tobago	1 492	99	-15.7	2 512	200	18.1	4 003	252	10.4
Virgin Islands	(1 210 to 1 624)	(80 to 120)	(13.1 to 1.7)	(1 781 to 1 411)	(109 to 208)	(14.0 to 23.1)	(3 124 to 4 945)	(202 to 310)	(7.5 to 11.3)
Central Latin America	111 994	(84 to 111)	(14.2 to 9.3)	(151 to 795)	(101 to 202)	(14.3 to 24.6)	(793 to 451)	(197 to 310)	(6.2 to 21.0)
Colombia	(43 932 to 37 977)	(81 to 111)	(4.5 to 8.3)	432 429	178	2.4	744 415	386	(43.1 to 28.4)
Costa Rica	5 817	118	-23.0	6 682	136	2.5	12 499	254	-11.2
El Salvador	(6 120 to 8 961)	(104 to 120)	(3.2 to 16.7)	(6 899 to 1 004)	(96 to 186)	(3.8 to 7.1)	(10 281 to 18 874)	(209 to 302)	(11.9 to 6.2)
Guatemala	25 385	187	-24.9	18 652	142	1.0	34 512	242	(22.0 to 17.2)
Honduras	5 772	143	-47.2	2 750	228	3.8	445 752	309	-19.8
Mexico	(162 370 to 178 651)	(33 to 148)	(51.6 to 45.3)	(195 339 to 363 744)	(162 to 202)	(6.8 to 10.2)	(369 900 to 534 652)	(308 to 440)	(29.8 to 9.8)
Nicaragua	5 028	105	-1.0	3 964	142	4.1	11 770	210	14.7
Panama	(4 176 to 5 871)	(81 to 110)	(4.1 to 16.2)	(4 828 to 9 082)	(80 to 169)	(6.0 to 9.1)	(8 661 to 14 209)	(181 to 266)	(21.8 to 6.4)
Venezuela	(2 7 001 to 3 235)	(23 to 25)	(2.3 to 2.5)	(2 828 to 1 748)	(27 to 286)	(13.1 to 4.7)	(5 803 to 8 477)	(108 to 295)	(43.1 to 4.4)
Tropical Latin America	384 951	170	-23.2	633 580	332	1 018 530	440	308	4.0
Brazil	(369 450 to 395 868)	(163 to 174)	(2.7 to 20.2)	(457 986 to 844 999)	(195 to 361)	(28 to 38.5)	(845 849 to 1 226 178)	(366 to 528)	(2.0 to 6.8)
Paraguay	6 199	111	23.6	459 786	459	27.4	899 144	272	44.1
North Africa and Middle East	845 178	155	-28.4	891 722	164	-11.6	1 736 900	315	-21.1
Algeria	(1 272 to 620 930)	(30 to 155)	(44.1 to 2.6)	(831 423 to 228 846)	(117 to 224)	(5.2 to 6.0)	(1 448 630 to 2 074 624)	(282 to 376)	(28.7 to 5.5)
Bahrain	721	46	7.8	7 483	138	5.8	3 204	206	-14.3
Egypt	124 914	142	-26.4	122 849	149	20.1	247 765	291	-18.7
Iran	(92 504 to 136 122)	(104 to 180)	(41.7 to 1.0)	(86 980 to 367 786)	(106 to 203)	(4.4 to 5.1)	(136 727 to 300 405)	(228 to 354)	(29.0 to 4.0)
Iraq	10 740 to 133 091	128	-29.5	139 110	168	7.8	235 844	292	14.8
Israel	(13 236 to 20 327)	(35 to 50)	(74.7 to 34.3)	(43 196 to 80 640)	(221 to 225)	(14.0 to 20.8)	(58 724 to 95 545)	(161 to 264)	(31.9 to 4.0)
Jordan	7870	79	43.4	12 727	131	20.9	20 597	219	-26.5
Kuwait	4 319	91	-28.8	7 644	8.7	11 962	219	-16.6	
Lebanon	4 896	(880 to 820)	(37.0 to 20.2)	(5 399 to 10 630)	(27 to 249)	(13.5 to 5.9)	(8 667 to 14 896)	(181 to 337)	(20.8 to 12.7)
Libya	(3 889 to 14 365)	(88 to 178)	(64.8 to 4.1)	(3 145 to 10 034)	(100 to 209)	(9.7 to 0.3)	(13 314 to 25 833)	(181 to 341)	(30.0 to 9.4)
Morocco	(6 104 to 13 107)	(95 to 137)	(50.4 to 10.3)	(7 350 to 14 027)	(112 to 171)	(8.7 to 8.8)	(2 424 to 24 681)	(141 to 48.8)	(14.1 to 8.8)
Palestine	46 783	197	-27.0	53 585	153	6.3	100 168	280	-14.4
Qatar	(5 523 to 6 032)	(104 to 116)	(10.4 to 11.4)	(8 169 to 21 167)	(108 to 208)	(10.2 to 2.1)	(9 711 to 133 893)	(161 to 351)	(16.1 to 11.1)
Oman	5 606	123	-36.9	6 143	139	1.3	11 749	282	-20.8
UAE	(8 670 to 2 122)	(81 to 120)	(42.5 to 18.8)	(4 386 to 13 354)	(134 to 217)	(3.8 to 14.4)	(9 238 to 16 630)	(202 to 350)	(13.6 to 7.0)
Saudi Arabia	1 911	314	-11.1	6 211	150	7.4	9 914	211	14.8
Sudan	(2 754 to 4 059)	(66 to 100)	(51.3 to 7.6)	(3 632 to 6 601)	(101 to 208)	(3.2 to 18.3)	(7 329 to 11 957)	(183 to 294)	(29.7 to 2.1)
Tunisia	913	123	-29.2	5 274	145	8.2	8 179	187	-18.7
Yemen	(1 933 to 1 482)	(81 to 161)	(54.2 to 10.2)	(6 181 to 7 343)	(336 to 367)	(5.7 to 8.7)	(6 461 to 12 031)	(2 438 to 4 008)	(33.9 to 21.2)
Saudi Arabia	71 193	237	-24.3	60 333	241	22.1	131 255	438	-23.3
Sudan	(50 230 to 85 524)	(56 to 234)	(45.7 to 39.7)	(42 538 to 102 407)	(403 to 778)	(26.2 to 17.8)	(100 977 to 166 670)	(250 to 549)	(43.1 to 30.2)
Syria	62 830	160	-31.7	55 604	181	-1.5	118 234	317	-38.5
Turkey	(45 545 to 85 170)	(18 to 316)	(55.9 to 15.9)	(40 799 to 37 076)	(34 to 235)	(5.6 to 2.4)	(92 316 to 148 713)	(267 to 422)	(38.5 to 6.4)
United Arab Emirates	10 615	65	-30.2	23 825	145	20.9	34 234	209	-20.2
Tunisia	(8 353 to 12 594)	(51 to 78)	(46.3 to 5.9)	(8 805 to 32 947)	(101 to 201)	(0.3 to 10.8)	(26 743 to 43 333)	(163 to 265)	(18.8 to 15.1)
Turkey	10 615	88	-21.1	18 078	108	9.1	236	236	-15.9
Turkey	(7 350 to 13 270)	(64 to 123)	(49.1 to 8.3)	(12 738 to 4 997)	(104 to 204)	(3.7 to 4.0)	(23 535 to 30 202)	(180 to 302)	(29.3 to 8.9)
Turkey	94 737	117	-55.4	130 952	151	31.5	235 889	268	-44.5
United Arab Emirates	(8 327 to 10 127)	(102 to 132)	(46.4 to 34.5)	(92 143 to 480)	(106 to 207)	(36.2 to 26.8)	(184 708 to 278 346)	(253 to 329)	(33.6 to 32.9)
Yemen	20 352	181	-25.5	21 344	197	-26.7	41 996	317	-16.1
Yemen	49 393	101	-25.7	83 924	159	21.5	121 455	323	-17.0
Yemen	(0 686 to 64 606)	(12 to 226)	(51.8 to 59.4)	(26 034 to 48 122)	(136 to 213)	(9.2 to 10.8)	(61 017 to 105 070)	(245 to 409)	(37.2 to 17.3)
East Asia	6 234 779	436	-12.4	2 909 997	191	21.3	9 155 776	627	-4.3
South Asia	(6 691 008 to 6 877 136)	(40 to 482)	(24.8 to 8.9)	(2 112 282 to 879 064)	(138 to 254)	(18.0 to 26.7)	(8 198 592 to 10 227 269)	(564 to 696)	(16.6 to 9.9)
Bangladesh	190 047	138	-10.4	203 154	143	21.8	393 201	218	-11.0
Bhutan	(140 862 to 246 333)	(108 to 173)	(56.8 to 10.2)	(145 158 to 273 854)	(102 to 192)	(15.2 to 28.3)	(312 564 to 487 421)	(228 to 435)	(33.8 to 16.9)
India	1 686 634 473	(246 to 469)	(49.2 to 1.5)	(1 011 to 1 874)	(228 to 237)	(6.7 to 1.7)	(3 021 to 5 083)	(414 to 663)	(37.0 to 14.4)
Indonesia	5 614 927	13.8	-3.8	2 409 399	598	2.8	9 000 336	698	6.1
Nepal	(5 153 572 to 6 300 884)	(460 to 850)	(12.0 to 1.4)	(1 739 948 to 1 395 447)	(144 to 264)	(16.7 to 23.0)	(7 216 848 to 1 148)	(66 826 to 775)	(16.4 to 4.3)
Nepal	72 434	311	-24.0	38 708	106	6.6	109 142	458	-16.3
Nepal	(2 321 to 79 796)	(23 to 100)	(41.9 to 10.8)	(26 205 to 10 047)	(106 to 197)	(6.6 to 10.1)	(85 648 to 135 751)	(364 to 560)	(30.8 to 16.3)
Pakistan	154 844	207	-24.3	274 338	317	31.7	629 182	386	-10.3
Pakistan	(21 212 to 64 133)	(36 to 266)	(28.1 to 27.2)	(98 293 to 165 294)	(225 to 330)	(27.5 to 36.1)	(487 063 to 762 988)	(286 to 459)	(34.0 to 29.2)
Southeast Asia, East Asia, and Oceania	4 820 931	211	-21.5	3 126 780	123	12.8	9 924 321	334	-11.4
China	(8 888 521 to 5 229 627)	(72 to 222)	(45.0 to 6.3)	(2 197 891 to 2 255 206)	(87 to 188)	(44.6 to 63.6)	(6 522 685 to 9 277 614)	(2 781 to 387)	(25.8 to 10.7)
East Asia	1 897 124	76	-38.8	2 807 526	152	67.4	2 044 600	381	-47.2
China	(2 502 452 to 3 785 673)	(137 to 237)	(49.2 to 27.7)	(5 188 187 to 1 858 130)	(180 to 299)	(38.9 to 77.7)	(4 841 132 to 7 441 190)	(2 874 to 430)	(34.0 to 18.2)
China	3 238 257	209	-18.9	2 696 044	154	67.6	5 934 301	363	-3.8
North Korea	(2 366 240 to 1 628 518)	(137 to 224)	(50.1 to 2.3)	(5 905 183 to 703 498)	(109 to 211)	(67.1 to 78.5)	(4 623 848 to 1 121 496)	(2 880 431)	(25.6 to 38.6)
Taiwan (Province of China)	96 589	21.0	-21.8	31 885	107	71.5	88 824	202	-20.2
Taiwan (Province of China)	(42 972 to 75 235)	(83 to 285)	(12.8 to 37.0)	(22 859 to 32 323)	(76 to 144)	(66.3 to 81.1)	(71 086 to 131 187)	(261 to 405	

Location	YLLs (95% U)			YLDs (95% U)			DALYs (95% U)		
	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017	2017 counts	2017 age-standardized rates per 100,000	Percentage change in age-standardized rates between 1990 and 2017
Marshall Islands	80 (58 to 106)	178 (133 to 229)	14.4 (15.6 to 48.5)	39 (28 to 52)	81 (58 to 109)	87.1 (78.2 to 95.2)	119 (93 to 149)	259 (205 to 320)	80.3 (7.8 to 56.8)
Northern Mariana Islands	48 (39 to 56)	107 (87 to 123)	5.8 (28.0 to 31.0)	44 (29 to 58)	90 (56 to 132)	45.8 (39.4 to 51.7)	96 (74 to 108)	187 (156 to 223)	23.3 (7.6 to 36.3)
Papua New Guinea	255 (805 to 222 111)	157 (130 to 179)	15.5 (21.1 to 48.9)	255 (203 to 278)	790 (420 to 778)	7.90 (8.7 to 10.3)	2092 (1415 to 2842)	235 (192 to 363)	41.8 (5.5 to 58.9)
Samoa	189 (136 to 248)	117 (85 to 152)	6.3 (23.0 to 40.3)	145 (104 to 195)	365 (263 to 481)	145 (104 to 195)	334 (207 to 474)	204 (100 to 350)	29.1 (0.9 to 51.5)
Solomon Islands	4077 (3 184 to 4 903)	833 (600 to 973)	-15.8 (33.8 to 6.2)	75 (55 to 1 003)	162 (117 to 213)	77.2 (31.1 to 37.7)	157 (403 to 5 653)	256 (843 to 1 131)	-10.3 (27.4 to 9.7)
Tonga	96 (70 to 96)	158 (103 to 213)	17.5 (27.1 to 21.7)	118 (75 to 177)	192 (150 to 234)	91.4 (83 to 98.2)	587 (440 to 760)	250 (195 to 323)	40.6 (7.7 to 74.0)
Vanuatu	96 (70 to 96)	158 (103 to 213)	17.5 (27.1 to 21.7)	118 (75 to 177)	192 (150 to 234)	91.4 (83 to 98.2)	587 (440 to 760)	250 (195 to 323)	40.6 (7.7 to 74.0)
Southeast Asia	1 400 902 (1 309 922 to 1 562 321)	232 (217 to 253)	-29.9 (49.2 to 44.9)	287 499 (208 176 to 385 489)	45 (32 to 60)	1.8 (2.4 to 6.2)	1 688 594 (1 565 442 to 1 866 980)	277 (207 to 392)	-36.2 (43.0 to 23.6)
Cambodia	50 273 (42 496 to 60 195)	183 (150 to 219)	-15.7 (6.0 to 11.7)	2 257 (6 021 to 11 051)	40 (44 to 80)	36.0 (31.2 to 40.8)	58 229 (50 520 to 68 410)	433 (386 to 512)	-11.1 (-29.5 to 14.0)
Indonesia	509 815 (471 215 to 582 918)	259 (217 to 259)	-42.9 (51.5 to -26.8)	60 103 (63 399 to 114 956)	35 (26 to 47)	33.2 (35.4 to 31.3)	595 318 (547 572 to 668 297)	268 (248 to 295)	-41.8 (-49.6 to -27.9)
Laos	15 697 (10 729 to 18 642)	239 (139 to 320)	15.9 (43.4 to 27.9)	2 992 (1 678 to 4 000)	59 (38 to 89)	30.9 (44.7 to 56.8)	18 600 (13 602 to 21 769)	311 (242 to 374)	-5.8 (-36.5 to 30.9)
Malaysia	21 467 (16 885 to 25 363)	79 (62 to 92)	-24.4 (50.6 to 0)	12 333 (8 789 to 19 533)	12 (9 to 17)	43.9 (34.8 to 52.6)	33 800 (28 130 to 39 558)	121 (101 to 140)	9.5 (-24.9 to 15.8)
Maldives	450 (349 to 520)	111 (87 to 124)	-11.1 (47.5 to -16.0)	50 (28 to 249)	43 (30 to 59)	7.4 (0.1 to 14.9)	590 (505 to 706)	153 (134 to 176)	-43.2 (-69.5 to -10.8)
Mauritius	2 039 (1 825 to 2 256)	209 (150 to 254)	-28.6 (3.0 to 44.4)	700 (496 to 951)	700 (32 to 63)	7.0 (7.1 to 50.6)	2 729 (2 450 to 3 050)	185 (166 to 206)	-15.6 (-39.6 to 44.7)
Myanmar	43 (10 624 to 608)	43 (16 to 19)	-42.4 (44.4 to 4.1)	43 (22 to 40 833)	43 (44 to 31)	43 (22 to 32.4)	43 (201 to 123 562)	43 (43 to 562)	48.1 (39.7 to 67.4)
Philippines	1 382 111 (1 213 329 to 1 527 901)	211 (171 to 253)	-11.1 (8.8 to 18.9)	11 711 (9 269 to 15 129)	29 (29 to 29)	11.1 (9.6 to 12.9)	1 735 111 (1 562 329 to 1 987 222)	156 (175 to 141)	-48.7 (-116.5 to 20.0)
Sri Lanka	52 358 (41 342 to 64 745)	231 (184 to 283)	-36.4 (-18.7 to 1.7)	11 711 (9 269 to 15 129)	29 (29 to 29)	11.1 (9.6 to 12.9)	64 069 (52 641 to 77 381)	110 (120 to 137)	-11.0 (-30.8 to 7.9)
Seychelles	191 (157 to 219)	231 (184 to 283)	-36.4 (-18.7 to 1.7)	11 711 (9 269 to 15 129)	29 (29 to 29)	11.1 (9.6 to 12.9)	245 (208 to 279)	230 (191 to 254)	-15.4 (-43.7 to 14.5)
Thailand	100 080 (85 240 to 122 175)	113 (85 to 122)	-42.2 (54.3 to 14.2)	4 272 (2 718 to 6 266)	31 (31 to 31)	44.0 (7.4 to 21.0)	144 339 (120 699 to 166 601)	115 (141 to 193)	-3.5 (-47.3 to 40.3)
Timor-Leste	2 166 (1 402 to 2 909)	205 (140 to 257)	-3.1 (37.2 to 37.5)	499 (363 to 671)	50 (37 to 67)	56.7 (49.2 to 64.2)	2 666 (1 806 to 3 206)	256 (180 to 307)	-3.9 (-28.3 to 20.5)
Vietnam	299 251 (254 572 to 352 194)	327 (282 to 381)	-8.2 (27.1 to 20.9)	57 685 (40 942 to 78 882)	57 (42 to 81)	32.1 (24.9 to 39.5)	356 935 (308 271 to 412 763)	317 (338 to 445)	-3.7 (-43.3 to 35.9)
Sub-Saharan Africa	1 283 900 (1 143 167 to 1 528 381)	189 (159 to 219)	-49.0 (29.2 to -4.4)	1 239 391 (893 400 to 1 641 170)	189 (134 to 245)	-5.0 (4.3 to -1.1)	1 528 381 (1 234 544 to 1 937 994)	244 (136 to 436)	-33.4 (-18.4 to -2.2)
Central sub-Saharan Africa	99 455 to 208 538	139 699 (109 455 to 179 944)	-30.7 to 22.4	129 391 (89 308 to 170 291)	189 (134 to 245)	-5.0 (4.3 to -1.1)	1 528 381 (1 234 544 to 1 937 994)	244 (136 to 436)	-33.4 (-18.4 to -2.2)
Angola	34 760 (26 802 to 50 985)	189 (159 to 219)	-23.9 (-46.4 to 19.0)	29 496 (21 810 to 38 607)	189 (134 to 245)	-3.8 (4.6 to 1.5)	42 516 (31 802 to 49 021)	376 (300 to 450)	-15.1 (-31.2 to 10.6)
Central African Republic	6 186 (4 745 to 12 051)	361 (311 to 361)	11.4 (-11.7 to 6.7)	114 (117 to 120)	189 (134 to 245)	11.4 (8.0 to 14.3)	11 110 (9 580 to 12 407)	351 (310 to 476)	5.4 (-14.1 to 17.6)
Congo (Brazzaville)	8 834 (8 836 to 0 027)	111 (12 to 263)	-22.7 (43.2 to 6.6)	111 (63 to 7956)	111 (123 to 228)	-2.2 (5.0 to 6.6)	111 (0 011 to 15 279)	111 (264 to 439)	-11.0 (-27.2 to 5.2)
DR Congo	82 345 (54 823 to 138 278)	261 (109 to 211)	-11.4 (-30.0 to 17.1)	114 (109 to 211)	111 (113 to 113)	11.4 (21 769 to 0)	166 318 (128 200 to 224 729)	300 (238 to 388)	-17.0 (-42.0 to 7.2)
Equatorial Guinea	1 196 (702 to 0 011)	109 (93 to 126)	-13.9 (-62.3 to 18.6)	1 264 (910 to 1 705)	189 (134 to 245)	6.6 (1.4 to 7.1)	2 460 (8 842 to 2 253)	316 (272 to 410)	-15.3 (-39.3 to 11.6)
Gabon	2 158 (1 550 to 3 450)	211 (133 to 257)	-21.1 (-43.4 to 0.6)	211 (729 to 2 201)	189 (134 to 245)	-3.4 (-15.6 to 10.9)	4 992 (3 607 to 5 872)	356 (283 to 466)	-25.6 (-29.6 to -2.1)
Eastern sub-Saharan Africa	544 844 (479 936 to 600 996)	237 (206 to 251)	-20.6 (33.7 to 6.6)	586 065 (426 189 to 772 264)	237 (176 to 319)	-24.1 (4.8 to 2.1)	600 996 (539 862 to 732 942)	241 (198 to 552)	-40.8 (-19.1 to 0.9)
Burundi	13 690 (10 622 to 17 492)	225 (180 to 211)	-30.2 (-18.0 to -2.1)	15 009 (10 788 to 19 921)	189 (134 to 245)	-7.3 (9.0 to 4.8)	28 699 (23 307 to 38 895)	447 (364 to 538)	-20.4 (-40.4 to 9.9)
Comoros	920 (718 to 1 225)	177 (142 to 234)	-27.3 (-41.9 to -4.2)	1 330 (866 to 1 760)	189 (170 to 311)	2.0 (-11.2 to 6.5)	2 350 (8 842 to 2 253)	212 (316 to 495)	-17.8 (-26.0 to -8.8)
Djibouti	1 100 (912 to 1 941)	187 (135 to 263)	-11.4 (-43.9 to 4.4)	1 100 (632 to 1 657)	189 (176 to 322)	-10.1 (-12.6 to -7.6)	3 814 (2 616 to 2 204)	429 (340 to 531)	-15.4 (-27.7 to 0.2)
Eritrea	7 993 (5 855 to 11 123)	237 (171 to 311)	-20.6 (-40.3 to 16.6)	8 865 (6 359 to 11 596)	237 (160 to 307)	-6.1 (-2.5 to 2.2)	16 767 (13 325 to 20 375)	463 (370 to 560)	-10.7 (-24.8 to 10.5)
Ethiopia	144 032 (120 363 to 169 974)	237 (180 to 263)	-18.4 (-18.0 to 1.5)	1 100 (704 to 1 655)	189 (160 to 301)	-2.8 (-6.9 to 9.3)	2 833 (2 325 to 3 372)	466 (388 to 551)	-21.7 (-41.8 to 9.9)
Kenya	63 203 (52 216 to 76 541)	230 (205 to 270)	-7.2 (-34.4 to 15.3)	79 950 (70 610 to 128 483)	189 (219 to 372)	8.5 (6.1 to 10.8)	160 153 (132 600 to 193 453)	528 (440 to 630)	-10.4 (-31.0 to 11.0)
Madagascar	25 864 (19 626 to 34 321)	166 (139 to 215)	-29.8 (-43.5 to 8.6)	368 (277 879 to 439)	189 (166 to 305)	5.2 (8.0 to 2.8)	542 (5 836 to 79 093)	396 (317 to 480)	-18.1 (-25.1 to -7.2)
Malawi	27 399 (23 145 to 33 643)	237 (115 to 298)	-13.8 (-34.3 to 47.8)	237 (134 to 32 946)	237 (161 to 294)	-2.8 (-3.6 to 1.8)	439 (44 049 to 62 316)	439 (402 to 556)	-15.6 (-21.9 to 10.2)
Mozambique	57 374 (37 530 to 64 515)	305 (236 to 303)	8.0 (-26.6 to 11.4)	41 339 (29 632 to 8 899)	237 (171 to 314)	9.9 (4.1 to 10.7)	542 (74 329 to 113 460)	542 (633 to 653)	-20.4 (-37.4 to 8.4)
Rwanda	15 256 (11 881 to 20 085)	200 (160 to 255)	-36.8 (-53.5 to -7.7)	18 739 (13 624 to 23 032)	237 (163 to 298)	-9.9 (-12.1 to 7.8)	224 (27 221 to 41 451)	424 (530 to 510)	-24.9 (-36.1 to 8.5)
Somalia	186 610 (127 456 to 267 946)	193 (142 to 263)	-24.0 (-39.1 to 10.4)	24 328 (17 775 to 19 959)	237 (200 to 298)	9.2 (6.1 to 14.1)	427 (37 286 to 53 297)	427 (335 to 525)	-15.9 (-24.0 to 5.1)
South Sudan	20 896 (9 337 to 17 194)	237 (154 to 278)	-20.6 (-34.4 to 42.2)	20 896 (10 530 to 19 244)	237 (276 to 319)	2.6 (0.9 to 5.7)	21 (21 626 to 33 147)	241 (356 to 548)	-17.0 (-38.8 to 11.5)
Tanzania	86 274 (77 835 to 109 749)	227 (187 to 263)	-12.0 (-18.0 to 3.3)	83 589 (60 134 to 113 655)	237 (176 to 322)	0.2 (-2.3 to 2.2)	169 842 (141 550 to 203 729)	470 (395 to 555)	-7.0 (-14.6 to 10.8)
Uganda	36 951 (27 835 to 47 700)	169 (130 to 210)	-12.7 (-19.9 to 17.1)	51 097 (37 014 to 68 263)	237 (162 to 296)	17.5 (14.7 to 20.5)	88 048 (70 556 to 107 418)	393 (317 to 476)	-2.3 (-14.1 to 17.5)
Zambia	27 600 (23 300 to 32 623)	211 (180 to 316)	-21.1 (-38.7 to 7.4)	211 (151 to 34 499)	189 (187 to 314)	21.1 (5.8 to 1.4)	525 (44 814 to 63 173)	325 (466 to 609)	-25.6 (-25.1 to 2.1)
Southern sub-Saharan Africa	461 757 (377 437 to 464 623)	189 (163 to 3.3)	-20.1 (61.7 to 3.3)	438 774 (313 107 to 559)	189 (104 to 157)	-20.6 (0.1 to 4.9)	509 509 (377 464 to 448 485)	388 (150 to 224)	-48.1 (-13.6 to 6.6)
Botswana	1 139 (822 to 1 536)	71 (56 to 77)	-26.8 (-66.8 to -7.7)	2 140 (1 239 to 914)	189 (82 to 155)	4.6 (8.2 to 1.2)	3 269 (4 210 to 11 241)	185 (166 to 238)	-14.5 (-21.0 to 6.6)
Lesotho	1 586 (1 157 to 2 072)	114 (84 to 146)	-1.8 (-16.6 to 48.9)	1 831 (1 325 to 2 454)	189 (84 to 156)	7.6 (4.5 to 10.6)	3 429 (2 691 to 4 441)	52 (183 to 279)	-5.2 (-27.2 to 26.9)
Namibia	1 464 (1 163 to 1 805)	87 (73 to 107)	-21.6 (-17.8 to 0.4)	2 182 (1 578 to 2 955)	189 (166 to 160)	7.2 (-1.0 to 3.9)	3 956 (2 904 to 4 441)	206 (167 to 248)	-15.1 (-22.4 to 4.4)
South Africa	36 615 (22 281 to 29 949)	54 (47 to 62)	-24.6 (-35.8 to 11.6)	57 918 (41 363 to 78 786)	114 (82 to 154)	1.1 (-1.9 to 4.1)	39 594 (66 336 to 105 098)	124 (133 to 210)	-4.9 (-16.2 to 10.2)
Swaziland	723 (516 to 961)	99 (75 to 127)	-13.3 (-19.3 to 6.6)	951 (683 to 1 284)	189 (84 to 156)	2.1 (-5.4 to 9.9)	1 674 (1 317 to 2 041)	214 (172 to 258)	-7.7 (-27.1 to 10.7)
Zimbabwe	10 723 (7 873 to 13 723)	133 (93 to 160)	-13.3 (-23.9 to 47.6)	13 591 (9 533 to 18 302)	189 (166 to 177)	13.0 (10.1 to 16.2)	24 314 (19 417 to 29 220)	258 (207 to 306)	-11.1 (-16.1 to 28.7)
Western sub-Saharan Africa	294 795 (486 326 to 733 838)	199 (167 to 245)	-20.1 (31.1 to 2.9)	438 774					