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Morbidity and mortality from road injuries: results from the Global Burden of Disease Study 2017

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► Additional material is published online only. To view please visit the journal online (http://dx.doi.org/10.1136/injuryprev-2019-043302).

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Received 10 May 2019
Revised 29 July 2019
Accepted 30 July 2019
Published Online First 8 January 2020

Check for updates

To cite: James SL, Lucchesi LR, Bisignano C, *et al*. *Inj Prev* 2020;**26**:i46–i56.

ABSTRACT

Background The global burden of road injuries is known to follow complex geographical, temporal and demographic patterns. While health loss from road injuries is a major topic of global importance, there has been no recent comprehensive assessment that includes estimates for every age group, sex and country over recent years.

Methods We used results from the Global Burden of Disease (GBD) 2017 study to report incidence, prevalence, years lived with disability, deaths, years of life lost and disability-adjusted life years for all locations in the GBD 2017 hierarchy from 1990 to 2017 for road injuries. Second, we measured mortality-to-incidence ratios by location. Third, we assessed the distribution of the natures of injury (eg, traumatic brain injury) that result from each road injury.

Results Globally, 1 243 068 (95% uncertainty interval 1 191 889 to 1 276 940) people died from road injuries in 2017 out of 54 192 330 (47 381 583 to 61 645 891) new cases of road injuries. Age-standardised incidence rates of road injuries increased between 1990 and 2017, while mortality rates decreased. Regionally, age-standardised mortality rates decreased in all but two regions, South Asia and Southern Latin America, where rates did not change significantly. Nine of 21 GBD regions experienced significant increases in age-standardised incidence rates, while 10 experienced significant decreases and two experienced no significant change.

Conclusions While road injury mortality has improved in recent decades, there are worsening rates of incidence and significant geographical heterogeneity. These findings indicate that more research is needed to better understand how road injuries can be prevented.

INTRODUCTION

In the original 1971 formulation of the epidemiological transition, Abdel Omran suggested that a

country could be expected to pass through three phases of health loss patterns as its economy improved.[1] A country would experience, first, an 'age of pestilence and famine' and, second, an 'age of receding pandemics'. The third phase would include increased burden from 'degenerative and man-made diseases', a phase that in their 2002 review Salomon and Murray summarised as health loss from 'cancers, cardiovascular diseases, and accidents'.[2] This work on the epidemiological transition provides a starting point for reviewing the current global burden of road injuries and for investigating the relationship between road injuries and economic development. The burden of road injuries has become an area of particular focus across global forums in recent years. In March 2010, the United Nations (UN) General Assembly proclaimed 2011–2020 as the Decade of Action for Road Safety.[3] In 2015, the UN General Assembly established Sustainable Development Goal 3.6 as the target of reducing road traffic deaths and injuries by 50% by 2020.[4] More recently, the WHO published the Global Status Report on Road Safety 2018 and established focus on road safety goals with performance targets in the WHO's General Programme of Work 2019–2023.[5] Efforts such as Vision Zero have developed cross-setting efforts ranging from countries in Europe to states in India to cities in the USA to develop a road safety paradigm focused on reducing road injury burden to zero.[6] The European Transport Safety Council has developed evidence-based guidance on transport safety improvements in Europe, while the Insurance Institute for Highway Safety in the USA has conducted research on the science of highway safety and on safety profiles of different vehicles. Globally, the International Transport Forum has developed important resources to guide transport safety improvements on a global basis across multiple modes of transport. The complexity of road safety science has advanced such that entire textbooks now focus on the elements of road safety ranging from behavioural science to economic relationships.[7] Across these efforts, it is evident that it is now more critical than ever for legislative policymakers, ministries of health, transportation sectors, academic research groups and other agencies to work collaboratively with a Safe System paradigm on improving road safety.[8] Measurement of road injury burden is a critical component of advancing these initiatives.

Many other studies have measured road injury burden using different methods and data sources including updates to the Global Burden of Disease (GBD) Study, road safety reports by the WHO and reports or studies published by other groups.[9–12] While past research has been instrumental in advancing road safety initiatives, it is also important to produce regular updates of road injury burden estimates. Updates that include recent years are critical to ensuring that the effects of economic development, new policies and new safety technologies can be observed and discussed with minimal latency. Timeliness of updating road injury burden estimates helps ensure that policymakers and health resources researchers appropriately focus their efforts, and historically evidence-informed policies regarding road injuries have been impactful. For example, research on road injury burden in Iran in the early 2000s led to new policies being enacted to address the growing burden, while elsewhere in countries such as the USA and Australia, legislation focused on intoxicated driving, seatbelt requirements, speed controls and vehicle safety have likely contributed to decreasing mortality rates from road injuries in select areas.[13–16] In cases where road safety legislation has been passed, successful implementation of such policies is also critical, and it is also not clear the extent to which successful policy in one location can be equally successful elsewhere. Road injuries are a unique cause of morbidity and mortality on the global landscape because unlike diseases and injuries for which there may be considerable lag between burden measurement, policy implementation and burden improvement, road injury burden can change rapidly if measures such as seatbelt laws, intoxicated driving laws and infrastructure improvements are implemented.[17–20] Hence, it is important to continue regular updates of health assessments that measure morbidity and mortality from road injuries, as preventing and treating road injuries is of critical importance for sustainable improvements in population health outcomes and warrants detailed analysis to understand sociodemographic patterns as well as geographical trends over time.

The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) is a comprehensive assessment of health loss to measure morbidity and mortality from a wide array of diseases, injuries and risk factors.[11 12 21–24] The study involves a global network of over 3500 collaborators who provide broad expertise on diseases, injuries, risk factors and locations. The study is published on an annual basis, so estimates are frequently updated with new input data and methodological improvements. GBD 2017 was published in 2018 and included road injuries as one of 30 mutually exclusive, collectively exhaustive injury-related causes of death and disability. In the GBD, road injuries encompass injuries involving motor vehicles, pedestrians, motorcyclists and cyclists. GBD 2017 included estimates of road injury morbidity and mortality in terms of incidence, prevalence, years lived with disability (YLDs), cause-specific mortality, years of life lost (YLLs) and disability-adjusted life years (DALYs) for 195 countries and territories, all age groups and both sexes, for years between 1990 and 2017.

The objective of this paper is to use the GBD 2017 results and framework to provide an updated assessment of the global burden of road injuries and to identify trends and patterns that may be useful by policymakers, organisations and the private sector for preventing future road injury burden.

METHODS

GBD 2017

GBD 2017 methods and results are described in extensive detail in GBD literature, including descriptions of the analytical estimation framework used to measure deaths, YLLs, incidence, prevalence, YLDs and DALYs for every cause in GBD including injuries.[11 12 21–24] A review of key GBD methods is summarised in online supplementary appendix 1. The methodological components specific to injuries and road injuries estimation within the GBD framework are as follows. All key analytical steps are conducted across 1000 draws, and the ordered 25th and 975th values of the final estimates are used to determine the 95% uncertainty interval (UI).

GBD injury classification

Our case definition for a road injury is 'interaction, as a pedestrian on the road, with an automobile, motorcycle, pedal cycle, or other vehicles resulting in bodily damage or death'. The GBD cause hierarchy includes road injuries as an external cause of injury, similar to falls or poisoning. These external cause-of-injury codes or 'E codes' are designated as mutually exclusive and collectively exhaustive in the cause hierarchy, meaning that they include every possible cause of death or disability either as specific injuries or as residual ('other') injuries. These external cause-of-injury codes cause nature-of-injury codes, which specify the bodily injury that is caused by an external cause of injury. In terms of the nature-of-injury codes (eg, the traumatic brain injury (TBI) that might be due to a road injury), injuries were categorised into 47 mutually exclusive and collectively exhaustive nature-of-injury categories using chapters S and T in the International Classification of Diseases (ICD), 10th revision, and codes 800–999 in ICD-9. Since it is possible that an external cause of injury

including a road injury may not actually lead to bodily harm, we only include injuries in our morbidity analysis that warranted some form of healthcare, which is typically indicated in survey data for road injuries and can be inferred from our use of hospital records. For example, a low-speed collision ('fender bender') that did not lead to any bodily injury to drivers, passengers or bystanders would not be considered an injury in GBD.

Mortality and YLLs from road injuries

GBD methods for cause of death estimation is provided in GBD literature.[11 12 21–25] A brief overview of this process is as follows. First, all available data sources were accessed and mapped into the GBD cause list and cause hierarchy. Road injuries data sources included vital registration, verbal autopsy studies, mortality surveillance, censuses, surveys, hospital records and mortuary data. For road injuries, we used ICD-9 codes E800.3, E801.3, E802.3, E803.3, E804.3, E805.3, E806.3, E807.3, E810.0-E810.6, E811.0-E811.7, E812.0-E812.7, E813.0-E813.7, E814.0-E814.7, E815.0-E815.7, E816.0-E816.7, E817.0-E817.7, E818.0-E818.7, E819.0-E819.7, E820.0-E820.6, E821.0-E821.6, E822.0-E822.7, E823.0-E823.7, E824.0-E824.7, E825.0-E825.7, E826.0-E826.1, E826.3-E826.4, E827.0, E827.3-E827.4, E828.0, E828.4 and E829.0-E829.4, and ICD-10 codes V01-V04.99, V06-V80.929, V82-V82.9 and V87.2-V87.3. Second, we redistributed ill-defined causes of death to specific underlying causes, including road injuries, via a process known as garbage code redistribution.[12 26] Third, ensemble models for road injuries and each subtype were conducted using the GBD Cause of Death Ensemble modelling (CODEm) software. CODEm employs five principles to build a cause of death model based on testing a variety of possible models that have been run through several modelling classes using an array of covariates.[27] Next, an ensemble of best-performing models is constructed based on out-of-sample validity testing. The covariates used in the models included lag-distributed income per capita (a smoothed series of GDP per capita), education per capita in years, alcohol use in litres per capita, an indicator for opium cultivation, population density over 1000 per square kilometre, a summary exposure value for violent injuries, Socio-demographic Index (SDI) and Healthcare Access and Quality Index. Deaths for each cause are then rescaled such that the sum of deaths across causes equals the total deaths, which enforces internal consistency across GBD estimates. As a final step, YLLs due to road injuries and each subtype are calculated by multiplying deaths by the residual life expectancy at the age of death from GBD 2017 standard model life table. YLLs measure the number of years of life are lost when a death occurs at an age less than the life expectancy; for example, if the residual life expectancy at age 25 years is 60, then 60 years of life were lost when a person dies at age 25 years.

Incidence, prevalence and YLDs due to road injuries

Estimation of non-fatal injury outcomes (incidence, prevalence and YLDs) in GBD is described in detail in related publications.[11] A summary is as follows. We used DisMod-MR 2.1 (a descriptive epidemiological meta-regression tool) to model incidence data for road injuries from emergency department and hospital records and survey data to estimate incidence by location, year, age and sex. These models were conducted for each subtype of road injuries. We used cause-specific mortality rates and incidence data to compute excess mortality rates following an injury since DisMod-MR 2.1 functions in a compartmental framework such that all incident cases of injury must be explained by dying, remaining prevalent or going into remission. Our assumption that case fatality rates are higher in lower income setting is implemented by adding lag-distributed income per capita as a covariate on excess mortality, which causes a negative relationship between income and mortality. This assumption is based on the observation that more sophisticated forms of treatment such as intensive care units (ICU), ventilator support and surgery may be required for higher acuity injuries resulting from road injuries.

After incidence cause models were conducted for each type of road injury, we split the cause incidence into inpatient and outpatient incidence based on a coefficient derived in DisMod-MR 2.1 in locations that had both types of data. Both of these series then went through the following steps. We developed a severity hierarchy of nature-of-injury types by using pooled datasets of follow-up studies from China, the Netherlands and the USA where health status 1 year after injury could be mapped to existing GBD disability weights.[28–34] This severity hierarchy was used to identify the injury that would cause the most disability in the event that a road injury lead to multiple types of injuries (eg, a spinal cord transection and a wrist fracture).

Next, recognising that injury disability is determined by nature of injury rather than cause of injury, we estimated the proportion of road injuries that would lead to each nature-of-injury type being the most severe. We computed these proportions using Dirichlet regression methods in dual-coded hospital and emergency department data where both cause and nature could be identified. This process and the data sources used are described in more detail in other GBD studies.[35] Each cause–nature matrix was specific to hospital admission versus injury warranting other healthcare, high/low income countries and territories, male/female and age category. Deriving these matrices separately in this manner allows variation by these variables. We then applied these proportions to our cause-of-injury incidence from DisMod-MR 2.1 in order to estimate cause–nature incidence. We converted these estimates to prevalence using the average duration for each nature of nature of injury and for inpatient and outpatient injuries from the Dutch Injury Surveillance System with supplementation from expert-driven estimates of short-term duration for nature of injury categories that had insufficient numbers in the Dutch dataset and for untreated injuries.[31] We measured the probability of long-term (permanent) disability to account for the permanence of conditions such as spinal cord injury as opposed to the shorter term recovery for conditions such as a fibular fracture. The probability of long-term disability was based on analysis of long-term follow-up studies.[28–34] Long-term prevalence was then calculated based on the ordinary differential equation solver used in DisMod-MR 2.1 to incorporate the parameters of incidence and long-term mortality risk for nature-of-injury conditions with increased mortality risk (eg, traumatic brain injury) such that prevalence is correctly estimated after accounting for excess mortality risk. Finally, we calculated YLDs by multiplying the prevalence of a health state, as defined in this process as the nature of injury, and a disability weight, which has been mapped to these injuries in previous GBD research.[36] Finally, across all causes in GBD, a comorbidity correction is applied to account for comorbidity distributions in the population.[11]

Socio-demographic Index

SDI is an indicator based on the human development index that includes income per capita, average educational attainment and total fertility rate under 25. Low SDI values correspond to low income per capita, low educational attainment and high fertility under 25 years, while high values correspond to higher income per capita, greater educational attainment and lower fertility under 25 years. We tabulate some results in this study by SDI quintile in order to identify socioeconomic patterns in road injury burden.

Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER) compliance

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

RESULTS

Summary results are as follows. Additional results by age, sex, year, location and injury cause and nature are available online at healthdata.org. Online resources also allow for measuring changes between different years, for example, between 2007 and 2017 as opposed to 1990 and 2017 as well as reviewing sources of data used in GBD 2017.

Incidence

Online supplementary appendix table 1 shows all ages incidence counts and age-standardised incidence rates for 2017 as well as the percentage change in age-standardised rates from 1990 to 2017 for overall road injuries. Countries in the middle SDI quintile experienced the highest increase of incidence rates from 1990 to 2017, with a 53.3% (95% UI 47.1 to 59.4) increase. High SDI was the only quintile that had decreased incidence rates during that time period, with a decrease of 16.5% (11.9 to 21.0). Figure 1 shows the new cases and age-standardised incidence rates of road injuries for 2017 and the per cent change between 1990 and 2017 for age-standardised incidence rates by country and territory. Globally, the age-standardised incidence rate was 692 (605 to 786) per 100 000 in 2017, representing an increase of 11.3% (6.4 to 15.8) from 1990 to 2017 and corresponding to 54 192 330 (47 381 583 to 61 645 891) new cases in 2017. Age-standardised incidence rates decreased from 1990 to 2017 in 109 out of 195 countries and territories, with the largest declines in South Korea, Iraq and Portugal, which decreased by 40.6% (33.3 to 46.6), 40.4% (34.5 to 45.2) and 38.8% (31.9 to 45.5), respectively.

The regions with the highest age-standardised incidence rates in 2017 were Central Europe (1467 (1297 to 1687)), Australasia (1304 (1157 to 1480)) and Eastern Europe (1193 (1022 to 1405)). Among the 21 GBD regions, 10 experienced significant decreases in age-standardised incidence rates, 9 regions experienced significant increases in age-standardised incidence rates (with the greatest increases found in East Asia and Oceania) and the remaining two regions experienced no significant change in age-standardised incidence rates (Central Europe and Central Asia). Age-standardised incidence rates decreased the most from 1990 to 2017 in High-income Asia Pacific, decreasing by 28.3% (23.5 to 33.2) and had the greatest increase in East Asia, where it increased by 111.2% (101.4 to 120.8). In terms of an age pattern, figure 2 shows global age-specific incidence rates for each age group by sex in 2017. This figure emphasises how road injury incidence is heavily concentrated in young to middle age groups and that males experience higher incidence rates than females, particularly in young adulthood.

Cause-specific mortality

Online supplementary appendix table 2 shows all ages deaths and 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 15.8 (15.2 to 16.3) per 100 000 in 2017, which corresponded to 1 243 068 (1 191 889 to 1 276 940) deaths in 2017 and represented a 29.0% (25.0 to 33.6) decrease in age-standardised mortality rate from 1990 to 2017. Geographically, figure 3 shows the deaths and age-standardised mortality rate from road injuries in 2017 and the per cent change between 1990 and 2017. This figure reveals the general pattern that mortality rates from road injuries is highest in select countries in North Africa, the Middle East and Southern sub-Saharan Africa in 2017. The countries with the highest age-standardised mortality rates were Central African Republic (85.5 (50.7 to 111.2) deaths per 100 000), Somalia (51.1 (27.8 to 72.0)) and United Arab Emirates (49.9 (39.5 to 61.1)). China had the highest number of total deaths, with 261 802 (247 924 to 273 651) 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 for road injuries. Globally, in 2017, road injuries resulted in 57 638 366 (55 500 786 to 59 369 191) YLLs, 10 159 667 (7 272 042 to 13 618 818) YLDs and 67 798 033 (64 337 599 to 71 454 968) DALYs, reflecting age-standardised rates of 745 (718 to 767) per 100 000, 126 (90 to 169) and 871 (828 to 917), respectively. Age-standardised YLLs and DALYs decreased by 34.4% (30.4 to 38.5) and 30.8% (26.9 to 35.0), respectively, between 1990 and 2017, while age-standardised YLDs increased 2.2% (0.3 to 4.0). The region with the highest age-standardised DALY rate was Central sub-Saharan Africa with 1720 (1448 to 1999) DALYs per 100 000, which represented 1564 (1302 to 1834) YLLs and 156 (114 to 204) YLDs.

Mortality-to-incidence ratios (MIRs)

Figure 4 shows the ratios of age-standardised mortality rates to age-standardised incidence rates by region in 1990 and 2017, which approximates the risk of death given a road injury. This figure shows how the MIRs vary by both time and location. The Caribbean had the highest MIR in 2017, while Australasia had the lowest, following the pattern of percentage DALYs caused by YLDs described above. While MIR varied substantially across regions, it also declined in every region from 1990 to 2017.

Nature of injuries caused by road injuries

The average global disability weight used in computing YLDs after comorbidity adjustment was 5.8%. Figure 5 shows the distribution of natures of injury in terms of age-standardised prevalence by region. This figure shows that the category of injury that includes fractures of patella, tibia or fibula or ankle is the leading cause of disability for victims of road injuries. TBI is also an important contributor to health loss from road injuries in all regions of the world.

DISCUSSION

The Global Status Report on Road Safety in 2018 published by the WHO cites important progress in road safety initiatives that have made at the country level, such as new legislation oriented to road safety, updated vehicle standards and technology and access to trauma care.[5] For example, 123 out of 175 countries included in the report were noted to have best-practice road safety laws implemented for at least one of the key risk factors for road injuries, and the report notes progress such as additional countries passing legislation and policy related to drink driving, motorcycle helmet use and child restraint systems. In this study, we found that despite global increases in road injuries incidence between 1990 and 2017, cause-specific mortality has decreased over the same time period, which likely reflects many of these underlying country-level

Incidence

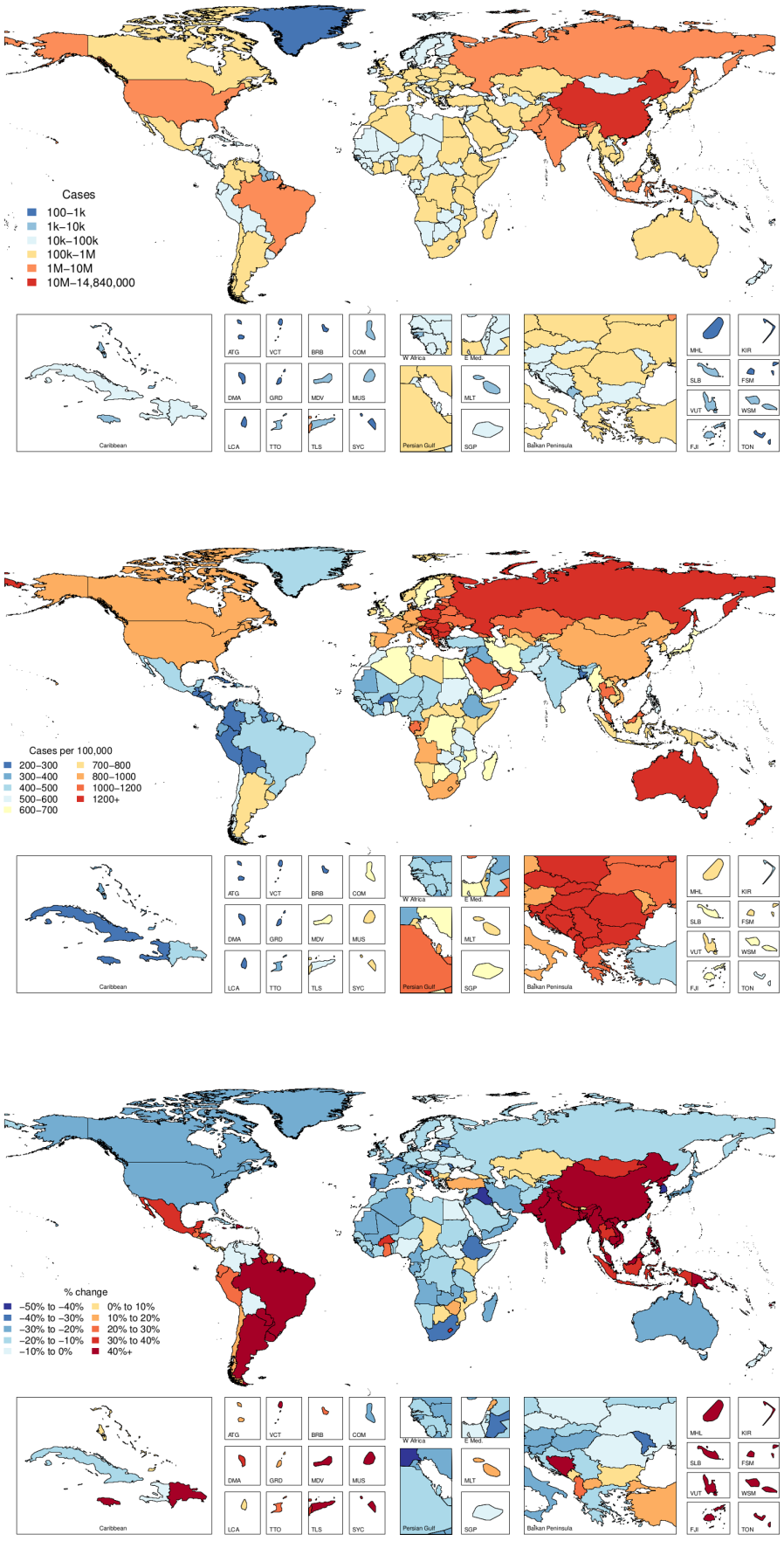

Figure 1 Incident cases, age-standardised incidence rates, and per cent change between 1990 and 2017 by country for road injuries.

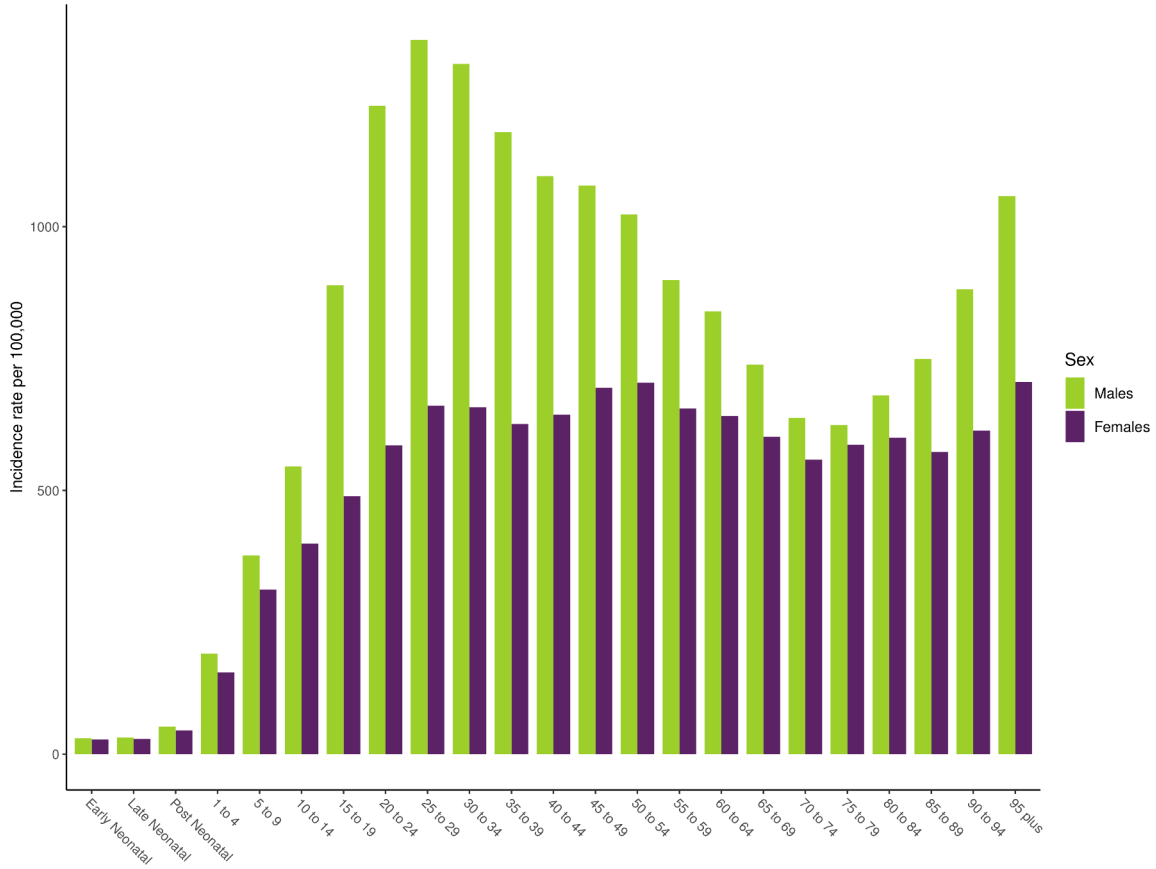

Figure 2 Age-specific and sex-specific incidence of road injuries globally in 2017.

improvements as described by the WHO. From this summary finding, several important themes emerge.

First, the observation of incidence increasing and mortality decreasing on the global level implies that while road injuries are becoming more frequent, individuals experiencing road injuries are less likely to die. It is likely that at least part of the increases in incidence can be explained by broadly increasing access to and utilisation of motorised transport in all locations of the world over the time period of this study, including shifts in types of motorised transit (eg, from bicycles to motorbikes) being used. This observation may also imply general improvements in case fatality rates. Improvements in case fatality rates may be affected by two general processes. First, it is possible that improvements in infrastructure, driving laws such as seatbelt laws and vehicle safety improvements have led to the types of disability sustained in road injuries decreasing in severity over time. For example, a driver who was in a road incident in 1990 may have been less likely to be wearing a seatbelt than a driver in 2017, which could have increased the probability of more severe injuries and death in 1990 relative to 2017, all else being equal. Similarly, infrastructure improvements such as improved roads, guard rails and streetlights, particularly in developing economies, may have led to less morbidity and mortality in each road injury case, even if the total number of cases is increasing due to factors such as increased rates of driving.[37 38] The second possible factor that could lead to improvements in case fatality is improvements in access to medical care following a road injury. For example, adding ambulance services, building trauma centres and ensuring access to emergency medical care in all populations is likely to be beneficial in terms of improving survival for road injury cases, which has been shown in locations that advance trauma systems.[39] Advances in trauma care over the past three decades have led to improved imaging and diagnostic technologies being more readily available to global populations, and research in trauma resuscitation has led to better understanding of the pathology that can occur in a road injury, though postincident care in road injuries remains an ongoing area of research.[40 41] It is likely that the implied improvements in case fatality have also been affected by improved quality and access to medical care on a global scale. Among SDI quintiles, one exception to this trend occurred in the highest SDI quintile, which experienced decreases both in incidence and mortality, suggesting that concomitant improvements may be possible as socioeconomic development continues globally.

Second, while we found global improvements in mortality despite increases in incidence, we also observed considerable heterogeneity by country and region. Despite global improvements in mortality, multiple countries experienced increases in age-standardised cause-specific mortality from road injuries during this study period. For example, Paraguay, Chad, Lesotho, Pakistan, Mongolia and North Korea experienced increases in road injuries mortality, emphasising that despite global improvements, it is important for health policy research to be conducted in areas where fatal burden from road injuries is still increasing. For example, patients with moderate-to-severe injury that received treatment at a level 1 trauma centre in the USA were shown to be at a 25% decreased risk of death when compared with those who accessed a non-trauma centre, raising the question of whether medical infrastructure development could produce similar improvements in lower income settings .[40] It is possible that portions of road injury burden may be mitigated by legislation (eg, seatbelt laws), infrastructure and engineering

Mortality

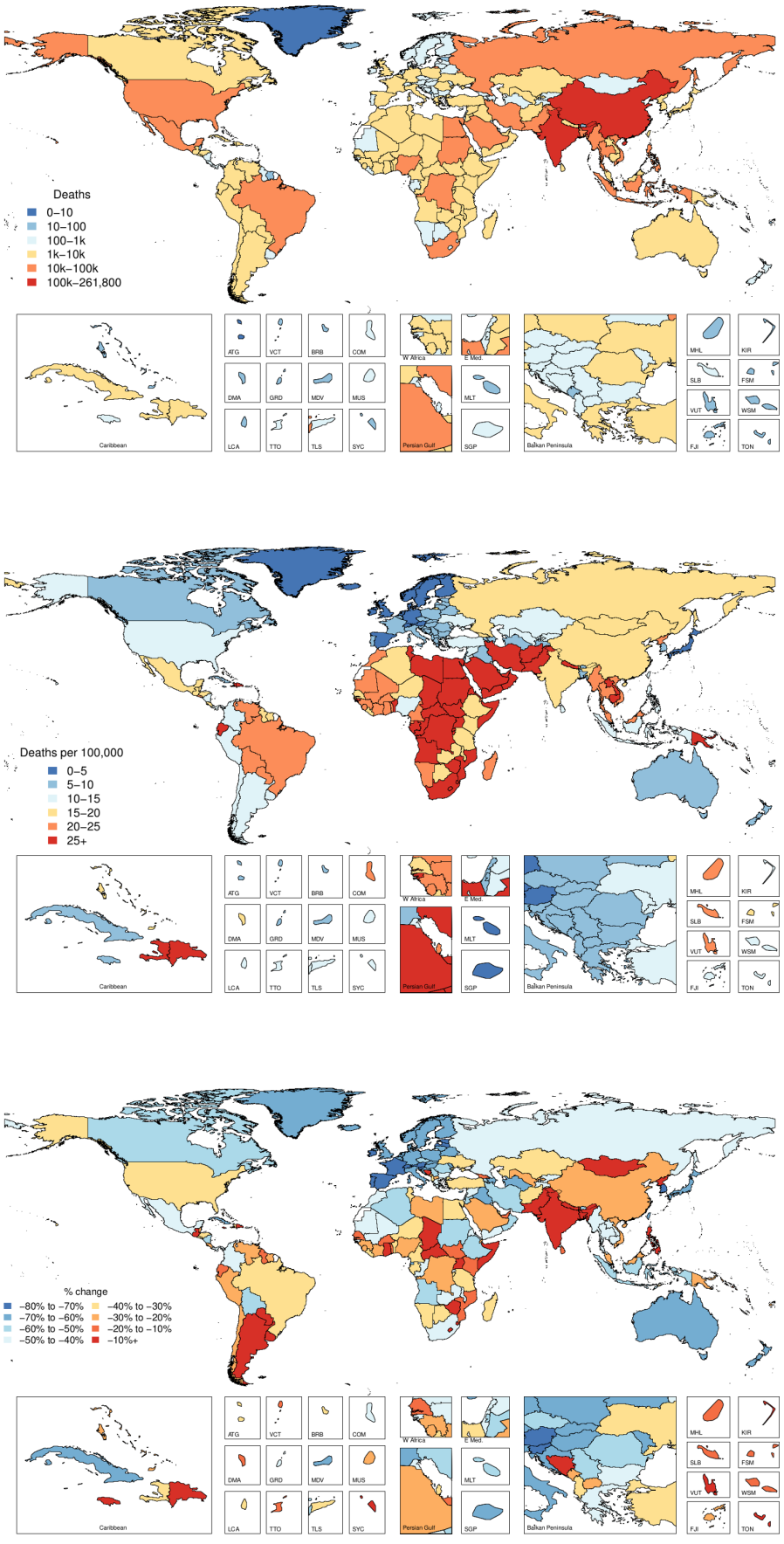

Figure 3 Deaths, age-standardised mortality rates and per cent change between 1990 and 2017 by country for road injuries.

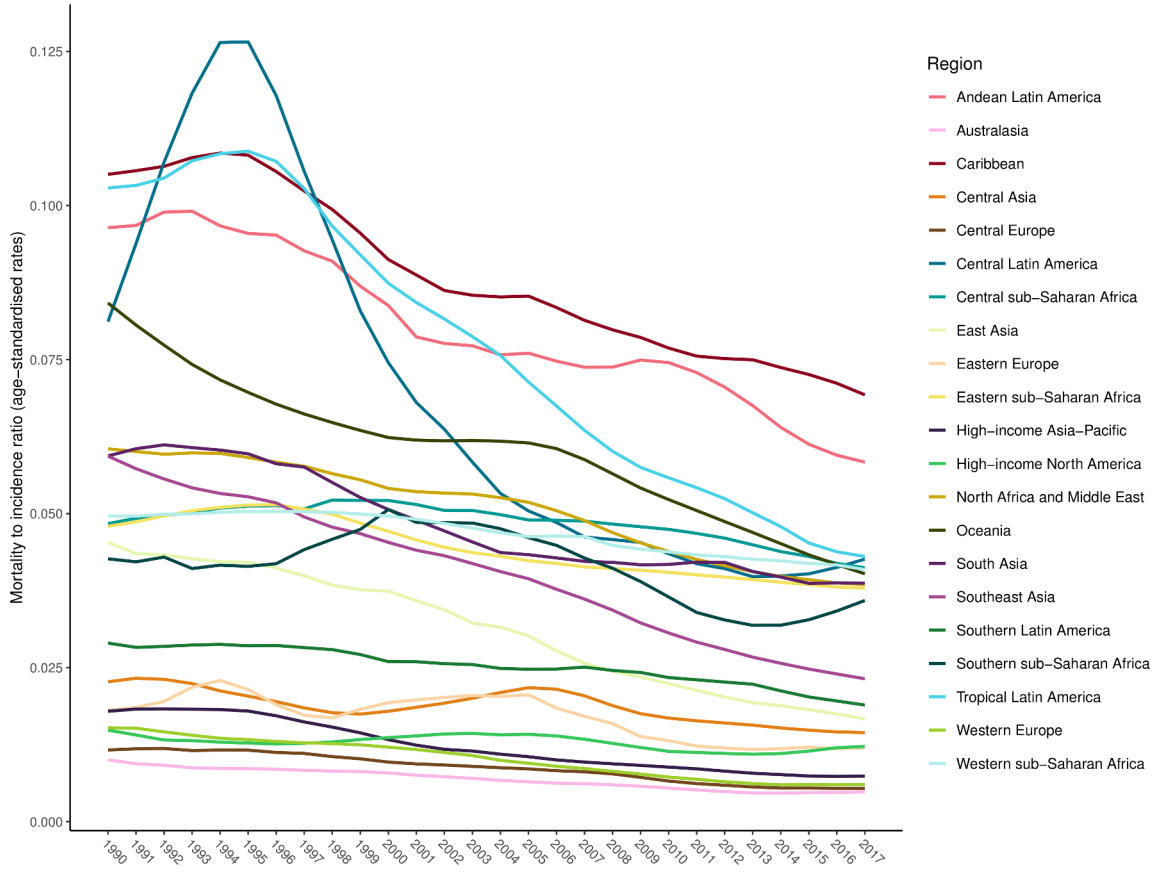

Figure 4 Changes in mortality-to-incidence ratios by GBD region from 1990 to 2017. GBD, Global Burden of Disease.

(eg, road construction) and behavioural modifications (eg, intoxicated driving). Yet it is also likely that there are still unidentified factors that lead to road injury incidence and mortality, particularly as these trends are likely governed by a wide array of factors ranging from trauma pathophysiology to vehicle engineering to social behaviours. Future road injury research may benefit from more comprehensive syntheses of how various causes and modifiers affect these outcomes, similar to how our understanding of cancer, infectious disease and cardiovascular disease has benefited from laboratory-based, translational-based and population-based research studies.

Third, we found that changes in incidence and mortality varied by development. Specifically, countries and territories in the middle SDI quintile experienced the greatest increases in age-standardised incidence between 1990 and 2017, while low SDI quintile locations increased less, and high SDI quintile locations actually decreased in terms of incidence. These findings are reminiscent of the transition phases described in literature on the epidemiological transition, where a country's burden of disease and injury is modulated by where the country is on the development spectrum. For example, Papua New Guinea and Myanmar, low and low-middle SDI countries, respectively, have experienced significant economic growth in the past decade.[42] Both countries have also experienced increased incidence of road injuries over the past 10 years, while the burden of communicable diseases decreased. These country experiences support the idea that while countries transition to more stable economies, road injuries predictively become more burdensome. Interestingly, there is evidence that reductions in road traffic injuries have positive effects on GDP per capita, so there is incentive for developing countries to prioritise road safety initiatives and injury prevention.[43]

Fourth, for the first time in GBD research, we were able to estimate the burden of road injuries in terms of the types of disability that road injuries caused. Specifically, we found that the most common nature of injury sustained in a road injury in all regions was fracture of patella, tibia/fibula or ankle and that in most regions, moderate/severe TBIs were the next leading cause of disability in road injuries. These are important findings for two reasons. Lower extremity fractures can require surgical management in order to avoid longer term disability, which emphasises the importance of modern medical services including surgical services being available in all areas of the world. In addition, these findings show how disability from road injuries can lead to lifelong health loss in the form of conditions like TBI that can have irreversible health consequences, emphasising the importance of preventative strategies in reducing future burden from road injuries.

There were several limitations to this study. First, similar to other analyses in GBD research, the uncertainty of road injury morbidity and mortality rates is affected by data availability. In countries and territories with absent or sparse data, the modelling framework relies more on covariates and other locations that do have data, which leads to greater uncertainty around the point estimates. Greater UIs mean that readers and policymakers should use more caution when acting on these results. To address this limitation, health systems in the future should prioritise good data collection strategies in order to help improve the accuracy of future research in road injury burden. Current data limitations, modelling differences and garbage code redistribution,

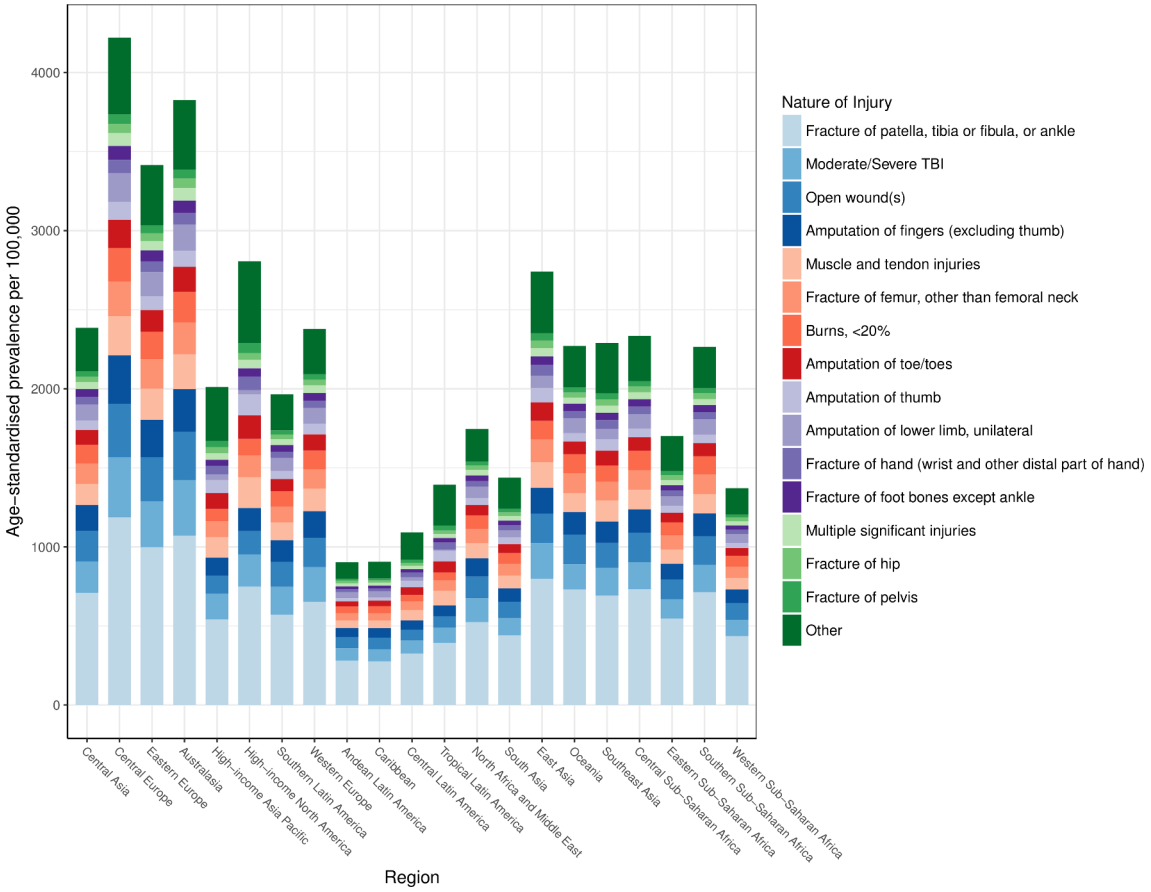

Figure 5 Distribution of most severe nature of injury sustained in road injuries by region in 2017. TBI, traumatic brain injury.

particularly for data-sparse or data-absent locations likely account for much of the difference between global mortality estimates from the WHO, which estimated 1.35 million deaths in 2016, and GBD 2017, which estimated 1.25 million deaths in 2016. Second, as described in other GBD literature on injury estimation, the current process for assigning disability to a road injury case requires predicting the most disabling injury that results from a road injury, without taking into consideration the possibility that multiple natures of injury can result from a road injury. In future GBD research, developing methods to capture all forms of disability that result from road injuries could help measure the total health loss burden from these conditions. Finally, a general limitation of non-fatal injury estimation in GBD 2017 was that long-term follow-up studies used for injury severity hierarchies and probabilities of long-term disability are only available in select countries. Future GBD updates should focus on adding more data to inform this analytical process.

What is already known on the subject

- Road injuries are known to be a major cause of health loss globally, both in terms of morbidity and mortality.
- While progress on mitigating health loss from road injuries has been made in some locations, there is still considerable morbidity and mortality in all areas of the world, including in low-income and middle-income regions.

What this study adds

- Road injury incidence has increased globally from 1990 to 2017, while mortality has decreased.
- Trends in mortality-to-incidence ratios for road injuries have varied depending on region of the world between 1990 and 2017.
- The specific type of bodily injury occurring in road injuries is now estimated, with the most common nature of injury sustained in road injuries being a fracture of the patella, tibia or fibula, or ankle.

CONCLUSION

This study further substantiates the key messages highlighted in the Global Status Report on Road Safety 2018 by the WHO. In particular, despite improvements in mortality, road injuries remain critically important cause of morbidity and mortality globally, and more research is needed to better measure and understand how road injuries can be prevented, particularly in developing economies. Investing in preventative measures as well as ensuring that victims of road injuries have access to first response trauma and medical care could help drive improvements in road injury burden in the future.

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Correction notice The article has been corrected since it is published. The affiliation of Mihajlo Jakovljevic has been updated.

Acknowledgements A Badawi acknowledges support by the Public Health Agency of Canada. K Deribe acknowledges support by a grant from the Wellcome Trust [grant number 201900] as part of his International Intermediate Fellowship. M Jakovljevic acknowledges the Serbian part of this contribution was funded by the Ministry of Education Science and Technological Development of the Republic of Serbia through Grant OI 175. R Tabarés-Seisdedos acknowledges support in part by grant number PROMETEOII/2015/021 from Generalitat Valenciana and the national grant PI17/00719 from ISCIII-FEDER. S Aljunid acknowledges support from the International Centre for Casemix and Clinical Coding, Faculty of Medicine, National University of Malaysia and Department of Health. Y J

Kim acknowledges support from the Office of Research & Innovation, Xiamen University Malaysia.

Funding This study was funded by the Bill & Melinda Gates Foundation.

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Competing interests SLJ reports grants from Sanofi Pasteur outside the submitted work. TRM reports a contract to evaluate AB InBev Foundation's efforts to, among other things, reduce impaired driving in 6 cities using GBD road safety data in calculating baseline harm.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available in a public, open access repository. Data are available on reasonable request. Data may be obtained from a third party and are not publicly available.

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Correction: *Morbidity and mortality from road injuries: results from the **global Burden of Disease Study 2017***

James SL, Lucchesi LR, Bisignano C, *et al*. Morbidity and mortality from road injuries: results from the Global Burden of Disease Study 2017. *Inj Prev* [Epub ahead of print: 08 Jan 2020]. doi: 10.1136/injuryprev-2019-043302.

This article was previously published with errors in authorship.

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OPEN ACCESS

Inj Prev 2020;**26**:i163. doi:10.1136/injuryprev-2019-043302corr1

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 coverage[1]. 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 data[2]. 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 systems[3]. 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 Fund[4].

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 factors[5].

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.

3 GBD 2017 Collaborators. Global, regional, and national incidence, prevalence, and YLDs for 328 acute and chronic diseases and injuries for 195 countries, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet* 2018.

4 Food, nutrition, physical activity, and the prevention of cancer: a global perspective. 2007. http://www.aicr.org/assets/docs/pdf/reports/Second_Expert_Report.pdf.

5 GBD 2017 Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet* 2018.

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			
For all data inputs from multiple sources that are synthesised as part of the study:			
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
For data inputs that contribute to the analysis but were not synthesised as part of the study:			
7	Describe and give sources for any other data inputs.	Included in online data source tool	http://ghdx.healthdata.org/gbd-2017
For all data inputs:			
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

Table 1: Incidence and prevalence for 2017 and percentage change of age-standardised rates between 1990 and 2017 by location for road injuries

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	**54 192 330 (47 381 583 to 61 645 891)**	**692 (605 to 786)**	**11.3 (6.4 to 15.8)**	**174 209 559 (162 041 952 to 187 472 078)**	**2 162 (2 012 to 2 326)**	**6.1 (4.4 to 7.8)**
Low SDI	**5 375 667 (4 618 485 to 6 300 332)**	**441 (382 to 507)**	**5.1 (0.5 to 9.6)**	**12 631 012 (11 768 288 to 13 604 175)**	**1 350 (1 257 to 1 453)**	**3.1 (1.4 to 4.7)**
Low-middle SDI	**8 877 424 (7 650 756 to 10 260 632)**	**526 (456 to 601)**	**28.0 (22.4 to 33.4)**	**23 019 357 (21 410 093 to 24 775 486)**	**1 600 (1 488 to 1 723)**	**25.0 (23.4 to 27.1)**
Middle SDI	**14 929 437 (13 032 825 to 17 017 698)**	**675 (590 to 768)**	**53.3 (47.1 to 59.4)**	**46 704 019 (43 353 475 to 50 443 635)**	**2 030 (1 886 to 2 190)**	**46.9 (44.5 to 49.4)**
High-middle SDI	**14 383 420 (12 443 509 to 16 459 412)**	**958 (838 to 1 088)**	**26.1 (21.0 to 30.8)**	**48 571 716 (45 076 557 to 52 482 617)**	**2 801 (2 604 to 3 022)**	**17.0 (15.2 to 18.7)**
High SDI	**10 350 223 (9 153 450 to 11 670 460)**	**925 (811 to 1 072)**	**-16.5 (-21.0 to -11.9)**	**42 346 323 (39 300 706 to 45 846 127)**	**2 689 (2 498 to 2 913)**	**-15.8 (-17.0 to -14.7)**
Central Europe, Eastern Europe, and Central Asia	**4 923 859 (4 329 867 to 5 570 520)**	**1 170 (1 026 to 1 340)**	**-12.9 (-17.0 to -8.6)**	**18 465 790 (17 051 913 to 20 166 118)**	**3 461 (3 196 to 3 771)**	**-12.3 (-13.6 to -11.0)**
Central Asia	**759 348 (665 702 to 856 937)**	**818 (722 to 920)**	**-5.3 (-12.0 to 1.6)**	**2 078 416 (1 922 852 to 2 256 558)**	**2 385 (2 205 to 2 591)**	**-6.7 (-7.7 to -5.7)**
Armenia	20 268 (17 748 to 22 866)	654 (567 to 751)	-14.3 (-20.7 to -7.1)	69 543 (64 414 to 75 333)	1 877 (1 741 to 2 032)	-16.0 (-17.1 to -15.0)
Azerbaijan	72 627 (62 997 to 84 136)	685 (596 to 792)	-15.6 (-23.0 to -6.1)	213 505 (197 288 to 231 133)	1 986 (1 835 to 2 151)	-16.2 (-18.1 to -14.5)
Georgia	38 439 (34 200 to 42 558)	1 039 (919 to 1 158)	9.8 (1.8 to 18.0)	140 220 (129 273 to 153 114)	2 925 (2 696 to 3 188)	7.8 (6.3 to 9.2)
Kazakhstan	196 365 (172 735 to 219 475)	1 084 (953 to 1 218)	1.3 (-7.5 to 10.9)	564 509 (520 315 to 615 237)	3 078 (2 838 to 3 349)	-0.4 (-1.8 to 1.0)
Kyrgyzstan	50 019 (43 806 to 56 283)	788 (695 to 881)	-19.8 (-26.9 to -11.8)	126 026 (116 646 to 136 699)	2 284 (2 113 to 2 480)	-20.4 (-21.4 to -19.5)
Mongolia	31 285 (27 303 to 35 608)	934 (820 to 1 061)	37.6 (27.4 to 49.8)	83 458 (77 193 to 90 344)	2 751 (2 542 to 2 986)	30.5 (27.8 to 33.2)
Tajikistan	47 454 (41 170 to 55 096)	515 (448 to 588)	-17.6 (-24.5 to -10.3)	113 774 (105 809 to 122 835)	1 557 (1 449 to 1 682)	-17.3 (-18.5 to -16.2)
Turkmenistan	36 929 (31 858 to 43 047)	725 (628 to 842)	-12.2 (-20.3 to -3.5)	99 669 (91 974 to 108 293)	2 113 (1 951 to 2 293)	-13.9 (-15.0 to -12.6)
Uzbekistan	265 962 (231 341 to 303 579)	802 (704 to 911)	6.1 (-3.6 to 16.4)	667 711 (617 655 to 724 065)	2 293 (2 118 to 2 492)	2.9 (1.2 to 4.6)
Central Europe	**1 628 842 (1 458 069 to 1 819 420)**	**1 467 (1 297 to 1 687)**	**-7.2 (-14.4 to 0.4)**	**6 668 038 (6 185 225 to 7 288 830)**	**4 220 (3 904 to 4 618)**	**-8.0 (-9.0 to -6.9)**
Albania	36 354 (31 854 to 41 425)	1 286 (1 121 to 1 488)	26.4 (14.3 to 39.1)	128 825 (119 526 to 140 658)	3 692 (3 423 to 4 030)	21.7 (19.5 to 24.0)
Bosnia and Herzegovina	41 883 (37 038 to 47 354)	1 274 (1 116 to 1 484)	74.9 (63.0 to 85.8)	170 361 (157 649 to 186 256)	3 705 (3 421 to 4 054)	69.1 (65.5 to 73.6)
Bulgaria	95 174 (84 225 to 106 564)	1 435 (1 243 to 1 644)	6.1 (-4.9 to 17.1)	419 604 (388 565 to 459 091)	4 105 (3 792 to 4 496)	4.3 (2.5 to 6.1)
Croatia	66 672 (59 485 to 75 079)	1 654 (1 444 to 1 920)	-14.2 (-21.5 to -5.7)	284 734 (264 091 to 312 943)	4 749 (4 397 to 5 249)	-12.2 (-13.6 to -10.8)
Czech Republic	168 633 (149 243 to 187 385)	1 711 (1 487 to 1 951)	-2.5 (-12.0 to 6.9)	726 269 (673 716 to 791 332)	4 949 (4 574 to 5 402)	-0.5 (-2.5 to 1.3)
Hungary	118 866 (105 802 to 133 375)	1 284 (1 118 to 1 502)	-23.5 (-30.8 to -16.4)	504 484 (466 719 to 551 937)	3 700 (3 417 to 4 050)	-22.3 (-23.7 to -20.9)
Macedonia	26 616 (23 377 to 30 016)	1 244 (1 084 to 1 436)	16.3 (7.8 to 26.0)	101 669 (94 054 to 111 451)	3 606 (3 329 to 3 953)	12.8 (11.2 to 14.6)
Montenegro	8 790 (7 771 to 9 942)	1 412 (1 231 to 1 630)	5.3 (-3.8 to 15.6)	32 575 (30 218 to 35 540)	4 052 (3 751 to 4 430)	4.5 (3.0 to 5.9)
Poland	587 099 (523 266 to 657 285)	1 575 (1 385 to 1 812)	-8.4 (-17.2 to 1.1)	2 368 187 (2 197 814 to 2 588 866)	4 517 (4 179 to 4 949)	-8.8 (-10.1 to -7.3)
Romania	262 309 (234 312 to 291 214)	1 375 (1 207 to 1 574)	-8.1 (-15.6 to 1.9)	1 062 776 (984 963 to 1 160 111)	3 900 (3 613 to 4 263)	-10.4 (-12.2 to -8.7)
Serbia	110 270 (98 763 to 123 763)	1 261 (1 106 to 1 457)	-15.5 (-24.4 to -6.2)	428 949 (397 457 to 468 195)	3 611 (3 342 to 3 949)	-17.6 (-18.8 to -16.4)
Slovakia	74 154 (65 623 to 83 358)	1 418 (1 240 to 1 639)	-20.0 (-29.2 to -9.0)	296 765 (274 969 to 325 244)	4 099 (3 789 to 4 494)	-19.0 (-20.2 to -17.5)
Slovenia	32 023 (28 280 to 36 139)	1 680 (1 456 to 1 933)	-26.5 (-34.4 to -20.0)	142 839 (132 582 to 155 753)	4 893 (4 517 to 5 339)	-23.4 (-25.0 to -21.9)
Eastern Europe	**2 535 669 (2 164 640 to 2 934 117)**	**1 193 (1 022 to 1 405)**	**-12.5 (-16.8 to -8.4)**	**9 719 337 (8 940 040 to 10 647 866)**	**3 414 (3 137 to 3 738)**	**-12.9 (-14.6 to -11.0)**
Belarus	100 142 (88 843 to 113 176)	1 052 (918 to 1 202)	-16.3 (-25.5 to -5.8)	386 591 (358 358 to 421 610)	2 988 (2 769 to 3 253)	-17.0 (-18.6 to -15.6)
Estonia	13 599 (11 853 to 15 520)	1 074 (924 to 1 254)	-29.5 (-37.5 to -20.9)	57 288 (52 956 to 62 633)	3 103 (2 865 to 3 392)	-28.2 (-29.4 to -26.9)
Latvia	21 609 (18 970 to 24 426)	1 143 (992 to 1 311)	-31.5 (-38.7 to -24.6)	90 654 (83 894 to 99 127)	3 237 (2 986 to 3 542)	-31.0 (-32.1 to -30.0)
Lithuania	34 454 (30 264 to 38 650)	1 212 (1 051 to 1 397)	-22.6 (-31.0 to -13.1)	140 291 (129 970 to 153 982)	3 415 (3 159 to 3 748)	-22.5 (-23.8 to -20.9)
Moldova	33 474 (29 335 to 37 731)	884 (771 to 1 012)	-30.4 (-37.0 to -22.0)	123 859 (114 426 to 134 541)	2 543 (2 353 to 2 758)	-31.5 (-32.5 to -30.4)
Russian Federation	1 815 796 (1 542 761 to 2 111 685)	1 218 (1 036 to 1 434)	-14.2 (-18.3 to -10.1)	6 856 229 (6 309 419 to 7 521 276)	3 493 (3 210 to 3 828)	-14.5 (-16.5 to -12.3)
Ukraine	516 594 (438 209 to 602 891)	1 177 (997 to 1 397)	-1.9 (-7.8 to 3.9)	2 064 424 (1 892 239 to 2 260 648)	3 354 (3 078 to 3 670)	-3.2 (-4.6 to -1.7)
High-income	**8 841 525 (7 810 602 to 10 005 336)**	**840 (737 to 975)**	**-19.9 (-24.0 to -15.6)**	**36 168 567 (33 543 888 to 39 185 495)**	**2 462 (2 286 to 2 672)**	**-19.2 (-20.3 to -18.2)**
Australasia	**365 586 (326 635 to 409 673)**	**1 304 (1 157 to 1 480)**	**-20.3 (-25.6 to -14.6)**	**1 413 829 (1 309 726 to 1 533 369)**	**3 825 (3 541 to 4 145)**	**-19.3 (-20.9 to -18.1)**
Australia	285 446 (251 293 to 324 837)	1 214 (1 058 to 1 401)	-23.2 (-30.3 to -15.7)	1 111 015 (1 028 964 to 1 203 990)	3 579 (3 315 to 3 882)	-21.8 (-23.6 to -20.3)
New Zealand	80 140 (74 271 to 86 535)	1 798 (1 656 to 1 960)	-5.9 (-11.9 to 0.5)	302 814 (279 258 to 328 615)	5 166 (4 760 to 5 603)	-7.5 (-9.1 to -6.2)
High-income Asia-Pacific	**1 335 884 (1 176 156 to 1 502 607)**	**686 (594 to 806)**	**-28.3 (-33.2 to -23.5)**	**5 792 577 (5 400 516 to 6 282 687)**	**2 011 (1 868 to 2 178)**	**-24.0 (-25.5 to -22.5)**
Brunei	4 670 (4 053 to 5 289)	1 054 (927 to 1 181)	-28.3 (-34.5 to -21.5)	12 145 (11 302 to 13 097)	2 898 (2 703 to 3 125)	-29.1 (-30.2 to -28.2)
Japan	859 980 (745 042 to 973 415)	664 (566 to 791)	-22.7 (-27.7 to -17.5)	4 113 525 (3 829 491 to 4 464 379)	2 002 (1 859 to 2 167)	-18.0 (-20.0 to -15.9)
South Korea	433 491 (387 384 to 487 353)	757 (667 to 871)	-40.6 (-46.6 to -33.3)	1 529 429 (1 429 084 to 1 655 718)	2 086 (1 950 to 2 257)	-40.7 (-41.8 to -39.6)
Singapore	37 742 (32 788 to 43 547)	681 (587 to 807)	-7.3 (-16.1 to 1.0)	137 479 (127 554 to 148 350)	2 026 (1 879 to 2 185)	-2.0 (-4.7 to 0.9)
High-income North America	**3 399 537 (2 941 015 to 3 919 587)**	**950 (814 to 1 115)**	**-21.7 (-25.8 to -17.6)**	**13 171 952 (12 026 067 to 14 553 077)**	**2 806 (2 558 to 3 106)**	**-22.3 (-23.7 to -20.5)**
Canada	290 062 (257 524 to 329 723)	865 (754 to 1 013)	-24.2 (-32.0 to -15.4)	1 217 767 (1 121 708 to 1 330 128)	2 533 (2 333 to 2 772)	-22.8 (-24.5 to -21.4)
Greenland	272 (236 to 316)	495 (425 to 587)	-23.9 (-30.5 to -16.8)	956 (882 to 1 042)	1 466 (1 350 to 1 598)	-25.1 (-27.2 to -23.0)
USA	3 109 143 (2 677 861 to 3 582 413)	960 (820 to 1 134)	-21.3 (-25.8 to -16.8)	11 952 998 (10 896 374 to 13 225 377)	2 840 (2 584 to 3 146)	-22.1 (-23.7 to -20.1)
Southern Latin America	**460 533 (410 553 to 514 073)**	**690 (613 to 778)**	**40.0 (28.9 to 51.8)**	**1 458 078 (1 358 268 to 1 574 354)**	**1 965 (1 827 to 2 122)**	**33.6 (31.1 to 36.0)**
Argentina	326 577 (287 719 to 369 475)	727 (639 to 829)	46.7 (33.0 to 62.8)	1 021 089 (948 414 to 1 105 770)	2 096 (1 945 to 2 268)	41.1 (38.4 to 43.9)
Chile	106 550 (97 081 to 117 415)	579 (525 to 641)	19.8 (10.6 to 28.9)	342 469 (319 790 to 367 834)	1 610 (1 505 to 1 727)	13.6 (11.3 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	27 386 (24 186 to 30 631)	790 (693 to 896)	50.7 (37.5 to 65.9)	94 455 (87 817 to 102 133)	2 241 (2 085 to 2 416)	44.9 (41.2 to 48.5)
Western Europe	**3 279 986 (2 912 763 to 3 707 329)**	**803 (699 to 939)**	**-21.1 (-27.3 to -15.0)**	**14 332 131 (13 309 926 to 15 526 258)**	**2 378 (2 203 to 2 573)**	**-19.0 (-20.7 to -17.6)**
Andorra	669 (589 to 762)	893 (772 to 1 045)	-1.6 (-9.4 to 6.4)	2 906 (2 697 to 3 161)	2 654 (2 454 to 2 880)	0.0 (-1.4 to 1.3)
Austria	68 018 (59 892 to 77 750)	836 (718 to 985)	-23.9 (-32.2 to -14.8)	302 178 (280 561 to 328 511)	2 483 (2 296 to 2 699)	-20.9 (-23.2 to -19.0)
Belgium	88 023 (78 734 to 98 989)	794 (694 to 915)	-30.3 (-36.9 to -22.9)	361 442 (335 975 to 391 875)	2 311 (2 142 to 2 500)	-29.2 (-31.3 to -27.4)
Cyprus	13 212 (11 741 to 14 867)	1 050 (921 to 1 221)	-22.9 (-31.1 to -14.4)	49 232 (45 667 to 53 358)	3 049 (2 826 to 3 303)	-22.6 (-24.0 to -21.4)
Denmark	43 292 (38 055 to 49 758)	808 (696 to 960)	-18.9 (-27.5 to -10.3)	184 313 (170 906 to 199 986)	2 402 (2 222 to 2 604)	-16.2 (-17.7 to -14.7)
Finland	44 338 (39 083 to 50 521)	869 (751 to 1 016)	-7.0 (-16.1 to 2.1)	197 040 (183 171 to 214 406)	2 570 (2 373 to 2 793)	-3.7 (-4.9 to -2.4)
France	540 656 (477 251 to 615 954)	882 (768 to 1 032)	-25.4 (-32.8 to -17.8)	2 309 036 (2 148 566 to 2 506 643)	2 617 (2 428 to 2 839)	-23.3 (-25.9 to -21.1)
Germany	623 851 (548 376 to 711 948)	820 (702 to 968)	-18.4 (-26.7 to -9.5)	2 902 944 (2 694 020 to 3 149 456)	2 429 (2 247 to 2 632)	-16.3 (-18.3 to -14.6)
Greece	103 199 (91 742 to 115 242)	1 044 (916 to 1 210)	-12.3 (-20.1 to -3.6)	468 839 (436 740 to 508 641)	3 051 (2 833 to 3 299)	-10.8 (-12.6 to -9.3)
Iceland	2 616 (2 286 to 3 015)	805 (689 to 950)	-9.9 (-18.0 to -0.9)	9 953 (9 224 to 10 774)	2 397 (2 219 to 2 591)	-7.3 (-9.5 to -5.6)
Ireland	36 379 (31 497 to 42 515)	790 (675 to 941)	-12.0 (-21.0 to -0.9)	138 737 (128 464 to 150 663)	2 354 (2 173 to 2 551)	-8.7 (-10.4 to -7.0)
Israel	69 443 (60 792 to 80 687)	783 (682 to 915)	-6.1 (-15.1 to 3.1)	219 581 (204 030 to 237 948)	2 274 (2 110 to 2 463)	-5.3 (-7.0 to -3.8)
Italy	493 255 (446 890 to 543 000)	830 (732 to 943)	-24.4 (-30.6 to -17.7)	2 203 371 (2 054 997 to 2 382 958)	2 403 (2 237 to 2 594)	-22.7 (-24.0 to -21.3)
Luxembourg	5 586 (4 890 to 6 364)	979 (847 to 1 143)	-18.7 (-28.5 to -9.4)	22 208 (20 647 to 24 128)	2 883 (2 673 to 3 129)	-16.4 (-19.1 to -14.2)
Malta	2 835 (2 496 to 3 226)	719 (621 to 843)	10.6 (1.8 to 19.8)	12 939 (12 031 to 13 990)	2 147 (1 991 to 2 319)	13.9 (12.3 to 15.6)
Netherlands	112 157 (104 349 to 121 958)	695 (638 to 769)	-17.3 (-24.9 to -8.7)	470 159 (438 032 to 506 556)	2 035 (1 890 to 2 190)	-15.7 (-18.1 to -13.3)
Norway	37 682 (32 398 to 43 940)	742 (629 to 889)	-4.2 (-9.2 to 1.4)	155 360 (143 705 to 169 408)	2 263 (2 089 to 2 462)	-1.7 (-3.7 to 0.6)
Portugal	81 004 (72 071 to 91 485)	768 (667 to 894)	-38.8 (-45.5 to -31.9)	354 662 (329 629 to 384 046)	2 238 (2 079 to 2 419)	-38.5 (-40.9 to -36.6)
Spain	368 356 (324 617 to 419 664)	855 (738 to 1 010)	-26.0 (-33.6 to -17.1)	1 661 725 (1 541 448 to 1 802 218)	2 540 (2 352 to 2 750)	-23.4 (-25.8 to -21.4)
Sweden	65 182 (56 194 to 75 588)	690 (586 to 832)	-13.0 (-18.6 to -7.4)	286 076 (264 406 to 310 997)	2 117 (1 951 to 2 297)	-10.7 (-12.5 to -9.0)
Switzerland	67 985 (61 335 to 75 217)	824 (732 to 948)	-20.7 (-27.2 to -13.8)	289 283 (269 723 to 312 082)	2 409 (2 239 to 2 594)	-19.6 (-21.0 to -18.3)
United Kingdom	408 849 (351 584 to 476 468)	653 (556 to 784)	-10.7 (-16.1 to -5.2)	1 715 296 (1 587 660 to 1 865 592)	1 955 (1 807 to 2 124)	-8.5 (-10.1 to -7.0)
Latin America and Caribbean	**2 420 944 (2 125 463 to 2 732 730)**	**406 (356 to 457)**	**31.1 (25.3 to 36.7)**	**7 020 885 (6 520 321 to 7 519 492)**	**1 178 (1 096 to 1 262)**	**29.1 (25.6 to 32.7)**
Andean Latin America	**194 102 (170 730 to 216 867)**	**321 (284 to 358)**	**18.4 (9.7 to 27.4)**	**518 087 (485 803 to 552 945)**	**903 (847 to 963)**	**11.3 (9.4 to 13.0)**
Bolivia	31 319 (27 214 to 35 937)	289 (252 to 329)	-3.9 (-11.8 to 4.4)	79 987 (74 978 to 85 493)	821 (771 to 877)	-9.4 (-11.5 to -7.2)
Ecuador	66 229 (57 960 to 74 230)	400 (352 to 446)	27.8 (15.6 to 41.3)	175 503 (164 222 to 187 216)	1 117 (1 045 to 1 192)	21.3 (18.7 to 23.9)
Peru	96 554 (84 405 to 108 468)	293 (256 to 330)	20.1 (9.7 to 31.7)	262 597 (246 143 to 280 722)	823 (771 to 880)	11.8 (9.8 to 13.6)
Caribbean	**151 296 (132 325 to 170 382)**	**319 (278 to 359)**	**17.2 (8.5 to 26.0)**	**450 765 (419 736 to 485 368)**	**906 (844 to 975)**	**11.2 (10.2 to 12.5)**
Antigua and Barbuda	231 (201 to 262)	254 (222 to 293)	18.0 (7.9 to 28.7)	741 (692 to 796)	731 (682 to 785)	17.6 (15.3 to 20.0)
The Bahamas	1 213 (1 060 to 1 370)	313 (274 to 353)	2.4 (-6.4 to 12.1)	3 576 (3 328 to 3 853)	885 (825 to 951)	2.1 (1.0 to 3.2)
Barbados	860 (755 to 961)	284 (245 to 322)	21.1 (10.2 to 32.1)	3 149 (2 948 to 3 402)	805 (752 to 867)	21.1 (18.7 to 23.4)
Belize	1 249 (1 088 to 1 419)	319 (280 to 358)	22.6 (12.1 to 34.9)	3 075 (2 858 to 3 310)	938 (872 to 1 013)	20.3 (18.5 to 22.3)
Bermuda	272 (241 to 306)	405 (354 to 467)	-0.3 (-9.9 to 9.3)	1 090 (1 012 to 1 175)	1 149 (1 067 to 1 235)	2.1 (-1.4 to 6.1)
Cuba	29 644 (26 125 to 33 042)	248 (216 to 283)	-16.2 (-25.0 to -7.8)	107 278 (100 090 to 115 621)	693 (645 to 745)	-19.4 (-21.2 to -17.8)
Dominica	206 (182 to 231)	288 (251 to 323)	32.3 (19.6 to 45.9)	679 (633 to 729)	836 (778 to 899)	34.7 (32.9 to 36.6)
Dominican Republic	51 695 (45 152 to 58 133)	488 (428 to 545)	83.7 (65.1 to 103.9)	137 379 (127 517 to 148 529)	1 373 (1 273 to 1 486)	69.6 (66.8 to 72.6)
Grenada	262 (228 to 295)	228 (196 to 259)	12.1 (1.4 to 24.6)	871 (817 to 937)	670 (628 to 721)	13.0 (10.6 to 15.3)
Guyana	1 825 (1 579 to 2 081)	245 (214 to 278)	40.2 (24.0 to 56.0)	5 014 (4 653 to 5 397)	720 (669 to 774)	36.8 (34.4 to 38.9)
Haiti	28 760 (24 235 to 33 719)	255 (218 to 293)	-3.8 (-11.1 to 4.6)	71 792 (66 846 to 76 834)	779 (727 to 837)	-8.0 (-10.1 to -6.2)
Jamaica	7 785 (6 712 to 8 941)	267 (232 to 307)	93.2 (78.4 to 112.5)	22 749 (21 192 to 24 492)	773 (720 to 832)	87.1 (83.2 to 91.4)
Puerto Rico	14 014 (12 413 to 15 742)	363 (316 to 418)	8.0 (-1.7 to 18.0)	51 871 (48 483 to 56 062)	1 016 (948 to 1 094)	8.0 (6.0 to 10.4)
Saint Lucia	528 (463 to 596)	286 (250 to 325)	7.4 (-2.6 to 18.3)	1 681 (1 569 to 1 814)	825 (770 to 889)	6.3 (5.1 to 7.5)
Saint Vincent and the Grenadines	270 (235 to 305)	231 (199 to 264)	41.3 (26.9 to 56.7)	883 (823 to 949)	686 (640 to 737)	43.3 (40.7 to 46.1)
Suriname	1 922 (1 682 to 2 177)	331 (290 to 376)	19.8 (7.9 to 32.5)	5 727 (5 328 to 6 175)	955 (889 to 1 031)	16.4 (15.2 to 17.8)
Trinidad and Tobago	4 744 (4 187 to 5 332)	328 (288 to 371)	28.8 (16.9 to 43.3)	15 653 (14 623 to 16 934)	935 (874 to 1 008)	26.8 (25.0 to 28.9)
Virgin Islands	376 (334 to 419)	337 (294 to 381)	21.1 (11.7 to 31.2)	1 347 (1 258 to 1 456)	925 (866 to 997)	16.3 (14.5 to 18.1)
Central Latin America	**983 527 (855 913 to 1 116 551)**	**384 (334 to 436)**	**17.3 (11.7 to 22.9)**	**2 707 080 (2 524 017 to 2 897 252)**	**1 092 (1 019 to 1 169)**	**14.4 (12.7 to 16.4)**
Colombia	146 782 (128 483 to 165 597)	284 (247 to 320)	-8.6 (-16.2 to -1.0)	416 002 (390 216 to 446 029)	780 (732 to 836)	-11.5 (-14.0 to -9.4)
Costa Rica	17 097 (15 088 to 19 127)	354 (312 to 396)	16.9 (4.9 to 28.1)	48 087 (45 092 to 51 268)	963 (903 to 1 026)	14.4 (13.1 to 15.7)
El Salvador	17 591 (15 611 to 19 763)	295 (263 to 331)	7.0 (-4.0 to 18.8)	45 555 (42 602 to 48 684)	781 (730 to 836)	-0.7 (-2.7 to 1.2)
Guatemala	38 593 (33 078 to 44 513)	251 (218 to 282)	25.2 (15.2 to 36.9)	90 799 (84 936 to 97 345)	700 (656 to 749)	18.2 (16.5 to 19.8)
Honduras	23 900 (20 626 to 27 233)	284 (247 to 321)	35.4 (24.0 to 45.9)	57 310 (53 678 to 61 415)	804 (752 to 861)	28.4 (25.7 to 30.9)
Mexico	587 603 (507 029 to 675 684)	461 (399 to 528)	35.9 (29.7 to 42.6)	1 639 241 (1 522 198 to 1 763 199)	1 325 (1 232 to 1 426)	32.1 (29.5 to 35.3)
Nicaragua	12 883 (11 240 to 14 728)	212 (186 to 240)	-13.4 (-21.5 to -4.2)	31 598 (29 629 to 33 780)	592 (556 to 633)	-17.8 (-19.3 to -16.2)

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	12 479 (11 093 to 13 984)	315 (279 to 353)	1.3 (-7.1 to 10.9)	34 821 (32 453 to 37 293)	873 (814 to 935)	-1.5 (-2.8 to -0.4)
Venezuela	126 599 (109 908 to 143 915)	406 (354 to 460)	-3.2 (-12.2 to 7.1)	343 668 (321 169 to 368 190)	1 130 (1 057 to 1 210)	-5.6 (-7.3 to -4.0)
Tropical Latin America	**1 092 019 (946 059 to 1 248 763)**	**475 (413 to 542)**	**50.5 (42.1 to 58.5)**	**3 344 953 (3 033 427 to 3 671 892)**	**1 393 (1 264 to 1 526)**	**50.2 (42.9 to 57.8)**
Brazil	1 063 263 (921 016 to 1 217 395)	477 (414 to 546)	50.2 (41.7 to 58.1)	3 271 170 (2 965 341 to 3 591 705)	1 398 (1 268 to 1 533)	50.0 (42.5 to 57.6)
Paraguay	28 756 (24 785 to 33 188)	410 (356 to 468)	70.2 (49.7 to 91.1)	73 782 (67 955 to 79 992)	1 195 (1 101 to 1 294)	63.5 (60.3 to 67.2)
North Africa and Middle East	**3 647 741 (3 169 298 to 4 151 722)**	**603 (528 to 681)**	**-11.8 (-16.3 to -7.5)**	**9 314 458 (8 670 467 to 10 054 284)**	**1 746 (1 623 to 1 883)**	**-15.5 (-16.4 to -14.5)**
North Africa and Middle East	**3 647 741 (3 169 298 to 4 151 722)**	**603 (528 to 681)**	**-11.8 (-16.3 to -7.5)**	**9 314 458 (8 670 467 to 10 054 284)**	**1 746 (1 623 to 1 883)**	**-15.5 (-16.4 to -14.5)**
Afghanistan	120 735 (101 019 to 144 842)	410 (350 to 474)	-12.6 (-19.6 to -5.1)	243 780 (226 944 to 261 891)	1 305 (1 214 to 1 403)	-16.1 (-17.3 to -14.9)
Algeria	266 520 (229 931 to 304 344)	650 (563 to 736)	-23.1 (-28.3 to -17.3)	731 389 (679 604 to 787 831)	1 907 (1 774 to 2 055)	-25.9 (-26.9 to -24.9)
Bahrain	8 512 (7 383 to 9 678)	555 (490 to 622)	-31.9 (-38.8 to -25.2)	26 295 (24 448 to 28 394)	1 629 (1 516 to 1 751)	-33.1 (-34.8 to -31.5)
Egypt	632 244 (545 004 to 721 060)	675 (585 to 761)	-7.4 (-15.1 to -0.0)	1 527 082 (1 415 912 to 1 650 722)	1 967 (1 822 to 2 130)	-12.5 (-14.0 to -11.0)
Iran	578 111 (488 467 to 680 061)	673 (575 to 782)	-23.5 (-27.0 to -19.9)	1 610 188 (1 496 935 to 1 742 511)	1 934 (1 799 to 2 087)	-27.6 (-28.9 to -26.5)
Iraq	144 667 (123 156 to 167 646)	340 (293 to 385)	-40.4 (-45.2 to -34.5)	342 614 (320 955 to 365 974)	1 052 (984 to 1 126)	-38.5 (-40.4 to -37.1)
Jordan	45 306 (39 054 to 51 777)	427 (372 to 482)	-30.4 (-38.0 to -23.3)	105 098 (98 289 to 112 582)	1 230 (1 151 to 1 319)	-32.9 (-34.3 to -31.8)
Kuwait	32 117 (27 991 to 36 359)	725 (642 to 810)	-27.6 (-35.1 to -18.9)	88 118 (82 196 to 95 164)	2 105 (1 963 to 2 263)	-28.1 (-29.2 to -27.0)
Lebanon	48 469 (41 667 to 57 351)	550 (474 to 643)	11.7 (1.9 to 22.1)	119 686 (111 474 to 128 769)	1 583 (1 474 to 1 703)	8.8 (7.1 to 10.7)
Libya	55 945 (47 720 to 64 764)	785 (678 to 894)	-14.2 (-20.8 to -6.7)	139 417 (128 767 to 151 549)	2 238 (2 069 to 2 432)	-17.6 (-18.7 to -16.5)
Morocco	208 224 (178 746 to 237 422)	572 (493 to 648)	-10.0 (-17.3 to -2.6)	594 570 (553 473 to 642 870)	1 694 (1 577 to 1 831)	-14.0 (-15.2 to -12.8)
Palestine	15 154 (12 770 to 17 873)	318 (272 to 367)	-10.2 (-17.7 to -2.5)	34 146 (31 879 to 36 544)	958 (894 to 1 026)	-9.6 (-10.8 to -8.3)
Oman	56 754 (48 500 to 65 770)	1 129 (994 to 1 269)	-29.0 (-35.1 to -23.3)	125 723 (116 140 to 137 359)	3 146 (2 918 to 3 413)	-31.2 (-32.4 to -30.0)
Qatar	30 692 (26 304 to 35 541)	966 (850 to 1 083)	-16.7 (-25.1 to -8.5)	71 734 (66 519 to 77 939)	2 728 (2 535 to 2 946)	-19.7 (-20.8 to -18.4)
Saudi Arabia	400 922 (342 397 to 462 774)	1 045 (912 to 1 183)	-11.3 (-21.3 to -1.1)	890 743 (818 669 to 979 730)	2 920 (2 686 to 3 198)	-15.6 (-17.1 to -14.1)
Sudan	203 304 (172 244 to 236 657)	553 (479 to 627)	-17.4 (-23.7 to -11.7)	454 834 (422 501 to 489 485)	1 717 (1 594 to 1 852)	-20.0 (-21.2 to -18.8)
Syria	68 376 (58 019 to 79 057)	389 (333 to 446)	-10.1 (-19.0 to -0.4)	172 789 (161 593 to 185 391)	1 126 (1 054 to 1 208)	-13.2 (-14.5 to -12.0)
Tunisia	65 575 (56 466 to 75 506)	553 (477 to 638)	0.6 (-7.2 to 9.1)	202 123 (187 136 to 218 662)	1 608 (1 490 to 1 738)	-3.8 (-5.3 to -2.1)
Turkey	367 899 (321 637 to 416 795)	443 (386 to 504)	17.2 (8.3 to 26.5)	1 129 132 (1 050 999 to 1 213 776)	1 275 (1 188 to 1 369)	9.1 (7.1 to 10.9)
United Arab Emirates	123 480 (103 823 to 145 886)	1 132 (1 002 to 1 275)	-15.7 (-22.9 to -7.7)	327 381 (303 368 to 355 742)	3 182 (2 956 to 3 443)	-17.8 (-18.9 to -16.7)
Yemen	171 330 (147 283 to 198 218)	624 (546 to 709)	-21.1 (-26.5 to -14.6)	368 918 (344 033 to 396 299)	1 890 (1 761 to 2 036)	-23.6 (-24.9 to -22.5)
South Asia	**8 457 957 (7 169 469 to 10 031 040)**	**462 (393 to 545)**	**49.0 (42.3 to 55.6)**	**23 048 088 (21 253 672 to 25 062 773)**	**1 437 (1 327 to 1 567)**	**43.1 (40.6 to 46.2)**
South Asia	**8 457 957 (7 169 469 to 10 031 040)**	**462 (393 to 545)**	**49.0 (42.3 to 55.6)**	**23 048 088 (21 253 672 to 25 062 773)**	**1 437 (1 327 to 1 567)**	**43.1 (40.6 to 46.2)**
Bangladesh	488 246 (416 666 to 570 648)	298 (255 to 346)	68.2 (54.9 to 85.0)	1 371 652 (1 264 865 to 1 487 123)	950 (878 to 1 032)	60.3 (57.1 to 63.7)
Bhutan	3 851 (3 235 to 4 536)	367 (312 to 429)	0.9 (-8.5 to 11.1)	10 086 (9 280 to 10 959)	1 168 (1 077 to 1 267)	-2.8 (-5.1 to -0.4)
India	6 596 837 (5 538 899 to 7 879 123)	463 (390 to 549)	45.0 (37.4 to 53.2)	18 375 144 (16 927 415 to 20 047 566)	1 445 (1 332 to 1 577)	40.3 (37.6 to 43.3)
Nepal	132 834 (113 152 to 156 543)	437 (375 to 508)	36.0 (27.7 to 45.0)	353 306 (325 678 to 383 730)	1 382 (1 276 to 1 504)	32.0 (29.5 to 34.8)
Pakistan	1 236 189 (1 057 252 to 1 460 214)	568 (490 to 663)	61.3 (50.0 to 73.3)	2 937 900 (2 695 517 to 3 198 542)	1 815 (1 670 to 1 981)	58.5 (55.5 to 62.0)
Southeast Asia, East Asia, and Oceania	**20 809 598 (18 003 124 to 23 852 398)**	**882 (772 to 999)**	**92.9 (85.1 to 100.8)**	**69 014 270 (63 694 029 to 74 704 932)**	**2 627 (2 431 to 2 840)**	**81.3 (77.7 to 85.1)**
East Asia	**15 572 911 (13 389 614 to 17 938 779)**	**939 (811 to 1 072)**	**111.2 (101.4 to 120.8)**	**53 552 607 (49 383 606 to 58 086 220)**	**2 741 (2 531 to 2 972)**	**94.9 (90.7 to 99.4)**
China	14 840 576 (12 727 729 to 17 118 937)	940 (810 to 1 075)	113.9 (103.7 to 123.6)	50 992 074 (47 007 604 to 55 308 501)	2 744 (2 534 to 2 975)	97.0 (92.6 to 101.8)
North Korea	229 875 (198 667 to 265 267)	824 (717 to 950)	110.0 (95.2 to 126.4)	765 861 (709 715 to 830 351)	2 462 (2 285 to 2 663)	107.4 (103.7 to 111.4)
Taiwan (Province of China)	251 589 (222 814 to 280 305)	990 (876 to 1 115)	23.0 (10.4 to 37.8)	931 969 (862 516 to 1 007 055)	2 820 (2 614 to 3 042)	19.0 (14.4 to 23.7)
Oceania	**90 566 (77 855 to 104 811)**	**744 (647 to 853)**	**68.2 (56.5 to 81.5)**	**213 271 (198 008 to 231 651)**	**2 271 (2 110 to 2 472)**	**66.5 (64.2 to 69.1)**
American Samoa	344 (298 to 393)	632 (547 to 722)	59.6 (46.0 to 74.2)	945 (877 to 1 018)	1 887 (1 755 to 2 035)	56.0 (53.6 to 58.9)
Federated States of Micronesia	730 (623 to 848)	708 (606 to 824)	83.6 (69.1 to 99.8)	1 919 (1 777 to 2 080)	2 172 (2 007 to 2 356)	78.7 (75.5 to 81.9)
Fiji	5 541 (4 815 to 6 347)	602 (525 to 688)	83.8 (64.7 to 103.3)	15 887 (14 786 to 17 120)	1 836 (1 709 to 1 979)	81.0 (77.8 to 84.9)
Guam	1 569 (1 370 to 1 782)	933 (816 to 1 063)	66.6 (51.7 to 81.6)	4 826 (4 470 to 5 219)	2 700 (2 502 to 2 913)	65.5 (61.7 to 69.7)
Kiribati	543 (458 to 635)	465 (397 to 539)	103.5 (86.3 to 123.1)	1 377 (1 280 to 1 488)	1 471 (1 366 to 1 591)	101.2 (96.6 to 107.4)
Marshall Islands	425 (364 to 491)	755 (650 to 866)	93.3 (77.2 to 112.2)	1 048 (971 to 1 137)	2 299 (2 132 to 2 497)	89.9 (86.6 to 93.9)
Northern Mariana Islands	359 (314 to 409)	773 (674 to 881)	26.0 (15.9 to 37.0)	1 206 (1 120 to 1 306)	2 222 (2 071 to 2 397)	23.4 (21.5 to 25.6)
Papua New Guinea	68 220 (58 294 to 79 140)	769 (665 to 883)	60.9 (48.2 to 75.8)	154 930 (143 456 to 168 865)	2 368 (2 192 to 2 586)	59.6 (57.1 to 62.1)
Samoa	1 244 (1 069 to 1 454)	677 (585 to 784)	85.8 (70.9 to 103.7)	3 277 (3 044 to 3 534)	2 072 (1 923 to 2 235)	81.9 (79.1 to 85.2)
Solomon Islands	3 966 (3 381 to 4 637)	662 (571 to 766)	78.2 (64.6 to 92.0)	9 450 (8 773 to 10 244)	2 081 (1 934 to 2 257)	75.7 (72.9 to 79.6)
Tonga	583 (505 to 665)	585 (508 to 664)	86.6 (71.9 to 104.2)	1 571 (1 463 to 1 694)	1 772 (1 652 to 1 910)	81.0 (78.1 to 84.9)
Vanuatu	2 052 (1 747 to 2 396)	762 (652 to 879)	88.9 (76.8 to 102.6)	5 082 (4 729 to 5 492)	2 394 (2 220 to 2 596)	86.9 (84.4 to 89.8)
Southeast Asia	**5 146 121 (4 493 905 to 5 855 603)**	**748 (657 to 851)**	**50.6 (42.9 to 58.5)**	**15 248 393 (14 122 438 to 16 448 412)**	**2 289 (2 123 to 2 466)**	**44.6 (41.7 to 47.7)**
Cambodia	116 215 (99 543 to 134 834)	719 (620 to 825)	63.4 (51.5 to 76.5)	298 196 (276 989 to 320 552)	2 149 (1 997 to 2 311)	55.8 (52.4 to 59.4)
Indonesia	1 882 125 (1 592 917 to 2 213 048)	703 (600 to 822)	38.7 (30.4 to 47.5)	5 621 101 (5 189 045 to 6 077 804)	2 200 (2 033 to 2 375)	32.3 (28.3 to 36.7)

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
Laos	55 544 (47 543 to 63 808)	788 (680 to 893)	50.4 (39.3 to 63.8)	139 068 (129 223 to 149 092)	2 449 (2 276 to 2 628)	45.2 (42.0 to 48.2)
Malaysia	367 736 (321 285 to 416 265)	1 134 (996 to 1 273)	68.5 (51.8 to 85.9)	967 238 (896 405 to 1 040 041)	3 254 (3 012 to 3 504)	59.2 (56.6 to 61.8)
Maldives	3 472 (2 894 to 4 173)	670 (572 to 786)	42.1 (31.7 to 52.8)	8 382 (7 804 to 9 042)	1 946 (1 812 to 2 097)	30.5 (27.8 to 33.8)
Mauritius	9 898 (8 636 to 11 206)	743 (646 to 857)	86.8 (70.4 to 103.2)	34 165 (31 704 to 36 865)	2 159 (2 005 to 2 327)	84.7 (80.1 to 89.7)
Myanmar	355 327 (307 093 to 402 527)	645 (559 to 728)	52.3 (39.7 to 65.8)	1 006 447 (935 340 to 1 080 868)	1 960 (1 823 to 2 102)	44.7 (41.3 to 48.1)
Philippines	530 282 (461 890 to 606 945)	513 (449 to 582)	98.2 (79.6 to 120.1)	1 361 830 (1 268 947 to 1 460 207)	1 527 (1 422 to 1 641)	90.7 (87.2 to 95.2)
Sri Lanka	149 394 (131 503 to 169 925)	669 (587 to 769)	129.3 (107.9 to 154.5)	463 477 (430 905 to 498 611)	1 913 (1 782 to 2 055)	121.0 (116.9 to 126.3)
Seychelles	824 (724 to 928)	774 (682 to 868)	104.2 (88.3 to 120.1)	2 536 (2 355 to 2 735)	2 228 (2 073 to 2 399)	95.4 (91.9 to 99.0)
Thailand	816 798 (721 207 to 915 096)	1 084 (956 to 1 212)	36.0 (23.0 to 51.6)	2 886 211 (2 657 406 to 3 128 610)	3 122 (2 876 to 3 381)	29.0 (26.4 to 32.1)
Timor-Leste	6 849 (5 778 to 8 067)	566 (481 to 662)	92.6 (79.2 to 106.9)	16 622 (15 476 to 17 780)	1 759 (1 638 to 1 886)	84.0 (80.9 to 87.9)
Vietnam	844 886 (737 516 to 962 944)	821 (718 to 932)	72.7 (56.9 to 89.7)	2 423 058 (2 246 430 to 2 608 362)	2 376 (2 204 to 2 554)	62.3 (59.7 to 65.6)
Sub-Saharan Africa	**5 090 705 (4 385 621 to 5 908 108)**	**562 (493 to 638)**	**-16.8 (-20.3 to -13.6)**	**11 177 501 (10 428 363 to 12 021 346)**	**1 703 (1 582 to 1 834)**	**-18.6 (-19.8 to -17.7)**
Central sub-Saharan Africa	**856 081 (738 450 to 985 218)**	**751 (660 to 849)**	**-16.7 (-21.9 to -11.5)**	**1 873 278 (1 737 190 to 2 023 688)**	**2 334 (2 166 to 2 534)**	**-18.4 (-19.7 to -17.3)**
Angola	227 429 (196 264 to 260 998)	887 (775 to 996)	-20.7 (-26.0 to -14.5)	475 233 (439 997 to 515 624)	2 734 (2 535 to 2 973)	-23.7 (-25.5 to -22.2)
Central African Republic	33 517 (28 489 to 39 491)	738 (634 to 854)	-13.6 (-19.6 to -6.4)	78 179 (71 888 to 86 166)	2 352 (2 160 to 2 587)	-12.5 (-13.5 to -11.5)
Congo (Brazzaville)	40 694 (35 363 to 46 934)	845 (742 to 962)	-19.7 (-25.6 to -13.8)	98 194 (91 108 to 106 533)	2 620 (2 431 to 2 845)	-19.8 (-21.1 to -18.5)
DR Congo	526 541 (450 018 to 611 636)	693 (605 to 786)	-16.0 (-22.5 to -10.0)	1 158 233 (1 074 163 to 1 251 269)	2 161 (2 004 to 2 343)	-17.4 (-18.7 to -16.2)
Equatorial Guinea	10 954 (9 381 to 12 812)	867 (756 to 989)	-4.9 (-11.9 to 2.6)	20 760 (19 263 to 22 427)	2 523 (2 337 to 2 738)	-13.7 (-16.1 to -11.6)
Gabon	16 947 (14 727 to 19 342)	1 007 (880 to 1 141)	-22.4 (-27.4 to -16.9)	42 679 (39 609 to 46 196)	3 092 (2 872 to 3 345)	-22.4 (-23.5 to -21.4)
Eastern sub-Saharan Africa	**1 886 499 (1 620 923 to 2 208 244)**	**567 (497 to 642)**	**-17.8 (-21.4 to -14.5)**	**4 020 143 (3 736 311 to 4 323 682)**	**1 701 (1 583 to 1 838)**	**-19.3 (-20.4 to -18.4)**
Burundi	63 310 (54 770 to 72 428)	691 (606 to 781)	-28.0 (-32.5 to -22.6)	134 988 (125 354 to 145 823)	2 098 (1 948 to 2 280)	-27.4 (-28.6 to -26.3)
Comoros	4 699 (4 095 to 5 336)	697 (609 to 784)	-28.1 (-33.0 to -23.2)	11 822 (10 993 to 12 791)	2 099 (1 952 to 2 272)	-30.2 (-31.5 to -29.2)
Djibouti	8 028 (6 899 to 9 160)	777 (678 to 879)	-16.6 (-22.0 to -11.0)	19 361 (17 968 to 20 922)	2 328 (2 166 to 2 523)	-17.8 (-18.9 to -16.7)
Eritrea	34 840 (29 933 to 40 052)	670 (586 to 760)	-17.8 (-22.8 to -11.2)	72 707 (67 380 to 78 742)	1 963 (1 816 to 2 134)	-18.9 (-20.1 to -17.7)
Ethiopia	339 143 (280 396 to 413 509)	390 (331 to 458)	-38.7 (-42.0 to -35.7)	727 670 (676 923 to 782 426)	1 204 (1 119 to 1 297)	-39.4 (-40.9 to -38.1)
Kenya	298 792 (252 730 to 354 710)	711 (614 to 819)	1.8 (-2.6 to 6.2)	655 045 (604 853 to 708 350)	2 104 (1 944 to 2 281)	0.0 (-0.8 to 0.8)
Madagascar	145 408 (125 723 to 167 745)	657 (574 to 737)	-23.6 (-29.1 to -17.8)	313 009 (291 101 to 338 099)	1 975 (1 835 to 2 144)	-26.1 (-27.7 to -24.9)
Malawi	64 910 (55 340 to 75 495)	435 (379 to 490)	-21.8 (-27.6 to -15.5)	138 709 (129 065 to 148 847)	1 292 (1 205 to 1 388)	-23.7 (-25.2 to -22.6)
Mozambique	153 527 (131 995 to 177 226)	619 (542 to 698)	2.5 (-6.0 to 11.3)	307 480 (286 096 to 333 054)	1 822 (1 692 to 1 981)	-3.4 (-4.7 to -2.1)
Rwanda	78 549 (68 285 to 91 071)	718 (632 to 814)	-32.0 (-36.6 to -26.9)	173 639 (161 246 to 187 387)	2 119 (1 968 to 2 289)	-33.5 (-35.0 to -32.3)
Somalia	103 607 (87 747 to 122 270)	731 (630 to 837)	-9.7 (-15.5 to -3.1)	220 858 (203 693 to 241 505)	2 246 (2 070 to 2 462)	-9.8 (-10.6 to -8.9)
South Sudan	61 813 (53 075 to 71 879)	744 (654 to 845)	-0.1 (-6.1 to 6.2)	131 650 (121 512 to 143 175)	2 276 (2 106 to 2 483)	0.9 (-0.1 to 1.8)
Tanzania	239 805 (206 054 to 278 628)	516 (453 to 581)	-12.2 (-18.8 to -5.4)	527 488 (491 490 to 565 814)	1 549 (1 448 to 1 661)	-13.1 (-14.2 to -12.2)
Uganda	203 889 (175 213 to 236 519)	640 (563 to 721)	2.0 (-4.2 to 8.6)	406 134 (376 766 to 436 297)	1 903 (1 774 to 2 048)	2.5 (1.1 to 3.7)
Zambia	84 994 (73 106 to 98 497)	577 (507 to 648)	-24.6 (-30.0 to -18.6)	177 060 (164 618 to 190 481)	1 720 (1 604 to 1 854)	-25.4 (-26.6 to -24.3)
Southern sub-Saharan Africa	**590 513 (502 359 to 689 187)**	**768 (659 to 888)**	**-25.1 (-27.9 to -21.8)**	**1 515 647 (1 399 072 to 1 650 498)**	**2 264 (2 091 to 2 468)**	**-29.3 (-31.2 to -27.5)**
Botswana	14 551 (12 662 to 16 605)	650 (570 to 737)	8.1 (1.1 to 15.4)	36 839 (34 022 to 40 036)	1 927 (1 780 to 2 096)	6.4 (4.9 to 8.0)
Lesotho	15 658 (13 560 to 18 023)	810 (708 to 923)	30.5 (19.5 to 42.1)	37 615 (34 666 to 41 058)	2 390 (2 206 to 2 614)	26.1 (24.2 to 28.2)
Namibia	17 469 (15 134 to 20 194)	758 (663 to 863)	-11.1 (-17.7 to -3.8)	41 635 (38 458 to 45 396)	2 240 (2 072 to 2 445)	-14.1 (-15.3 to -12.8)
South Africa	456 862 (384 538 to 535 410)	811 (687 to 946)	-32.5 (-35.7 to -28.9)	1 209 288 (1 112 684 to 1 319 123)	2 363 (2 176 to 2 582)	-36.4 (-38.4 to -34.5)
Swaziland	9 465 (8 130 to 11 009)	864 (750 to 986)	6.6 (-1.1 to 14.5)	20 916 (19 275 to 22 850)	2 535 (2 336 to 2 779)	2.4 (1.0 to 4.0)
Zimbabwe	76 508 (65 357 to 89 540)	576 (500 to 662)	14.9 (6.9 to 23.9)	169 354 (157 377 to 182 613)	1 714 (1 589 to 1 855)	17.6 (15.9 to 19.5)
Western sub-Saharan Africa	**1 757 612 (1 498 547 to 2 054 475)**	**458 (400 to 519)**	**-7.9 (-12.7 to -3.1)**	**3 768 432 (3 517 353 to 4 025 686)**	**1 371 (1 285 to 1 467)**	**-11.0 (-11.9 to -10.1)**
Benin	67 150 (57 257 to 79 132)	658 (572 to 750)	-11.6 (-17.0 to -6.3)	144 255 (134 385 to 154 874)	2 010 (1 874 to 2 157)	-14.5 (-15.9 to -13.1)
Burkina Faso	53 686 (44 262 to 66 002)	261 (222 to 306)	38.4 (27.5 to 50.9)	117 504 (109 112 to 125 900)	841 (785 to 898)	35.3 (33.3 to 37.4)
Cameroon	114 580 (98 517 to 132 814)	467 (411 to 525)	-24.8 (-30.4 to -19.2)	246 554 (229 864 to 263 621)	1 400 (1 305 to 1 503)	-26.5 (-27.5 to -25.6)
Cape Verde	2 393 (2 085 to 2 768)	438 (385 to 503)	31.8 (23.5 to 40.3)	6 340 (5 940 to 6 759)	1 275 (1 194 to 1 361)	25.8 (24.0 to 27.4)
Chad	57 988 (48 621 to 67 513)	446 (391 to 504)	8.0 (1.0 to 15.9)	117 762 (109 923 to 125 837)	1 387 (1 294 to 1 483)	7.5 (6.5 to 8.9)
Cote d'Ivoire	106 983 (91 902 to 124 287)	473 (414 to 536)	-13.1 (-18.9 to -7.0)	240 537 (224 993 to 256 907)	1 451 (1 355 to 1 552)	-14.1 (-14.9 to -13.2)
The Gambia	8 862 (7 589 to 10 423)	464 (406 to 529)	-8.1 (-13.7 to -2.4)	19 272 (17 996 to 20 614)	1 396 (1 304 to 1 497)	-11.2 (-12.1 to -10.3)
Ghana	162 014 (141 204 to 187 500)	582 (510 to 661)	22.3 (12.9 to 32.1)	370 734 (345 920 to 397 129)	1 702 (1 588 to 1 825)	16.6 (15.4 to 17.9)
Guinea	48 438 (41 744 to 56 133)	467 (411 to 525)	-11.7 (-17.9 to -5.0)	108 046 (101 078 to 115 441)	1 440 (1 345 to 1 542)	-14.5 (-16.3 to -12.9)
Guinea-Bissau	7 435 (6 375 to 8 643)	450 (396 to 510)	-24.1 (-29.0 to -19.0)	15 813 (14 726 to 16 919)	1 375 (1 281 to 1 472)	-26.0 (-27.2 to -24.8)
Liberia	14 598 (12 341 to 17 145)	343 (298 to 389)	-23.8 (-29.3 to -18.1)	32 633 (30 423 to 34 931)	1 053 (982 to 1 126)	-26.7 (-27.9 to -25.5)
Mali	77 152 (65 109 to 90 060)	431 (374 to 490)	-22.6 (-27.2 to -18.0)	161 714 (150 438 to 172 933)	1 323 (1 233 to 1 416)	-25.0 (-26.2 to -23.8)
Mauritania	13 807 (11 870 to 16 273)	385 (336 to 440)	-26.1 (-30.8 to -21.1)	31 461 (29 411 to 33 652)	1 166 (1 092 to 1 251)	-27.3 (-28.3 to -26.5)

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	72 137 (60 106 to 85 255)	405 (352 to 462)	-19.5 (-24.6 to -13.6)	143 522 (134 190 to 153 819)	1 243 (1 163 to 1 332)	-23.1 (-24.4 to -21.8)
Nigeria	830 941 (702 111 to 977 830)	457 (398 to 523)	-7.1 (-13.0 to -1.3)	1 741 697 (1 622 897 to 1 862 143)	1 347 (1 263 to 1 441)	-11.0 (-11.9 to -10.0)
Sao Tome and Principe	906 (781 to 1 060)	487 (426 to 556)	4.9 (-3.0 to 12.8)	2 113 (1 973 to 2 260)	1 458 (1 360 to 1 560)	-0.5 (-2.1 to 1.2)
Senegal	56 480 (48 779 to 65 999)	428 (375 to 484)	-16.1 (-22.0 to -10.2)	129 375 (120 848 to 138 165)	1 301 (1 217 to 1 393)	-18.9 (-20.2 to -17.8)
Sierra Leone	30 804 (26 702 to 35 625)	441 (387 to 496)	-15.8 (-20.9 to -9.9)	68 075 (63 508 to 72 926)	1 339 (1 248 to 1 436)	-19.0 (-20.4 to -17.7)
Togo	31 240 (26 760 to 36 278)	461 (403 to 523)	-12.9 (-18.7 to -6.8)	70 988 (66 283 to 75 914)	1 381 (1 290 to 1 478)	-16.3 (-17.8 to -15.1)

Table 2: Mortality for 2017 and percentage change of age-standardised rates between 1990 and 2017 by location for road injuries

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Global	**1 243 068 (1 191 889 to 1 276 940)**	**15.8 (15.2 to 16.3)**	**-29.0 (-33.6 to -25.0)**
Low SDI	**210 016 (197 673 to 222 927)**	**20.6 (19.4 to 21.8)**	**-19.0 (-27.2 to -4.8)**
Low-middle SDI	**313 285 (289 059 to 331 347)**	**20.6 (18.9 to 21.8)**	**-21.1 (-29.0 to -14.2)**
Middle SDI	**376 334 (357 728 to 389 646)**	**17.0 (16.2 to 17.6)**	**-27.4 (-33.7 to -22.7)**
High-middle SDI	**234 727 (223 744 to 243 437)**	**15.0 (14.3 to 15.5)**	**-34.6 (-39.8 to -30.5)**
High SDI	**103 359 (101 354 to 105 976)**	**7.5 (7.3 to 7.7)**	**-56.0 (-57.1 to -54.8)**
Central Europe, Eastern Europe, and Central Asia	**54 869 (53 678 to 56 296)**	**11.9 (11.6 to 12.2)**	**-45.7 (-47.0 to -43.9)**
Central Asia	**10 767 (10 146 to 11 452)**	**11.8 (11.2 to 12.5)**	**-39.7 (-43.2 to -35.8)**
Armenia	242 (229 to 258)	7.0 (6.6 to 7.5)	-58.9 (-61.7 to -55.4)
Azerbaijan	645 (562 to 729)	6.2 (5.4 to 6.9)	-61.4 (-67.0 to -56.1)
Georgia	724 (667 to 773)	17.4 (16.1 to 18.6)	-14.0 (-21.0 to -6.9)
Kazakhstan	2 767 (2 555 to 2 999)	14.9 (13.8 to 16.1)	-35.8 (-40.4 to -30.1)
Kyrgyzstan	884 (827 to 953)	14.6 (13.7 to 15.8)	-44.9 (-49.3 to -39.9)
Mongolia	546 (480 to 626)	16.4 (14.5 to 18.7)	10.8 (-9.2 to 35.7)
Tajikistan	645 (577 to 724)	7.6 (6.8 to 8.5)	-46.8 (-53.4 to -39.3)
Turkmenistan	323 (289 to 365)	6.4 (5.8 to 7.3)	-65.8 (-69.9 to -61.4)
Uzbekistan	3 990 (3 483 to 4 535)	12.8 (11.2 to 14.5)	-30.0 (-39.0 to -20.2)
Central Europe	**10 977 (10 629 to 11 375)**	**8.0 (7.7 to 8.2)**	**-56.8 (-58.3 to -55.0)**
Albania	248 (201 to 304)	7.9 (6.4 to 9.7)	-39.5 (-51.3 to -24.9)
Bosnia and Herzegovina	269 (244 to 293)	6.4 (5.8 to 7.0)	4.9 (-11.3 to 19.5)
Bulgaria	719 (665 to 782)	8.7 (8.0 to 9.5)	-41.3 (-46.1 to -36.0)
Croatia	379 (353 to 408)	7.3 (6.8 to 7.9)	-61.0 (-63.9 to -57.7)
Czech Republic	853 (794 to 918)	6.6 (6.1 to 7.1)	-53.1 (-56.8 to -49.1)
Hungary	789 (734 to 864)	6.3 (5.9 to 6.9)	-69.1 (-71.4 to -65.9)
Macedonia	161 (145 to 175)	6.5 (5.8 to 7.1)	-29.3 (-38.4 to -21.4)
Montenegro	57 (51 to 63)	7.7 (7.0 to 8.6)	-29.0 (-38.3 to -18.8)
Poland	3 954 (3 704 to 4 234)	8.7 (8.1 to 9.3)	-60.9 (-63.6 to -57.8)
Romania	2 184 (2 044 to 2 330)	9.4 (8.8 to 10.0)	-51.9 (-55.0 to -48.6)
Serbia	780 (721 to 839)	7.1 (6.5 to 7.6)	-52.3 (-57.4 to -45.5)
Slovakia	442 (407 to 493)	7.0 (6.4 to 7.8)	-65.3 (-68.6 to -61.2)
Slovenia	142 (131 to 157)	5.9 (5.4 to 6.5)	-73.9 (-76.3 to -71.2)

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	**33 125 (32 284 to 34 221)**	**14.3 (13.9 to 14.7)**	**-42.0 (-43.7 to -39.7)**
Belarus	990 (913 to 1 085)	8.8 (8.1 to 9.6)	-60.3 (-63.7 to -55.4)
Estonia	90 (78 to 104)	5.8 (5.0 to 6.7)	-78.1 (-81.2 to -74.5)
Latvia	212 (188 to 237)	9.2 (8.1 to 10.4)	-71.9 (-75.4 to -68.1)
Lithuania	325 (302 to 351)	9.2 (8.5 to 10.1)	-67.2 (-69.8 to -63.9)
Moldova	442 (418 to 470)	10.4 (9.8 to 11.0)	-62.5 (-65.0 to -59.9)
Russian Federation	24 385 (23 735 to 25 842)	15.1 (14.7 to 16.0)	-40.4 (-42.2 to -37.1)
Ukraine	6 681 (5 924 to 7 238)	14.0 (12.2 to 15.2)	-36.7 (-44.8 to -31.0)
High-income	**99 663 (97 500 to 102 405)**	**7.8 (7.6 to 8.0)**	**-53.0 (-54.2 to -51.6)**
Australasia	**2 023 (1 838 to 2 212)**	**6.3 (5.7 to 6.9)**	**-61.7 (-65.3 to -57.8)**
Australia	1 661 (1 482 to 1 847)	6.1 (5.4 to 6.8)	-60.4 (-64.9 to -55.9)
New Zealand	362 (341 to 385)	7.6 (7.2 to 8.1)	-65.3 (-67.5 to -63.0)
High-income Asia-Pacific	**14 588 (13 967 to 15 248)**	**5.1 (4.9 to 5.3)**	**-70.4 (-71.8 to -68.8)**
Brunei	68 (60 to 75)	16.5 (14.8 to 18.0)	-49.0 (-55.3 to -42.4)
Japan	7 681 (7 377 to 8 026)	3.8 (3.7 to 4.0)	-65.2 (-66.6 to -63.7)
South Korea	6 643 (6 143 to 7 170)	9.3 (8.6 to 10.0)	-75.8 (-77.7 to -73.6)
Singapore	197 (181 to 213)	3.1 (2.8 to 3.3)	-64.2 (-67.1 to -61.2)
High-income North America	**46 958 (45 107 to 48 711)**	**11.6 (11.1 to 12.1)**	**-35.6 (-38.6 to -32.8)**
Canada	2 741 (2 558 to 2 923)	6.7 (6.2 to 7.2)	-54.9 (-58.2 to -51.6)
Greenland	2 (2 to 3)	4.1 (3.7 to 4.6)	-65.6 (-71.3 to -57.2)
USA	44 214 (42 452 to 45 928)	12.2 (11.6 to 12.6)	-33.8 (-37.1 to -30.9)
Southern Latin America	**9 348 (8 564 to 10 232)**	**13.1 (12.0 to 14.3)**	**-8.6 (-16.2 to 0.7)**
Argentina	6 457 (5 751 to 7 270)	13.6 (12.2 to 15.3)	1.0 (-10.4 to 14.5)
Chile	2 281 (1 995 to 2 595)	11.2 (9.8 to 12.7)	-29.9 (-38.2 to -20.0)
Uruguay	609 (537 to 681)	15.0 (13.2 to 16.8)	-6.4 (-18.5 to 5.4)
Western Europe	**26 747 (25 935 to 27 579)**	**4.9 (4.7 to 5.0)**	**-68.7 (-69.7 to -67.7)**
Andorra	4 (3 to 4)	4.1 (3.5 to 4.8)	-54.4 (-63.2 to -42.5)
Austria	481 (450 to 515)	4.4 (4.1 to 4.8)	-73.6 (-75.5 to -71.3)
Belgium	1 035 (969 to 1 107)	7.0 (6.6 to 7.5)	-64.8 (-67.2 to -62.0)
Cyprus	152 (137 to 167)	10.2 (9.3 to 11.3)	-60.1 (-67.5 to -53.9)
Denmark	283 (263 to 304)	4.0 (3.7 to 4.3)	-69.8 (-72.2 to -67.2)
Finland	289 (270 to 310)	4.2 (3.9 to 4.5)	-69.3 (-71.7 to -66.6)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
France	4 053 (3 815 to 4 346)	5.5 (5.1 to 5.9)	-70.4 (-72.4 to -68.0)
Germany	4 716 (4 218 to 5 274)	4.5 (4.0 to 5.0)	-67.9 (-71.3 to -63.8)
Greece	1 221 (1 144 to 1 302)	9.9 (9.2 to 10.6)	-49.7 (-53.0 to -46.2)
Iceland	14 (13 to 15)	3.7 (3.4 to 4.0)	-67.3 (-70.1 to -64.3)
Ireland	188 (174 to 203)	3.5 (3.2 to 3.8)	-74.2 (-76.3 to -71.8)
Israel	632 (590 to 678)	6.3 (5.9 to 6.8)	-42.5 (-46.6 to -38.1)
Italy	5 710 (5 333 to 6 090)	6.1 (5.7 to 6.5)	-63.6 (-66.0 to -60.9)
Luxembourg	38 (34 to 42)	5.4 (4.8 to 6.0)	-71.7 (-74.8 to -68.5)
Malta	17 (16 to 19)	3.4 (3.2 to 3.7)	-52.9 (-56.9 to -48.2)
Netherlands	856 (807 to 909)	3.7 (3.5 to 4.0)	-63.3 (-65.8 to -60.5)
Norway	215 (208 to 223)	3.4 (3.3 to 3.6)	-64.9 (-66.3 to -63.1)
Portugal	961 (892 to 1 032)	6.5 (6.0 to 7.1)	-79.7 (-81.3 to -77.9)
Spain	2 452 (2 299 to 2 625)	4.2 (3.9 to 4.5)	-79.6 (-81.0 to -77.9)
Sweden	390 (365 to 418)	3.1 (2.9 to 3.4)	-67.9 (-70.2 to -65.5)
Switzerland	334 (310 to 365)	3.1 (2.8 to 3.3)	-77.5 (-79.3 to -75.2)
United Kingdom	2 679 (2 618 to 2 766)	3.5 (3.4 to 3.6)	-63.2 (-64.2 to -61.9)
Latin America and Caribbean	**111 293 (106 737 to 115 259)**	**18.6 (17.9 to 19.3)**	**-35.8 (-38.5 to -32.9)**
Andean Latin America	**11 169 (10 159 to 12 189)**	**18.8 (17.1 to 20.4)**	**-28.4 (-35.7 to -20.6)**
Bolivia	2 128 (1 567 to 2 609)	20.8 (15.8 to 25.4)	-53.4 (-65.4 to -40.7)
Ecuador	4 465 (4 018 to 4 977)	27.2 (24.5 to 30.3)	-10.4 (-19.8 to 0.2)
Peru	4 577 (3 901 to 5 316)	14.0 (12.0 to 16.3)	-26.2 (-37.8 to -12.4)
Caribbean	**10 539 (8 887 to 12 161)**	**22.1 (18.6 to 25.4)**	**-22.7 (-30.7 to -12.9)**
Antigua and Barbuda	7 (6 to 7)	7.0 (6.3 to 7.8)	-37.0 (-44.4 to -29.0)
The Bahamas	60 (54 to 67)	15.1 (13.6 to 16.9)	-29.0 (-37.3 to -19.3)
Barbados	31 (28 to 34)	8.9 (8.1 to 9.9)	-32.0 (-39.1 to -23.8)
Belize	72 (65 to 78)	19.2 (17.4 to 20.7)	-20.1 (-34.4 to -7.3)
Bermuda	7 (6 to 7)	8.0 (7.1 to 9.0)	-59.7 (-64.5 to -54.3)
Cuba	1 121 (998 to 1 276)	8.1 (7.2 to 9.2)	-61.7 (-66.1 to -56.4)
Dominica	12 (11 to 13)	15.7 (14.3 to 17.3)	-13.5 (-22.8 to -3.3)
Dominican Republic	3 152 (2 644 to 3 659)	30.0 (25.2 to 34.9)	35.5 (11.9 to 64.0)
Grenada	12 (11 to 13)	9.6 (8.7 to 10.4)	-41.6 (-47.4 to -35.0)
Guyana	118 (101 to 137)	15.9 (13.7 to 18.5)	-15.5 (-28.3 to -1.2)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Haiti	4 487 (3 029 to 6 032)	42.9 (28.3 to 58.7)	-39.8 (-52.0 to -23.7)
Jamaica	277 (222 to 330)	9.3 (7.5 to 11.1)	94.2 (52.3 to 134.1)
Puerto Rico	446 (411 to 483)	10.1 (9.3 to 11.0)	-47.9 (-52.5 to -43.0)
Saint Lucia	25 (22 to 28)	12.9 (11.5 to 14.3)	-39.9 (-47.0 to -31.9)
Saint Vincent and the Grenadines	12 (11 to 13)	9.5 (8.6 to 10.4)	-18.2 (-27.3 to -7.9)
Suriname	99 (86 to 112)	16.8 (14.7 to 19.0)	-28.6 (-39.1 to -17.6)
Trinidad and Tobago	210 (171 to 255)	13.9 (11.3 to 16.8)	-13.8 (-29.6 to 5.1)
Virgin Islands	15 (13 to 17)	11.2 (9.8 to 12.7)	-36.1 (-46.0 to -24.2)
Central Latin America	**41 811 (39 363 to 43 874)**	**16.4 (15.4 to 17.2)**	**-38.4 (-42.5 to -35.3)**
Colombia	7 437 (6 572 to 8 381)	14.2 (12.6 to 16.0)	-41.6 (-49.0 to -33.8)
Costa Rica	782 (704 to 860)	15.7 (14.1 to 17.2)	-20.1 (-28.1 to -11.1)
El Salvador	1 282 (1 061 to 1 554)	21.4 (17.7 to 25.9)	-34.4 (-46.2 to -19.6)
Guatemala	2 692 (2 351 to 3 087)	17.4 (15.1 to 19.8)	-8.7 (-21.1 to 4.6)
Honduras	1 294 (979 to 1 581)	16.5 (12.3 to 20.2)	-30.7 (-46.8 to -11.2)
Mexico	20 170 (19 427 to 20 909)	16.0 (15.4 to 16.6)	-41.5 (-44.3 to -39.2)
Nicaragua	654 (558 to 766)	11.0 (9.5 to 12.8)	-50.6 (-58.2 to -42.5)
Panama	512 (469 to 557)	12.9 (11.8 to 14.0)	-41.8 (-47.2 to -36.3)
Venezuela	6 988 (5 856 to 8 378)	22.0 (18.5 to 26.3)	-30.0 (-41.6 to -16.7)
Tropical Latin America	**47 773 (45 698 to 49 554)**	**20.4 (19.6 to 21.2)**	**-37.0 (-39.8 to -33.6)**
Brazil	46 282 (44 196 to 47 990)	20.4 (19.5 to 21.1)	-37.9 (-40.7 to -34.4)
Paraguay	1 491 (1 221 to 1 816)	22.3 (18.3 to 27.1)	31.1 (5.1 to 63.6)
North Africa and Middle East	**131 692 (115 130 to 152 258)**	**23.2 (20.1 to 27.0)**	**-43.9 (-50.8 to -35.6)**
North Africa and Middle East	**131 692 (115 130 to 152 258)**	**23.2 (20.1 to 27.0)**	**-43.9 (-50.8 to -35.6)**
Afghanistan	8 692 (6 911 to 10 727)	33.3 (26.8 to 40.8)	-36.3 (-55.9 to 83.5)
Algeria	6 905 (5 516 to 11 141)	17.4 (13.8 to 28.4)	-50.8 (-58.3 to -41.9)
Bahrain	128 (113 to 147)	9.8 (8.7 to 11.0)	-60.4 (-65.0 to -54.0)
Egypt	26 946 (19 277 to 33 875)	31.9 (21.7 to 41.0)	-39.5 (-53.4 to -26.9)
Iran	21 124 (20 681 to 22 147)	26.1 (25.6 to 27.4)	-51.7 (-59.6 to -46.7)
Iraq	3 773 (3 433 to 4 205)	9.5 (8.7 to 10.5)	-64.6 (-70.6 to -49.8)
Jordan	1 110 (989 to 1 249)	11.7 (10.4 to 13.1)	-54.9 (-61.7 to -46.2)
Kuwait	529 (477 to 575)	13.9 (12.4 to 15.1)	-48.5 (-52.8 to -43.6)
Lebanon	562 (376 to 689)	6.9 (4.5 to 8.3)	-47.8 (-67.0 to -33.8)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Libya	1 701 (871 to 2 607)	25.3 (13.0 to 39.2)	-27.9 (-55.1 to -5.6)
Morocco	7 264 (5 384 to 11 891)	20.6 (15.2 to 33.9)	-43.3 (-57.3 to -28.0)
Palestine	355 (313 to 407)	8.5 (7.7 to 9.5)	-50.1 (-58.1 to -39.6)
Oman	1 950 (1 572 to 2 346)	47.1 (38.4 to 56.1)	-52.4 (-63.2 to -38.6)
Qatar	574 (462 to 704)	24.8 (20.1 to 30.4)	-33.4 (-48.8 to -13.4)
Saudi Arabia	12 039 (8 422 to 14 884)	36.7 (25.9 to 44.1)	-28.2 (-56.2 to -4.2)
Sudan	10 692 (8 170 to 15 862)	30.4 (22.9 to 47.3)	-55.5 (-66.0 to -38.1)
Syria	1 748 (1 418 to 2 110)	11.6 (9.3 to 13.8)	-45.6 (-60.7 to -29.1)
Tunisia	3 669 (2 913 to 4 525)	30.2 (24.1 to 37.1)	-38.7 (-55.2 to -20.6)
Turkey	8 604 (7 763 to 9 520)	10.3 (9.3 to 11.4)	-38.7 (-47.5 to -28.0)
United Arab Emirates	3 649 (2 803 to 4 596)	49.9 (39.5 to 61.1)	-17.2 (-45.1 to 17.2)
Yemen	9 556 (7 228 to 13 629)	38.4 (28.8 to 56.0)	-44.8 (-60.1 to 12.0)
South Asia	**290 540 (253 208 to 313 209)**	**17.9 (15.4 to 19.3)**	**-2.8 (-14.0 to 7.0)**
South Asia	**290 540 (253 208 to 313 209)**	**17.9 (15.4 to 19.3)**	**-2.8 (-14.0 to 7.0)**
Bangladesh	11 798 (9 120 to 13 748)	8.2 (6.5 to 9.6)	4.9 (-16.6 to 35.8)
Bhutan	70 (51 to 86)	7.9 (5.9 to 9.6)	-57.4 (-68.0 to -43.7)
India	218 876 (201 734 to 231 141)	17.2 (15.7 to 18.1)	-9.2 (-18.3 to -0.6)
Nepal	6 787 (3 920 to 10 235)	26.6 (15.2 to 39.3)	12.7 (-21.9 to 55.9)
Pakistan	53 009 (32 258 to 69 115)	29.7 (17.9 to 38.8)	29.8 (2.8 to 63.0)
Southeast Asia, East Asia, and Oceania	**393 363 (374 675 to 408 773)**	**16.3 (15.6 to 16.9)**	**-27.2 (-34.3 to -22.1)**
East Asia	**275 976 (261 267 to 288 588)**	**15.6 (14.9 to 16.3)**	**-22.4 (-31.0 to -15.9)**
China	261 802 (247 924 to 273 651)	15.6 (14.8 to 16.2)	-21.8 (-30.7 to -14.9)
North Korea	5 744 (3 772 to 8 746)	20.1 (13.5 to 30.5)	36.2 (-1.6 to 80.1)
Taiwan (Province of China)	3 984 (3 752 to 4 257)	13.1 (12.4 to 14.0)	-66.6 (-68.6 to -64.4)
Oceania	**3 373 (2 747 to 4 069)**	**29.9 (24.7 to 35.7)**	**-19.7 (-35.2 to -2.2)**
American Samoa	4 (4 to 5)	8.9 (8.1 to 9.6)	-27.7 (-40.3 to -15.7)
Federated States of Micronesia	16 (11 to 21)	17.6 (12.2 to 22.1)	-17.9 (-43.0 to 8.7)
Fiji	84 (73 to 97)	10.0 (8.7 to 11.4)	-21.1 (-38.4 to -3.7)
Guam	23 (20 to 25)	13.6 (12.2 to 15.0)	-16.5 (-29.5 to -4.1)
Kiribati	12 (9 to 15)	11.2 (8.8 to 13.5)	-7.7 (-29.3 to 16.7)
Marshall Islands	12 (9 to 15)	24.5 (19.4 to 29.4)	-14.4 (-31.3 to 5.5)
Northern Mariana Islands	5 (4 to 6)	11.1 (9.7 to 12.4)	-37.5 (-52.0 to -20.3)

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	2 831 (2 243 to 3 484)	34.7 (28.0 to 42.2)	-26.6 (-42.1 to -8.6)
Samoa	18 (14 to 25)	10.9 (8.7 to 15.2)	-16.0 (-34.5 to 5.0)
Solomon Islands	117 (91 to 149)	21.7 (16.8 to 27.8)	-16.3 (-35.0 to 5.3)
Tonga	11 (9 to 13)	12.1 (10.1 to 14.0)	-7.8 (-32.2 to 14.5)
Vanuatu	52 (36 to 72)	21.0 (14.8 to 28.6)	-5.2 (-30.5 to 31.7)
Southeast Asia	**114 014 (106 883 to 120 762)**	**17.3 (16.3 to 18.4)**	**-41.1 (-46.3 to -36.4)**
Cambodia	3 981 (3 155 to 5 142)	27.7 (22.1 to 35.2)	-40.5 (-52.3 to -22.6)
Indonesia	35 626 (32 587 to 38 492)	14.5 (13.2 to 15.7)	-51.2 (-56.4 to -46.5)
Laos	1 690 (1 275 to 2 112)	26.8 (20.5 to 33.5)	-45.1 (-58.2 to -28.4)
Malaysia	6 946 (6 127 to 7 794)	23.3 (20.6 to 26.1)	-26.2 (-42.8 to -11.9)
Maldives	33 (25 to 60)	8.4 (6.3 to 14.7)	-64.7 (-70.1 to -52.0)
Mauritius	165 (150 to 181)	11.4 (10.4 to 12.5)	-22.5 (-30.2 to -14.3)
Myanmar	10 942 (9 203 to 13 089)	20.7 (17.6 to 24.6)	-47.5 (-58.0 to -34.7)
Philippines	10 940 (9 482 to 12 600)	11.6 (10.1 to 13.3)	4.8 (-10.5 to 23.1)
Sri Lanka	2 795 (2 318 to 3 320)	12.3 (10.2 to 14.6)	-19.9 (-33.8 to -3.0)
Seychelles	14 (12 to 16)	13.4 (11.6 to 15.0)	15.0 (1.2 to 28.8)
Thailand	19 183 (16 832 to 21 609)	24.7 (21.8 to 27.5)	-41.9 (-52.6 to -31.9)
Timor-Leste	118 (67 to 200)	10.5 (6.2 to 18.3)	-31.8 (-56.6 to -11.3)
Vietnam	21 431 (17 934 to 24 368)	21.4 (18.2 to 24.2)	-24.3 (-39.7 to -6.9)
Sub-Saharan Africa	**161 647 (150 086 to 173 753)**	**22.0 (20.5 to 23.6)**	**-31.3 (-38.7 to -22.7)**
Central sub-Saharan Africa	**32 666 (27 105 to 38 467)**	**31.0 (26.4 to 36.3)**	**-29.0 (-40.3 to -7.3)**
Angola	6 781 (5 592 to 8 207)	28.6 (23.5 to 34.9)	-50.1 (-61.8 to -16.5)
Central African Republic	3 495 (1 985 to 4 570)	85.5 (50.7 to 111.2)	5.6 (-21.9 to 62.3)
Congo (Brazzaville)	1 229 (944 to 1 552)	28.6 (22.4 to 35.4)	-43.6 (-56.3 to -26.7)
DR Congo	20 502 (15 783 to 25 532)	28.9 (23.1 to 35.8)	-20.8 (-36.3 to 9.4)
Equatorial Guinea	225 (154 to 319)	20.9 (14.3 to 30.2)	-68.0 (-78.2 to -54.1)
Gabon	435 (342 to 548)	28.5 (22.7 to 35.7)	-34.7 (-49.4 to -18.5)
Eastern sub-Saharan Africa	**52 980 (46 622 to 58 814)**	**21.5 (18.9 to 23.5)**	**-35.0 (-43.8 to -23.2)**
Burundi	2 287 (1 799 to 3 045)	35.1 (27.7 to 46.6)	-33.8 (-47.7 to -15.3)
Comoros	113 (94 to 137)	20.7 (17.2 to 24.8)	-42.9 (-55.0 to -27.9)
Djibouti	175 (125 to 251)	23.0 (16.6 to 32.0)	-27.2 (-47.9 to 4.7)
Eritrea	1 287 (913 to 1 627)	33.0 (24.6 to 40.6)	-40.2 (-54.2 to -10.5)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Ethiopia	9 742 (8 867 to 10 837)	15.4 (14.0 to 16.9)	-57.2 (-64.7 to -40.4)
Kenya	5 503 (5 015 to 6 334)	18.2 (16.5 to 20.6)	-12.9 (-41.0 to 2.7)
Madagascar	3 475 (2 827 to 4 271)	20.8 (17.0 to 25.1)	-35.8 (-47.5 to -21.7)
Malawi	2 227 (1 865 to 2 628)	19.4 (16.7 to 22.4)	-45.6 (-63.4 to 13.2)
Mozambique	5 078 (4 228 to 5 948)	27.5 (23.3 to 31.9)	-17.0 (-36.1 to 4.8)
Rwanda	2 661 (1 822 to 3 743)	33.3 (22.7 to 44.5)	-45.2 (-57.4 to -27.8)
Somalia	5 154 (2 772 to 7 410)	51.1 (27.8 to 72.0)	0.8 (-34.2 to 86.7)
South Sudan	1 761 (1 291 to 2 405)	28.3 (20.9 to 39.0)	-11.2 (-38.3 to 48.2)
Tanzania	5 560 (4 790 to 6 411)	15.4 (13.4 to 17.7)	-32.6 (-47.5 to 1.0)
Uganda	5 826 (4 239 to 7 496)	26.1 (18.9 to 33.3)	1.3 (-29.9 to 34.6)
Zambia	2 098 (1 794 to 2 435)	19.8 (17.2 to 22.6)	-45.1 (-57.3 to -23.3)
Southern sub-Saharan Africa	**20 157 (18 838 to 21 651)**	**27.6 (26.0 to 29.5)**	**-37.0 (-46.3 to -30.3)**
Botswana	299 (253 to 341)	15.1 (12.7 to 17.1)	-32.7 (-45.8 to -15.2)
Lesotho	803 (635 to 981)	45.0 (35.7 to 54.4)	20.9 (-18.9 to 60.7)
Namibia	451 (357 to 572)	22.0 (17.7 to 27.5)	-36.2 (-50.1 to -19.7)
South Africa	15 504 (14 441 to 16 826)	28.2 (26.5 to 30.4)	-44.2 (-50.5 to -38.8)
Swaziland	371 (284 to 460)	37.7 (28.8 to 46.2)	1.5 (-33.3 to 35.6)
Zimbabwe	2 730 (1 939 to 3 715)	25.4 (18.4 to 34.2)	7.8 (-32.2 to 42.0)
Western sub-Saharan Africa	**55 845 (49 708 to 62 806)**	**18.7 (16.8 to 21.0)**	**-24.1 (-34.2 to -12.6)**
Benin	3 093 (1 880 to 4 280)	41.6 (25.0 to 56.0)	-31.0 (-43.6 to -15.1)
Burkina Faso	3 497 (2 885 to 4 178)	24.3 (20.2 to 28.1)	-12.4 (-29.6 to 9.9)
Cameroon	4 108 (3 215 to 5 192)	23.0 (18.3 to 28.4)	-34.1 (-49.8 to -16.7)
Cape Verde	43 (37 to 49)	8.4 (7.2 to 9.5)	12.3 (-4.4 to 32.1)
Chad	2 602 (2 107 to 3 328)	25.5 (20.7 to 32.6)	10.9 (-10.6 to 35.9)
Cote d'Ivoire	3 631 (3 055 to 4 329)	22.1 (18.8 to 25.8)	-20.0 (-36.9 to -1.3)
The Gambia	286 (218 to 360)	21.1 (16.8 to 25.3)	-8.0 (-30.2 to 16.8)
Ghana	5 381 (4 579 to 6 363)	24.4 (21.1 to 28.0)	-3.7 (-28.5 to 20.7)
Guinea	1 978 (1 667 to 2 329)	24.4 (20.7 to 28.7)	-20.9 (-36.6 to -2.7)
Guinea-Bissau	388 (304 to 488)	32.6 (27.2 to 39.3)	-42.1 (-54.0 to -27.6)
Liberia	499 (406 to 641)	16.0 (13.1 to 19.2)	-39.1 (-51.3 to -24.0)
Mali	3 109 (2 493 to 3 997)	20.1 (16.5 to 26.8)	-46.1 (-56.1 to -31.4)
Mauritania	674 (571 to 785)	23.4 (19.3 to 27.4)	-44.7 (-53.5 to -33.3)

Location	Mortality (95% UI)		
	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Niger	2 542 (1 856 to 3 410)	18.1 (13.3 to 24.3)	-34.4 (-45.7 to -17.5)
Nigeria	19 810 (13 745 to 25 758)	13.5 (9.8 to 18.0)	-28.3 (-46.2 to -3.2)
Sao Tome and Principe	24 (15 to 30)	15.9 (9.9 to 20.2)	8.4 (-24.8 to 40.5)
Senegal	1 800 (1 454 to 2 679)	17.7 (14.5 to 24.7)	-19.6 (-33.3 to -1.7)
Sierra Leone	1 245 (1 041 to 1 506)	22.7 (19.2 to 27.5)	-20.5 (-35.4 to 2.4)
Togo	1 135 (917 to 1 406)	22.5 (18.5 to 27.1)	-16.1 (-38.6 to 8.0)

Table 3: YLLs, YLDs, and DALYs for 2017 and percentage change of age-standardised rates between 1990 and 2017 by location for road injuries

Location	YLLs (95% UI)			YLDs (95% UI)			DALYs (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	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Global	**57 638 366 (55 500 786 to 59 369 191)**	**745 (718 to 767)**	**-34.4 (-38.5 to -30.4)**	**10 159 667 (7 272 042 to 13 618 818)**	**126 (90 to 169)**	**2.2 (0.3 to 4.0)**	**67 798 033 (64 337 599 to 71 454 968)**	**871 (828 to 917)**	**-30.8 (-35.0 to -26.9)**
Low SDI	**10 859 153 (10 166 644 to 11 594 703)**	**886 (834 to 942)**	**-24.5 (-33.2 to -7.0)**	**881 984 (637 927 to 1 173 872)**	**90 (66 to 119)**	**-2.2 (-4.2 to -0.1)**	**11 741 137 (10 984 026 to 12 569 333)**	**976 (917 to 1 041)**	**-22.8 (-31.3 to -6.5)**
Low-middle SDI	**15 605 391 (14 473 161 to 16 583 346)**	**923 (855 to 979)**	**-27.3 (-33.6 to -20.1)**	**1 490 436 (1 076 899 to 1 976 281)**	**101 (73 to 134)**	**15.1 (12.3 to 18.3)**	**17 095 827 (15 944 263 to 18 150 896)**	**1 023 (950 to 1 086)**	**-24.6 (-30.9 to -17.8)**
Middle SDI	**16 782 061 (16 097 262 to 17 329 206)**	**769 (740 to 794)**	**-34.5 (-39.4 to -30.8)**	**2 768 239 (1 984 422 to 3 717 378)**	**120 (86 to 161)**	**30.2 (25.5 to 35.2)**	**19 550 300 (18 517 456 to 20 647 763)**	**889 (844 to 936)**	**-29.8 (-34.6 to -26.0)**
High-middle SDI	**10 209 177 (9 792 901 to 10 567 843)**	**705 (678 to 727)**	**-40.0 (-44.4 to -36.5)**	**2 663 875 (1 915 102 to 3 602 346)**	**154 (111 to 209)**	**9.2 (6.4 to 12.1)**	**12 873 052 (12 004 007 to 13 868 911)**	**859 (806 to 917)**	**-34.8 (-39.0 to -31.1)**
High SDI	**3 957 305 (3 869 315 to 4 056 500)**	**359 (350 to 368)**	**-59.3 (-60.4 to -58.1)**	**2 302 189 (1 647 361 to 3 101 989)**	**151 (107 to 203)**	**-15.5 (-16.4 to -14.6)**	**6 259 494 (5 596 961 to 7 053 358)**	**509 (465 to 562)**	**-51.9 (-54.0 to -49.8)**
Central Europe, Eastern Europe, and Central Asia	**2 467 734 (2 411 509 to 2 533 581)**	**592 (578 to 607)**	**-46.8 (-48.1 to -45.1)**	**959 498 (681 404 to 1 295 813)**	**184 (131 to 248)**	**-17.2 (-18.9 to -15.4)**	**3 427 231 (3 153 810 to 3 762 701)**	**775 (722 to 840)**	**-41.8 (-43.6 to -39.9)**
Central Asia	**535 500 (503 802 to 571 613)**	**566 (534 to 604)**	**-42.2 (-45.6 to -38.2)**	**118 437 (84 146 to 158 821)**	**133 (95 to 179)**	**-13.2 (-15.3 to -11.0)**	**653 937 (605 871 to 705 626)**	**700 (647 to 756)**	**-38.2 (-41.6 to -34.7)**
Armenia	10 429 (9 780 to 11 166)	328 (307 to 351)	-58.9 (-62.0 to -55.5)	3 752 (2 678 to 5 063)	103 (73 to 138)	-22.6 (-25.2 to -20.2)	14 181 (12 991 to 15 697)	431 (395 to 473)	-53.7 (-56.8 to -50.5)
Azerbaijan	30 275 (26 561 to 34 656)	282 (246 to 322)	-63.8 (-68.8 to -58.2)	12 131 (8 631 to 16 237)	111 (79 to 149)	-24.2 (-26.7 to -21.5)	42 405 (36 829 to 48 269)	394 (342 to 447)	-57.5 (-62.4 to -52.5)
Georgia	31 281 (28 765 to 33 468)	843 (774 to 901)	-15.2 (-22.5 to -7.7)	7 508 (5 328 to 10 142)	161 (114 to 217)	3.4 (1.3 to 5.5)	38 789 (35 490 to 42 105)	1 004 (924 to 1 081)	-12.7 (-19.2 to -6.2)
Kazakhstan	138 147 (126 987 to 150 230)	745 (685 to 809)	-37.8 (-42.8 to -31.8)	30 789 (21 882 to 41 541)	167 (118 to 225)	-8.2 (-11.0 to -5.4)	168 937 (154 680 to 183 426)	911 (835 to 990)	-33.9 (-38.6 to -28.8)
Kyrgyzstan	44 418 (41 468 to 47 903)	690 (644 to 742)	-48.4 (-52.7 to -43.6)	7 437 (5 321 to 9 963)	132 (94 to 176)	-23.8 (-25.5 to -22.1)	51 855 (48 365 to 55 712)	821 (763 to 885)	-45.6 (-49.6 to -41.2)
Mongolia	28 237 (24 670 to 32 344)	815 (717 to 930)	6.2 (-14.5 to 30.5)	5 105 (3 651 to 6 791)	163 (116 to 217)	17.6 (13.3 to 21.9)	33 342 (29 640 to 37 446)	978 (871 to 1 093)	8.0 (-10.4 to 28.4)
Tajikistan	35 082 (31 233 to 39 326)	372 (332 to 417)	-47.0 (-53.5 to -39.3)	7 213 (5 178 to 9 649)	95 (68 to 127)	-22.5 (-24.6 to -20.5)	42 295 (37 880 to 47 158)	468 (418 to 521)	-43.3 (-49.2 to -36.7)
Turkmenistan	16 870 (15 029 to 19 187)	323 (289 to 368)	-66.5 (-70.7 to -61.7)	5 786 (4 103 to 7 796)	120 (85 to 162)	-22.2 (-24.9 to -19.2)	22 656 (19 945 to 25 610)	443 (390 to 502)	-60.4 (-64.7 to -55.7)
Uzbekistan	200 760 (175 455 to 228 368)	599 (524 to 681)	-33.8 (-42.4 to -24.3)	38 716 (27 532 to 51 867)	129 (92 to 173)	-5.4 (-8.3 to -2.4)	239 476 (210 570 to 270 548)	728 (643 to 820)	-30.1 (-37.8 to -21.7)
Central Europe	**431 549 (417 252 to 447 596)**	**377 (364 to 392)**	**-58.5 (-60.1 to -56.7)**	**343 646 (245 006 to 461 514)**	**225 (159 to 303)**	**-12.5 (-14.2 to -10.7)**	**775 195 (676 651 to 893 787)**	**602 (537 to 679)**	**-48.4 (-51.2 to -45.3)**
Albania	10 926 (8 804 to 13 492)	389 (313 to 478)	-39.2 (-51.6 to -24.1)	6 810 (4 848 to 9 162)	198 (141 to 267)	7.5 (3.4 to 11.9)	17 736 (14 573 to 21 288)	588 (485 to 704)	-28.7 (-39.8 to -16.7)
Bosnia and Herzegovina	9 965 (9 003 to 10 955)	285 (258 to 315)	-10.3 (-22.2 to 28.4)	8 953 (6 384 to 12 028)	200 (141 to 270)	48.4 (42.2 to 54.8)	18 917 (16 040 to 22 029)	486 (419 to 559)	23.4 (5.7 to 36.7)
Bulgaria	28 235 (26 031 to 30 827)	428 (391 to 468)	-42.5 (-47.5 to -37.1)	21 295 (15 164 to 28 848)	217 (154 to 295)	-0.9 (-3.4 to 1.6)	49 529 (42 889 to 56 993)	646 (572 to 730)	-33.0 (-37.8 to -28.3)
Croatia	14 460 (13 383 to 15 618)	350 (323 to 378)	-61.8 (-65.0 to -58.4)	14 689 (10 353 to 19 625)	254 (180 to 342)	-11.2 (-12.9 to -9.4)	29 149 (24 780 to 34 041)	604 (529 to 690)	-49.7 (-53.5 to -46.1)
Czech Republic	31 491 (29 196 to 33 952)	307 (284 to 331)	-56.2 (-59.7 to -52.2)	37 482 (26 758 to 50 022)	264 (187 to 355)	-0.1 (-2.1 to 2.0)	68 973 (58 226 to 81 722)	571 (492 to 663)	-40.8 (-45.3 to -36.3)
Hungary	29 004 (26 822 to 31 891)	287 (265 to 315)	-71.1 (-73.4 to -68.1)	25 828 (18 491 to 34 770)	197 (140 to 266)	-24.0 (-25.9 to -22.4)	54 832 (46 963 to 64 191)	484 (421 to 557)	-61.3 (-64.5 to -57.9)
Macedonia	6 879 (6 191 to 7 563)	317 (284 to 351)	-32.5 (-40.4 to -24.3)	5 327 (3 784 to 7 176)	193 (136 to 260)	3.0 (-0.1 to 6.6)	12 206 (10 454 to 14 097)	509 (444 to 583)	-22.4 (-29.1 to -15.8)
Montenegro	2 262 (2 039 to 2 527)	355 (318 to 397)	-34.8 (-43.1 to -24.9)	1 698 (1 206 to 2 284)	216 (153 to 291)	1.3 (-0.7 to 3.2)	3 960 (3 408 to 4 605)	571 (496 to 659)	-24.7 (-31.6 to -16.7)
Poland	160 185 (149 273 to 171 897)	414 (384 to 446)	-62.2 (-65.0 to -58.9)	122 364 (87 391 to 164 610)	240 (170 to 322)	-14.8 (-17.2 to -12.4)	282 549 (246 978 to 325 777)	654 (579 to 741)	-52.5 (-55.9 to -48.9)
Romania	85 556 (80 033 to 91 665)	449 (419 to 482)	-53.4 (-56.7 to -50.2)	54 275 (38 542 to 73 053)	206 (146 to 278)	-17.4 (-20.2 to -14.8)	139 831 (122 190 to 159 522)	655 (585 to 736)	-46.0 (-49.3 to -42.6)
Serbia	28 931 (26 570 to 31 268)	313 (288 to 339)	-59.8 (-64.7 to -52.9)	22 100 (15 724 to 29 615)	192 (136 to 257)	-21.6 (-23.5 to -19.8)	51 032 (44 349 to 59 205)	505 (446 to 578)	-50.7 (-55.6 to -44.5)
Slovakia	18 115 (16 556 to 20 200)	335 (305 to 373)	-65.7 (-69.1 to -61.4)	15 426 (10 991 to 20 767)	218 (155 to 295)	-20.6 (-22.3 to -19.0)	33 541 (28 872 to 38 859)	553 (485 to 633)	-55.8 (-59.5 to -51.6)
Slovenia	5 138 (5 066 to 6 083)	293 (267 to 322)	-74.6 (-77.0 to -71.8)	7 400 (5 272 to 9 903)	263 (186 to 354)	-22.1 (-23.8 to -20.5)	12 538 (10 748 to 15 441)	555 (474 to 651)	-62.7 (-66.3 to -59.1)
Eastern Europe	**1 500 685 (1 461 098 to 1 549 538)**	**727 (708 to 750)**	**-42.9 (-44.6 to -40.8)**	**497 415 (351 139 to 669 519)**	**179 (126 to 242)**	**-18.2 (-20.3 to -16.1)**	**1 998 100 (1 849 019 to 2 175 598)**	**906 (851 to 972)**	**-39.2 (-41.1 to -37.2)**
Belarus	40 870 (37 451 to 45 090)	418 (381 to 464)	-63.8 (-67.1 to -58.6)	19 858 (14 097 to 26 702)	157 (112 to 212)	-21.4 (-23.4 to -19.4)	60 728 (54 098 to 68 746)	576 (517 to 645)	-57.5 (-60.8 to -52.3)
Estonia	3 585 (3 095 to 4 126)	283 (244 to 326)	-79.8 (-82.6 to -76.5)	2 949 (2 082 to 3 954)	166 (117 to 223)	-29.3 (-30.9 to -27.8)	6 534 (5 586 to 7 652)	448 (388 to 518)	-72.6 (-75.5 to -69.0)
Latvia	8 407 (7 385 to 9 509)	442 (387 to 499)	-73.6 (-77.1 to -69.8)	4 590 (3 240 to 6 173)	171 (121 to 230)	-33.1 (-34.6 to -31.6)	12 998 (11 350 to 14 721)	613 (539 to 684)	-68.2 (-71.7 to -64.8)
Lithuania	12 549 (11 548 to 13 781)	434 (397 to 482)	-69.1 (-71.9 to -65.4)	7 097 (5 021 to 9 525)	180 (127 to 241)	-24.3 (-26.0 to -22.6)	19 643 (17 388 to 22 367)	613 (552 to 690)	-62.7 (-65.6 to -59.3)
Moldova	19 561 (18 412 to 20 843)	518 (487 to 553)	-64.9 (-67.5 to -62.1)	6 670 (4 749 to 8 956)	140 (99 to 188)	-35.1 (-36.9 to -33.3)	26 231 (24 041 to 28 695)	658 (607 to 715)	-61.1 (-63.6 to -58.4)
Russian Federation	1 101 491 (1 071 703 to 1 168 545)	762 (741 to 809)	-41.4 (-43.2 to -37.9)	351 974 (248 744 to 474 396)	183 (129 to 248)	-19.8 (-22.0 to -17.6)	1 453 465 (1 348 124 to 1 586 429)	945 (887 to 1 017)	-38.2 (-40.0 to -35.6)
Ukraine	314 222 (272 873 to 342 100)	741 (635 to 811)	-36.2 (-45.1 to -30.0)	104 277 (73 446 to 140 800)	175 (122 to 235)	-9.3 (-11.6 to -6.9)	418 499 (365 862 to 464 710)	916 (798 to 1 007)	-32.4 (-40.2 to -26.9)
High-income	**3 870 249 (3 766 283 to 3 980 052)**	**375 (364 to 386)**	**-56.2 (-57.6 to -54.9)**	**1 968 107 (1 404 036 to 2 653 942)**	**138 (98 to 186)**	**-18.9 (-19.7 to -18.0)**	**5 838 356 (5 261 833 to 6 518 216)**	**513 (472 to 561)**	**-50.1 (-52.0 to -48.0)**
Australasia	**84 307 (76 249 to 92 272)**	**311 (281 to 340)**	**-65.0 (-68.4 to -61.5)**	**74 635 (53 002 to 100 734)**	**276 (196 to 378)**	**-18.3 (-19.7 to -16.9)**	**158 942 (135 480 to 186 481)**	**517 (450 to 595)**	**-54.7 (-58.6 to -50.8)**
Australia	68 047 (60 460 to 76 194)	295 (263 to 331)	-63.8 (-67.9 to -59.4)	58 789 (41 567 to 79 519)	193 (137 to 261)	-20.6 (-22.3 to -18.9)	126 836 (107 609 to 149 812)	489 (421 to 567)	-53.8 (-58.1 to -49.5)
New Zealand	16 261 (15 292 to 17 299)	396 (372 to 422)	-68.8 (-70.2 to -65.8)	15 846 (11 228 to 21 357)	276 (195 to 373)	-7.3 (-9.2 to -5.6)	32 107 (27 383 to 37 691)	672 (589 to 773)	-56.3 (-59.7 to -52.4)
High-income Asia-Pacific	**423 496 (404 788 to 443 564)**	**212 (203 to 222)**	**-75.0 (-76.3 to -73.6)**	**324 999 (232 293 to 434 757)**	**117 (83 to 157)**	**-24.9 (-26.3 to -23.5)**	**748 495 (658 877 to 861 019)**	**329 (297 to 370)**	**-67.3 (-69.6 to -64.9)**
Brunei	3 113 (2 911 to 3 703)	724 (642 to 804)	-49.1 (-56.1 to -42.0)	667 (468 to 901)	156 (110 to 212)	-32.9 (-34.8 to -31.2)	3 980 (3 542 to 4 669)	880 (793 to 981)	-46.9 (-53.1 to -40.6)
Japan	215 338 (206 926 to 225 334)	169 (162 to 176)	-67.9 (-69.2 to -66.5)	233 743 (167 533 to 311 576)	119 (85 to 160)	-16.9 (-18.6 to -14.9)	449 081 (382 427 to 528 530)	288 (253 to 330)	-57.0 (-59.8 to -53.9)
South Korea	196 375 (180 704 to 213 266)	323 (299 to 350)	-81.7 (-83.2 to -79.8)	83 032 (58 866 to 112 426)	115 (81 to 155)	-44.0 (-45.7 to -42.4)	279 407 (250 816 to 310 953)	437 (397 to 485)	-77.7 (-79.4 to -75.8)
Singapore	8 469 (7 770 to 9 217)	139 (127 to 151)	-64.8 (-68.1 to -61.7)	7 558 (5 342 to 10 234)	112 (79 to 152)	-3.5 (-6.3 to -0.7)	16 027 (13 647 to 18 746)	250 (215 to 291)	-50.9 (-55.6 to -46.4)
High-income North America	**2 010 842 (1 917 839 to 2 091 726)**	**574 (548 to 597)**	**-40.5 (-43.5 to -37.9)**	**731 662 (528 529 to 977 972)**	**160 (115 to 214)**	**-21.9 (-23.2 to -20.5)**	**2 742 504 (2 526 022 to 3 003 613)**	**734 (682 to 795)**	**-37.2 (-39.9 to -35.0)**
Canada	112 125 (103 699 to 120 452)	327 (311 to 362)	-57.8 (-61.2 to -54.4)	64 251 (45 490 to 87 044)	137 (96 to 185)	-21.9 (-23.8 to -20.0)	176 375 (156 565 to 199 944)	474 (426 to 528)	-51.3 (-54.6 to -48.1)
Greenland	109 (96 to 125)	198 (174 to 228)	-69.6 (-75.3 to -59.9)	53 (37 to 72)	81 (57 to 110)	-28.6 (-30.9 to -26.5)	162 (142 to 184)	280 (246 to 320)	-63.5 (-69.3 to -54.4)
USA	1 898 573 (1 805 915 to 1 977 120)	600 (571 to 625)	-39.0 (-42.2 to -36.2)	667 345 (482 369 to 891 856)	163 (117 to 218)	-21.8 (-23.2 to -20.3)	2 565 919 (2 365 666 to 2 807 024)	763 (709 to 826)	-36.0 (-38.8 to -33.7)
Southern Latin America	**407 091 (371 351 to 447 236)**	**605 (552 to 664)**	**-10.7 (-18.7 to -1.3)**	**80 149 (56 954 to 108 380)**	**109 (77 to 148)**	**22.3 (18.5 to 26.5)**	**487 240 (442 127 to 535 364)**	**714 (649 to 782)**	**-6.9 (-14.1 to 1.7)**
Argentina	289 424 (257 888 to 327 091)	641 (572 to 722)	-0.9 (-12.8 to 13.1)	56 713 (40 311 to 76 749)	117 (83 to 159)	29.2 (25.0 to 33.7)	346 137 (308 138 to 387 501)	758 (676 to 847)	2.8 (-7.9 to 15.1)
Chile	94 017 (82 122 to 106 924)	497 (437 to 564)	-32.8 (-40.8 to -23.3)	18 359 (13 052 to 24 940)	87 (62 to 118)	3.1 (-0.6 to 6.8)	112 376 (98 851 to 125 819)	584 (515 to 654)	-29.1 (-36.9 to -20.6)
Uruguay	23 631 (20 664 to 26 725)	676 (593 to 763)	-10.2 (-22.0 to 1.4)	5 074 (3 623 to 6 857)	123 (87 to 167)	34.1 (30.0 to 38.7)	28 705 (25 409 to 32 359)	800 (707 to 898)	-5.4 (-16.6 to 5.0)
Western Europe	**944 513 (915 348 to 975 076)**	**228 (221 to 236)**	**-71.7 (-72.6 to -70.7)**	**756 662 (537 785 to 1 024 824)**	**130 (92 to 175)**	**-17.8 (-19.3 to -16.6)**	**1 701 176 (1 483 766 to 1 964 595)**	**358 (320 to 404)**	**-62.7 (-65.2 to -60.2)**
Andorra	152 (129 to 178)	206 (175 to 241)	-57.8 (-66.8 to -46.4)	155 (109 to 210)	144 (102 to 196)	0.8 (-1.2 to 2.8)	306 (257 to 366)	350 (299 to 414)	-44.5 (-53.3 to -33.5)
Austria	18 049 (16 762 to 19 434)	212 (196 to 229)	-75.7 (-77.6 to -73.4)	15 931 (11 286 to 21 555)	135 (95 to 182)	-19.0 (-21.7 to -17.5)	33 980 (29 093 to 39 490)	347 (303 to 394)	-66.9 (-69.5 to -63.4)
Belgium	35 596 (33 108 to 38 177)	321 (297 to 345)	-68.7 (-71.1 to -66.3)	18 935 (13 424 to 25 680)	125 (88 to 169)	-28.1 (-30.0 to -26.3)	54 531 (48 375 to 61 664)	446 (403 to 496)	-62.8 (-65.5 to -59.9)
Cyprus	6 023 (5 434 to 6 685)	466 (419 to 518)	-59.5 (-65.9 to -53.6)	2 639 (1 872 to 3 570)	166 (118 to 224)	-24.7 (-26.4 to -23.1)	8 662 (7 649 to 9 838)	632 (562 to 709)	-53.9 (-60.3 to -48.5)
Denmark	10 470 (9 691 to 11 349)	188 (173 to 204)	-71.6 (-74.1 to -69.0)	9 666 (6 880 to 13 026)	130 (92 to 175)	-14.9 (-16.8 to -12.9)	20 136 (17 104 to 23 563)	318 (276 to 367)	-61.0 (-64.6 to -57.3)
Finland	10 431 (9 675 to 11 279)	200 (184 to 217)	-70.8 (-73.4 to -67.9)	10 286 (7 309 to 13 932)	139 (98 to 188)	-2.1 (-3.8 to -0.0)	20 717 (17 653 to 24 437)	338 (293 to 391)	-59.0 (-63.0 to -55.0)
France	163 837 (152 700 to 176 480)	278 (257 to 300)	-71.3 (-73.4 to -69.0)	121 899 (86 503 to 165 672)	143 (101 to 193)	-21.9 (-24.4 to -19.9)	285 736 (247 705 to 329 689)	420 (372 to 476)	-63.5 (-66.3 to -60.6)
Germany	172 459 (153 981 to 193 858)	219 (195 to 246)	-71.1 (-74.4 to -67.4)	151 476 (107 764 to 205 183)	132 (93 to 178)	-14.8 (-16.8 to -13.1)	323 934 (276 644 to 381 551)	351 (307 to 403)	-61.6 (-65.3 to -57.6)
Greece	46 452 (43 450 to 49 616)	488 (454 to 525)	-51.1 (-54.5 to -47.4)	24 437 (17 392 to 33 214)	165 (116 to 224)	-10.1 (-12.0 to -8.2)	70 890 (63 146 to 79 491)	653 (596 to 717)	-44.7 (-48.1 to -41.1)
Iceland	582 (538 to 628)	177 (162 to 192)	-69.5 (-72.6 to -65.9)	532 (378 to 720)	131 (92 to 177)	-5.8 (-8.0 to -3.6)	1 114 (948 to 1 302)	307 (266 to 356)	-57.2 (-61.6 to -52.6)
Ireland	7 423 (6 793 to 8 140)	160 (146 to 177)	-76.2 (-78.5 to -73.7)	7 409 (5 254 to 10 019)	128 (90 to 173)	-7.2 (-9.3 to -5.1)	14 832 (12 585 to 17 501)	288 (246 to 337)	-64.5 (-68.5 to -60.6)
Israel	22 677 (21 143 to 24 440)	255 (237 to 275)	-49.5 (-53.5 to -45.3)	11 844 (8 372 to 16 067)	124 (87 to 168)	-6.2 (-8.3 to -4.1)	34 521 (30 884 to 39 035)	378 (340 to 427)	-40.5 (-44.6 to -36.4)
Italy	158 685 (147 495 to 170 172)	264 (246 to 284)	-67.1 (-69.5 to -64.5)	116 181 (82 801 to 156 972)	131 (93 to 178)	-21.3 (-22.9 to -19.6)	274 866 (241 324 to 316 404)	396 (354 to 447)	-59.3 (-62.1 to -56.2)
Luxembourg	1 467 (1 308 to 1 637)	253 (227 to 282)	-74.9 (-77.8 to -71.8)	1 177 (833 to 1 588)	156 (110 to 210)	-14.8 (-17.2 to -12.6)	2 643 (2 262 to 3 094)	409 (355 to 468)	-65.7 (-69.3 to -61.8)
Malta	686 (634 to 748)	170 (157 to 186)	-53.3 (-58.1 to -47.7)	681 (485 to 921)	116 (82 to 157)	14.8 (12.5 to 17.2)	1 367 (1 162 to 1 607)	286 (249 to 328)	-38.5 (-44.3 to -32.5)
Netherlands	27 490 (25 783 to 29 467)	163 (150 to 174)	-68.1 (-71.1 to -66.1)	24 765 (17 672 to 33 364)	110 (78 to 149)	-15.0 (-17.3 to -12.6)	52 255 (44 586 to 61 052)	272 (236 to 310)	-58.0 (-61.6 to -54.6)
Norway	8 290 (7 990 to 8 619)	164 (157 to 171)	-69.6 (-71.0 to -67.7)	8 859 (6 328 to 11 872)	132 (94 to 177)	-0.3 (-2.3 to 1.8)	17 149 (14 647 to 20 149)	296 (259 to 343)	-55.9 (-59.6 to -52.0)
Portugal	31 716 (29 181 to 34 370)	290 (266 to 316)	-82.4 (-84.0 to -80.7)	18 545 (13 137 to 25 090)	121 (86 to 164)	-40.3 (-42.2 to -38.4)	50 261 (44 310 to 57 039)	411 (367 to 457)	-77.8 (-79.9 to -76.0)
Spain	87 642 (81 548 to 94 215)	195 (182 to 211)	-81.9 (-83.3 to -80.3)	88 107 (62 455 to 119 208)	139 (98 to 188)	-22.0 (-24.2 to -19.9)	175 749 (149 104 to 205 750)	334 (292 to 380)	-73.4 (-75.9 to -70.6)
Sweden	14 171 (13 062 to 15 302)	147 (134 to 159)	-70.6 (-72.9 to -68.2)	16 377 (11 745 to 21 921)	125 (89 to 168)	-9.2 (-11.2 to -7.2)	30 548 (25 745 to 36 035)	272 (233 to 316)	-57.3 (-61.2 to -53.3)
Switzerland	11 763 (10 831 to 12 907)	142 (131 to 154)	-80.1 (-81.8 to -78.0)	15 366 (10 896 to 20 812)	131 (92 to 177)	-18.3 (-19.8 to -16.6)	27 128 (22 469 to 32 566)	273 (232 to 321)	-68.7 (-72.3 to -64.9)

Location	YLLs (95% UI)			YLDs (95% UI)			DALYs (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	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
United Kingdom	107 474 (104 867 to 110 771)	170 (166 to 176)	-66.3 (-67.2 to -65.1)	90 613 (64 656 to 122 645)	106 (75 to 144)	-8.0 (-9.2 to -7.2)	198 087 (171 611 to 230 317)	277 (245 to 314)	-55.4 (-58.3 to -52.3)
Latin America and Caribbean	**5 342 067 (5 130 650 to 5 532 635)**	**889 (855 to 920)**	**-37.3 (-39.6 to -34.3)**	**421 977 (305 404 to 562 074)**	**71 (51 to 94)**	**18.9 (15.6 to 22.7)**	**5 764 044 (5 527 287 to 5 975 477)**	**960 (921 to 995)**	**-35.0 (-37.3 to -32.1)**
Andean Latin America	**526 055 (475 228 to 576 064)**	**850 (770 to 930)**	**-33.8 (-40.8 to -25.6)**	**30 811 (22 050 to 41 157)**	**53 (38 to 71)**	**-3.6 (-7.8 to 0.9)**	**556 865 (504 790 to 608 324)**	**904 (819 to 987)**	**-32.6 (-39.4 to -24.7)**
Bolivia	97 827 (66 587 to 123 138)	864 (605 to 1 078)	-59.3 (-71.9 to -46.5)	5 122 (3 698 to 6 831)	52 (37 to 68)	-18.8 (-22.2 to -15.1)	102 949 (71 705 to 127 573)	916 (650 to 1 127)	-58.2 (-70.7 to -45.4)
Ecuador	217 207 (195 209 to 242 896)	1 276 (1 148 to 1 427)	-9.6 (-17.6 to 3.9)	10 311 (7 369 to 13 856)	65 (47 to 88)	-0.3 (-0.3 to 10.4)	227 518 (205 200 to 253 126)	1 341 (1 210 to 1 490)	-7.1 (-16.8 to 4.0)
Peru	211 020 (177 718 to 246 077)	631 (534 to 735)	-36.2 (-46.6 to -23.1)	15 378 (10 931 to 20 620)	48 (34 to 65)	-4.0 (-8.7 to 0.8)	226 398 (192 770 to 261 109)	679 (580 to 783)	-34.6 (-44.8 to -22.1)
Caribbean	**520 168 (435 356 to 600 522)**	**1 120 (936 to 1 289)**	**-25.9 (-34.2 to -15.4)**	**26 379 (18 766 to 35 493)**	**53 (38 to 72)**	**5.0 (2.8 to 7.3)**	**546 547 (462 186 to 627 664)**	**1 174 (989 to 1 343)**	**-24.9 (-32.8 to -14.8)**
Antigua and Barbuda	312 (278 to 348)	342 (304 to 382)	-34.4 (-42.8 to -25.2)	41 (29 to 56)	41 (29 to 55)	9.8 (5.7 to 13.5)	354 (318 to 391)	382 (342 to 425)	-31.5 (-39.7 to -22.5)
The Bahamas	2 942 (2 635 to 3 296)	744 (667 to 830)	-27.1 (-36.2 to -16.6)	202 (143 to 275)	50 (35 to 68)	-3.5 (-6.2 to -0.9)	3 144 (2 828 to 3 487)	794 (713 to 880)	-26.0 (-34.8 to -16.0)
Barbados	1 255 (1 130 to 1 393)	424 (381 to 469)	-33.6 (-41.0 to -25.1)	172 (122 to 235)	45 (32 to 61)	13.5 (9.7 to 17.3)	1 427 (1 292 to 1 575)	469 (424 to 517)	-30.8 (-38.0 to -22.8)
Belize	3 768 (3 405 to 4 082)	923 (835 to 999)	-22.6 (-35.6 to -10.4)	188 (135 to 254)	56 (40 to 75)	12.0 (8.4 to 15.5)	3 956 (3 599 to 4 291)	979 (890 to 1 059)	-21.2 (-33.9 to -9.4)
Bermuda	241 (214 to 274)	363 (317 to 415)	-21.6 (-67.1 to -55.5)	59 (42 to 80)	63 (45 to 86)	-2.9 (-6.8 to 1.2)	300 (267 to 336)	426 (376 to 481)	-57.8 (-63.0 to -52.1)
Cuba	43 395 (38 485 to 49 497)	368 (328 to 416)	-65.7 (-69.5 to -60.9)	5 744 (4 058 to 7 867)	38 (27 to 52)	-23.8 (-26.2 to -21.4)	49 139 (43 890 to 55 382)	406 (364 to 456)	-63.8 (-67.6 to -59.3)
Dominica	549 (496 to 607)	801 (721 to 888)	-10.7 (-20.7 to 0.5)	39 (28 to 52)	49 (35 to 65)	26.7 (22.9 to 30.6)	588 (533 to 648)	850 (768 to 937)	-9.2 (-18.8 to 1.8)
Dominican Republic	151 993 (128 801 to 176 045)	1 399 (1 186 to 1 620)	26.7 (4.6 to 52.8)	8 012 (5 696 to 10 871)	79 (56 to 108)	44.3 (37.3 to 52.1)	160 005 (136 735 to 184 366)	1 478 (1 266 to 1 704)	27.5 (6.6 to 52.2)
Grenada	502 (455 to 549)	444 (401 to 488)	-43.4 (-49.8 to -36.2)	51 (36 to 69)	40 (28 to 54)	6.7 (2.6 to 10.3)	552 (504 to 602)	484 (440 to 528)	-41.1 (-47.5 to -34.0)
Guyana	5 852 (4 985 to 6 832)	763 (652 to 889)	-16.4 (-29.0 to -2.1)	310 (222 to 415)	44 (31 to 59)	28.0 (23.8 to 32.3)	6 162 (5 318 to 7 138)	807 (698 to 933)	-14.8 (-27.2 to -1.0)
Haiti	244 052 (168 317 to 322 144)	2 035 (1 381 to 2 694)	-45.5 (-56.7 to -29.3)	5 091 (3 701 to 6 724)	53 (38 to 69)	-13.7 (-16.5 to -10.9)	249 143 (174 196 to 326 445)	2 088 (1 435 to 2 748)	-45.0 (-56.0 to -29.1)
Jamaica	12 520 (9 933 to 15 070)	424 (336 to 509)	91.4 (48.6 to 134.4)	1 324 (940 to 1 788)	45 (32 to 61)	71.6 (64.9 to 78.5)	13 844 (11 160 to 16 451)	469 (378 to 555)	89.3 (51.0 to 127.4)
Puerto Rico	17 698 (16 174 to 19 405)	482 (440 to 530)	-48.4 (-53.6 to -43.0)	2 748 (1 944 to 3 727)	55 (39 to 75)	5.0 (2.1 to 8.0)	20 445 (18 743 to 22 369)	538 (493 to 589)	-45.6 (-50.5 to -40.3)
Saint Lucia	1 133 (1 003 to 1 265)	606 (539 to 677)	-10.7 (-20.7 to 0.5)	97 (69 to 130)	48 (34 to 64)	-1.4 (-4.7 to 1.9)	1 230 (1 097 to 1 360)	653 (583 to 723)	-17.9 (-45.4 to -29.5)
Saint Vincent and the Grenadines	536 (484 to 592)	460 (415 to 507)	-16.6 (-26.8 to -5.3)	52 (37 to 70)	41 (29 to 55)	35.7 (31.9 to 40.0)	588 (537 to 645)	501 (456 to 548)	-13.9 (-23.7 to -3.1)
Suriname	4 729 (4 139 to 5 345)	814 (714 to 919)	-30.8 (-40.9 to -19.4)	346 (247 to 463)	58 (41 to 77)	7.7 (4.0 to 11.3)	5 075 (4 474 to 5 716)	871 (769 to 979)	-29.1 (-38.8 to -18.2)
Trinidad and Tobago	9 451 (7 662 to 11 532)	669 (547 to 810)	-13.0 (-29.4 to 6.7)	885 (631 to 1 199)	53 (38 to 72)	18.2 (14.5 to 21.9)	10 336 (8 546 to 12 459)	722 (602 to 868)	-11.3 (-26.9 to 7.4)
Virgin Islands	533 (467 to 608)	467 (416 to 533)	-41.1 (-50.0 to -30.0)	71 (50 to 97)	50 (35 to 68)	5.0 (0.9 to 9.4)	604 (535 to 685)	517 (464 to 586)	-38.4 (-46.8 to -28.0)
Central Latin America	**2 029 275 (1 913 814 to 2 129 603)**	**773 (730 to 811)**	**-39.0 (-43.0 to -35.9)**	**161 673 (116 325 to 215 968)**	**65 (47 to 87)**	**4.5 (1.5 to 7.8)**	**2 190 948 (2 065 767 to 2 304 297)**	**838 (791 to 882)**	**-37.0 (-40.9 to -33.9)**
Colombia	350 287 (306 836 to 396 762)	677 (593 to 766)	-41.0 (-48.7 to -32.9)	23 680 (16 916 to 32 102)	44 (32 to 60)	-20.0 (-23.2 to -16.7)	373 967 (328 827 to 421 733)	721 (635 to 813)	-40.0 (-47.4 to -32.3)
Costa Rica	33 941 (30 528 to 37 273)	685 (618 to 752)	-18.8 (-26.5 to -9.9)	2 642 (1 873 to 3 583)	53 (37 to 72)	6.0 (2.2 to 9.5)	36 583 (33 135 to 40 213)	738 (672 to 812)	-17.5 (-24.8 to -8.8)
El Salvador	53 702 (44 116 to 66 477)	871 (717 to 1 072)	-41.0 (-52.3 to -26.2)	2 608 (1 854 to 3 526)	45 (32 to 60)	-15.3 (-19.6 to -11.1)	56 311 (46 509 to 68 774)	915 (758 to 1 111)	-40.1 (-50.8 to -25.8)
Guatemala	139 898 (121 714 to 160 967)	806 (706 to 925)	-12.4 (-25.0 to 1.1)	5 714 (4 142 to 7 717)	43 (31 to 58)	6.7 (2.6 to 10.8)	145 612 (127 413 to 167 044)	849 (746 to 968)	-11.6 (-23.6 to 1.3)
Honduras	61 489 (47 296 to 76 060)	675 (515 to 830)	-42.7 (-55.9 to -25.5)	3 753 (2 714 to 5 001)	51 (37 to 68)	15.2 (10.7 to 19.5)	65 242 (51 722 to 80 110)	727 (575 to 886)	-40.6 (-53.5 to -24.1)
Mexico	976 016 (944 208 to 1 009 136)	754 (730 to 780)	-42.4 (-44.9 to -40.2)	99 919 (72 369 to 133 354)	80 (58 to 107)	20.7 (16.7 to 24.7)	1 075 935 (1 033 221 to 1 125 009)	834 (801 to 873)	-39.3 (-42.0 to -37.0)
Nicaragua	32 186 (27 313 to 38 084)	496 (422 to 586)	-54.9 (-61.7 to -47.0)	1 898 (1 359 to 2 539)	35 (25 to 47)	-26.1 (-29.2 to -23.0)	34 083 (29 297 to 39 776)	531 (457 to 617)	-53.7 (-60.3 to -46.2)
Panama	23 781 (21 716 to 25 980)	601 (550 to 658)	-41.9 (-47.5 to -35.7)	1 974 (1 401 to 2 679)	49 (35 to 67)	-10.8 (-14.6 to -7.6)	25 755 (23 433 to 28 055)	651 (593 to 709)	-40.3 (-45.9 to -34.4)
Venezuela	357 975 (298 694 to 431 649)	1 109 (927 to 1 333)	-28.1 (-40.2 to -14.1)	19 486 (13 841 to 26 374)	64 (45 to 86)	-14.5 (-18.0 to -11.2)	377 461 (316 999 to 448 718)	1 172 (986 to 1 391)	-27.5 (-39.1 to -14.2)
Tropical Latin America	**2 266 569 (2 166 677 to 2 350 324)**	**983 (942 to 1 019)**	**-38.1 (-40.9 to -34.7)**	**203 116 (146 505 to 271 450)**	**84 (61 to 113)**	**40.1 (34.4 to 46.1)**	**2 469 684 (2 356 260 to 2 573 388)**	**1 068 (1 020 to 1 113)**	**-35.3 (-38.2 to -31.5)**
Brazil	2 191 726 (2 095 556 to 2 271 108)	982 (939 to 1 017)	-38.0 (-41.8 to -35.5)	198 635 (143 352 to 265 657)	85 (61 to 113)	40.0 (34.2 to 46.1)	2 390 361 (2 278 881 to 2 491 383)	1 066 (1 018 to 1 110)	-36.2 (-39.1 to -32.4)
Paraguay	74 842 (60 814 to 91 151)	1 049 (854 to 1 280)	28.6 (2.5 to 61.0)	4 481 (3 198 to 5 998)	71 (51 to 95)	48.0 (42.5 to 53.7)	79 323 (65 439 to 96 006)	1 120 (927 to 1 356)	29.7 (5.2 to 60.3)
North Africa and Middle East	**6 854 317 (6 120 320 to 7 888 231)**	**1 117 (993 to 1 287)**	**-47.8 (-52.7 to -39.2)**	**545 368 (391 372 to 732 789)**	**100 (72 to 134)**	**-25.4 (-28.0 to -22.5)**	**7 399 686 (6 614 065 to 8 484 686)**	**1 217 (1 085 to 1 398)**	**-46.5 (-51.2 to -38.4)**
North Africa and Middle East	**6 854 317 (6 120 320 to 7 888 231)**	**1 117 (993 to 1 287)**	**-47.8 (-52.7 to -39.2)**	**545 368 (391 372 to 732 789)**	**100 (72 to 134)**	**-25.4 (-28.0 to -22.5)**	**7 399 686 (6 614 065 to 8 484 686)**	**1 217 (1 085 to 1 398)**	**-46.5 (-51.2 to -38.4)**
Afghanistan	512 629 (408 661 to 630 361)	1 654 (1 308 to 2 044)	-38.5 (-57.8 to 114.9)	17 952 (13 146 to 23 624)	88 (65 to 115)	-17.3 (-18.9 to -15.8)	530 582 (424 959 to 649 158)	1 741 (1 400 to 2 127)	-37.7 (-56.6 to 99.1)
Algeria	353 710 (286 415 to 554 862)	852 (690 to 1 349)	-53.4 (-59.8 to 44.9)	42 847 (30 744 to 57 512)	110 (79 to 148)	-34.2 (-37.0 to -31.4)	396 558 (324 692 to 600 532)	963 (790 to 1 460)	-51.8 (-57.8 to -44.1)
Bahrain	6 274 (5 515 to 7 124)	435 (387 to 488)	-59.7 (-64.7 to -53.1)	1 481 (1 054 to 1 993)	90 (64 to 121)	-40.2 (-42.7 to -37.8)	7 755 (6 899 to 8 786)	525 (471 to 587)	-57.3 (-61.9 to -51.4)
Egypt	1 394 257 (1 069 676 to 1 705 353)	1 450 (1 078 to 1 796)	-44.9 (-55.7 to -36.0)	91 138 (65 455 to 121 801)	113 (82 to 151)	-24.8 (-28.3 to -20.9)	1 485 396 (1 157 770 to 1 797 040)	1 563 (1 189 to 1 915)	-45.8 (-54.0 to -35.4)
Iran	1 048 280 (1 022 382 to 1 120 805)	1 261 (1 229 to 1 358)	-54.7 (-60.2 to -50.9)	89 650 (63 929 to 120 908)	106 (76 to 143)	-36.7 (-39.4 to -33.9)	1 137 930 (1 097 622 to 1 207 599)	1 368 (1 318 to 1 463)	-53.7 (-59.1 to -49.8)
Iraq	220 334 (197 196 to 249 504)	487 (441 to 545)	-62.8 (-69.4 to -47.2)	22 071 (15 903 to 29 419)	66 (47 to 87)	-38.6 (-40.2 to -37.1)	242 404 (219 798 to 272 385)	553 (504 to 616)	-61.0 (-67.4 to -46.3)
Jordan	62 672 (55 183 to 71 509)	571 (507 to 647)	-56.7 (-63.4 to -47.4)	5 995 (4 251 to 8 084)	68 (48 to 92)	-39.6 (-41.8 to -37.4)	68 668 (60 876 to 77 619)	640 (568 to 719)	-55.4 (-61.7 to -46.7)
Kuwait	26 056 (23 609 to 28 310)	614 (560 to 664)	-52.4 (-56.7 to -47.8)	4 890 (3 454 to 6 561)	114 (82 to 154)	-30.7 (-32.3 to -28.9)	30 946 (28 127 to 33 684)	728 (663 to 794)	-50.0 (-53.9 to -45.7)
Lebanon	28 968 (19 964 to 35 638)	326 (225 to 400)	-48.5 (-66.8 to -33.8)	6 530 (4 610 to 8 817)	85 (60 to 115)	-3.4 (-7.5 to 0.5)	35 497 (26 408 to 42 882)	411 (309 to 494)	-43.0 (-59.9 to -29.5)
Libya	86 272 (45 129 to 128 825)	1 186 (625 to 1 778)	-29.9 (-56.1 to -9.4)	7 716 (5 520 to 10 314)	121 (86 to 162)	-27.7 (-30.6 to -24.5)	93 987 (52 875 to 137 303)	1 306 (746 to 1 908)	-29.7 (-53.2 to -10.9)
Morocco	360 805 (270 428 to 570 594)	994 (747 to 1 576)	-40.1 (-59.6 to -34.5)	35 353 (25 376 to 47 344)	100 (71 to 133)	-23.6 (-26.4 to -20.3)	396 158 (304 516 to 604 021)	1 093 (841 to 1 672)	-46.5 (-57.2 to -33.7)
Palestine	20 407 (17 605 to 23 941)	405 (355 to 465)	-55.6 (-63.8 to -44.1)	2 104 (1 508 to 2 817)	57 (41 to 76)	-13.8 (-16.0 to -11.6)	22 510 (19 657 to 26 050)	462 (408 to 525)	-52.8 (-60.7 to -41.5)
Oman	101 538 (82 585 to 121 317)	2 058 (1 685 to 2 434)	-55.6 (-65.3 to -42.8)	7 017 (4 967 to 9 471)	168 (119 to 227)	-38.4 (-41.0 to -35.8)	108 555 (89 480 to 128 219)	2 226 (1 853 to 2 606)	-54.6 (-63.9 to -42.4)
Qatar	29 261 (23 711 to 35 821)	1 028 (842 to 1 247)	-40.9 (-54.0 to -24.5)	4 052 (2 872 to 5 455)	148 (105 to 198)	-25.7 (-28.2 to -23.1)	33 312 (27 059 to 40 040)	1 176 (977 to 1 400)	-39.3 (-51.5 to -24.6)
Saudi Arabia	592 079 (416 802 to 733 013)	1 518 (1 086 to 1 848)	-32.6 (-56.4 to -9.7)	49 572 (35 022 to 66 865)	156 (111 to 211)	-26.9 (-30.4 to -23.5)	641 652 (468 435 to 781 641)	1 674 (1 240 to 2 003)	-32.1 (-54.0 to -11.6)
Sudan	646 392 (493 977 to 915 010)	1 523 (1 162 to 2 254)	-59.5 (-69.8 to -38.3)	31 009 (22 738 to 40 606)	112 (82 to 147)	-24.3 (-26.5 to -22.3)	677 401 (523 043 to 945 518)	1 635 (1 271 to 2 380)	-58.2 (-68.0 to -37.4)
Syria	80 124 (64 649 to 96 767)	458 (368 to 552)	-52.3 (-63.5 to -37.9)	9 844 (7 038 to 13 237)	63 (45 to 85)	-23.4 (-26.5 to -20.2)	89 968 (73 930 to 106 694)	521 (430 to 614)	-50.1 (-60.7 to -36.6)
Tunisia	147 868 (118 455 to 182 477)	1 222 (983 to 1 499)	-44.7 (-58.2 to -29.5)	11 256 (8 030 to 15 162)	89 (64 to 120)	-15.5 (-19.1 to -11.8)	159 124 (129 113 to 193 430)	1 312 (1 065 to 1 589)	-43.4 (-56.6 to -28.9)
Turkey	409 862 (368 378 to 457 221)	506 (454 to 565)	-41.5 (-50.6 to -30.6)	61 122 (43 578 to 82 824)	69 (49 to 94)	-9.3 (-14.7 to -3.5)	470 984 (424 967 to 519 859)	576 (517 to 636)	-38.9 (-47.8 to -28.6)
United Arab Emirates	169 076 (129 504 to 212 174)	1 838 (1 463 to 2 254)	-20.4 (-44.9 to 8.7)	18 754 (13 397 to 25 192)	173 (123 to 231)	-27.1 (-30.2 to -24.1)	187 830 (148 382 to 231 627)	2 011 (1 631 to 2 425)	-21.0 (-43.5 to 4.9)
Yemen	551 053 (424 309 to 772 177)	1 827 (1 379 to 2 616)	-49.3 (-63.6 to 15.7)	24 506 (17 937 to 32 505)	119 (87 to 157)	-29.0 (-31.3 to -26.7)	575 560 (446 470 to 797 337)	1 946 (1 488 to 2 732)	-48.4 (-62.3 to 12.0)
South Asia	**13 574 498 (12 046 498 to 14 712 207)**	**762 (675 to 824)**	**-9.6 (-18.8 to 0.9)**	**1 513 080 (1 097 334 to 2 024 113)**	**92 (67 to 123)**	**32.2 (28.9 to 35.9)**	**15 087 578 (13 476 788 to 16 265 578)**	**854 (762 to 919)**	**-6.4 (-14.9 to 3.6)**
South Asia	**13 574 498 (12 046 498 to 14 712 207)**	**762 (675 to 824)**	**-9.6 (-18.8 to 0.9)**	**1 513 080 (1 097 334 to 2 024 113)**	**92 (67 to 123)**	**32.2 (28.8 to 35.9)**	**15 087 578 (13 476 788 to 16 265 578)**	**854 (762 to 919)**	**-6.4 (-14.9 to 3.6)**
Bangladesh	552 271 (423 294 to 649 550)	350 (270 to 410)	-0.4 (-22.4 to 34.7)	88 360 (63 357 to 117 782)	60 (43 to 80)	37.7 (31.3 to 44.8)	640 631 (517 124 to 742 357)	410 (334 to 472)	3.8 (-16.4 to 35.2)
Bhutan	3 598 (2 551 to 4 386)	359 (264 to 435)	-61.0 (-71.7 to -47.5)	665 (478 to 889)	75 (54 to 100)	-15.4 (-19.5 to -11.1)	4 263 (3 137 to 5 069)	434 (334 to 513)	-57.0 (-67.5 to -44.3)
India	9 861 905 (9 299 930 to 10 395 839)	712 (669 to 751)	-17.4 (-24.5 to -9.2)	1 197 464 (870 274 to 1 601 533)	92 (67 to 123)	29.8 (26.5 to 33.5)	11 059 369 (10 340 644 to 11 722 367)	804 (751 to 853)	-13.8 (-20.7 to -5.7)
Nepal	296 686 (173 127 to 454 931)	1 030 (600 to 1 569)	-3.7 (-36.2 to 39.9)	23 707 (17 105 to 31 644)	90 (65 to 120)	22.0 (17.4 to 26.0)	320 393 (197 878 to 478 580)	1 120 (690 to 1 658)	-1.7 (-32.5 to 39.0)
Pakistan	2 860 037 (1 775 592 to 3 723 256)	1 338 (808 to 1 744)	20.9 (-3.8 to 55.3)	202 885 (146 760 to 272 392)	119 (86 to 160)	48.0 (43.6 to 52.7)	3 062 923 (1 957 133 to 3 916 726)	1 457 (928 to 1 867)	22.8 (-0.4 to 54.8)
Southeast Asia, East Asia, and Oceania	**16 774 732 (16 041 143 to 17 411 642)**	**740 (710 to 768)**	**-35.5 (-41.1 to -31.3)**	**3 971 033 (2 835 071 to 5 346 287)**	**151 (108 to 204)**	**58.7 (52.1 to 65.7)**	**20 745 766 (19 364 326 to 22 212 060)**	**891 (836 to 948)**	**-28.3 (-34.2 to -23.4)**
East Asia	**11 197 430 (10 631 229 to 11 709 813)**	**704 (672 to 732)**	**-33.3 (-40.2 to -27.9)**	**3 008 883 (2 163 948 to 4 052 098)**	**155 (111 to 209)**	**69.1 (61.3 to 77.5)**	**14 206 313 (13 132 029 to 15 351 722)**	**858 (802 to 919)**	**-25.1 (-31.9 to -19.1)**
China	10 603 693 (10 089 242 to 11 068 342)	699 (669 to 728)	-33.3 (-40.4 to -27.7)	2 863 875 (2 060 723 to 3 858 892)	155 (111 to 209)	70.2 (62.1 to 79.1)	13 467 568 (12 456 217 to 14 568 835)	854 (798 to 914)	-25.0 (-32.5 to -18.8)
North Korea	275 735 (183 449 to 420 361)	1 023 (699 to 1 532)	37.0 (-3.1 to 83.0)	46 651 (33 617 to 62 289)	150 (108 to 201)	101.0 (95.8 to 106.1)	322 386 (228 500 to 466 947)	1 173 (844 to 1 672)	42.9 (5.8 to 84.9)
Taiwan (Province of China)	137 619 (129 512 to 147 237)	540 (509 to 578)	-69.3 (-71.2 to -67.1)	49 886 (35 549 to 67 612)	153 (109 to 208)	10.7 (6.2 to 14.9)	187 504 (170 347 to 207 619)	694 (636 to 758)	-63.5 (-66.0 to -60.6)
Oceania	**180 258 (146 861 to 217 705)**	**441 (1 170 to 1 734)**	**-21.1 (-36.0 to -2.3)**	**14 204 (10 373 to 18 772)**	**142 (104 to 189)**	**60.7 (57.3 to 63.8)**	**194 462 (160 417 to 232 796)**	**1 583 (1 314 to 1 896)**	**-14.4 (-31.6 to 1.4)**
American Samoa	211 (187 to 234)	390 (348 to 430)	-29.1 (-42.1 to -16.8)	55 (40 to 74)	108 (78 to 145)	43.7 (39.3 to 48.3)	266 (239 to 297)	498 (447 to 556)	-20.3 (-33.2 to -8.3)
Federated States of Micronesia	848 (553 to 1 094)	814 (524 to 1 046)	-19.9 (-47.7 to 7.9)	124 (91 to 165)	135 (99 to 180)	64.0 (58.8 to 69.4)	972 (679 to 1 231)	950 (662 to 1 199)	-13.6 (-39.9 to 13.2)
Fiji	4 334 (3 751 to 5 015)	474 (412 to 549)	-20.7 (-37.4 to -1.6)	991 (719 to 1 320)	112 (81 to 149)	72.6 (67.4 to 77.4)	5 325 (4 656 to 6 049)	586 (514 to 665)	-11.6 (-28.4 to 6.8)
Guam	1 039 (928 to 1 153)	624 (555 to 695)	-14.0 (-27.3 to -0.2)	264 (190 to 356)	147 (106 to 199)	56.3 (51.8 to 60.7)	1 303 (1 164 to 1 445)	772 (688 to 857)	-5.9 (-18.8 to 7.0)
Kiribati	679 (520 to 832)	559 (433 to 683)	-9.6 (-31.6 to 17.1)	98 (71 to 129)	99 (72 to 131)	92.6 (86.3 to 99.4)	777 (623 to 938)	658 (530 to 787)	-1.7 (-23.0 to 24.0)

Location	YLLs (95% UI)			YLDs (95% UI)			DALYs (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	2017 counts	2017 age-standardised rates per 100,000	Percentage change in age-standardised rates between 1990 and 2017
Marshall Islands	643 (496 to 781)	1 136 (884 to 1 375)	-14.7 (-33.3 to 6.4)	67 (49 to 90)	141 (102 to 187)	77.9 (72.9 to 83.4)	710 (565 to 852)	1 277 (1 024 to 1 522)	9.6 (-27.4 to 10.7)
Northern Mariana Islands	210 (181 to 238)	468 (405 to 532)	-35.7 (-51.3 to -16.7)	65 (47 to 88)	119 (85 to 161)	15.1 (11.7 to 18.5)	275 (241 to 309)	588 (514 to 658)	-29.3 (-44.7 to -12.3)
Papua New Guinea	151 587 (119 994 to 186 373)	1 666 (1 326 to 2 047)	-27.8 (-43.8 to -9.5)	10 443 (7 617 to 13 768)	148 (109 to 196)	53.9 (50.0 to 57.6)	162 030 (130 355 to 197 795)	1 814 (1 468 to 2 205)	-24.5 (-39.9 to -6.0)
Samoa	887 (681 to 1 230)	467 (358 to 654)	-23.6 (-42.5 to -2.7)	210 (152 to 280)	130 (94 to 174)	70.9 (66.2 to 75.5)	1 097 (874 to 1 456)	597 (475 to 794)	-13.2 (-32.2 to 6.8)
Solomon Islands	6 476 (5 041 to 8 202)	1 036 (803 to 1 318)	-17.7 (-36.9 to 6.1)	659 (482 to 866)	137 (100 to 179)	71.7 (67.8 to 75.6)	7 136 (5 619 to 8 884)	1 173 (929 to 1 460)	-12.4 (-31.8 to 10.1)
Tonga	575 (466 to 669)	562 (461 to 654)	-4.0 (-30.9 to 22.4)	98 (71 to 130)	109 (78 to 145)	67.1 (61.5 to 72.6)	673 (562 to 774)	671 (562 to 775)	3.1 (-22.2 to 27.1)
Vanuatu	2 836 (1 954 to 3 958)	994 (683 to 1 394)	-5.2 (-33.5 to 34.9)	347 (255 to 459)	156 (115 to 206)	84.1 (79.9 to 88.1)	3 183 (2 290 to 4 301)	1 150 (842 to 1 546)	1.5 (-25.0 to 39.9)
Southeast Asia	**5 397 044 (5 065 758 to 5 724 664)**	**793 (746 to 840)**	**-44.5 (-48.6 to -40.4)**	**947 946 (685 084 to 1 262 382)**	**140 (101 to 187)**	**30.7 (26.6 to 35.1)**	**6 344 990 (5 922 383 to 6 775 553)**	**933 (872 to 997)**	**-39.3 (-43.5 to -34.9)**
Cambodia	189 636 (147 941 to 246 258)	1 177 (927 to 1 521)	-44.4 (-56.1 to -26.4)	20 076 (14 577 to 26 553)	140 (102 to 185)	43.8 (38.8 to 48.7)	209 712 (169 566 to 267 770)	1 317 (1 069 to 1 674)	-40.5 (-51.9 to -22.7)
Indonesia	1 741 795 (1 609 611 to 1 877 236)	666 (614 to 716)	-56.1 (-60.6 to -50.9)	380 609 (277 973 to 500 869)	146 (106 to 192)	25.0 (21.0 to 28.8)	2 122 404 (1 949 446 to 2 298 442)	812 (746 to 878)	-50.4 (-55.2 to -44.7)
Laos	91 533 (67 617 to 112 384)	1 270 (945 to 1 566)	-48.3 (-61.7 to -30.2)	9 663 (7 038 to 12 751)	163 (119 to 216)	35.6 (30.5 to 40.3)	101 196 (77 452 to 123 309)	1 433 (1 099 to 1 738)	-44.4 (-57.4 to -26.0)
Malaysia	318 204 (279 583 to 356 887)	980 (864 to 1 097)	-26.7 (-41.9 to -13.0)	54 667 (38 905 to 73 564)	181 (129 to 244)	37.6 (30.8 to 44.5)	372 872 (329 282 to 417 086)	1 161 (1 028 to 1 294)	-21.0 (-35.8 to -8.3)
Maldives	1 473 (1 093 to 2 696)	320 (241 to 577)	-69.4 (-74.7 to -57.4)	484 (344 to 651)	110 (78 to 148)	12.1 (6.0 to 18.7)	1 957 (1 544 to 3 188)	430 (342 to 690)	-62.5 (-67.8 to -52.5)
Mauritius	7 242 (6 572 to 7 954)	537 (489 to 591)	-17.5 (-26.3 to -7.9)	1 864 (1 337 to 2 504)	119 (85 to 159)	69.8 (63.8 to 76.1)	9 106 (8 260 to 10 032)	656 (596 to 722)	9.0 (-17.3 to -0.4)
Myanmar	532 120 (440 388 to 644 129)	967 (801 to 1 167)	-50.2 (-60.7 to -36.2)	66 008 (47 763 to 87 499)	126 (91 to 166)	32.3 (27.3 to 37.7)	598 128 (503 422 to 713 242)	1 093 (924 to 1 295)	-46.3 (-56.7 to -32.8)
Philippines	558 459 (480 801 to 643 064)	534 (463 to 614)	13.9 (-3.1 to 33.5)	84 891 (60 737 to 113 513)	93 (66 to 123)	75.0 (68.8 to 81.7)	643 350 (559 029 to 730 170)	627 (547 to 711)	20.1 (4.4 to 38.2)
Sri Lanka	101 980 (82 473 to 124 188)	451 (365 to 550)	-19.0 (-35.3 to -0.0)	25 584 (18 250 to 34 564)	106 (75 to 143)	95.0 (86.4 to 104.8)	127 564 (105 880 to 152 571)	557 (460 to 665)	-8.9 (-24.8 to 9.0)
Seychelles	606 (519 to 688)	567 (486 to 646)	18.7 (1.9 to 35.4)	143 (103 to 193)	125 (89 to 169)	73.0 (65.9 to 80.4)	749 (649 to 848)	693 (602 to 783)	25.8 (10.7 to 40.6)
Thailand	894 374 (785 651 to 1 002 113)	1 261 (1 110 to 1 406)	-40.6 (-51.5 to -30.0)	158 542 (112 432 to 213 026)	173 (122 to 233)	11.4 (6.2 to 17.2)	1 052 917 (930 586 to 1 174 922)	1 434 (1 269 to 1 598)	-37.0 (-47.4 to -26.5)
Timor-Leste	6 303 (3 259 to 10 632)	479 (256 to 821)	-38.4 (-66.2 to -17.9)	1 095 (799 to 1 446)	113 (82 to 149)	63.7 (57.1 to 71.1)	7 398 (4 319 to 11 672)	592 (366 to 928)	-30.1 (-55.1 to -11.0)
Vietnam	946 218 (775 240 to 1 078 257)	931 (769 to 1 059)	-27.3 (-43.1 to -10.2)	143 072 (102 142 to 191 935)	139 (99 to 186)	40.7 (33.6 to 47.5)	1 089 290 (918 886 to 1 225 869)	1 069 (912 to 1 205)	-22.5 (-37.4 to -6.6)
Sub-Saharan Africa	**8 754 769 (8 000 791 to 9 513 743)**	**905 (840 to 973)**	**-37.0 (-43.8 to -26.3)**	**780 603 (566 020 to 1 033 301)**	**112 (81 to 147)**	**-22.2 (-23.6 to -20.6)**	**9 535 372 (8 734 873 to 10 336 023)**	**1 017 (944 to 1 099)**	**-35.6 (-41.9 to -25.6)**
Central sub-Saharan Africa	**2 000 402 (1 585 674 to 2 403 747)**	**1 564 (1 302 to 1 834)**	**-34.1 (-45.9 to -9.9)**	**134 048 (97 246 to 176 617)**	**156 (114 to 204)**	**-21.0 (-22.7 to -19.3)**	**2 134 450 (1 714 422 to 2 550 412)**	**1 720 (1 448 to 1 999)**	**-33.1 (-44.1 to -11.0)**
Angola	418 203 (339 360 to 508 792)	1 433 (1 183 to 1 734)	-55.9 (-67.3 to -18.2)	33 590 (24 536 to 44 315)	180 (131 to 236)	-28.2 (-30.3 to -26.0)	451 793 (369 867 to 542 841)	1 613 (1 348 to 1 917)	-54.0 (-65.1 to -19.4)
Central African Republic	208 700 (117 092 to 282 178)	4 387 (2 472 to 5 777)	4.9 (-23.6 to 76.5)	5 812 (4 203 to 7 667)	160 (117 to 212)	11.6 (-13.6 to -9.7)	214 512 (123 337 to 288 408)	4 547 (2 627 to 5 938)	4.2 (-22.9 to 71.6)
Congo (Brazzaville)	68 878 (5 2 308 to 87 389)	1 387 (1 068 to 1 746)	-46.8 (-59.5 to -28.0)	6 777 (4 917 to 8 967)	170 (124 to 224)	-22.1 (-24.0 to -20.1)	75 655 (58 926 to 94 255)	1 558 (1 227 to 1 923)	-44.9 (-57.0 to -27.6)
DR Congo	1 268 193 (939 349 to 1 614 419)	1 470 (1 130 to 1 836)	-25.7 (-41.5 to 9.7)	83 702 (60 822 to 110 644)	146 (107 to 191)	-19.2 (-21.4 to -17.1)	1 351 895 (1 021 304 to 1 699 895)	1 616 (1 271 to 1 974)	-25.2 (-39.9 to 6.4)
Equatorial Guinea	13 356 (9 177 to 18 797)	989 (672 to 1 414)	-71.9 (-81.2 to -57.8)	1 328 (955 to 1 772)	151 (109 to 200)	-26.4 (-30.5 to -22.1)	14 683 (10 455 to 20 299)	1 139 (824 to 1 577)	-69.4 (-78.7 to -55.8)
Gabon	23 071 (17 677 to 28 877)	1 345 (1 044 to 1 670)	-37.6 (-52.4 to -19.5)	2 841 (2 047 to 3 762)	198 (143 to 262)	-26.5 (-28.4 to -24.6)	25 912 (20 455 to 31 560)	1 543 (1 234 to 1 879)	-36.4 (-49.6 to -20.5)
Eastern sub-Saharan Africa	**2 695 814 (2 373 984 to 3 040 037)**	**796 (702 to 884)**	**-38.7 (-48.1 to -20.7)**	**290 273 (210 583 to 384 708)**	**115 (84 to 151)**	**-21.4 (-22.7 to -20.1)**	**2 986 087 (2 669 293 to 3 337 893)**	**911 (817 to 1 006)**	**-36.9 (-45.9 to -20.8)**
Burundi	116 993 (91 887 to 154 123)	1 278 (1 006 to 1 705)	-39.0 (-52.7 to -18.9)	9 970 (7 204 to 13 144)	143 (104 to 189)	-29.1 (-30.6 to -27.5)	126 962 (101 870 to 164 717)	1 421 (1 147 to 1 866)	-38.2 (-50.9 to -19.8)
Comoros	4 932 (4 062 to 6 152)	747 (617 to 918)	-48.7 (-59.3 to -34.6)	840 (610 to 1 104)	144 (105 to 189)	-32.9 (-34.6 to -31.2)	5 772 (4 878 to 6 988)	891 (760 to 1 064)	-46.6 (-56.6 to -34.3)
Djibouti	8 194 (5 921 to 11 964)	826 (594 to 1 182)	-33.9 (-53.2 to -5.1)	1 367 (993 to 1 825)	155 (112 to 205)	-23.2 (-25.4 to -21.1)	9 561 (7 194 to 13 279)	981 (737 to 1 328)	-32.4 (-49.3 to -0.4)
Eritrea	67 258 (47 597 to 85 484)	1 298 (926 to 1 631)	-41.6 (-57.9 to 4.1)	5 303 (3 843 to 7 011)	132 (96 to 172)	-20.6 (-22.5 to -18.9)	72 561 (53 128 to 90 859)	1 430 (1 054 to 1 765)	-40.2 (-55.8 to 1.0)
Ethiopia	499 860 (449 734 to 561 743)	558 (507 to 619)	-61.3 (-69.3 to -41.0)	54 677 (39 606 to 72 351)	85 (62 to 112)	-39.7 (-41.4 to -38.1)	554 537 (501 367 to 619 203)	642 (585 to 707)	-59.4 (-67.2 to -40.6)
Kenya	260 040 (236 654 to 301 931)	638 (582 to 738)	-12.5 (-36.4 to 2.6)	44 930 (32 791 to 59 369)	137 (100 to 181)	-3.4 (-4.7 to -2.2)	304 970 (278 188 to 347 294)	775 (707 to 876)	-11.0 (-32.5 to 1.5)
Madagascar	179 605 (142 982 to 223 515)	790 (643 to 973)	-43.6 (-54.8 to -27.4)	22 849 (16 506 to 30 163)	134 (97 to 177)	-28.5 (-30.5 to -26.7)	202 454 (166 670 to 246 804)	924 (772 to 1 113)	-41.8 (-52.2 to -27.6)
Malawi	111 972 (91 063 to 134 634)	738 (616 to 875)	-48.0 (-66.0 to -41.6)	9 819 (7 137 to 13 009)	86 (63 to 114)	-26.8 (-28.9 to -24.7)	121 790 (100 875 to 145 018)	825 (696 to 964)	-46.3 (-64.1 to -29.4)
Mozambique	261 562 (215 297 to 310 386)	1 059 (881 to 1 241)	-22.1 (-39.5 to -1.4)	21 320 (15 445 to 28 250)	117 (85 to 155)	-14.1 (-17.6 to -10.7)	282 876 (237 162 to 331 690)	1 176 (991 to 1 371)	-21.4 (-37.4 to -2.7)
Rwanda	127 299 (86 756 to 183 785)	1 173 (800 to 1 666)	-49.8 (-61.9 to -29.4)	12 260 (8 881 to 16 285)	142 (103 to 187)	-35.9 (-37.7 to -34.2)	139 559 (98 316 to 196 667)	1 315 (937 to 1 800)	-48.6 (-59.3 to -29.9)
Somalia	267 201 (145 842 to 387 984)	1 888 (1 013 to 2 714)	-4.0 (-42.0 to 132.8)	17 191 (12 519 to 22 700)	160 (117 to 211)	-10.2 (-12.0 to -8.5)	284 392 (162 626 to 404 994)	2 048 (1 199 to 2 865)	-4.5 (-39.9 to 106.7)
South Sudan	94 859 (68 486 to 129 489)	1 074 (780 to 1 476)	-10.8 (-41.4 to 80.6)	9 575 (7 003 to 12 638)	153 (112 to 201)	0.0 (-2.2 to 2.0)	104 435 (78 306 to 139 248)	1 227 (934 to 1 635)	-9.6 (-38.1 to 64.6)
Tanzania	282 868 (236 699 to 344 225)	578 (496 to 668)	-33.8 (-49.9 to 18.5)	37 505 (27 154 to 49 894)	104 (76 to 138)	-15.5 (-17.5 to -13.6)	320 373 (273 598 to 383 828)	682 (592 to 778)	-31.5 (-46.5 to 11.4)
Uganda	302 286 (218 879 to 395 184)	932 (672 to 1 201)	-0.9 (-29.8 to 35.8)	29 551 (21 376 to 39 296)	129 (94 to 170)	6.0 (3.7 to 8.4)	331 837 (250 138 to 427 542)	1 060 (800 to 1 336)	-0.1 (-25.8 to 31.7)
Zambia	109 195 (91 767 to 130 069)	731 (628 to 845)	-48.2 (-61.0 to -16.2)	12 933 (9 295 to 17 119)	116 (84 to 153)	-25.3 (-26.9 to -23.5)	122 128 (104 256 to 144 241)	847 (738 to 968)	-45.9 (-58.0 to -17.5)
Southern sub-Saharan Africa	**1 003 130 (929 641 to 1 085 522)**	**1 270 (1 183 to 1 367)**	**-43.0 (-51.0 to -38.0)**	**92 886 (66 831 to 124 411)**	**135 (97 to 180)**	**-33.9 (-35.7 to -32.0)**	**1 096 017 (1 018 645 to 1 183 250)**	**1 405 (1 313 to 1 515)**	**-43.0 (-49.5 to -37.6)**
Botswana	15 369 (13 095 to 17 646)	677 (578 to 775)	-36.3 (-49.6 to -18.0)	2 264 (1 624 to 3 034)	114 (82 to 153)	-2.0 (-5.4 to 1.1)	17 633 (15 293 to 20 078)	791 (688 to 894)	-32.9 (-45.8 to -16.2)
Lesotho	42 944 (33 748 to 53 052)	2 179 (1 722 to 2 662)	23.7 (-18.6 to 67.4)	2 440 (1 777 to 3 238)	147 (108 to 195)	16.4 (12.7 to 19.7)	45 384 (36 129 to 55 617)	2 327 (1 861 to 2 817)	23.2 (-16.8 to 63.5)
Namibia	23 628 (18 332 to 30 536)	1 012 (792 to 1 296)	-37.0 (-51.2 to -18.9)	2 657 (1 913 to 3 541)	138 (99 to 183)	-22.2 (-24.9 to -19.5)	26 286 (20 768 to 33 207)	1 149 (915 to 1 439)	-35.5 (-48.6 to -19.3)
South Africa	761 989 (700 240 to 840 039)	1 316 (1 217 to 1 443)	-51.6 (-56.5 to -46.8)	72 377 (52 264 to 96 965)	139 (100 to 186)	-41.4 (-43.3 to -39.3)	834 366 (767 782 to 914 093)	1 455 (1 349 to 1 586)	-50.8 (-55.3 to -46.3)
Swaziland	20 425 (15 596 to 25 353)	1 823 (1 398 to 2 264)	-4.2 (-29.6 to 40.9)	1 335 (963 to 1 766)	152 (111 to 202)	-7.2 (-10.0 to -4.2)	21 760 (17 056 to 26 791)	1 976 (1 556 to 2 415)	-3.2 (-28.2 to 36.2)
Zimbabwe	138 775 (98 655 to 187 302)	1 059 (747 to 1 446)	12.0 (-30.3 to 48.3)	11 813 (8 510 to 15 533)	112 (81 to 147)	22.6 (19.3 to 25.8)	150 588 (111 350 to 199 453)	1 171 (862 to 1 552)	12.9 (-26.4 to 46.4)
Western sub-Saharan Africa	**3 055 422 (2 655 422 to 3 459 838)**	**735 (653 to 827)**	**-40.4 (-40.4 to -19.9)**	**263 396 (191 519 to 348 909)**	**90 (66 to 119)**	**-16.8 (-18.7 to -14.7)**	**3 318 818 (2 920 903 to 3 732 484)**	**825 (740 to 924)**	**-30.0 (-38.6 to -19.6)**
Benin	161 291 (98 062 to 226 277)	1 558 (939 to 2 171)	-38.3 (-50.7 to -23.0)	10 555 (7 633 to 13 938)	138 (100 to 181)	-18.4 (-21.0 to -16.0)	171 846 (107 762 to 237 755)	1 696 (1 076 to 2 318)	-37.0 (-48.7 to -22.7)
Burkina Faso	190 544 (151 688 to 241 192)	952 (786 to 1 135)	-17.2 (-34.3 to 4.5)	8 697 (6 286 to 11 561)	58 (42 to 77)	30.4 (26.2 to 34.2)	199 241 (160 444 to 249 863)	1 010 (847 to 1 197)	-15.4 (-31.9 to 5.5)
Cameroon	209 089 (161 285 to 266 986)	861 (672 to 1 089)	-38.1 (-53.2 to -20.6)	17 585 (12 676 to 23 301)	93 (68 to 123)	-29.8 (-31.7 to -28.0)	226 673 (178 727 to 286 880)	954 (760 to 1 188)	-37.4 (-51.0 to -21.5)
Cape Verde	1 865 (1 569 to 2 151)	343 (292 to 394)	-1.6 (-18.1 to 17.7)	392 (280 to 525)	78 (56 to 104)	13.1 (8.8 to 17.7)	2 257 (1 957 to 2 581)	421 (367 to 479)	0.9 (-13.4 to 17.0)
Chad	151 052 (120 467 to 191 963)	1 021 (824 to 1 296)	1.6 (-17.4 to 29.8)	8 823 (6 408 to 11 567)	96 (70 to 125)	3.0 (0.7 to 5.4)	159 875 (129 324 to 201 368)	1 117 (919 to 1 406)	3.5 (-16.3 to 26.5)
Cote d'Ivoire	190 270 (158 093 to 231 521)	842 (709 to 1 004)	-22.9 (-38.6 to -4.9)	17 827 (12 884 to 23 458)	100 (72 to 131)	-14.9 (-16.8 to -12.9)	208 098 (175 439 to 248 868)	941 (804 to 1 100)	-22.2 (-36.3 to -5.9)
The Gambia	13 712 (9 937 to 18 129)	755 (574 to 954)	-15.5 (-36.2 to 9.6)	1 346 (982 to 1 774)	92 (67 to 121)	-15.1 (-17.3 to -13.0)	15 058 (11 197 to 19 549)	846 (664 to 1 058)	-15.5 (-34.5 to 6.4)
Ghana	261 092 (217 551 to 314 793)	938 (794 to 1 113)	-9.6 (-30.6 to 13.7)	25 097 (18 173 to 33 320)	109 (80 to 145)	7.7 (4.4 to 11.0)	286 188 (241 971 to 340 475)	1 048 (897 to 1 227)	-8.1 (-27.5 to 12.9)
Guinea	101 824 (83 690 to 123 674)	935 (784 to 1 106)	-13.9 (-46.8 to -15.1)	7 906 (5 777 to 10 441)	99 (72 to 130)	-20.3 (-22.9 to -17.8)	109 730 (91 471 to 131 593)	1 034 (882 to 1 210)	-12.8 (-44.9 to -15.5)
Guinea-Bissau	20 408 (15 360 to 26 445)	1 250 (987 to 1 563)	-45.0 (-57.3 to -28.3)	1 187 (865 to 1 561)	94 (69 to 124)	-28.9 (-30.8 to -27.1)	21 595 (16 576 to 27 527)	1 345 (1 081 to 1 655)	-44.1 (-55.7 to -28.4)
Liberia	26 188 (20 445 to 39 119)	610 (496 to 784)	-49.7 (-60.9 to -31.4)	2 325 (1 686 to 3 067)	70 (51 to 92)	-31.6 (-33.7 to -29.6)	28 513 (22 737 to 41 876)	680 (566 to 856)	-48.3 (-58.9 to -31.4)
Mali	188 987 (146 251 to 244 582)	858 (690 to 1 106)	-50.3 (-60.7 to -33.7)	11 414 (8 293 to 15 041)	88 (64 to 115)	-30.6 (-33.1 to -28.2)	200 402 (157 901 to 255 603)	946 (776 to 1 207)	-49.0 (-58.6 to -33.6)
Mauritania	34 035 (28 829 to 39 469)	929 (784 to 1 085)	-48.4 (-57.2 to -35.5)	2 160 (1 567 to 2 860)	77 (56 to 101)	-32.1 (-34.0 to -30.0)	36 195 (30 991 to 41 625)	1 006 (857 to 1 161)	-47.4 (-55.7 to -35.4)
Niger	149 418 (108 319 to 202 092)	719 (528 to 966)	-48.9 (-58.7 to -26.6)	10 748 (7 763 to 14 143)	86 (63 to 113)	-27.5 (-29.8 to -25.3)	160 166 (118 397 to 213 722)	806 (615 to 1 053)	-44.3 (-56.4 to -26.6)
Nigeria	1 145 211 (757 600 to 1 496 836)	541 (378 to 711)	-34.4 (-50.0 to -11.6)	117 833 (85 621 to 156 640)	86 (62 to 114)	-18.2 (-20.6 to -15.4)	1 263 044 (864 674 to 1 618 968)	627 (461 to 802)	-32.6 (-46.7 to -12.4)
Sao Tome and Principe	1 176 (812 to 1 505)	633 (409 to 801)	-12.1 (-40.2 to 14.5)	146 (106 to 194)	96 (70 to 128)	-9.5 (-12.8 to -6.4)	1 322 (949 to 1 644)	729 (510 to 903)	-11.8 (-36.6 to 11.5)
Senegal	87 552 (68 558 to 139 893)	659 (526 to 992)	-29.1 (-42.7 to -5.3)	9 402 (6 844 to 12 377)	90 (66 to 118)	-21.7 (-23.8 to -19.6)	96 954 (77 126 to 148 265)	748 (609 to 1 087)	-28.3 (-40.6 to -7.3)
Sierra Leone	66 081 (54 172 to 80 829)	895 (747 to 1 083)	-32.9 (-47.1 to -11.3)	4 871 (3 520 to 6 419)	90 (66 to 118)	-23.7 (-26.0 to -21.6)	70 951 (58 303 to 86 148)	984 (828 to 1 183)	-32.2 (-45.3 to -12.5)
Togo	55 597 (44 150 to 70 287)	839 (674 to 1 044)	-23.2 (-44.0 to 3.3)	5 080 (3 676 to 6 699)	93 (67 to 122)	-21.3 (-23.9 to -18.7)	60 678 (49 056 to 75 877)	932 (770 to 1 138)	-23.0 (-42.2 to 0.9)