

Global age-sex-specific all-cause mortality and life expectancy estimates for 204 countries and territories and 660 subnational locations, 1950–2023: a demographic analysis for the Global Burden of Disease Study 2023

GBD 2023 Demographics Collaborators*



Summary

Background Comprehensive, comparable, and timely estimates of demographic metrics—including life expectancy and age-specific mortality—are essential for evaluating, understanding, and addressing trends in population health. The COVID-19 pandemic highlighted the importance of timely and all-cause mortality estimates for being able to respond to changing trends in health outcomes, showing a strong need for demographic analysis tools that can produce all-cause mortality estimates more rapidly with more readily available all-age vital registration (VR) data. The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) is an ongoing research effort that quantifies human health by estimating a range of epidemiological quantities of interest across time, age, sex, location, cause, and risk. This study—part of the latest GBD release, GBD 2023—aims to provide new and updated estimates of all-cause mortality and life expectancy for 1950 to 2023 using a novel statistical model that accounts for complex correlation structures in demographic data across age and time.

Methods We used 24 025 data sources from VR, sample registration, surveys, censuses, and other sources to estimate all-cause mortality for males, females, and all sexes combined across 25 age groups in 204 countries and territories as well as 660 subnational units in 20 countries and territories, for the years 1950–2023. For the first time, we used complete birth history data for ages 5–14 years, age-specific sibling history data for ages 15–49 years, and age-specific mortality data from Health and Demographic Surveillance Systems. We developed a single statistical model that incorporates both parametric and non-parametric methods, referred to as OneMod, to produce estimates of all-cause mortality for each age-sex-location group. OneMod includes two main steps: a detailed regression analysis with a generalised linear modelling tool that accounts for age-specific covariate effects such as the Socio-demographic Index (SDI) and a population attributable fraction (PAF) for all risk factors combined; and a non-parametric analysis of residuals using a multivariate kernel regression model that smooths across age and time to adaptably follow trends in the data without overfitting. We calibrated asymptotic uncertainty estimates using Pearson residuals to produce 95% uncertainty intervals (UIs) and corresponding 1000 draws. Life expectancy was calculated from age-specific mortality rates with standard demographic methods. For each measure, 95% UIs were calculated with the 25th and 975th ordered values from a 1000-draw posterior distribution.

Findings In 2023, 60·1 million (95% UI 59·0–61·1) deaths occurred globally, of which 4·67 million (4·59–4·75) were in children younger than 5 years. Due to considerable population growth and ageing since 1950, the number of annual deaths globally increased by 35·2% (32·2–38·4) over the 1950–2023 study period, during which the global age-standardised all-cause mortality rate declined by 66·6% (65·8–67·3). Trends in age-specific mortality rates between 2011 and 2023 varied by age group and location, with the largest decline in under-5 mortality occurring in east Asia (67·7% decrease); the largest increases in mortality for those aged 5–14 years, 25–29 years, and 30–39 years occurring in high-income North America (11·5%, 31·7%, and 49·9%, respectively); and the largest increases in mortality for those aged 15–19 years and 20–24 years occurring in Eastern Europe (53·9% and 40·1%, respectively). We also identified higher than previously estimated mortality rates in sub-Saharan Africa for all sexes combined aged 5–14 years (87·3% higher in GBD 2023 than GBD 2021 on average across countries and territories over the 1950–2021 period) and for females aged 15–29 years (61·2% higher), as well as lower than previously estimated mortality rates in sub-Saharan Africa for all sexes combined aged 50 years and older (13·2% lower), reflecting advances in our modelling approach. Global life expectancy followed three distinct trends over the study period. First, between 1950 and 2019, there were considerable improvements, from 51·2 (50·6–51·7) years for females and 47·9 (47·4–48·4) years for males in 1950 to 76·3 (76·2–76·4) years for females and 71·4 (71·3–71·5) years for males in 2019. Second, this period was followed by a decrease in life expectancy during the COVID-19 pandemic, to 74·7 (74·6–74·8) years for females and 69·3 (69·2–69·4) years for males in 2021. Finally, the world experienced a period of post-pandemic recovery in 2022 and 2023, wherein life expectancy generally returned to pre-pandemic (2019) levels in 2023 (76·3 [76·0–76·6] years for females and 71·5 [71·2–71·8] years for males). 194 (95·1%) of 204 countries and territories experienced at least partial post-pandemic recovery in age-standardised mortality rates by 2023, with 61·8% (126 of 204) recovering to or

Lancet 2025; 406: 1731–810

Published Online
October 12, 2025
[https://doi.org/10.1016/S0140-6736\(25\)01330-3](https://doi.org/10.1016/S0140-6736(25)01330-3)
See [Comment](#) page 1702

*Collaborators listed at the end of the Article

Correspondence to:
Professor Simon I Hay, Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA 98195, USA
sihay@uw.edu

falling below pre-pandemic levels. There were several mortality trajectories during and following the pandemic across countries and territories. Long-term mortality trends also varied considerably between age groups and locations, demonstrating the diverse landscape of health outcomes globally.

Interpretation This analysis identified several key differences in mortality trends from previous estimates, including higher rates of adolescent mortality, higher rates of young adult mortality in females, and lower rates of mortality in older age groups in much of sub-Saharan Africa. The findings also highlight stark differences across countries and territories in the timing and scale of changes in all-cause mortality trends during and following the COVID-19 pandemic (2020–23). Our estimates of evolving trends in mortality and life expectancy across locations, ages, sexes, and SDI levels in recent years as well as over the entire 1950–2023 study period provide crucial information for governments, policy makers, and the public to ensure that health-care systems, economies, and societies are prepared to address the world's health needs, particularly in populations with higher rates of mortality than previously known. The estimates from this study provide a robust framework for GBD and a valuable foundation for policy development, implementation, and evaluation around the world.

Funding Gates Foundation.

Copyright © The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

Introduction

Comprehensive, accurate, and timely estimates of mortality and other demographic indicators across locations, age groups, and sexes are necessary for effective public health planning and intervention. Such estimates provide insights into disparities across populations and time, enabling more targeted resource allocation, policy development, and monitoring of the effectiveness of different health systems and programmes. Timely and regularly updated estimates of mortality are also crucial for understanding and responding to rapidly changing health landscapes, such as during and immediately following pandemics and wars and in the aftermath of natural disasters. Understanding mortality trends over time also helps in assessing the broader impacts of social, economic, and environmental factors on health outcomes now and in the future.

Numerous sources produce estimates of mortality and other demographic indicators, including population and fertility. The UN Population Division of the Department of Economic and Social Affairs (UNPD) estimates and projections of global, regional, and national demographic metrics are updated biannually, most recently in the World Population Prospects 2024 revision.¹ WHO released its latest all-cause mortality estimates in the World Health Statistics 2024 report² and associated Global Health Estimates. The EU and the Organisation for Economic Co-operation and Development produce mortality estimates less regularly, and generally only for a subset of metrics and locations.^{3,4} Many national statistics offices release demographic estimates for their own populations. The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) publishes peer-reviewed, regularly updated, comprehensive, and globally comparable estimates and forecasts of population health across a range of indicators, including all-cause mortality and life expectancy, for past and future years, from

1950 to 2100.⁵ The first GBD estimates—which included estimates of all-cause mortality—were published in the 1993 World Bank World Development Report, and mortality estimates have been published in every update since GBD 2010.^{6–12} Most recently, GBD 2021 produced estimates of all-cause mortality and excess mortality due to the COVID-19 pandemic using a novel, unified approach.¹² Unlike the estimates of other research enterprises, GBD demographic estimates are informed by GBD estimates of disease and injury burden, and vice versa, making the GBD estimates of all-cause mortality and life expectancy in this study comparable and compatible with the latest GBD estimates of cause-specific mortality, healthy life expectancy, years of life lost, years lived with disability, disability-adjusted life-years, risk-attributable burden, population, and fertility.

Estimates of all-cause mortality have historically been produced with model life table systems to derive age-specific mortality rates in places without reliable vital registration (VR) data. A model life table system defines a range of relationships between levels of mortality at different ages. Coale and Demeny¹³ first developed regional model life tables in the 1960s. The Brass logit system further refined the methodology with a relational system that linked a standard life table to a population with a mathematical model of survivorship across ages.¹⁴ This methodology has been improved upon in various capacities.^{15–17} The UNPD uses a combination of various model life table systems to produce estimates.¹⁸ GBD 2021 also used a model life table system that relied on more than 10 000 empirically observed life tables.¹² However, these systems all impose age patterns of mortality from observed locations onto locations with little or no data. The age patterns of mortality in locations with sparse data differ substantively from locations whose mortality profiles influence model life table systems. For example, the age patterns of mortality rates in older ages in populations throughout sub-Saharan Africa have been

Research in context

Evidence before this study

The UN Population Division of the Department of Economic and Social Affairs (UNPD) produces estimates and projections of global, regional, and national demographic metrics that are updated biannually. Its latest findings, published in the World Population Prospects 2024 revision, incorporated estimates of excess mortality due to the COVID-19 pandemic from WHO and the World Mortality Database from 2021 as well as weekly or monthly death registration data for 2022 and 2023 from selected countries. WHO releases all-cause mortality estimates that differ from those of UNPD, most recently with the World Health Statistics 2024 report and associated Global Health Estimates. Some national statistics offices also produce their own demographic indicators. The Organisation for Economic Co-operation and Development and the EU, among others, release mortality estimates less regularly and typically only for selected metrics or locations. The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) generates regularly updated and globally comparable health metrics, including all-cause mortality and life expectancy, for past years, and, for certain metrics, forecasts up to the year 2100. The current GBD 2023 cycle is directly preceded by GBD 2021, which reported demographic estimates for 204 countries and territories and 811 subnational locations for each year from 1950 to 2021. Although each of these studies represents important efforts to provide insights into all-cause mortality estimates, only GBD demographic estimates are informed by and comparable to estimates of disease, injury, and risk factor burden; they are also the only estimates to comply with the GATHER statement, which identify best practices for reporting global health estimates.

Added value of this study

GBD 2023 developed a novel methodology to directly use age-specific demographic data in a single statistical model that accounts for complex correlation structures in demographic data across age and time. This model, OneMod, includes two primary components: a complex functional generalised linear model specification, and residual smoothing with a multivariate kernel regression model. This is a notable methodological improvement from GBD 2021 and UNPD approaches, which use multiple separate models for mortality indicators that are then input to model life table systems to

estimate age patterns of mortality. The new model is simpler, more transparent, and facilitates the use of standard techniques for statistical inference and model assessment. Furthermore, our model uses covariates to capture mortality effects due to HIV/AIDS and the COVID-19 pandemic in locations with little to no data, rather than post-hoc incorporation of estimates from separate models. GBD 2023 used a suite of customised and validated data processing and modelling tools, systematically analysing thousands of data sources to produce global, regional, national, and subnational demographic estimates by age and sex for each year from 1950 to 2023. For the first time, GBD 2023 included data from complete birth histories for children and adolescents aged 5–14 years, used age-specific mortality data from sibling histories rather than a summary of the probability of death from those aged 15–60 years, and incorporated age-specific mortality data from 38 Health and Demographic Surveillance System sites. Compared to GBD 2021, GBD 2023 incorporated 3127 additional data sources, which includes 1211 location-years of provisional all-age vital registration data, which had not previously been used and which provide more timely information. All estimates are packaged within freely accessible data-sharing and visualisation tools.

Implications of all the available evidence

Our study shows higher than previously estimated adolescent mortality and young adult female mortality in much of sub-Saharan Africa, as well as lower old-age mortality in the same region. It also highlights a diversity of trends in all-cause mortality during the COVID-19 pandemic and recovery periods of 2020–23, with stark differences in the timing and extent of mortality fluctuations across countries. Globally comparable estimates show substantial variation between and within countries and territories, which allows analysis of key patterns that can be compared across regions. Additionally, our analyses of evolving long-term trends in mortality and life expectancy across age groups, sexes, and Socio-demographic Index levels reveal changing dynamics and patterns with implications for the future of health-care systems, economies, and societies. Collectively, the estimates reported here provide a robust framework for GBD and a valuable foundation for policy evaluation, development, and implementation around the world.

shown to be relatively lower than those in high-income countries from which age patterns are typically drawn in model life table systems.^{19,20} This suggests the need for new methods to estimate age-specific mortality rates without relying on model life tables.

The GBD 2023 mortality analysis improves upon GBD 2021 by developing a novel methodology to incorporate age-specific demographic data directly into a single statistical model. This model accounts for complex correlation structures across age and time, leading to more accurate age-specific results across the study

period. Using a single model to produce all-cause mortality estimates is a major improvement over previous approaches, including by GBD and UNPD, because it is simpler and more transparent, facilitates statistical model assessment with standard techniques, and does not rely on model life tables. In this iteration of GBD, we aimed to provide comprehensive estimates of age-specific all-cause mortality and life expectancy from 1950 to 2023, across global, regional, national, and subnational locations, using novel methods that will enable more timely and accurate mortality updates in the

future. This manuscript was produced as part of the GBD Collaborator Network and in accordance with the GBD Protocol.²¹

See Online for appendix 1

Methods

Overview

For each new GBD round, the latest data and improved methods are used to update the full time series of demographic estimates from 1950 through to the latest year of analysis; GBD 2023 demographic estimates therefore supersede all previous estimates.

The GBD 2023 demographic analysis introduced a novel tool, referred to as OneMod, for estimating all-cause mortality that directly incorporates age-specific data in a single, stagewise statistical model and accounts for complex correlations over time and across age groups. OneMod is a notable methodological improvement over the mortality methods used by previous GBD iterations, the UNPD, and other groups, all of which use multiple separate models and model life table systems. The new model is simpler, using standard techniques for statistical model assessment, and allows for greater transparency. It also allows more flexible specification of inputs in order to incorporate data that were not usable in previous GBD models as well as more direct accounting of mortality due to HIV/AIDS and the COVID-19 pandemic by use of covariates, rather than incorporating separate models for these causes of death in a post-hoc manner. In contrast to previous methods that were reliant on model life table systems that estimate age patterns of mortality in data-sparse locations based on historical mortality data from a limited set of populations, OneMod models age-specific mortality rates directly from the available data such that patterns of mortality are based on data-driven correlations across age. The tool has several components that are unified within a single overarching model, including parametric methods that use covariates, intercepts, trends, and splines, as well as non-parametric fitting that uses kernel methods, which start from the parametric fit and create more detailed predictions by leveraging correlation across age, time, and location in the residuals corresponding to most detailed data. Correlations are encoded into the overall likelihood using kernels, giving rise to a useful smoothing penalty in prediction space that balances the detailed data. The overall likelihood connects all stages, with priors and offsets to transfer information from one stage to the next. Binomial likelihood is used throughout the model to estimate all-cause mortality.

OneMod analysis for this application includes two main components: regression analysis with a generalised linear modelling tool (referred to as SpXMod) that accounts for age-specific covariate effects, and non-parametric modelling of residuals with the Kronecker-factored multivariate kernel regression (KReg) model, which smooths across age and time. A summary of the methods used to produce all-cause mortality

estimates is given below; a more detailed description of all GBD 2023 demographics methods—including for all-cause mortality as well as for fertility and population size—is available in appendix 1 (sections 2–6). An analytical flowchart of all-cause mortality estimation is also presented in appendix 1 (figure S1). We compared our estimates of mortality rates and life expectancy to those of UNICEF²² and the UNPD's latest World Population Prospects revision.²³

All-cause mortality data sources and processing

The GBD 2023 analysis used a range of data types for mortality estimation that were identified from a systematic search of available data from government websites, statistical annuals, demographic compendia, large-scale surveys, and collaborator input; citations and metadata for these input data are available online via the GBD 2023 Sources Tool in the Global Health Data Exchange (GHDx). All-cause mortality was estimated with 24 025 data sources, which included 28 652 location-years of VR data (3726 new location-years across all age groups compared to GBD 2021),¹² 1644 location-years of sample VR data, and 5208 other sources (355 new surveys, 15 new censuses, and 2213 other new sources; appendix 1 tables S3–S5).

Methods to calculate age-specific mortality rates from each data source were similar to GBD 2021, with some notable exceptions (details provided in appendix 1 section 2.2). First, age-specific mortality rates for age groups younger than 15 years were calculated from complete birth histories rather than aggregated under-5 mortality rates. Data for ages 5–9 years and 10–14 years had previously only been obtained from VR data. Complete birth history data from these ages have been shown to be reliable.²⁴ We also assessed the usability of complete birth history data from age groups 15–19 and 20–24 years, but these ages showed downward bias compared to VR and sibling survival history data as well as sparse availability (appendix 1 section 2.2.2). Second, we used a new age-sex splitting algorithm to calculate age-specific mortality rates from summary birth histories (appendix 1 sections 2.2.6 and 2.4). Third, we calculated age-specific mortality rates for ages 15–19 years to 45–49 years from sibling survival histories instead of the probability of death between ages 15 and 60 years (the 45q15 indicator). We assessed the usability of sibling survival history data from age groups 50–54 years and 55–59 years, but these age groups showed downward bias compared to VR data as well as sparse availability due to most surveys only seeking respondents aged 15–49 years (appendix 1 section 2.2.4). Additionally, we incorporated data on age-specific mortality rates from 38 International Network for the Demographic Evaluation of Populations and Their Health (INDEPTH) Health and Demographic Surveillance System (HDSS) sites across 15 countries, mostly in sub-Saharan Africa, totaling 532 location-years of data. Finally, we used a new

For the GBD 2023 Sources Tool
see <https://ghdx.healthdata.org/gbd-2023/sources>

For more on INDEPTH see
<https://indepth-network.org/>

age-sex splitting algorithm to split mortality rates from aggregated age groups in VR data into age-specific mortality for more granular age groups (appendix 1 section 2.2.6). This includes 8754 location-years of VR data with all-age death counts.

To account for non-sampling variation—which the available sample size does not account for, and which can be substantial depending on the data source and its completeness—we made several weight adjustments as described in appendix 1 (section 2.3.5.1). To ensure data were consistent with a binomial likelihood having parameters less than 1, which is particularly relevant for the neonatal and oldest age groups, we used compactification pre-processing techniques as described in appendix 1 (section 2.3.5.1). Complete methods on data processing are provided in appendix 1 (sections 2.2 and 2.3).

All-cause mortality estimation

We developed the OneMod mortality pipeline to produce estimates of all-cause mortality across location, age, sex, and time using a single model with both parametric and non-parametric components linked within an overarching statistical framework. We used five covariates that are known to be predictive of all-cause mortality: Socio-demographic Index (SDI), HIV mortality rate, age-standardised COVID-19 mortality rate, a binary covariate indicating whether each location is an island, and an all-risk-factor summary covariate calculated as the total population attributable fraction (PAF) for all risk factors combined for age-standardised all-cause mortality, excluding deaths due to HIV/AIDS and deaths due to fatal discontinuities (ie, events that are stochastic in nature, and therefore do not have a predictable time trend). SDI is a composite indicator of a location's level of social and economic development, measured by lag-distributed income per capita, average years of schooling, and the total fertility rate in women aged younger than 25 years (appendix 1 sections 5 and 6.3–6.4). The first four covariates were available for all locations from 1950 to 2023, with HIV mortality rates being zero for the years before 1981 and COVID-19 mortality rates being zero for the years before 2020, while the fifth covariate was only available from 1990 onwards. Complete methods and covariate details, including an explanation of the covariate selection process, are provided in appendix 1 (section 2.3.5.2).

We then used the new SpXMod stage-wise model fit with a regression model with correlated, dimension-specific intercepts and covariate coefficients. We fit models for datasets from 1950 onwards and 1990 onwards using available covariate sets, with the all-risk covariate only available for datasets from 1990 onwards. In stage 1 of SpXMod, we fit a global age-specific covariate model, along with intercepts by age and location. In stage 2, we used the results from the global covariate model as a constant offset for our global time model and then fit

super-region-specific and age-specific trends and intercepts. In stage 3, we used the results from the global time model as a constant offset in a national model, to which we added a country-specific and age-specific intercept. For countries with subnational locations, we used stage 4 to fit a subnational model using the results from the national model as a constant offset. A custom splicing step was used to combine estimates for models from 1950 onwards and 1990 onwards; see appendix 1 (sections 2.3.5.3 and 2.3.5.4) for full details and parameter values.

Next, we used the prediction from the combined model as an offset for a non-parametric kernel regression (implemented via the KReg tool), to smooth SpXMod residuals using similarity across different dimensions (eg, age, time, and location). This step captures additional signals in the data that are not explained by the covariates. See appendix 1 (section 2.3.5.5) for additional information and parameter values.

Finally, to mitigate the effects of the prior kernel smoothing matrix (which necessarily decreases the posterior variance), we used a calibration strategy for uncertainty. Once we obtained model-based asymptotic uncertainty for each estimate based on the model distributions, we picked a geographical granularity (either a specific location or region, depending on the data richness of the location) and scaled each set of uncertainties so that residuals corresponding to observations had a variance of 1. This stage scaled uncertainty estimates so that the scaled Pearson residuals for each geographical granularity have unit variance, which corresponds to the idea that prediction intervals should contain 95% of the observations, based on 1000 draws. See appendix 1 (section 2.3.5.6) for additional details. The age-specific mortality rates estimated from OneMod were used to generate life tables by single-year age groups, with further detailed age groups under the age of 1 year. Sex-redistributed and age-redistributed fatal discontinuities by cause were aggregated by age and sex and added to the estimated mortality from the previous step to generate the final all-cause mortality life tables by location, year, sex, and age. We calculated abridged life tables for the standard GBD age groups from these single-year age group life tables, including fatal discontinuities for each location, year, and sex combination. This culminated in estimating life expectancy at birth, using standard demographic methods.²⁵ Finally, we calculated the final mortality envelope from these abridged life tables. See appendix 1 (section 2.5) for additional details.

Expected mortality based on SDI estimation

There is a well established correlation between SDI and mortality, with higher SDI being associated with lower mortality rates. However, mortality is not driven solely by SDI. As such, for each location, we can estimate the mortality rate or life expectancy that would be expected

See Online for appendix 2

solely on the basis of SDI and compare these estimates to our estimated mortality and life expectancy to identify locations that overperform or underperform on the basis of their level of social and demographic development. To do this, we analysed the relationship between age-specific log mortality rates and SDI using MR-BRT (meta-regression–Bayesian, regularised, trimmed),²⁶ a meta-regression programme. MR-BRT defines a linear mixed-effects model with a B-spline specification for the relationship between outcomes of interest and SDI. We used a cubic spline with five knots between 0 and 1, with left-most and right-most spline segments enforced to be linear, and with slopes matching adjacent interior segments. To ensure that the results were not sensitive to the choice of spline knots, we used a model ensemble of more than 50 cubic spline models, as described above. For each model, interior knot placement was randomly generated to be between 0.1 and 0.9, with minimum inter-knot distance of 0.1 and maximum inter-knot distance of 1.0. The final predictions were obtained with the ensemble aggregate over these 50 models. This model was performed separately for each GBD age-sex group. Expected mortality rates for each age-sex group based on SDI were used to estimate expected life expectancy.

GBD research and reporting practices

This research complies with the GATHER statement;²⁷ a completed GATHER checklist is provided in appendix 1 (table S2). The University of Washington Institutional Review Board granted approval for the study (STUDY00009060) through to July 26, 2026. The software used for analyses included Python (version 3.10.4), Stata (version 15.1), and R (versions 4.2 and 4.4). The statistical code used in GBD 2023 is publicly available online. An international network of collaborators helped provide, review, and analyse the input data and estimates; GBD 2023 drew on the expertise of more than 14 000 collaborators from more than 160 countries and territories.

GBD 2023 produced estimates of all-cause mortality by age-sex-location-year for 25 age groups from early neonatal (0–6 days) to 95 years and older; for males, females, and all sexes combined; in 204 countries and territories grouped into 21 regions and seven super-regions; and for every year from 1950 to 2023. GBD regions were designated on the basis of two criteria: epidemiological similarity and geographical closeness of countries and territories. Super-regions were grouped on the basis of cause of death patterns among regions. See appendix 1 (table S1) for a complete list of locations by hierarchy level. GBD 2023 also includes subnational analyses for 660 locations in 20 countries and territories (Brazil, China, Ethiopia, India, Indonesia, Italy, Iran, Japan, Kenya, Mexico, New Zealand, Nigeria, Norway, Pakistan, the Philippines, Poland, Russia, South Africa, the UK, and the USA; due to space constraints, these

estimates are available only in appendix 2 and the online tools, or in some cases they are not available publicly due to agreements with country partners) as well as estimates by SDI quintile. All countries and territories were given an SDI value ranging from 0 (lowest income and educational attainment, and highest fertility) to 100 and then most-specific locations (subnational locations in countries for which they are estimated, countries and territories for all others) were grouped into quintiles from low SDI to high SDI (appendix 2 tables S6A–C).

Uncertainty was propagated through each component of the estimation process. As detailed above, for all-cause mortality, OneMod generated 1000 draws for every location, year, and sex combination. Mean estimates and 95% uncertainty intervals (UIs; the 25th and 975th ranked values from the 1000 draws) for mortality and life expectancy were generated with the draw-level estimates.

Count data are presented to three significant figures and age-standardised rates are presented to 1 decimal place.

Role of the funding source

The funder of this study had no role in study design, data collection, data analysis, data interpretation, the writing of the report, or the decision to submit the manuscript for publication.

Results

Overview

This section presents global, regional, and national-level results for key demographic metrics; given space constraints, estimates at the subnational level are presented in appendix 2. All subnational locations are listed in appendix 1 (table S1).

Reported civil registration and vital statistics completeness

Between 1975 and 2019, reported global completeness of death registration (ie, the reported proportion of all deaths registered in a VR system) increased considerably, from 30.0% in 1975–79 to 59.8% in 2015–19 (figure 1). Across GBD super-regions, reported VR completeness in 2015–19 varied from 99.6% in the high-income super-region to 6.5% in sub-Saharan Africa. Affected by lags in reporting, reported VR completeness in the 2020–23 period at the global level was lower than in 2015–19, at 45.1%, with the percentage of deaths registered even slightly dropping in the high-income super-region to 95.8%. This relatively small drop in the high-income super-region was partly due to high availability of provisional all-age VR data in this super-region relative to others (incorporated in GBD 2023 for the first time; appendix 2 figures S1A, S1B). Information about the most recent year of available reported VR data and completeness of the VR system for the latest year of reporting for all GBD countries and territories is provided in appendix 2 (figures S1A and S1B).

For the statistical code see
<http://ghdx.healthdata.org/gbd-2023/code>

Number of deaths

In 2023, 60·1 million (95% UI 59·0–61·1) deaths occurred globally; of these, 4·67 million (4·59–4·75) were in children younger than 5 years (table 1). Due to considerable population growth and ageing since 1950, the number of annual deaths globally, in all ages combined, increased by 35·2% (32·2–38·4) between 1950 and 2023 (appendix 2 table S5A). Under-5 deaths have decreased steadily since 1970, although decreases have slowed since 2010 (figure 2). Initially, most of this decline could be attributed to declines in both the under-5 mortality rate and the under-5 population in southeast Asia, east Asia, and Oceania (especially China) until a tapering off starting around the year 2000. After this, the share of the decline attributed to sub-Saharan Africa began to grow, which then tapered off over the final 5 years of the study period. There were similar declines in deaths in children aged 5–14 years over the study period that have reduced in recent years—although with more fluctuation over time—with the share of declines dominated by south Asia as well as southeast Asia, east Asia, and Oceania. Globally, there were 872 000 (845 000–902 000) deaths in children aged 5–14 years in 2023, compared to 1 739 000 (1 689 000–1 788 000) in 1990, corresponding to a decline of 49·9%. In those aged 15–39 years, deaths fluctuated between increasing and decreasing over the study period—reflecting major stochastic events, such as the Rwandan genocide and its after-effects (1994–95) and the HIV/AIDS epidemic (peaking in sub-Saharan Africa in the late 1990s), with more consistent declines (although at progressively slower rates) between 2005 and 2019. During this recent period, declines were initially dominated by southeast Asia, east Asia, and Oceania, transitioning to south Asia in approximately 2012. After 2019, large increases and subsequent decreases occurred during the COVID-19 pandemic and recovery periods. Those aged 40 years and older had the most extreme increases and subsequent decreases over this period, with especially extreme fluctuations in those aged 60 years and older. The number of deaths in the population aged 60 years and older generally increased, at progressively larger levels, over the entire pre-pandemic period. At the national level, China had the most deaths in 2023 (10·7 million [9·83–11·5]), followed by India (9·85 million [9·20–10·5]) and the USA (3·09 million [3·09–3·09]; table 1). As detailed below, these high counts are largely a reflection of population size; China had the 166th highest age-standardised mortality rate (of 204 countries and territories), India had the 73rd highest rate, and the USA had the 160th highest rate (appendix 2 table S3A).

The distribution of deaths due to all causes combined by age group, sex, and GBD super-region varied substantially over the study period (figure 3). In 1950, deaths in children aged younger than 1 year dominated the global deaths age structure—with 88·9% more

deaths than the next-highest age group in the figure—with the largest number of deaths in children younger than 1 year occurring in males in southeast Asia, east Asia, and Oceania (figure 3A). Children aged 1–4 years had the second-largest number of deaths (particularly females in south Asia), followed by those aged 70–74 years. By 1990, the age structure of deaths had begun shifting toward older ages, although the largest number of deaths still occurred in children aged younger than 1 year, with the most deaths now occurring in males in south Asia, followed by those aged 75–79 years (with the most deaths in this age group occurring in males in southeast Asia, east Asia, and Oceania; figure 3B). In 2010, the shift in deaths to older ages continued, with the largest increase from 1990 and the most deaths in 2010 occurring in those aged 80–84 years, followed by, in descending order, those aged 75–79 years, 70–74 years, and those younger than 1 year (figure 3C). By 2010, deaths in children younger than 1 year were highest in sub-Saharan Africa. In 2023, deaths had further shifted to older ages, with the largest number of deaths still occurring in those aged 80–84 years but with nearly as many female deaths occurring in those aged 85–89 years (figure 3D). In 2023, there were approximately half as many deaths in children younger than 1 year as in those aged 80–84 years and just 54·7% as many deaths as in those aged 75–79 years, with the largest proportion of deaths in children younger than 1 year occurring in

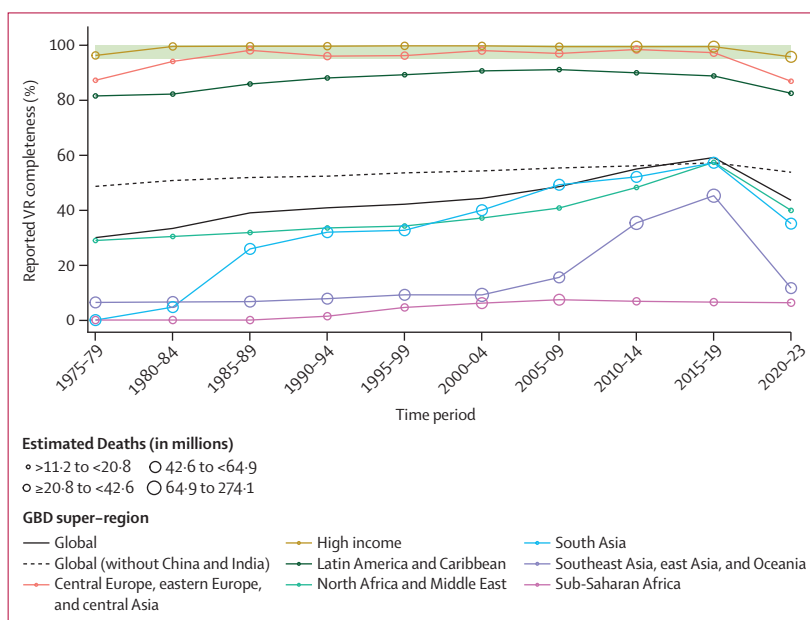


Figure 1: Completeness of reported VR system data by GBD super-region, 1975–2023

Completeness is defined as the total number of deaths registered in all VR systems within a super-region during a 5-year period divided by the total number of estimated deaths within that super-region and period, with 100% completeness indicating that all deaths were registered. The size of the datapoints represents the number of estimated deaths. The solid black line shows global completeness, the dashed black line indicates global completeness excluding China and India, and the other coloured lines indicate GBD super-regions. The green shaded box indicates complete registration (defined as >95%). GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. VR=vital registration.

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
Global	36.3 (35.7 to 36.9)	–2.8% (–2.9 to –2.8)	0.11 (0.10 to 0.11)	0.16 (0.16 to 0.17)	76.3 (76.0 to 76.6)	71.5 (71.2 to 71.8)	73.8 (73.6 to 74.1)	60 100.0 (59 000.0 to 61 100.0)	4670.0 (4590.0 to 4750.0)
Central Europe, eastern Europe, and central Asia	15.0 (14.6 to 15.5)	–2.2% (–2.4 to –2.1)	0.08 (0.08 to 0.09)	0.22 (0.21 to 0.22)	78.8 (78.7 to 79.0)	69.9 (69.5 to 70.1)	74.4 (74.1 to 74.5)	4540.0 (4490.0 to 4590.0)	70.8 (68.9 to 72.9)
Central Asia	26.8 (25.8 to 27.7)	–2.2% (–2.3 to –2.0)	0.08 (0.08 to 0.09)	0.17 (0.17 to 0.17)	76.8 (76.6 to 77.0)	70.5 (70.3 to 70.7)	73.7 (73.5 to 73.8)	611.0 (603.0 to 618.0)	55.8 (53.9 to 57.8)
Armenia	11.8 (10.7 to 13.0)	–3.5% (–4.0 to –3.0)	0.05 (0.04 to 0.06)	0.13 (0.12 to 0.14)	82.6 (82.0 to 83.1)	76.3 (75.5 to 77.1)	79.6 (79.1 to 80.1)	24.7 (23.6 to 25.9)	0.4 (0.4 to 0.4)
Azerbaijan	50.5 (46.3 to 54.9)	–0.4% (–0.8 to 0.1)	0.07 (0.06 to 0.08)	0.16 (0.15 to 0.17)	75.4 (74.7 to 76.1)	69.9 (69.2 to 70.6)	72.6 (72.1 to 73.1)	69.6 (67.2 to 71.9)	6.1 (5.6 to 6.6)
Georgia	9.6 (8.6 to 10.7)	–6.4% (–6.9 to –5.9)	0.07 (0.06 to 0.08)	0.22 (0.20 to 0.24)	79.4 (78.9 to 79.9)	70.1 (69.4 to 70.7)	74.7 (74.3 to 75.2)	43.6 (42.0 to 45.3)	0.4 (0.4 to 0.5)
Kazakhstan	13.7 (12.6 to 14.9)	–3.4% (–3.8 to –3.0)	0.08 (0.08 to 0.09)	0.20 (0.19 to 0.21)	78.7 (78.3 to 79.1)	70.8 (70.3 to 71.2)	74.9 (74.6 to 75.2)	131.0 (128.0 to 134.0)	5.5 (5.1 to 6.0)
Kyrgyzstan	21.0 (19.4 to 23.0)	–3.2% (–3.6 to –2.8)	0.07 (0.06 to 0.08)	0.15 (0.14 to 0.16)	77.8 (77.2 to 78.5)	72.5 (71.8 to 73.2)	75.2 (74.8 to 75.7)	31.6 (30.3 to 32.8)	3.2 (2.9 to 3.5)
Mongolia	15.3 (13.8 to 16.9)	–5.2% (–5.7 to –4.8)	0.10 (0.09 to 0.11)	0.27 (0.25 to 0.29)	78.2 (77.4 to 79.0)	68.0 (67.1 to 68.9)	73.1 (72.4 to 73.7)	18.5 (17.7 to 19.4)	1.1 (1.0 to 1.3)
Tajikistan	25.2 (22.8 to 27.7)	–4.0% (–4.5 to –3.5)	0.10 (0.09 to 0.12)	0.14 (0.12 to 0.16)	73.0 (71.9 to 74.1)	70.6 (69.5 to 71.7)	71.8 (71.0 to 72.5)	50.3 (47.2 to 53.4)	7.0 (6.3 to 7.7)
Turkmenistan	28.4 (25.9 to 31.4)	–2.5% (–3.0 to –2.0)	0.13 (0.11 to 0.15)	0.22 (0.19 to 0.25)	74.1 (72.8 to 75.3)	68.2 (67.0 to 69.5)	71.1 (70.2 to 72.0)	36.2 (33.9 to 38.5)	3.5 (3.1 to 3.8)
Uzbekistan	33.3 (31.4 to 35.2)	–0.9% (–1.2 to –0.6)	0.08 (0.08 to 0.09)	0.15 (0.14 to 0.16)	75.0 (74.6 to 75.4)	70.0 (69.6 to 70.3)	72.5 (72.2 to 72.8)	205.0 (201.0 to 209.0)	28.6 (26.9 to 30.2)
Central Europe	4.8 (4.7 to 4.9)	–4.4% (–4.5 to –4.3)	0.06 (0.06 to 0.06)	0.14 (0.14 to 0.14)	81.0 (80.9 to 81.1)	74.4 (74.3 to 74.5)	77.7 (77.7 to 77.8)	1350.0 (1340.0 to 1360.0)	4.7 (4.6 to 4.8)
Albania	8.7 (7.8 to 9.7)	–4.9% (–5.4 to –4.4)	0.04 (0.04 to 0.05)	0.10 (0.09 to 0.11)	82.1 (81.4 to 82.7)	77.3 (76.6 to 77.9)	79.6 (79.2 to 80.1)	21.0 (19.9 to 22.1)	0.2 (0.2 to 0.2)
Bosnia and Herzegovina	5.4 (4.9 to 5.8)	–2.7% (–3.1 to –2.3)	0.06 (0.05 to 0.06)	0.11 (0.10 to 0.13)	80.1 (79.4 to 80.8)	75.3 (74.6 to 76.0)	77.7 (77.2 to 78.2)	37.8 (35.8 to 39.9)	0.1 (0.1 to 0.2)
Bulgaria	6.0 (5.7 to 6.3)	–4.7% (–5.0 to –4.4)	0.08 (0.07 to 0.08)	0.17 (0.17 to 0.18)	79.5 (79.3 to 79.7)	72.5 (72.2 to 72.7)	75.9 (75.7 to 76.1)	102.0 (100.0 to 104.0)	0.3 (0.3 to 0.4)
Croatia	4.0 (3.9 to 4.2)	–3.3% (–3.5 to –3.2)	0.05 (0.05 to 0.05)	0.12 (0.12 to 0.13)	81.7 (81.4 to 81.9)	75.5 (75.2 to 75.8)	78.6 (78.4 to 78.8)	51.9 (50.8 to 53.0)	0.1 (0.1 to 0.1)
Czechia	2.5 (2.4 to 2.6)	–3.6% (–3.8 to –3.3)	0.05 (0.05 to 0.05)	0.10 (0.10 to 0.11)	82.8 (82.6 to 82.9)	76.9 (76.8 to 77.1)	79.9 (79.8 to 80.0)	113.0 (112.0 to 114.0)	0.3 (0.3 to 0.3)
Hungary	4.1 (3.9 to 4.3)	–3.9% (–4.1 to –3.6)	0.07 (0.07 to 0.07)	0.15 (0.14 to 0.15)	80.1 (79.9 to 80.2)	73.4 (73.2 to 73.6)	76.8 (76.7 to 77.0)	128.0 (126.0 to 129.0)	0.4 (0.3 to 0.4)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Montenegro	4.7 (4.5 to 4.9)	–5.3% (–5.5 to –5.0)	0.06 (0.06 to 0.07)	0.13 (0.12 to 0.14)	79.5 (79.1 to 79.9)	74.7 (74.3 to 75.1)	77.1 (76.8 to 77.3)	7.0 (6.8 to 7.2)	0.0 (0.0 to 0.0)
North Macedonia	5.7 (5.4 to 6.0)	–4.7% (–5.0 to –4.5)	0.06 (0.06 to 0.07)	0.11 (0.11 to 0.12)	78.9 (78.5 to 79.4)	75.2 (74.6 to 75.7)	77.0 (76.6 to 77.4)	21.0 (20.1 to 22.0)	0.1 (0.1 to 0.1)
Poland	4.1 (3.9 to 4.3)	–3.7% (–4.0 to –3.5)	0.05 (0.05 to 0.06)	0.14 (0.14 to 0.14)	82.2 (82.1 to 82.4)	75.0 (74.8 to 75.1)	78.6 (78.6 to 78.7)	410.0 (407.0 to 412.0)	1.3 (1.2 to 1.3)
Romania	6.8 (6.4 to 7.2)	–5.1% (–5.4 to –4.9)	0.07 (0.07 to 0.07)	0.18 (0.17 to 0.18)	80.1 (80.0 to 80.3)	72.5 (72.3 to 72.7)	76.3 (76.1 to 76.4)	246.0 (244.0 to 249.0)	1.1 (1.1 to 1.2)
Serbia	5.4 (4.8 to 6.0)	–3.4% (–3.9 to –2.9)	0.07 (0.06 to 0.08)	0.13 (0.11 to 0.15)	78.2 (77.4 to 78.9)	73.9 (73.0 to 74.7)	76.0 (75.4 to 76.6)	120.0 (112.0 to 128.0)	0.3 (0.3 to 0.4)
Slovakia	5.5 (5.3 to 5.8)	–2.5% (–2.7 to –2.3)	0.06 (0.06 to 0.06)	0.13 (0.13 to 0.14)	81.4 (81.2 to 81.7)	74.8 (74.6 to 75.0)	78.2 (78.0 to 78.3)	54.1 (53.3 to 55.0)	0.3 (0.3 to 0.3)
Slovenia	2.3 (2.2 to 2.4)	–3.9% (–4.1 to –3.7)	0.04 (0.04 to 0.04)	0.08 (0.08 to 0.09)	84.4 (84.1 to 84.6)	79.0 (78.7 to 79.2)	81.6 (81.5 to 81.8)	21.6 (21.1 to 22.1)	0.0 (0.0 to 0.0)
Eastern Europe	6.3 (6.0 to 6.5)	–4.6% (–4.7 to –4.4)	0.10 (0.09 to 0.10)	0.28 (0.27 to 0.29)	78.9 (78.6 to 79.1)	67.8 (67.0 to 68.3)	73.3 (72.8 to 73.7)	2570.0 (2530.0 to 2620.0)	10.3 (9.9 to 10.8)
Belarus	4.6 (4.3 to 4.9)	–5.6% (–5.9 to –5.3)	0.09 (0.08 to 0.09)	0.23 (0.22 to 0.25)	79.2 (78.6 to 79.7)	69.5 (68.9 to 70.2)	74.5 (74.0 to 74.9)	123.0 (117.0 to 129.0)	0.4 (0.3 to 0.4)
Estonia	2.8 (2.6 to 2.9)	–5.8% (–6.0 to –5.6)	0.05 (0.05 to 0.06)	0.15 (0.14 to 0.16)	82.9 (82.6 to 83.2)	74.2 (73.8 to 74.6)	78.7 (78.5 to 79.0)	16.3 (15.9 to 16.7)	0.0 (0.0 to 0.0)
Latvia	3.8 (3.7 to 4.1)	–5.6% (–5.8 to –5.3)	0.08 (0.07 to 0.08)	0.22 (0.21 to 0.23)	80.6 (80.3 to 80.9)	70.7 (70.3 to 71.1)	75.8 (75.5 to 76.1)	27.9 (27.3 to 28.5)	0.1 (0.1 to 0.1)
Lithuania	3.4 (3.3 to 3.6)	–5.1% (–5.3 to –4.8)	0.07 (0.07 to 0.08)	0.20 (0.19 to 0.21)	81.2 (80.9 to 81.5)	71.9 (71.5 to 72.2)	76.6 (76.4 to 76.9)	38.7 (37.9 to 39.4)	0.1 (0.1 to 0.1)
Moldova	11.9 (10.7 to 13.2)	–3.6% (–4.1 to –3.1)	0.07 (0.06 to 0.08)	0.19 (0.18 to 0.21)	80.3 (79.6 to 81.0)	71.6 (70.9 to 72.3)	76.0 (75.5 to 76.6)	38.3 (36.6 to 40.0)	0.3 (0.3 to 0.3)
Russia	6.0 (5.7 to 6.3)	–4.9% (–5.2 to –4.7)	0.10 (0.09 to 0.10)	0.28 (0.27 to 0.30)	78.8 (78.6 to 78.9)	67.6 (66.7 to 68.3)	73.2 (72.6 to 73.6)	1800.0 (1780.0 to 1820.0)	7.6 (7.2 to 8.0)
Ukraine	8.7 (8.1 to 9.4)	–2.7% (–3.1 to –2.3)	0.10 (0.09 to 0.12)	0.29 (0.27 to 0.30)	78.5 (77.5 to 79.5)	66.6 (65.9 to 67.2)	72.5 (71.9 to 73.2)	534.0 (501.0 to 569.0)	1.9 (1.8 to 2.1)
High income	5.0 (5.0 to 5.0)	–1.8% (–1.9 to –1.8)	0.06 (0.06 to 0.06)	0.10 (0.10 to 0.10)	83.7 (83.7 to 83.7)	78.5 (78.5 to 78.6)	81.1 (81.1 to 81.2)	10 700.0 (10 600.0 to 10 700.0)	51.0 (50.7 to 51.4)
Australasia	3.8 (3.6 to 3.9)	–2.4% (–2.5 to –2.2)	0.04 (0.04 to 0.04)	0.07 (0.07 to 0.07)	85.4 (85.4 to 85.5)	81.6 (81.5 to 81.7)	83.5 (83.5 to 83.6)	221.0 (220.0 to 222.0)	1.3 (1.3 to 1.4)
Australia	3.6 (3.5 to 3.8)	–2.4% (–2.6 to –2.2)	0.04 (0.04 to 0.04)	0.07 (0.07 to 0.07)	85.8 (85.8 to 85.9)	81.9 (81.8 to 82.0)	83.9 (83.8 to 83.9)	182.0 (181.0 to 183.0)	1.1 (1.0 to 1.1)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
New Zealand	4.4 (4.2 to 4.6)	–2.3% (–2.5 to –2.0)	0.05 (0.05 to 0.06)	0.08 (0.08 to 0.09)	83.4 (83.2 to 83.6)	79.9 (79.7 to 80.1)	81.6 (81.5 to 81.8)	38.8 (38.2 to 39.4)	0.3 (0.2 to 0.3)
High-income Asia Pacific	2.4 (2.3 to 2.5)	–3.9% (–4.1 to –3.7)	0.04 (0.04 to 0.04)	0.07 (0.07 to 0.07)	87.1 (87.0 to 87.1)	81.0 (81.0 to 81.1)	84.1 (84.0 to 84.1)	2000.0 (1990.0 to 2010.0)	2.6 (2.5 to 2.7)
Brunei	9.0 (8.4 to 9.6)	–1.1% (–1.4 to –0.7)	0.08 (0.08 to 0.09)	0.13 (0.12 to 0.14)	79.4 (78.8 to 80.0)	76.9 (76.2 to 77.5)	78.1 (77.6 to 78.5)	2.0 (1.9 to 2.1)	0.1 (0.0 to 0.1)
Japan	2.3 (2.2 to 2.4)	–3.0% (–3.1 to –2.9)	0.04 (0.04 to 0.04)	0.07 (0.07 to 0.07)	87.2 (87.2 to 87.2)	81.0 (81.0 to 81.1)	84.1 (84.1 to 84.1)	1620.0 (1610.0 to 1620.0)	1.8 (1.8 to 1.9)
Singapore	1.9 (1.9 to 2.0)	–2.7% (–2.9 to –2.4)	0.03 (0.03 to 0.03)	0.05 (0.05 to 0.05)	87.5 (87.3 to 87.8)	83.1 (82.9 to 83.4)	85.4 (85.2 to 85.5)	26.9 (26.5 to 27.4)	0.1 (0.1 to 0.1)
South Korea	2.6 (2.3 to 2.9)	–5.1% (–5.6 to –4.5)	0.03 (0.03 to 0.04)	0.07 (0.07 to 0.07)	86.1 (85.9 to 86.2)	80.6 (80.4 to 80.8)	83.4 (83.3 to 83.6)	353.0 (348.0 to 359.0)	0.7 (0.6 to 0.7)
High-income North America	6.5 (6.4 to 6.5)	–1.0% (–1.0 to –0.9)	0.08 (0.08 to 0.08)	0.14 (0.14 to 0.14)	81.4 (81.4 to 81.5)	76.3 (76.3 to 76.3)	78.8 (78.8 to 78.9)	3410.0 (3410.0 to 3420.0)	26.0 (25.8 to 26.2)
Canada	4.9 (4.8 to 5.1)	–0.9% (–1.1 to –0.7)	0.05 (0.05 to 0.06)	0.09 (0.09 to 0.10)	84.1 (83.8 to 84.4)	79.6 (79.4 to 79.9)	81.9 (81.7 to 82.1)	321.0 (315.0 to 328.0)	1.8 (1.7 to 1.8)
Greenland	12.9 (12.1 to 13.7)	–2.8% (–3.1 to –2.5)	0.11 (0.10 to 0.12)	0.16 (0.15 to 0.17)	73.4 (72.8 to 74.1)	70.0 (69.3 to 70.7)	71.6 (71.1 to 72.0)	0.5 (0.5 to 0.5)	0.0 (0.0 to 0.0)
USA	6.6 (6.6 to 6.7)	–1.0% (–1.0 to –0.9)	0.08 (0.08 to 0.08)	0.15 (0.15 to 0.15)	81.1 (81.1 to 81.1)	75.9 (75.9 to 75.9)	78.5 (78.5 to 78.5)	3090.0 (3090.0 to 3090.0)	24.2 (24.0 to 24.4)
Southern Latin America	8.8 (8.5 to 9.1)	–3.0% (–3.1 to –2.8)	0.07 (0.07 to 0.07)	0.12 (0.12 to 0.13)	81.1 (80.8 to 81.4)	75.6 (75.3 to 75.8)	78.4 (78.2 to 78.6)	530.0 (520.0 to 540.0)	6.4 (6.1 to 6.6)
Argentina	9.4 (9.1 to 9.8)	–3.2% (–3.4 to –3.0)	0.07 (0.07 to 0.08)	0.13 (0.12 to 0.14)	80.3 (79.9 to 80.7)	74.7 (74.3 to 75.0)	77.6 (77.3 to 77.8)	373.0 (363.0 to 384.0)	4.8 (4.6 to 5.0)
Chile	7.4 (7.1 to 7.8)	–1.9% (–2.1 to –1.6)	0.05 (0.05 to 0.06)	0.10 (0.10 to 0.11)	83.3 (83.1 to 83.4)	78.2 (78.0 to 78.4)	80.8 (80.7 to 80.9)	121.0 (120.0 to 123.0)	1.3 (1.3 to 1.4)
Uruguay	6.5 (6.1 to 6.8)	–4.2% (–4.5 to –3.9)	0.08 (0.07 to 0.08)	0.15 (0.15 to 0.16)	80.6 (80.3 to 80.8)	74.1 (73.8 to 74.4)	77.4 (77.2 to 77.6)	34.8 (34.2 to 35.4)	0.2 (0.2 to 0.2)
Western Europe	3.6 (3.6 to 3.7)	–2.0% (–2.0 to –1.9)	0.04 (0.04 to 0.04)	0.08 (0.08 to 0.08)	84.4 (84.3 to 84.4)	79.7 (79.6 to 79.7)	82.0 (82.0 to 82.1)	4500.0 (4480.0 to 4530.0)	14.8 (14.6 to 14.9)
Andorra	4.4 (4.1 to 4.7)	–2.3% (–2.7 to –2.0)	0.05 (0.05 to 0.05)	0.08 (0.08 to 0.09)	86.2 (85.6 to 86.8)	81.8 (81.2 to 82.4)	83.9 (83.4 to 84.3)	0.7 (0.6 to 0.7)	0.0 (0.0 to 0.0)
Austria	3.0 (2.9 to 3.1)	–2.7% (–2.9 to –2.5)	0.04 (0.04 to 0.04)	0.08 (0.07 to 0.08)	84.2 (84.1 to 84.4)	79.5 (79.4 to 79.7)	81.9 (81.8 to 82.0)	88.5 (87.7 to 89.3)	0.3 (0.2 to 0.3)
Belgium	2.7 (2.6 to 2.8)	–3.4% (–3.6 to –3.2)	0.05 (0.04 to 0.05)	0.08 (0.07 to 0.08)	84.2 (84.1 to 84.3)	80.0 (79.9 to 80.1)	82.1 (82.0 to 82.2)	112.0 (111.0 to 113.0)	0.3 (0.3 to 0.3)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Cyprus	3.7 (3.2 to 4.2)	–2.8% (–3.4 to –2.1)	0.04 (0.03 to 0.04)	0.08 (0.07 to 0.09)	82.6 (81.8 to 83.4)	78.6 (77.7 to 79.5)	80.5 (79.9 to 81.1)	10.1 (9.4 to 10.9)	0.1 (0.0 to 0.1)
Denmark	3.7 (3.5 to 3.9)	–1.8% (–2.0 to –1.5)	0.04 (0.04 to 0.04)	0.07 (0.07 to 0.07)	83.6 (83.4 to 83.7)	79.5 (79.4 to 79.7)	81.5 (81.4 to 81.7)	58.6 (57.9 to 59.3)	0.2 (0.2 to 0.2)
Finland	2.4 (2.3 to 2.5)	–2.6% (–2.8 to –2.4)	0.04 (0.04 to 0.05)	0.09 (0.08 to 0.09)	84.3 (84.1 to 84.4)	79.2 (79.0 to 79.3)	81.7 (81.6 to 81.8)	61.2 (60.5 to 62.0)	0.1 (0.1 to 0.1)
France	4.1 (4.0 to 4.2)	–1.2% (–1.3 to –1.0)	0.04 (0.04 to 0.05)	0.09 (0.09 to 0.09)	85.5 (85.4 to 85.5)	79.7 (79.6 to 79.8)	82.6 (82.6 to 82.7)	634.0 (632.0 to 636.0)	2.9 (2.8 to 2.9)
Germany	3.6 (3.5 to 3.8)	–1.7% (–1.9 to –1.5)	0.05 (0.05 to 0.05)	0.09 (0.09 to 0.09)	83.4 (83.1 to 83.6)	78.5 (78.2 to 78.8)	80.9 (80.7 to 81.1)	1020.0 (998.0 to 1050.0)	2.8 (2.7 to 2.9)
Greece	4.1 (3.9 to 4.3)	–1.9% (–2.1 to –1.7)	0.05 (0.04 to 0.05)	0.10 (0.10 to 0.11)	83.8 (83.6 to 83.9)	78.3 (78.1 to 78.4)	81.0 (80.8 to 81.1)	132.0 (131.0 to 133.0)	0.3 (0.3 to 0.3)
Iceland	3.2 (3.1 to 3.4)	–1.4% (–1.7 to –1.1)	0.04 (0.04 to 0.05)	0.07 (0.07 to 0.08)	84.3 (83.8 to 84.6)	80.8 (80.4 to 81.2)	82.5 (82.2 to 82.8)	2.6 (2.5 to 2.7)	0.0 (0.0 to 0.0)
Ireland	3.3 (3.1 to 3.4)	–3.2% (–3.4 to –2.9)	0.04 (0.04 to 0.04)	0.06 (0.06 to 0.07)	84.3 (84.1 to 84.5)	80.8 (80.6 to 81.0)	82.5 (82.4 to 82.7)	35.6 (35.0 to 36.1)	0.2 (0.2 to 0.2)
Israel	3.2 (3.1 to 3.4)	–3.2% (–3.4 to –3.0)	0.04 (0.03 to 0.04)	0.07 (0.07 to 0.07)	85.3 (85.2 to 85.5)	81.2 (81.0 to 81.3)	83.3 (83.1 to 83.4)	50.8 (50.1 to 51.5)	0.6 (0.6 to 0.6)
Italy	2.9 (2.8 to 3.0)	–2.8% (–3.0 to –2.7)	0.04 (0.04 to 0.04)	0.07 (0.07 to 0.07)	85.1 (85.1 to 85.2)	80.7 (80.7 to 80.8)	83.0 (82.9 to 83.0)	672.0 (670.0 to 675.0)	1.2 (1.1 to 1.2)
Luxembourg	2.8 (2.7 to 3.0)	–2.5% (–2.8 to –2.2)	0.03 (0.03 to 0.04)	0.06 (0.06 to 0.07)	85.1 (84.7 to 85.5)	81.2 (80.8 to 81.7)	83.2 (82.9 to 83.5)	4.3 (4.1 to 4.4)	0.0 (0.0 to 0.0)
Malta	4.2 (4.0 to 4.5)	–2.8% (–3.1 to –2.5)	0.03 (0.03 to 0.04)	0.06 (0.06 to 0.07)	84.7 (84.3 to 85.1)	81.4 (81.0 to 81.8)	83.0 (82.7 to 83.3)	4.1 (3.9 to 4.2)	0.0 (0.0 to 0.0)
Monaco	3.7 (3.3 to 4.2)	–2.5% (–3.1 to –1.8)	0.05 (0.04 to 0.06)	0.10 (0.08 to 0.11)	83.1 (82.1 to 84.1)	77.9 (76.8 to 79.0)	80.4 (79.6 to 81.2)	0.5 (0.5 to 0.6)	0.0 (0.0 to 0.0)
Netherlands	3.8 (3.6 to 3.9)	–2.1% (–2.4 to –1.9)	0.04 (0.04 to 0.04)	0.06 (0.06 to 0.06)	83.6 (83.5 to 83.7)	80.4 (80.3 to 80.5)	82.0 (81.9 to 82.1)	170.0 (168.0 to 171.0)	0.7 (0.6 to 0.7)
Norway	2.3 (2.2 to 2.4)	–3.1% (–3.3 to –2.9)	0.04 (0.04 to 0.04)	0.06 (0.06 to 0.06)	84.6 (84.5 to 84.8)	81.4 (81.2 to 81.5)	83.0 (82.9 to 83.1)	43.5 (43.0 to 44.0)	0.1 (0.1 to 0.1)
Portugal	3.3 (3.1 to 3.4)	–3.3% (–3.5 to –3.1)	0.04 (0.04 to 0.04)	0.10 (0.10 to 0.10)	84.8 (84.7 to 85.0)	79.0 (78.8 to 79.1)	82.0 (81.9 to 82.1)	120.0 (118.0 to 121.0)	0.3 (0.3 to 0.3)
San Marino	4.1 (3.6 to 4.7)	–2.1% (–2.8 to –1.4)	0.04 (0.03 to 0.04)	0.05 (0.04 to 0.05)	87.2 (86.3 to 88.1)	83.2 (82.1 to 84.2)	85.1 (84.4 to 85.8)	0.3 (0.3 to 0.3)	0.0 (0.0 to 0.0)
Spain	3.4 (3.3 to 3.5)	–2.0% (–2.1 to –1.8)	0.04 (0.04 to 0.04)	0.08 (0.07 to 0.08)	85.9 (85.8 to 85.9)	80.4 (80.3 to 80.5)	83.2 (83.1 to 83.2)	444.0 (442.0 to 446.0)	1.1 (1.1 to 1.2)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Sweden	2.6 (2.5 to 2.7)	–2.0% (–2.2 to –1.8)	0.04 (0.03 to 0.04)	0.06 (0.05 to 0.06)	85.0 (84.9 to 85.1)	81.6 (81.5 to 81.7)	83.3 (83.2 to 83.4)	94.4 (93.6 to 95.3)	0.3 (0.3 to 0.3)
Switzerland	3.5 (3.3 to 3.6)	–2.3% (–2.5 to –2.0)	0.03 (0.03 to 0.03)	0.05 (0.05 to 0.05)	86.2 (86.1 to 86.3)	82.6 (82.4 to 82.7)	84.4 (84.3 to 84.5)	71.5 (70.8 to 72.3)	0.3 (0.3 to 0.3)
UK	4.4 (4.3 to 4.6)	–1.7% (–1.8 to –1.5)	0.06 (0.06 to 0.06)	0.09 (0.09 to 0.09)	82.9 (82.9 to 83.0)	79.0 (79.0 to 79.1)	81.0 (80.9 to 81.0)	668.0 (666.0 to 670.0)	3.1 (3.0 to 3.2)
England	4.5 (4.3 to 4.6)	–1.6% (–1.8 to –1.5)	0.05 (0.05 to 0.06)	0.09 (0.09 to 0.09)	83.2 (83.1 to 83.2)	79.3 (79.2 to 79.4)	81.2 (81.2 to 81.3)	550.0 (547.0 to 552.0)	2.7 (2.6 to 2.8)
Northern Ireland	4.7 (4.2 to 5.3)	–1.6% (–2.1 to –1.0)	0.06 (0.05 to 0.06)	0.10 (0.10 to 0.11)	82.5 (82.2 to 82.8)	78.8 (78.4 to 79.1)	80.6 (80.4 to 80.9)	17.5 (17.1 to 17.9)	0.1 (0.1 to 0.1)
Scotland	4.2 (3.8 to 4.6)	–1.9% (–2.4 to –1.4)	0.07 (0.07 to 0.08)	0.12 (0.11 to 0.13)	81.1 (80.9 to 81.4)	77.1 (76.8 to 77.4)	79.1 (78.9 to 79.3)	63.8 (62.8 to 64.8)	0.2 (0.2 to 0.2)
Wales	4.2 (3.5 to 4.9)	–1.7% (–2.5 to –0.9)	0.07 (0.06 to 0.08)	0.11 (0.10 to 0.12)	82.0 (81.4 to 82.6)	77.9 (77.3 to 78.6)	80.0 (79.5 to 80.4)	36.6 (35.0 to 38.1)	0.1 (0.1 to 0.1)
Latin America and Caribbean	18.3 (18.0 to 18.6)	–2.6% (–2.7 to –2.5)	0.09 (0.09 to 0.09)	0.17 (0.17 to 0.17)	79.0 (78.9 to 79.1)	73.0 (72.9 to 73.1)	76.0 (76.0 to 76.1)	3880.0 (3860.0 to 3900.0)	160.0 (158.0 to 163.0)
Andean Latin America	23.5 (22.7 to 24.4)	–2.4% (–2.6 to –2.2)	0.09 (0.09 to 0.10)	0.15 (0.14 to 0.15)	78.4 (78.1 to 78.6)	73.8 (73.5 to 74.1)	76.1 (75.9 to 76.3)	390.0 (384.0 to 395.0)	27.0 (26.0 to 28.0)
Bolivia	28.8 (27.3 to 30.4)	–4.0% (–4.3 to –3.8)	0.13 (0.13 to 0.14)	0.19 (0.17 to 0.20)	74.5 (73.9 to 75.2)	69.3 (68.7 to 70.0)	71.9 (71.4 to 72.3)	77.2 (74.3 to 80.0)	6.7 (6.4 to 7.1)
Ecuador	28.3 (27.1 to 29.5)	–0.1% (–0.3 to 0.2)	0.08 (0.07 to 0.08)	0.16 (0.16 to 0.17)	79.9 (79.6 to 80.1)	73.6 (73.3 to 73.9)	76.7 (76.5 to 76.9)	102.0 (100.0 to 103.0)	8.4 (8.1 to 8.8)
Peru	19.2 (17.9 to 20.5)	–2.6% (–3.0 to –2.3)	0.09 (0.08 to 0.09)	0.13 (0.12 to 0.14)	79.0 (78.6 to 79.3)	75.3 (74.9 to 75.7)	77.1 (76.8 to 77.4)	212.0 (207.0 to 216.0)	11.8 (11.0 to 12.7)
Caribbean	35.9 (33.8 to 38.1)	–1.5% (–1.8 to –1.2)	0.15 (0.14 to 0.15)	0.21 (0.20 to 0.22)	73.8 (73.3 to 74.4)	69.0 (68.4 to 69.6)	71.4 (71.0 to 71.8)	429.0 (418.0 to 441.0)	28.5 (26.8 to 30.3)
Antigua and Barbuda	8.4 (7.7 to 9.3)	–2.5% (–2.9 to –2.0)	0.10 (0.09 to 0.11)	0.13 (0.12 to 0.15)	79.7 (79.2 to 80.3)	75.8 (74.6 to 76.9)	77.8 (77.1 to 78.4)	0.6 (0.6 to 0.7)	0.0 (0.0 to 0.0)
The Bahamas	11.3 (10.7 to 11.9)	–2.1% (–2.4 to –1.8)	0.14 (0.13 to 0.15)	0.23 (0.22 to 0.24)	75.8 (75.2 to 76.4)	69.8 (69.2 to 70.5)	72.8 (72.4 to 73.3)	3.1 (3.0 to 3.3)	0.0 (0.0 to 0.0)
Barbados	9.8 (9.1 to 10.4)	–2.1% (–2.4 to –1.8)	0.10 (0.09 to 0.10)	0.14 (0.13 to 0.16)	79.0 (78.4 to 79.5)	74.3 (73.7 to 75.0)	76.7 (76.2 to 77.1)	3.3 (3.1 to 3.4)	0.0 (0.0 to 0.0)
Belize	13.5 (12.6 to 14.4)	–3.7% (–4.0 to –3.3)	0.11 (0.10 to 0.12)	0.19 (0.18 to 0.21)	78.0 (77.3 to 78.7)	72.6 (71.8 to 73.3)	75.2 (74.7 to 75.8)	2.0 (1.9 to 2.1)	0.1 (0.1 to 0.1)
Bermuda	5.0 (4.7 to 5.3)	–2.8% (–3.1 to –2.6)	0.05 (0.05 to 0.06)	0.12 (0.11 to 0.12)	83.4 (82.9 to 83.8)	78.0 (77.5 to 78.5)	80.7 (80.4 to 81.1)	0.6 (0.6 to 0.6)	0.0 (0.0 to 0.0)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Cuba	5.7 (5.1 to 6.2)	–1.8% (–2.3 to –1.3)	0.07 (0.06 to 0.08)	0.12 (0.11 to 0.14)	80.6 (79.4 to 81.7)	75.8 (74.7 to 77.0)	78.1 (77.3 to 78.9)	116.0 (107.0 to 125.0)	0.5 (0.5 to 0.6)
Dominica	9.3 (8.7 to 9.8)	–2.8% (–3.1 to –2.5)	0.10 (0.09 to 0.11)	0.16 (0.15 to 0.17)	78.7 (78.2 to 79.3)	73.8 (73.2 to 74.4)	76.1 (75.7 to 76.6)	0.7 (0.6 to 0.7)	0.0 (0.0 to 0.0)
Dominican Republic	23.6 (21.7 to 25.6)	–2.1% (–2.5 to –1.6)	0.11 (0.10 to 0.12)	0.20 (0.19 to 0.21)	76.4 (75.8 to 76.9)	69.9 (69.3 to 70.6)	73.0 (72.6 to 73.5)	78.3 (75.6 to 80.9)	4.9 (4.5 to 5.3)
Grenada	15.3 (13.3 to 17.4)	–1.1% (–1.7 to –0.4)	0.11 (0.10 to 0.13)	0.17 (0.15 to 0.19)	77.2 (76.0 to 78.3)	73.4 (72.1 to 74.7)	75.2 (74.3 to 76.0)	1.0 (0.9 to 1.1)	0.0 (0.0 to 0.0)
Guyana	28.6 (25.8 to 31.6)	–1.2% (–1.7 to –0.7)	0.17 (0.15 to 0.20)	0.29 (0.26 to 0.32)	72.5 (71.3 to 73.8)	65.8 (64.3 to 67.0)	69.0 (68.0 to 69.9)	6.8 (6.4 to 7.3)	0.4 (0.4 to 0.5)
Haiti	57.9 (53.5 to 62.5)	–2.6% (–2.9 to –2.2)	0.28 (0.26 to 0.31)	0.33 (0.30 to 0.36)	62.2 (60.9 to 63.3)	59.9 (58.7 to 61.2)	61.0 (60.2 to 61.9)	126.0 (120.0 to 133.0)	20.4 (18.8 to 22.0)
Jamaica	15.9 (14.0 to 17.7)	–2.5% (–3.1 to –1.9)	0.11 (0.10 to 0.13)	0.16 (0.14 to 0.18)	78.9 (77.6 to 80.1)	73.5 (72.2 to 74.8)	76.1 (75.2 to 77.1)	20.2 (18.9 to 21.7)	0.6 (0.5 to 0.7)
Puerto Rico	8.2 (7.8 to 8.6)	–1.5% (–1.7 to –1.2)	0.06 (0.06 to 0.06)	0.15 (0.15 to 0.16)	84.5 (84.2 to 84.8)	77.3 (77.0 to 77.7)	81.0 (80.7 to 81.2)	34.2 (33.6 to 34.9)	0.1 (0.1 to 0.1)
Saint Kitts and Nevis	12.0 (11.3 to 12.7)	–2.6% (–2.9 to –2.4)	0.11 (0.10 to 0.12)	0.18 (0.17 to 0.19)	77.5 (76.9 to 78.0)	72.2 (71.6 to 72.8)	74.8 (74.4 to 75.2)	0.4 (0.4 to 0.4)	0.0 (0.0 to 0.0)
Saint Lucia	10.6 (9.4 to 12.0)	–2.4% (–3.0 to –1.8)	0.09 (0.08 to 0.10)	0.17 (0.15 to 0.19)	80.2 (79.0 to 81.3)	74.8 (73.5 to 76.0)	77.4 (76.5 to 78.3)	1.3 (1.2 to 1.4)	0.0 (0.0 to 0.0)
Saint Vincent and the Grenadines	11.3 (10.2 to 12.6)	–3.2% (–3.7 to –2.7)	0.12 (0.10 to 0.14)	0.19 (0.17 to 0.22)	77.9 (76.8 to 79.1)	72.7 (71.5 to 74.0)	75.1 (74.3 to 76.0)	1.0 (1.0 to 1.1)	0.0 (0.0 to 0.0)
Suriname	29.0 (27.8 to 30.2)	–1.1% (–1.3 to –0.9)	0.12 (0.12 to 0.13)	0.19 (0.18 to 0.20)	75.9 (75.4 to 76.3)	70.4 (69.9 to 70.9)	73.1 (72.8 to 73.5)	4.5 (4.4 to 4.6)	0.3 (0.3 to 0.3)
Trinidad and Tobago	12.0 (11.4 to 12.7)	–3.9% (–4.1 to –3.6)	0.12 (0.12 to 0.13)	0.20 (0.19 to 0.22)	76.2 (75.8 to 76.7)	70.3 (69.8 to 70.8)	73.2 (72.8 to 73.5)	13.9 (13.4 to 14.3)	0.2 (0.2 to 0.2)
Virgin Islands	6.8 (6.1 to 7.7)	–2.4% (–3.0 to –1.8)	0.09 (0.08 to 0.11)	0.23 (0.21 to 0.26)	81.6 (80.5 to 82.7)	71.7 (70.3 to 73.1)	76.4 (75.6 to 77.3)	1.0 (0.9 to 1.1)	0.0 (0.0 to 0.0)
Central Latin America	16.9 (16.5 to 17.2)	–2.3% (–2.4 to –2.2)	0.09 (0.09 to 0.09)	0.17 (0.17 to 0.17)	79.3 (79.2 to 79.5)	73.5 (73.3 to 73.6)	76.4 (76.3 to 76.5)	1550.0 (1530.0 to 1560.0)	63.2 (62.0 to 64.6)
Colombia	11.8 (11.3 to 12.4)	–3.9% (–4.1 to –3.7)	0.06 (0.06 to 0.06)	0.12 (0.12 to 0.13)	83.2 (83.0 to 83.4)	77.0 (76.8 to 77.2)	80.1 (80.0 to 80.3)	267.0 (264.0 to 270.0)	8.6 (8.2 to 9.0)
Costa Rica	8.1 (7.7 to 8.5)	–2.2% (–2.5 to –2.0)	0.06 (0.06 to 0.07)	0.13 (0.12 to 0.13)	82.2 (81.9 to 82.4)	76.9 (76.6 to 77.2)	79.4 (79.2 to 79.7)	29.2 (28.6 to 29.8)	0.4 (0.4 to 0.4)
El Salvador	14.8 (13.8 to 15.9)	–2.9% (–3.3 to –2.6)	0.11 (0.10 to 0.12)	0.26 (0.23 to 0.28)	76.8 (76.1 to 77.5)	69.0 (68.0 to 70.0)	73.1 (72.5 to 73.7)	47.1 (44.9 to 49.3)	1.3 (1.2 to 1.3)

(Table 1 continues on next page)

(Continued from previous page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
Guatemala	23.5 (21.5 to 25.9)	–3.3% (–3.7 to –2.8)	0.13 (0.11 to 0.15)	0.21 (0.19 to 0.23)	75.5 (74.4 to 76.5)	70.8 (69.6 to 72.0)	73.2 (72.4 to 74.0)	88.5 (83.4 to 93.6)	8.0 (7.3 to 8.8)
Honduras	10.3 (9.8 to 10.8)	–4.7% (–5.0 to –4.5)	0.09 (0.08 to 0.10)	0.15 (0.14 to 0.16)	77.6 (77.1 to 78.1)	74.4 (73.9 to 75.0)	76.1 (75.7 to 76.5)	47.5 (45.8 to 49.3)	2.5 (2.4 to 2.6)
Mexico	16.7 (16.3 to 17.1)	–2.1% (–2.2 to –1.9)	0.09 (0.09 to 0.09)	0.18 (0.18 to 0.18)	79.2 (79.1 to 79.4)	73.4 (73.3 to 73.5)	76.3 (76.2 to 76.4)	797.0 (791.0 to 802.0)	30.1 (29.3 to 30.9)
Nicaragua	13.7 (12.5 to 15.2)	–4.0% (–4.5 to –3.5)	0.09 (0.08 to 0.10)	0.16 (0.14 to 0.18)	79.2 (78.1 to 80.2)	74.1 (72.9 to 75.1)	76.7 (75.9 to 77.5)	29.4 (27.6 to 31.5)	1.7 (1.6 to 1.9)
Panama	14.4 (13.7 to 15.2)	–2.0% (–2.2 to –1.7)	0.07 (0.06 to 0.07)	0.12 (0.11 to 0.13)	81.9 (81.4 to 82.3)	76.6 (76.0 to 77.1)	79.2 (78.8 to 79.5)	22.6 (21.9 to 23.4)	1.0 (0.9 to 1.0)
Venezuela	31.2 (29.4 to 33.0)	1.4% (1.1 to 1.6)	0.11 (0.10 to 0.12)	0.21 (0.19 to 0.22)	75.3 (74.7 to 75.9)	68.2 (67.5 to 68.9)	71.8 (71.3 to 72.2)	218.0 (209.0 to 226.0)	9.7 (9.1 to 10.2)
Tropical Latin America	13.6 (13.0 to 14.1)	–3.8% (–4.0 to –3.7)	0.09 (0.08 to 0.09)	0.17 (0.17 to 0.18)	80.1 (80.0 to 80.2)	73.4 (73.2 to 73.6)	76.8 (76.7 to 76.9)	1510.0 (1500.0 to 1520.0)	41.7 (40.0 to 43.5)
Brazil	13.4 (12.8 to 14.0)	–3.9% (–4.2 to –3.7)	0.08 (0.08 to 0.09)	0.17 (0.17 to 0.18)	80.2 (80.0 to 80.3)	73.5 (73.3 to 73.7)	76.9 (76.8 to 77.0)	1470.0 (1460.0 to 1480.0)	39.8 (38.1 to 41.5)
Paraguay	18.0 (16.9 to 19.1)	–1.3% (–1.6 to –1.0)	0.11 (0.10 to 0.12)	0.19 (0.18 to 0.21)	76.2 (75.6 to 76.9)	70.0 (69.3 to 70.8)	73.0 (72.5 to 73.5)	42.9 (41.2 to 44.7)	1.9 (1.8 to 2.1)
North Africa and Middle East	23.6 (22.7 to 24.5)	–3.4% (–3.5 to –3.2)	0.09 (0.09 to 0.10)	0.13 (0.13 to 0.14)	75.4 (75.0 to 75.7)	72.1 (71.8 to 72.5)	73.7 (73.4 to 74.0)	3420.0 (3340.0 to 3500.0)	280.0 (269.0 to 290.0)
Afghanistan	52.5 (47.7 to 57.6)	–3.1% (–3.6 to –2.7)	0.14 (0.12 to 0.16)	0.16 (0.14 to 0.18)	69.0 (67.7 to 70.3)	68.1 (67.0 to 69.3)	68.5 (67.6 to 69.3)	178.0 (168.0 to 188.0)	70.6 (64.1 to 77.6)
Algeria	18.3 (17.5 to 19.1)	–3.0% (–3.3 to –2.8)	0.09 (0.08 to 0.09)	0.12 (0.11 to 0.13)	77.6 (77.1 to 78.2)	74.5 (74.1 to 75.0)	76.0 (75.7 to 76.3)	232.0 (225.0 to 239.0)	16.0 (15.3 to 16.7)
Bahrain	6.5 (5.9 to 7.3)	–3.1% (–3.6 to –2.5)	0.06 (0.05 to 0.07)	0.09 (0.07 to 0.10)	79.1 (78.0 to 80.2)	75.9 (74.9 to 77.0)	77.2 (76.5 to 78.0)	4.7 (4.3 to 5.1)	0.1 (0.1 to 0.1)
Egypt	19.8 (17.9 to 22.0)	–3.5% (–4.0 to –3.0)	0.12 (0.10 to 0.14)	0.17 (0.15 to 0.19)	71.1 (69.9 to 72.2)	69.1 (68.0 to 70.2)	70.0 (69.2 to 70.8)	681.0 (628.0 to 738.0)	51.3 (46.2 to 57.2)
Iran	11.8 (11.1 to 12.4)	–4.1% (–4.4 to –3.9)	0.05 (0.05 to 0.06)	0.10 (0.09 to 0.11)	80.6 (80.1 to 81.1)	77.2 (76.7 to 77.7)	78.8 (78.5 to 79.2)	365.0 (352.0 to 379.0)	12.0 (11.3 to 12.7)
Iraq	21.8 (21.1 to 22.5)	–3.4% (–3.6 to –3.2)	0.14 (0.12 to 0.15)	0.21 (0.19 to 0.22)	74.2 (73.5 to 74.8)	68.3 (67.7 to 69.0)	71.1 (70.6 to 71.5)	224.0 (216.0 to 232.0)	20.2 (19.5 to 20.9)
Jordan	13.1 (12.3 to 13.8)	–4.2% (–4.5 to –3.9)	0.06 (0.05 to 0.06)	0.09 (0.08 to 0.09)	80.4 (79.9 to 80.9)	76.9 (76.4 to 77.4)	78.5 (78.1 to 78.8)	40.9 (39.7 to 42.3)	3.0 (2.8 to 3.1)
Kuwait	8.3 (7.8 to 8.7)	–2.4% (–2.7 to –2.1)	0.04 (0.04 to 0.04)	0.06 (0.06 to 0.07)	81.7 (81.2 to 82.3)	80.9 (80.4 to 81.4)	81.1 (80.7 to 81.5)	9.2 (8.9 to 9.4)	0.4 (0.4 to 0.4)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Lebanon	20.2 (18.0 to 22.6)	–0.8% (–1.3 to –0.2)	0.07 (0.06 to 0.08)	0.12 (0.11 to 0.14)	80.9 (79.8 to 82.2)	76.8 (75.6 to 78.1)	78.9 (78.1 to 79.7)	30.4 (28.2 to 32.7)	1.6 (1.5 to 1.8)
Libya	30.3 (28.8 to 31.9)	0.5% (0.2 to 0.7)	0.16 (0.15 to 0.17)	0.16 (0.15 to 0.17)	70.0 (69.2 to 70.7)	70.3 (69.7 to 70.9)	70.1 (69.5 to 70.7)	49.5 (47.7 to 51.6)	3.5 (3.3 to 3.7)
Morocco	17.6 (16.1 to 19.1)	–4.3% (–4.7 to –3.9)	0.14 (0.12 to 0.16)	0.13 (0.12 to 0.15)	72.8 (71.8 to 73.8)	73.3 (72.5 to 74.2)	73.0 (72.3 to 73.7)	280.0 (262.0 to 300.0)	8.9 (8.2 to 9.7)
Oman	8.1 (7.6 to 8.8)	–2.7% (–3.1 to –2.4)	0.05 (0.04 to 0.05)	0.09 (0.08 to 0.10)	79.5 (78.6 to 80.3)	75.2 (74.4 to 75.9)	77.0 (76.4 to 77.5)	12.3 (11.7 to 13.0)	0.7 (0.6 to 0.7)
Palestine	25.4 (24.0 to 27.0)	0.1% (–0.2 to 0.4)	0.15 (0.14 to 0.16)	0.31 (0.29 to 0.33)	72.0 (71.2 to 72.7)	60.7 (59.4 to 62.0)	65.9 (64.9 to 66.9)	38.1 (36.0 to 40.4)	3.3 (3.2 to 3.6)
Qatar	5.4 (4.8 to 6.2)	–3.9% (–4.4 to –3.3)	0.03 (0.03 to 0.04)	0.05 (0.04 to 0.05)	82.4 (81.3 to 83.5)	80.6 (79.6 to 81.6)	81.4 (80.6 to 82.1)	3.2 (3.0 to 3.5)	0.2 (0.1 to 0.2)
Saudi Arabia	10.9 (10.0 to 11.9)	–3.4% (–3.9 to –3.0)	0.08 (0.07 to 0.09)	0.11 (0.10 to 0.12)	75.6 (74.6 to 76.5)	73.8 (73.0 to 74.6)	74.5 (73.9 to 75.1)	98.7 (93.0 to 104.0)	4.7 (4.3 to 5.2)
Sudan	26.6 (24.0 to 29.4)	–5.8% (–6.3 to –5.3)	0.16 (0.14 to 0.18)	0.20 (0.18 to 0.22)	70.5 (69.3 to 71.7)	67.3 (66.2 to 68.5)	68.9 (68.0 to 69.7)	242.0 (226.0 to 259.0)	22.7 (20.4 to 25.1)
Syria	10.3 (9.8 to 10.9)	–3.0% (–3.2 to –2.8)	0.08 (0.07 to 0.08)	0.12 (0.11 to 0.13)	77.1 (76.6 to 77.6)	73.9 (73.4 to 74.4)	75.4 (75.0 to 75.8)	93.9 (90.2 to 97.5)	2.7 (2.5 to 2.8)
Tunisia	29.4 (28.1 to 30.7)	–1.6% (–1.8 to –1.4)	0.07 (0.06 to 0.07)	0.12 (0.11 to 0.12)	77.9 (77.5 to 78.4)	73.4 (72.9 to 73.8)	75.6 (75.3 to 75.9)	77.7 (75.5 to 79.9)	4.5 (4.3 to 4.7)
Türkiye	17.9 (16.5 to 19.4)	–3.7% (–4.1 to –3.3)	0.07 (0.06 to 0.08)	0.11 (0.10 to 0.12)	78.3 (77.2 to 79.4)	73.9 (72.9 to 74.9)	76.1 (75.3 to 76.8)	595.0 (552.0 to 643.0)	18.3 (16.9 to 19.8)
United Arab Emirates	5.2 (4.7 to 5.6)	–3.3% (–3.7 to –2.8)	0.03 (0.03 to 0.04)	0.04 (0.04 to 0.05)	79.6 (78.9 to 80.4)	80.2 (79.5 to 80.9)	80.1 (79.6 to 80.6)	14.2 (13.3 to 15.2)	0.4 (0.4 to 0.4)
Yemen	32.8 (29.8 to 36.4)	–3.7% (–4.1 to –3.2)	0.09 (0.07 to 0.10)	0.16 (0.14 to 0.18)	74.2 (72.9 to 75.3)	69.4 (68.4 to 70.6)	71.7 (70.8 to 72.5)	148.0 (140.0 to 158.0)	34.2 (30.9 to 37.9)
South Asia	35.9 (33.4 to 38.3)	–3.6% (–3.9 to –3.3)	0.14 (0.12 to 0.16)	0.18 (0.16 to 0.20)	72.4 (71.5 to 73.3)	70.1 (69.1 to 71.0)	71.2 (70.5 to 71.9)	12 500.0 (11 800.0 to 13 200.0)	1130.0 (1060.0 to 1210.0)
Bangladesh	31.1 (27.8 to 34.9)	–4.2% (–4.7 to –3.7)	0.15 (0.13 to 0.17)	0.16 (0.14 to 0.19)	71.2 (70.1 to 72.2)	71.0 (69.9 to 72.2)	71.1 (70.2 to 71.8)	1090.0 (1020.0 to 1160.0)	103.0 (91.7 to 116.0)
Bhutan	28.1 (25.6 to 31.1)	–4.5% (–5.0 to –4.0)	0.16 (0.14 to 0.18)	0.16 (0.14 to 0.19)	72.4 (71.2 to 73.6)	72.9 (71.7 to 74.1)	72.6 (71.8 to 73.5)	5.0 (4.7 to 5.3)	0.3 (0.3 to 0.3)
India	32.1 (28.9 to 35.6)	–3.9% (–4.4 to –3.5)	0.13 (0.11 to 0.15)	0.18 (0.16 to 0.20)	73.0 (71.8 to 74.1)	70.2 (69.1 to 71.3)	71.6 (70.8 to 72.4)	9850.0 (9200.0 to 10 500.0)	692.0 (623.0 to 768.0)
Nepal	29.0 (26.0 to 32.0)	–4.3% (–4.8 to –3.8)	0.11 (0.09 to 0.12)	0.17 (0.15 to 0.19)	75.1 (74.0 to 76.3)	71.9 (70.7 to 73.1)	73.5 (72.7 to 74.4)	180.0 (169.0 to 192.0)	16.7 (15.0 to 18.5)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Pakistan	52.5 (47.8 to 57.2)	–2.6% (–3.1 to –2.2)	0.18 (0.15 to 0.20)	0.18 (0.16 to 0.21)	70.1 (68.8 to 71.3)	70.0 (68.7 to 71.2)	70.0 (69.1 to 70.9)	1370.0 (1300.0 to 1450.0)	322.0 (292.0 to 352.0)
Southeast Asia, east Asia, and Oceania	15.2 (14.6 to 15.9)	–4.2% (–4.5 to –4.0)	0.07 (0.07 to 0.08)	0.13 (0.12 to 0.14)	80.2 (79.6 to 81.0)	74.8 (74.1 to 75.6)	77.4 (76.9 to 78.0)	16 100.0 (15 300.0 to 17 000.0)	329.0 (315.0 to 344.0)
East Asia	4.9 (4.5 to 5.5)	–8.7% (–9.1 to –8.2)	0.04 (0.04 to 0.05)	0.10 (0.08 to 0.11)	82.6 (81.7 to 83.6)	77.5 (76.5 to 78.6)	80.0 (79.2 to 80.7)	11 100.0 (10 300.0 to 11 900.0)	53.4 (48.6 to 59.3)
China	4.7 (4.2 to 5.2)	–8.9% (–9.4 to –8.4)	0.04 (0.04 to 0.05)	0.10 (0.08 to 0.11)	82.8 (81.8 to 83.7)	77.6 (76.6 to 78.7)	80.1 (79.3 to 80.8)	10 700.0 (9 830.0 to 11 500.0)	48.9 (44.1 to 54.7)
North Korea	13.5 (12.2 to 15.0)	–5.5% (–7.4 to –4.1)	0.10 (0.08 to 0.11)	0.18 (0.15 to 0.20)	76.0 (74.9 to 77.1)	71.3 (70.2 to 72.5)	73.7 (73.0 to 74.6)	230.0 (211.0 to 248.0)	3.9 (3.5 to 4.3)
Taiwan*	4.5 (4.3 to 4.7)	–2.4% (–2.7 to –2.2)	0.05 (0.05 to 0.05)	0.13 (0.12 to 0.13)	83.9 (83.7 to 84.0)	77.3 (77.2 to 77.5)	80.5 (80.4 to 80.6)	205.0 (203.0 to 208.0)	0.6 (0.6 to 0.7)
Oceania	32.6 (29.8 to 35.5)	–1.8% (–2.2 to –1.4)	0.22 (0.20 to 0.24)	0.25 (0.23 to 0.27)	67.8 (66.9 to 68.6)	65.6 (64.7 to 66.6)	66.6 (66.0 to 67.3)	99.0 (94.7 to 103.0)	14.5 (13.3 to 15.8)
American Samoa	11.3 (10.2 to 12.5)	–2.0% (–2.5 to –1.5)	0.16 (0.14 to 0.18)	0.24 (0.21 to 0.27)	74.4 (73.2 to 75.5)	68.0 (66.8 to 69.2)	70.9 (70.0 to 71.8)	0.4 (0.4 to 0.4)	0.0 (0.0 to 0.0)
Cook Islands	8.3 (7.8 to 8.8)	–3.0% (–3.3 to –2.8)	0.12 (0.11 to 0.13)	0.23 (0.21 to 0.24)	76.5 (75.9 to 77.1)	69.7 (69.0 to 70.4)	72.9 (72.5 to 73.4)	0.1 (0.1 to 0.2)	0.0 (0.0 to 0.0)
Federated States of Micronesia	12.8 (12.1 to 13.5)	–3.5% (–3.8 to –3.2)	0.19 (0.18 to 0.20)	0.31 (0.29 to 0.33)	70.9 (70.3 to 71.5)	63.7 (63.0 to 64.2)	67.0 (66.5 to 67.4)	0.9 (0.8 to 0.9)	0.0 (0.0 to 0.0)
Fiji	22.3 (21.2 to 23.5)	–0.1% (–0.4 to 0.1)	0.21 (0.19 to 0.22)	0.25 (0.24 to 0.27)	69.5 (68.9 to 70.0)	66.0 (65.4 to 66.5)	67.7 (67.3 to 68.1)	8.4 (8.1 to 8.7)	0.4 (0.4 to 0.4)
Guam	15.3 (14.5 to 16.3)	0.8% (0.5 to 1.1)	0.12 (0.11 to 0.12)	0.22 (0.21 to 0.24)	79.5 (78.9 to 80.0)	71.9 (71.3 to 72.5)	75.5 (75.0 to 75.9)	1.2 (1.2 to 1.2)	0.0 (0.0 to 0.0)
Kiribati	37.3 (35.5 to 39.2)	–2.3% (–2.6 to –2.1)	0.16 (0.15 to 0.17)	0.24 (0.23 to 0.26)	74.5 (73.7 to 75.2)	67.6 (66.8 to 68.3)	71.2 (70.7 to 71.7)	0.7 (0.7 to 0.7)	0.1 (0.1 to 0.1)
Marshall Islands	17.3 (16.4 to 18.3)	–3.2% (–3.5 to –3.0)	0.31 (0.29 to 0.33)	0.33 (0.31 to 0.36)	65.2 (64.5 to 65.9)	63.1 (62.4 to 63.7)	64.1 (63.6 to 64.6)	0.4 (0.3 to 0.4)	0.0 (0.0 to 0.0)
Nauru	25.8 (24.5 to 27.1)	–2.5% (–2.8 to –2.3)	0.36 (0.34 to 0.38)	0.48 (0.46 to 0.51)	61.1 (60.4 to 61.7)	57.2 (56.5 to 57.9)	59.0 (58.5 to 59.6)	0.1 (0.1 to 0.1)	0.0 (0.0 to 0.0)
Niue	10.9 (10.3 to 11.5)	–2.3% (–2.6 to –2.1)	0.16 (0.15 to 0.17)	0.24 (0.22 to 0.25)	74.8 (74.2 to 75.4)	69.5 (68.8 to 70.2)	72.3 (71.8 to 72.8)	0.0 (0.0 to 0.0)	0.0 (0.0 to 0.0)
Northern Mariana Islands	12.4 (11.7 to 13.1)	–1.0% (–1.3 to –0.7)	0.14 (0.13 to 0.15)	0.21 (0.20 to 0.23)	72.8 (72.3 to 73.4)	69.0 (68.5 to 69.7)	70.8 (70.4 to 71.2)	0.4 (0.4 to 0.4)	0.0 (0.0 to 0.0)
Palau	22.6 (21.4 to 23.9)	–1.1% (–1.4 to –0.8)	0.18 (0.17 to 0.20)	0.21 (0.20 to 0.23)	70.2 (69.6 to 70.8)	67.7 (67.2 to 68.4)	68.9 (68.4 to 69.3)	0.2 (0.2 to 0.2)	0.0 (0.0 to 0.0)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Papua New Guinea	35.9 (32.6 to 39.4)	–2.1% (–2.6 to –1.6)	0.22 (0.20 to 0.25)	0.23 (0.21 to 0.27)	67.0 (65.8 to 68.2)	65.8 (64.6 to 67.1)	66.3 (65.5 to 67.2)	70.9 (66.8 to 74.9)	12.8 (11.6 to 14.1)
Samoa	15.8 (14.9 to 16.6)	–2.2% (–2.4 to –1.9)	0.15 (0.14 to 0.17)	0.22 (0.20 to 0.23)	74.5 (73.9 to 75.1)	70.9 (70.2 to 71.6)	72.6 (72.1 to 73.1)	1.4 (1.3 to 1.4)	0.1 (0.1 to 0.1)
Solomon Islands	9.2 (8.6 to 9.7)	–2.8% (–3.0 to –2.5)	0.29 (0.27 to 0.30)	0.38 (0.36 to 0.41)	66.2 (65.5 to 66.8)	61.9 (61.3 to 62.6)	63.7 (63.3 to 64.2)	7.0 (6.8 to 7.3)	0.2 (0.2 to 0.2)
Tokelau	10.4 (9.9 to 11.0)	–3.1% (–3.4 to –2.9)	0.11 (0.10 to 0.12)	0.15 (0.14 to 0.16)	76.1 (75.5 to 76.7)	74.7 (74.1 to 75.4)	75.4 (74.9 to 75.8)	0.0 (0.0 to 0.0)	0.0 (0.0 to 0.0)
Tonga	10.9 (10.3 to 11.5)	–2.0% (–2.2 to –1.7)	0.17 (0.15 to 0.18)	0.20 (0.18 to 0.21)	72.9 (72.3 to 73.6)	70.4 (69.7 to 71.0)	71.7 (71.3 to 72.2)	0.7 (0.7 to 0.8)	0.0 (0.0 to 0.0)
Tuvalu	22.6 (21.5 to 23.9)	–4.1% (–4.4 to –3.8)	0.25 (0.23 to 0.27)	0.39 (0.37 to 0.41)	66.8 (66.2 to 67.4)	60.4 (59.7 to 61.1)	63.3 (62.8 to 63.7)	0.1 (0.1 to 0.1)	0.0 (0.0 to 0.0)
Vanuatu	15.5 (14.6 to 16.3)	–2.4% (–2.7 to –2.1)	0.18 (0.17 to 0.19)	0.32 (0.30 to 0.34)	73.3 (72.7 to 74.0)	67.4 (66.6 to 68.2)	70.3 (69.7 to 70.8)	1.9 (1.8 to 2.0)	0.1 (0.1 to 0.1)
Southeast Asia	24.2 (23.0 to 25.5)	–2.8% (–3.0 to –2.5)	0.13 (0.12 to 0.14)	0.21 (0.20 to 0.22)	76.2 (75.7 to 76.7)	70.1 (69.6 to 70.7)	73.1 (72.7 to 73.5)	4940.0 (4810.0 to 5090.0)	261.0 (249.0 to 276.0)
Cambodia	22.0 (19.8 to 24.2)	–6.1% (–6.6 to –5.6)	0.14 (0.12 to 0.16)	0.20 (0.18 to 0.22)	75.2 (74.1 to 76.3)	70.8 (69.5 to 72.0)	73.1 (72.2 to 73.9)	102.0 (95.9 to 109.0)	7.8 (7.1 to 8.7)
Indonesia	26.5 (23.9 to 29.4)	–3.1% (–3.6 to –2.6)	0.15 (0.14 to 0.17)	0.20 (0.18 to 0.23)	75.2 (74.0 to 76.4)	70.0 (68.7 to 71.3)	72.5 (71.5 to 73.4)	1880.0 (1750.0 to 2010.0)	116.0 (105.0 to 129.0)
Laos	46.4 (41.4 to 51.6)	–4.3% (–4.8 to –3.8)	0.21 (0.19 to 0.24)	0.25 (0.22 to 0.28)	67.2 (66.0 to 68.4)	65.2 (63.9 to 66.5)	66.1 (65.2 to 67.0)	60.3 (56.7 to 63.9)	7.8 (6.9 to 8.7)
Malaysia	7.3 (6.7 to 7.9)	–1.2% (–1.6 to –0.7)	0.09 (0.08 to 0.10)	0.15 (0.15 to 0.16)	78.5 (78.1 to 78.9)	74.6 (74.2 to 75.1)	76.4 (76.1 to 76.7)	192.0 (186.0 to 197.0)	3.2 (3.0 to 3.5)
Maldives	14.5 (13.7 to 15.5)	–3.9% (–4.1 to –3.6)	0.05 (0.04 to 0.05)	0.07 (0.06 to 0.07)	77.1 (76.5 to 77.6)	75.2 (74.7 to 75.7)	76.1 (75.7 to 76.4)	1.9 (1.9 to 2.0)	0.1 (0.1 to 0.1)
Mauritius	14.5 (13.7 to 15.4)	–1.0% (–1.3 to –0.7)	0.11 (0.10 to 0.11)	0.21 (0.19 to 0.22)	77.6 (77.1 to 78.0)	70.3 (69.8 to 70.8)	73.8 (73.5 to 74.2)	12.9 (12.5 to 13.2)	0.2 (0.2 to 0.2)
Myanmar	42.4 (38.2 to 46.8)	–2.9% (–3.4 to –2.4)	0.18 (0.16 to 0.21)	0.33 (0.30 to 0.37)	69.4 (68.2 to 70.5)	61.6 (60.1 to 63.0)	65.4 (64.4 to 66.4)	568.0 (534.0 to 609.0)	46.7 (42.0 to 51.7)
Philippines	26.8 (24.9 to 28.9)	–1.1% (–1.4 to –0.7)	0.12 (0.12 to 0.12)	0.21 (0.20 to 0.21)	75.4 (75.1 to 75.6)	68.9 (68.6 to 69.2)	72.1 (71.9 to 72.2)	662.0 (655.0 to 669.0)	53.4 (49.5 to 57.7)
Seychelles	12.7 (12.1 to 13.3)	–1.1% (–1.3 to –0.9)	0.10 (0.09 to 0.10)	0.18 (0.17 to 0.19)	78.5 (78.1 to 79.0)	72.2 (71.7 to 72.7)	75.1 (74.7 to 75.4)	0.8 (0.8 to 0.8)	0.0 (0.0 to 0.0)
Sri Lanka	8.5 (8.0 to 9.0)	–2.8% (–3.1 to –2.5)	0.08 (0.07 to 0.08)	0.16 (0.15 to 0.16)	79.5 (79.2 to 79.8)	73.6 (73.3 to 73.9)	76.6 (76.4 to 76.8)	182.0 (178.0 to 185.0)	2.2 (2.1 to 2.4)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Thailand	7.8 (7.4 to 8.3)	–3.2% (–3.5 to –3.0)	0.09 (0.08 to 0.09)	0.21 (0.21 to 0.21)	81.4 (81.2 to 81.7)	73.7 (73.4 to 73.9)	77.5 (77.3 to 77.7)	592.0 (586.0 to 598.0)	4.0 (3.8 to 4.2)
Timor-Leste	34.9 (31.4 to 38.1)	–3.8% (–4.3 to –3.4)	0.17 (0.16 to 0.20)	0.17 (0.15 to 0.20)	70.1 (68.9 to 71.3)	69.6 (68.4 to 70.9)	69.9 (69.0 to 70.8)	9.1 (8.5 to 9.7)	1.4 (1.3 to 1.6)
Viet Nam	11.8 (10.6 to 13.2)	–3.7% (–4.2 to –3.1)	0.10 (0.08 to 0.11)	0.18 (0.16 to 0.21)	80.2 (79.0 to 81.5)	71.9 (70.6 to 73.2)	76.1 (75.2 to 77.1)	677.0 (629.0 to 723.0)	17.7 (15.9 to 19.9)
Sub-Saharan Africa	67.7 (67.1 to 68.3)	–3.3% (–3.3 to –3.2)	0.24 (0.23 to 0.24)	0.28 (0.27 to 0.29)	66.1 (65.8 to 66.4)	62.2 (62.0 to 62.5)	64.2 (64.0 to 64.4)	8910.0 (8830.0 to 9000.0)	2640.0 (2620.0 to 2670.0)
Central sub-Saharan Africa	66.3 (64.9 to 67.8)	–3.3% (–3.5 to –3.1)	0.28 (0.26 to 0.30)	0.31 (0.29 to 0.33)	63.5 (62.7 to 64.4)	60.0 (59.3 to 60.8)	61.8 (61.3 to 62.4)	1170.0 (1140.0 to 1200.0)	323.0 (316.0 to 331.0)
Angola	56.9 (55.1 to 58.7)	–4.1% (–4.4 to –3.9)	0.22 (0.20 to 0.25)	0.32 (0.29 to 0.35)	67.9 (66.6 to 69.1)	60.7 (59.5 to 62.0)	64.3 (63.3 to 65.2)	245.0 (235.0 to 256.0)	71.0 (68.7 to 73.3)
Central African Republic	108.0 (105.0 to 112.0)	–1.7% (–2.0 to –1.5)	0.39 (0.36 to 0.43)	0.39 (0.35 to 0.42)	55.9 (54.6 to 57.1)	54.3 (53.2 to 55.4)	55.0 (54.2 to 55.9)	77.4 (74.6 to 80.2)	29.7 (28.8 to 30.7)
Congo (Brazzaville)	49.9 (48.2 to 51.4)	–2.7% (–3.0 to –2.5)	0.29 (0.27 to 0.33)	0.30 (0.27 to 0.33)	64.5 (63.3 to 65.8)	62.9 (61.7 to 64.1)	63.7 (62.8 to 64.6)	43.1 (41.1 to 45.2)	7.7 (7.4 to 7.9)
DR Congo	67.8 (65.7 to 70.0)	–3.2% (–3.5 to –3.0)	0.29 (0.26 to 0.32)	0.31 (0.28 to 0.34)	62.6 (61.4 to 63.8)	60.0 (58.9 to 61.1)	61.3 (60.5 to 62.2)	780.0 (750.0 to 810.0)	210.0 (204.0 to 218.0)
Equatorial Guinea	50.9 (49.2 to 52.7)	–3.6% (–3.8 to –3.3)	0.33 (0.30 to 0.36)	0.40 (0.37 to 0.44)	63.9 (62.5 to 65.2)	58.6 (57.2 to 59.8)	61.3 (60.4 to 62.3)	11.6 (11.0 to 12.2)	2.1 (2.0 to 2.2)
Gabon	35.8 (34.6 to 37.0)	–2.5% (–2.7 to –2.3)	0.26 (0.24 to 0.29)	0.26 (0.23 to 0.29)	67.8 (66.6 to 69.0)	66.4 (65.2 to 67.7)	67.0 (66.2 to 67.9)	14.3 (13.5 to 15.0)	1.7 (1.7 to 1.8)
Eastern sub-Saharan Africa	55.4 (54.8 to 56.1)	–3.8% (–3.8 to –3.7)	0.23 (0.23 to 0.24)	0.28 (0.27 to 0.29)	67.3 (66.9 to 67.7)	63.3 (62.9 to 63.7)	65.2 (64.9 to 65.5)	3060.0 (3010.0 to 3110.0)	792.0 (783.0 to 801.0)
Burundi	79.3 (76.9 to 82.0)	–3.1% (–3.3 to –2.9)	0.25 (0.22 to 0.27)	0.30 (0.27 to 0.33)	64.2 (63.1 to 65.4)	59.8 (58.6 to 61.0)	61.8 (61.0 to 62.6)	114.0 (110.0 to 118.0)	39.9 (38.6 to 41.3)
Comoros	45.4 (43.9 to 46.8)	–2.4% (–2.6 to –2.1)	0.10 (0.08 to 0.11)	0.12 (0.11 to 0.13)	78.4 (77.2 to 79.5)	74.3 (73.1 to 75.5)	76.3 (75.5 to 77.1)	4.3 (4.1 to 4.5)	1.0 (1.0 to 1.1)
Djibouti	47.2 (45.6 to 49.0)	–2.3% (–2.5 to –2.0)	0.22 (0.20 to 0.24)	0.24 (0.22 to 0.27)	69.9 (68.7 to 71.2)	67.2 (66.0 to 68.5)	68.4 (67.4 to 69.3)	8.5 (8.1 to 8.9)	1.7 (1.6 to 1.7)
Eritrea	57.3 (55.4 to 59.2)	–2.1% (–2.3 to –1.8)	0.28 (0.25 to 0.31)	0.30 (0.28 to 0.33)	64.5 (63.2 to 65.8)	61.3 (60.0 to 62.5)	62.9 (61.9 to 63.8)	58.5 (55.8 to 61.4)	11.9 (11.5 to 12.3)
Ethiopia	53.4 (51.9 to 55.2)	–4.2% (–4.4 to –4.0)	0.24 (0.22 to 0.27)	0.27 (0.24 to 0.30)	66.7 (65.5 to 67.9)	63.0 (61.8 to 64.1)	64.7 (63.9 to 65.6)	793.0 (758.0 to 828.0)	192.0 (186.0 to 198.0)
Kenya	34.5 (33.4 to 35.7)	–3.8% (–4.0 to –3.5)	0.20 (0.18 to 0.22)	0.24 (0.21 to 0.26)	71.7 (70.5 to 73.0)	68.2 (66.9 to 69.4)	69.9 (69.0 to 70.8)	280.0 (266.0 to 294.0)	41.2 (39.9 to 42.6)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Madagascar	59.2 (57.2 to 61.2)	–2.3% (–2.6 to –2.1)	0.26 (0.23 to 0.28)	0.28 (0.26 to 0.31)	63.9 (62.8 to 65.0)	61.2 (60.1 to 62.2)	62.5 (61.7 to 63.3)	231.0 (221.0 to 241.0)	58.5 (56.5 to 60.6)
Malawi	55.0 (53.2 to 56.7)	–4.5% (–4.8 to –4.3)	0.31 (0.28 to 0.34)	0.36 (0.33 to 0.39)	64.3 (63.0 to 65.6)	59.7 (58.5 to 60.8)	62.0 (61.1 to 62.8)	156.0 (149.0 to 163.0)	33.9 (32.8 to 35.0)
Mozambique	61.6 (59.8 to 63.4)	–3.9% (–4.1 to –3.7)	0.22 (0.20 to 0.24)	0.30 (0.27 to 0.34)	67.7 (66.6 to 68.9)	62.0 (60.8 to 63.2)	64.9 (64.0 to 65.7)	232.0 (223.0 to 241.0)	73.7 (71.5 to 76.0)
Rwanda	52.2 (50.5 to 53.9)	–5.0% (–5.2 to –4.7)	0.22 (0.20 to 0.24)	0.30 (0.27 to 0.34)	67.6 (66.5 to 68.7)	61.8 (60.7 to 63.0)	64.8 (64.0 to 65.6)	101.0 (96.7 to 106.0)	19.1 (18.5 to 19.8)
Somalia	82.6 (79.9 to 85.2)	–3.2% (–3.4 to –3.0)	0.20 (0.18 to 0.22)	0.25 (0.23 to 0.27)	67.0 (65.9 to 68.1)	62.6 (61.6 to 63.7)	64.8 (64.1 to 65.6)	174.0 (169.0 to 180.0)	75.6 (73.0 to 78.1)
South Sudan	105.0 (102.0 to 108.0)	–0.9% (–1.1 to –0.7)	0.32 (0.29 to 0.35)	0.38 (0.35 to 0.42)	59.0 (57.8 to 60.2)	54.1 (52.9 to 55.4)	56.4 (55.5 to 57.2)	104.0 (100.0 to 109.0)	32.4 (31.3 to 33.5)
Uganda	53.9 (52.1 to 55.5)	–4.1% (–4.3 to –3.9)	0.23 (0.21 to 0.26)	0.29 (0.26 to 0.32)	68.1 (66.9 to 69.3)	63.1 (61.9 to 64.3)	65.6 (64.8 to 66.5)	290.0 (278.0 to 301.0)	86.1 (83.3 to 88.8)
Tanzania	43.7 (42.3 to 45.1)	–4.4% (–4.7 to –4.2)	0.18 (0.16 to 0.20)	0.22 (0.20 to 0.25)	71.1 (70.0 to 72.2)	67.8 (66.6 to 68.9)	69.4 (68.6 to 70.3)	363.0 (347.0 to 379.0)	90.0 (87.1 to 92.8)
Zambia	50.9 (49.3 to 52.5)	–4.3% (–4.5 to –4.0)	0.33 (0.30 to 0.37)	0.37 (0.34 to 0.40)	62.6 (61.3 to 63.8)	60.4 (59.1 to 61.6)	61.5 (60.6 to 62.3)	147.0 (141.0 to 154.0)	34.1 (33.0 to 35.2)
Southern sub-Saharan Africa	40.8 (40.1 to 41.4)	–2.5% (–2.6 to –2.3)	0.24 (0.24 to 0.25)	0.34 (0.33 to 0.35)	69.0 (68.7 to 69.4)	62.9 (62.6 to 63.2)	66.1 (65.8 to 66.3)	760.0 (750.0 to 770.0)	70.2 (69.0 to 71.3)
Botswana	24.5 (23.8 to 25.3)	–3.1% (–3.3 to –3.0)	0.20 (0.19 to 0.21)	0.26 (0.24 to 0.27)	72.7 (72.0 to 73.3)	67.4 (66.7 to 67.9)	70.1 (69.6 to 70.5)	17.1 (16.6 to 17.6)	1.2 (1.2 to 1.3)
Eswatini	49.4 (47.8 to 51.1)	–2.0% (–2.2 to –1.7)	0.38 (0.35 to 0.42)	0.42 (0.39 to 0.46)	62.4 (61.0 to 63.9)	58.8 (57.4 to 60.2)	60.8 (59.7 to 61.8)	11.8 (11.2 to 12.4)	1.4 (1.3 to 1.4)
Lesotho	62.5 (60.8 to 64.4)	–2.4% (–2.6 to –2.1)	0.39 (0.36 to 0.43)	0.48 (0.44 to 0.53)	60.4 (59.1 to 61.8)	55.3 (53.9 to 56.7)	57.9 (56.9 to 58.8)	22.8 (21.6 to 24.0)	2.6 (2.6 to 2.7)
Namibia	38.3 (37.2 to 39.4)	–2.6% (–2.7 to –2.4)	0.25 (0.24 to 0.26)	0.33 (0.31 to 0.35)	69.1 (68.5 to 69.8)	63.4 (62.6 to 64.1)	66.4 (65.9 to 66.9)	21.5 (21.0 to 22.1)	2.6 (2.5 to 2.6)
South Africa	34.9 (34.1 to 35.6)	–2.8% (–2.9 to –2.6)	0.23 (0.23 to 0.24)	0.34 (0.34 to 0.35)	69.7 (69.4 to 70.1)	63.3 (63.0 to 63.5)	66.5 (66.3 to 66.8)	572.0 (564.0 to 580.0)	37.3 (36.5 to 38.1)
Zimbabwe	54.1 (52.3 to 55.8)	–2.0% (–2.2 to –1.7)	0.26 (0.23 to 0.28)	0.30 (0.27 to 0.33)	68.4 (67.1 to 69.7)	63.8 (62.5 to 65.1)	66.3 (65.3 to 67.2)	115.0 (110.0 to 121.0)	25.1 (24.2 to 25.9)
Western sub-Saharan Africa	80.4 (79.2 to 81.6)	–3.1% (–3.3 to –3.0)	0.22 (0.21 to 0.24)	0.25 (0.24 to 0.27)	65.5 (65.0 to 66.0)	62.3 (61.8 to 62.8)	63.9 (63.5 to 64.3)	3920.0 (3850.0 to 3990.0)	1460.0 (1430.0 to 1480.0)
Benin	66.6 (64.3 to 68.7)	–2.8% (–3.1 to –2.6)	0.18 (0.17 to 0.20)	0.26 (0.24 to 0.29)	69.2 (68.3 to 70.3)	63.4 (62.3 to 64.6)	66.2 (65.3 to 67.0)	95.7 (92.3 to 99.5)	33.5 (32.4 to 34.7)

(Table 1 continues on next page)

	Under-5 mortality	Under-5 mortality	Probability of death aged 15–59 years, 2023		Life expectancy at birth in 2023 (years)			Total deaths in 2023 (thousands)	Total deaths among children <5 years in 2023 (thousands)
	Mortality rate in 2023 (deaths per 1000)	Annualised rate of change, 2000–23	Female	Male	Female	Male	Both sexes	Both sexes	Both sexes
(Continued from previous page)									
Burkina Faso	56.0 (54.2 to 57.9)	–4.9% (–5.1 to –4.7)	0.16 (0.14 to 0.18)	0.22 (0.20 to 0.24)	70.1 (69.1 to 71.2)	65.4 (64.3 to 66.5)	67.7 (67.0 to 68.5)	158.0 (152.0 to 164.0)	54.4 (52.6 to 56.2)
Cabo Verde	25.5 (24.6 to 26.4)	–3.0% (–3.3 to –2.7)	0.09 (0.08 to 0.10)	0.17 (0.16 to 0.20)	78.5 (77.6 to 79.5)	72.8 (71.8 to 73.9)	75.7 (74.9 to 76.4)	2.9 (2.7 to 3.0)	0.2 (0.2 to 0.2)
Cameroon	68.2 (65.9 to 70.3)	–2.9% (–3.2 to –2.7)	0.28 (0.25 to 0.31)	0.28 (0.25 to 0.31)	62.9 (61.7 to 64.0)	61.1 (59.9 to 62.2)	62.0 (61.2 to 62.8)	262.0 (252.0 to 273.0)	74.4 (71.8 to 76.8)
Chad	104.0 (101.0 to 107.0)	–2.3% (–2.5 to –2.0)	0.29 (0.26 to 0.32)	0.31 (0.28 to 0.35)	59.7 (58.6 to 60.8)	56.7 (55.6 to 57.8)	58.0 (57.3 to 58.8)	199.0 (193.0 to 205.0)	94.2 (91.4 to 97.1)
Côte d'Ivoire	69.8 (67.6 to 71.8)	–2.7% (–2.9 to –2.5)	0.25 (0.22 to 0.27)	0.26 (0.24 to 0.29)	66.2 (65.0 to 67.3)	62.6 (61.4 to 63.7)	64.3 (63.4 to 65.1)	237.0 (228.0 to 247.0)	76.8 (74.3 to 79.1)
The Gambia	54.5 (52.9 to 56.2)	–2.5% (–2.7 to –2.2)	0.21 (0.19 to 0.23)	0.23 (0.20 to 0.25)	68.6 (67.4 to 69.7)	66.1 (64.9 to 67.2)	67.3 (66.5 to 68.0)	16.0 (15.4 to 16.7)	4.2 (4.1 to 4.4)
Ghana	43.6 (42.2 to 45.0)	–3.5% (–3.7 to –3.2)	0.25 (0.22 to 0.27)	0.30 (0.27 to 0.34)	68.0 (66.9 to 69.2)	62.9 (61.7 to 64.0)	65.4 (64.6 to 66.3)	240.0 (228.0 to 252.0)	39.1 (37.8 to 40.4)
Guinea	80.6 (78.2 to 83.1)	–3.0% (–3.2 to –2.7)	0.26 (0.24 to 0.29)	0.27 (0.24 to 0.30)	63.4 (62.3 to 64.6)	61.8 (60.6 to 62.9)	62.5 (61.7 to 63.3)	120.0 (115.0 to 124.0)	40.9 (39.6 to 42.3)
Guinea-Bissau	72.9 (70.7 to 75.1)	–3.3% (–3.5 to –3.0)	0.30 (0.27 to 0.33)	0.30 (0.27 to 0.34)	61.9 (60.7 to 63.0)	60.5 (59.4 to 61.6)	61.2 (60.4 to 62.0)	17.5 (16.8 to 18.1)	5.2 (5.1 to 5.4)
Liberia	83.7 (81.3 to 86.3)	–3.5% (–3.7 to –3.3)	0.28 (0.26 to 0.31)	0.28 (0.26 to 0.31)	62.7 (61.5 to 63.9)	60.4 (59.3 to 61.5)	61.5 (60.7 to 62.3)	48.3 (46.4 to 50.2)	14.4 (13.9 to 14.8)
Mali	86.9 (84.2 to 89.7)	–3.4% (–3.6 to –3.1)	0.24 (0.22 to 0.27)	0.25 (0.23 to 0.28)	64.9 (63.8 to 66.1)	62.4 (61.2 to 63.5)	63.6 (62.8 to 64.3)	198.0 (192.0 to 205.0)	88.8 (86.0 to 91.7)
Mauritania	41.5 (40.1 to 42.9)	–2.7% (–2.9 to –2.4)	0.20 (0.18 to 0.23)	0.20 (0.18 to 0.22)	68.8 (67.6 to 69.8)	67.5 (66.5 to 68.6)	68.1 (67.4 to 68.8)	28.1 (26.8 to 29.4)	5.7 (5.5 to 5.9)
Niger	117.0 (113.0 to 121.0)	–2.9% (–3.2 to –2.7)	0.23 (0.21 to 0.25)	0.24 (0.21 to 0.26)	60.6 (59.4 to 61.6)	58.2 (57.1 to 59.3)	59.2 (58.4 to 60.0)	272.0 (264.0 to 282.0)	143.0 (138.0 to 148.0)
Nigeria	85.6 (83.2 to 88.2)	–3.2% (–3.5 to –3.0)	0.21 (0.19 to 0.23)	0.24 (0.21 to 0.26)	65.9 (64.9 to 67.1)	63.1 (61.9 to 64.1)	64.5 (63.7 to 65.3)	1780.0 (1720.0 to 1850.0)	718.0 (697.0 to 740.0)
São Tomé and Príncipe	34.9 (33.8 to 36.1)	–3.6% (–3.9 to –3.4)	0.17 (0.15 to 0.19)	0.20 (0.17 to 0.22)	72.1 (71.0 to 73.2)	68.6 (67.4 to 69.7)	70.3 (69.5 to 71.2)	1.2 (1.2 to 1.3)	0.2 (0.1 to 0.2)
Senegal	43.0 (41.6 to 44.4)	–4.3% (–4.6 to –4.1)	0.17 (0.15 to 0.19)	0.20 (0.17 to 0.22)	71.7 (70.7 to 72.9)	68.5 (67.4 to 69.7)	70.1 (69.2 to 70.8)	102.0 (98.3 to 107.0)	24.3 (23.5 to 25.1)
Sierra Leone	103.0 (99.5 to 106.0)	–3.1% (–3.3 to –2.9)	0.28 (0.25 to 0.31)	0.32 (0.29 to 0.35)	60.8 (59.6 to 61.9)	57.3 (56.1 to 58.5)	58.9 (58.0 to 59.7)	78.4 (75.4 to 81.5)	25.4 (24.6 to 26.3)
Togo	61.8 (59.9 to 63.9)	–2.9% (–3.1 to –2.6)	0.24 (0.22 to 0.26)	0.28 (0.25 to 0.30)	66.2 (65.1 to 67.4)	62.8 (61.6 to 63.9)	64.5 (63.7 to 65.4)	62.8 (60.0 to 65.6)	14.7 (14.2 to 15.2)

Data in parentheses are 95% uncertainty intervals. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. *UN convention recognises Taiwan as a province of China.

Table 1: Under-5 mortality rate (2023), rate of change in under-5 mortality (2000–23), probability of death between those aged 15–59 years (2023), life expectancy at birth (2023), total number of deaths among children younger than 5 years, and total number of deaths among all ages (2023) globally and for GBD super-regions, regions, and countries and territories

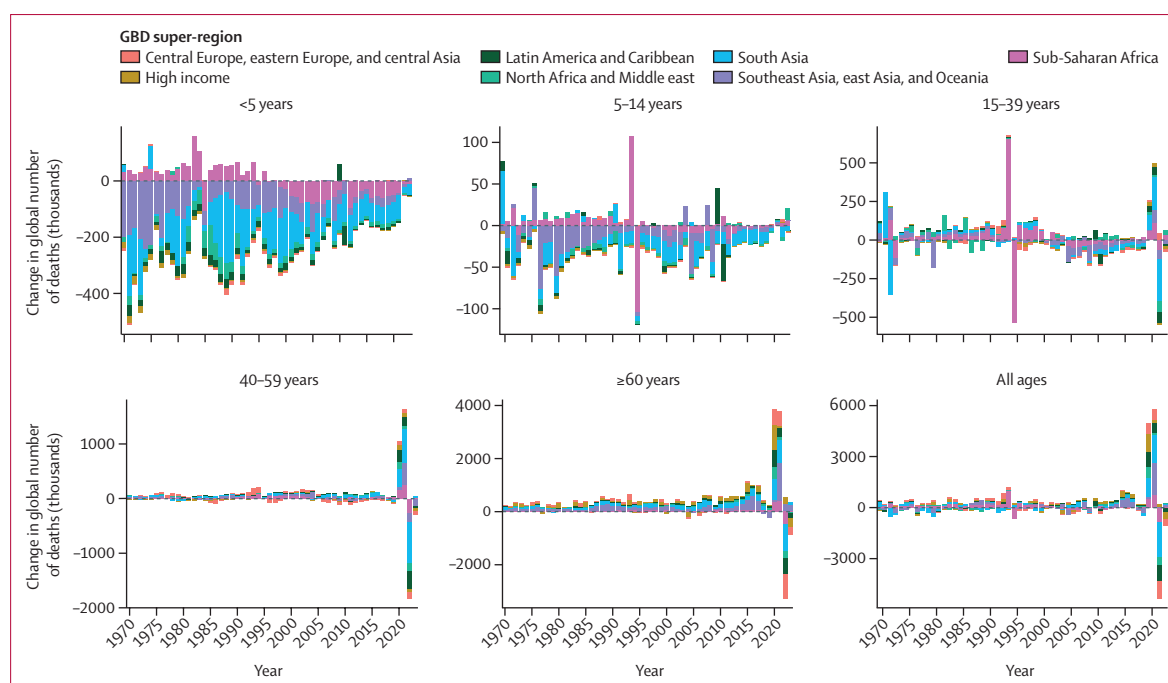


Figure 2: Annual change in number of deaths, for broad age groups and all ages combined, 1970–2023

Annual change is defined as the difference between the number of deaths in the current year and the preceding year. The y-axis scales differ by age group. The large change in the age groups 5–14 years and 15–39 years between 1994 and 1995 was due to deaths during the Rwandan genocide. The large change in the age groups 15–39 years, 40–59 years, and ≥60 years between 2020 and 2022 was due to deaths during the COVID-19 pandemic. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

males in sub-Saharan Africa. Over the entire study period, the absolute number of deaths in children younger than 1 year declined more than in any other age group, although there were still more deaths in those younger than 1 year in 2023 than in any of the 5-year age groups younger than 60 years.

Age-standardised mortality rates

In 2023, the global age-standardised all-cause mortality rate was 701.5 (95% UI 689.2–713.1) deaths per 100 000, a 66.6% (65.8–67.3) decline from 1950, when the rate was 2098.3 (2067.1–2129.8) deaths per 100 000 (appendix 2 table S3A). Global age-standardised mortality rates in 2023 were significantly lower for females (595.9 [582.0–610.5] per 100 000) than for males (822.1 [801.9–841.5] per 100 000; appendix 2 tables S3B and S3C). At the GBD super-region level, age-standardised mortality rates in 2023 were highest in sub-Saharan Africa (1132.7 [1119.7–1147.6] per 100 000) and lowest in the high-income super-region (443.1 [442.0–444.3]; appendix 2 table S3A). Between 1950 and 2023, the largest decline in age-standardised all-cause mortality rate occurred in southeast Asia, east Asia, and Oceania (78.1% [76.7–79.5] decrease), while the smallest decline occurred in central Europe, eastern Europe, and central Asia (47.0% [46.1–47.8] decrease; appendix 2 table S3A).

Among the GBD countries and territories with populations greater than 1 million, the Central African

Republic (1712.9 [95% UI 1630.3–1801.3] per 100 000), South Sudan (1611.1 [1528.8–1696.8] per 100 000), and Chad (1578.6 [1502.5–1662.1] per 100 000) had the highest age-standardised all-cause mortality rates in 2023 (appendix 2 table S3A). The lowest age-standardised all-cause mortality rates occurred in Singapore (301.3 deaths [296.3–306.6] per 100 000), Switzerland (335.1 [331.6–338.4] per 100 000), and Japan (340.8 [340.1–341.5] per 100 000; appendix 2 table S3A). Over the entire 1950–2023 study period, age-standardised mortality rates declined in all 204 countries and territories.

Age-specific mortality rates

For the global populations younger than 15 years and those aged 40 years and older, all-cause mortality rates across the human lifespan broadly declined between 1950 and 2019, and between 2021 and 2023 (figure 4). This pattern was generally consistent across super-regions, with short-term anomalies for events such as war, natural disaster, and famine.²⁸ One notable exception to broad trends was increased mortality in sub-Saharan Africa during the 1990s and 2000s due to the HIV/AIDS epidemic in the absence of antiretroviral therapy. Variations in mortality levels and trends across super-regions and over time were observed in those aged 15–39 years, an age group particularly susceptible to mortality shocks.

Between 1950 and 1990, age-specific mortality rates broadly decreased at the regional level (figure 5A). The

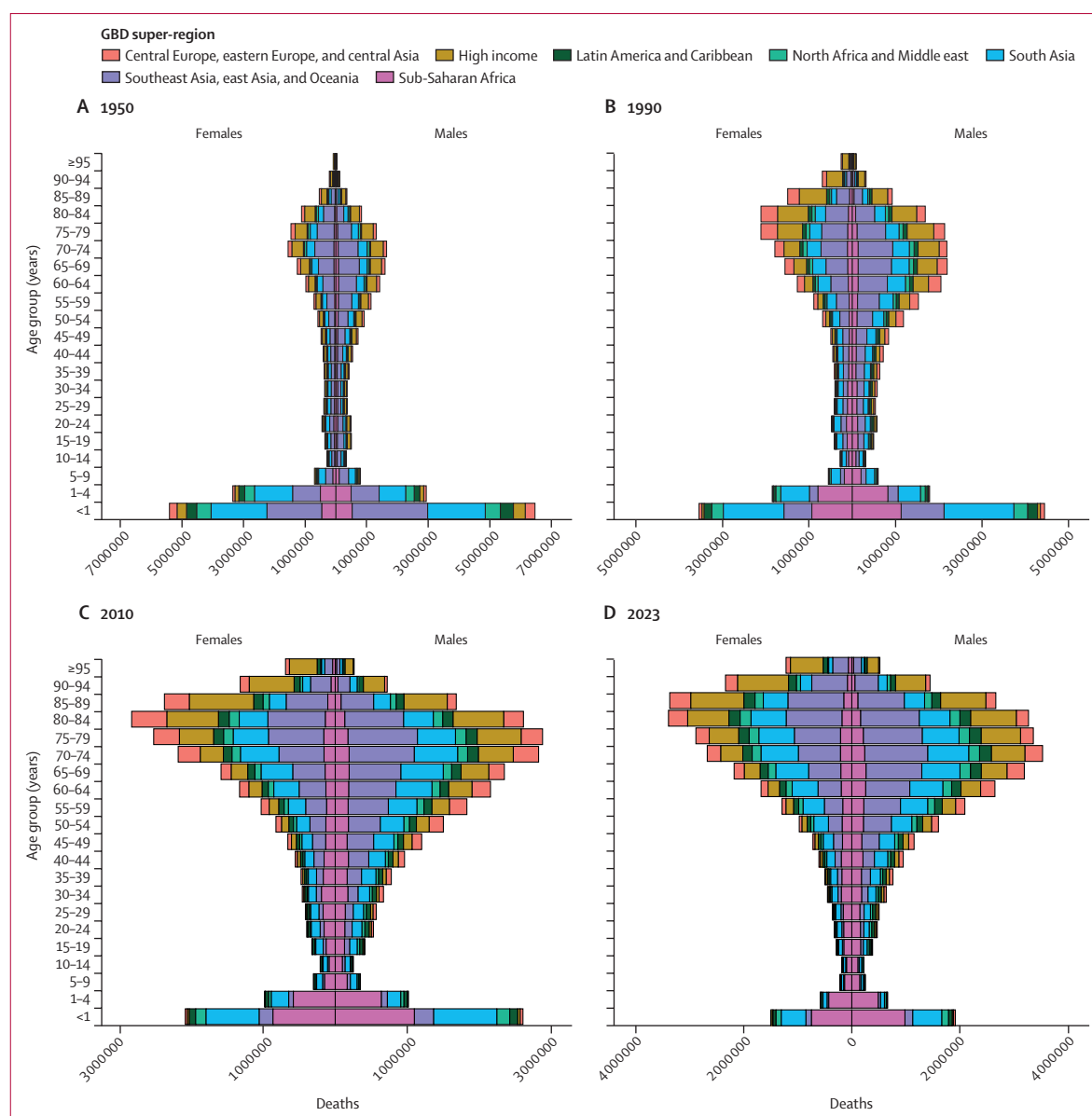


Figure 3: Age-specific deaths by sex and GBD super-region, in 1950 (A), 1990 (B), 2010 (C), and 2023 (D)

The number of female deaths (left side) can be compared to male deaths (right side) by age group for four distinct years. The x-axis scales differ by year. Different colours show GBD super-regions. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

largest relative decreases (measured by percentage change) were generally observed in the under-5 age groups (as well as in those aged 5–14 years in some regions), the extent of which was less steep in central, eastern, and western sub-Saharan Africa. Increases in mortality rates were observed in eastern Europe in those aged 40–59 years as well as a very small increase in eastern sub-Saharan Africa in those aged 15–19 years. These trends masked substantial variation across countries and territories. Between 1950 and 1990, countries in the sub-Saharan Africa super-region generally had smaller declines in age-specific mortality than other countries, with the median country or

territory in sub-Saharan Africa experiencing a smaller annualised rate of decline than the least-improved country or territory in any other super-region for infants aged 28–364 days and children aged 1–4 years (figure 6A). The largest variation in annualised rate of change (ARC) between countries in a single super-region among children and adolescents aged 5–9 years and 10–14 years occurred in north Africa and the Middle East, whereas in those aged 15–19 years and 20–24 years the largest ARC variation was in Latin America and the Caribbean (figure 6A). In adults aged 35–59 years, nearly all the countries and territories with positive ARCs (ie, increasing mortality) were in

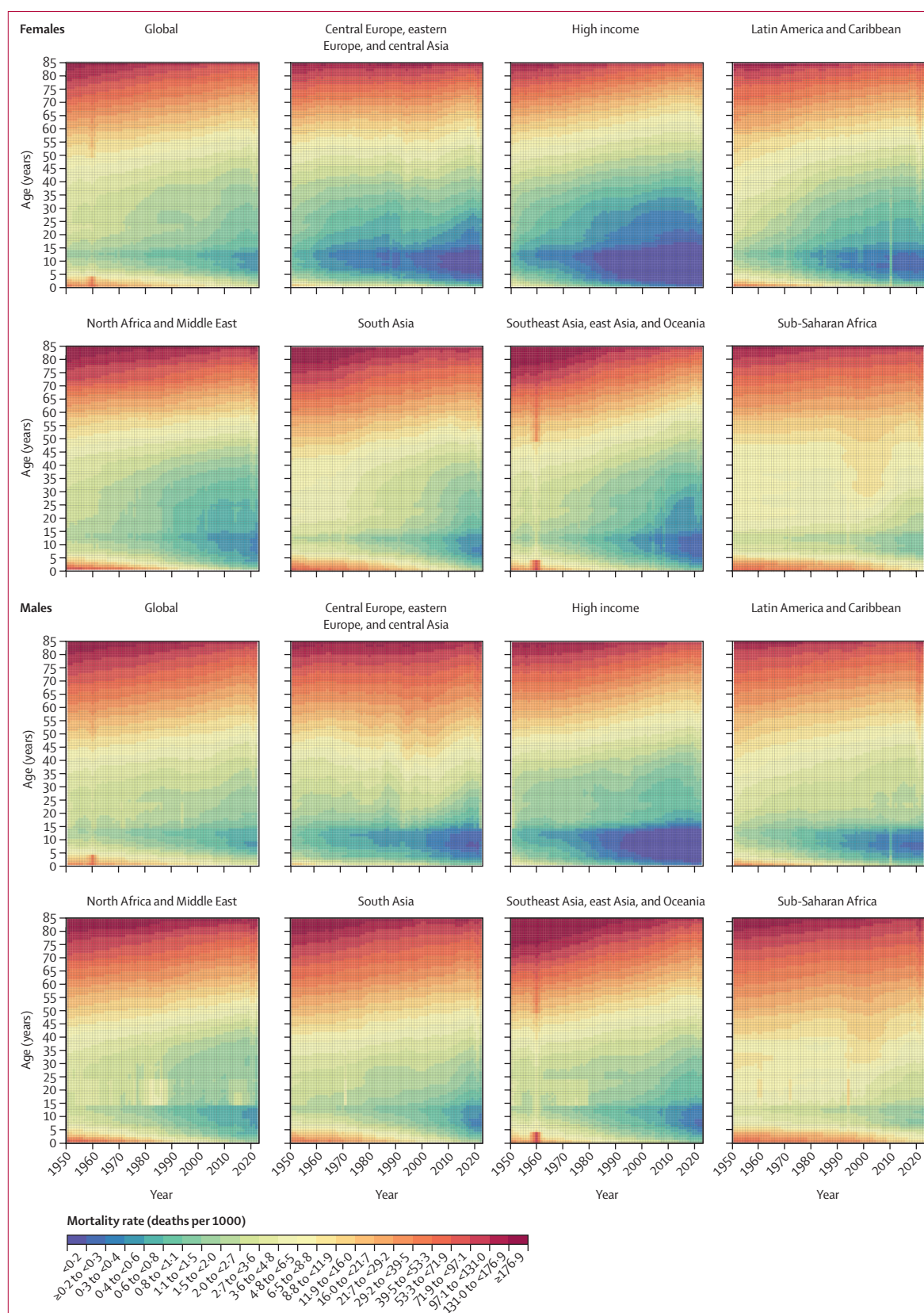
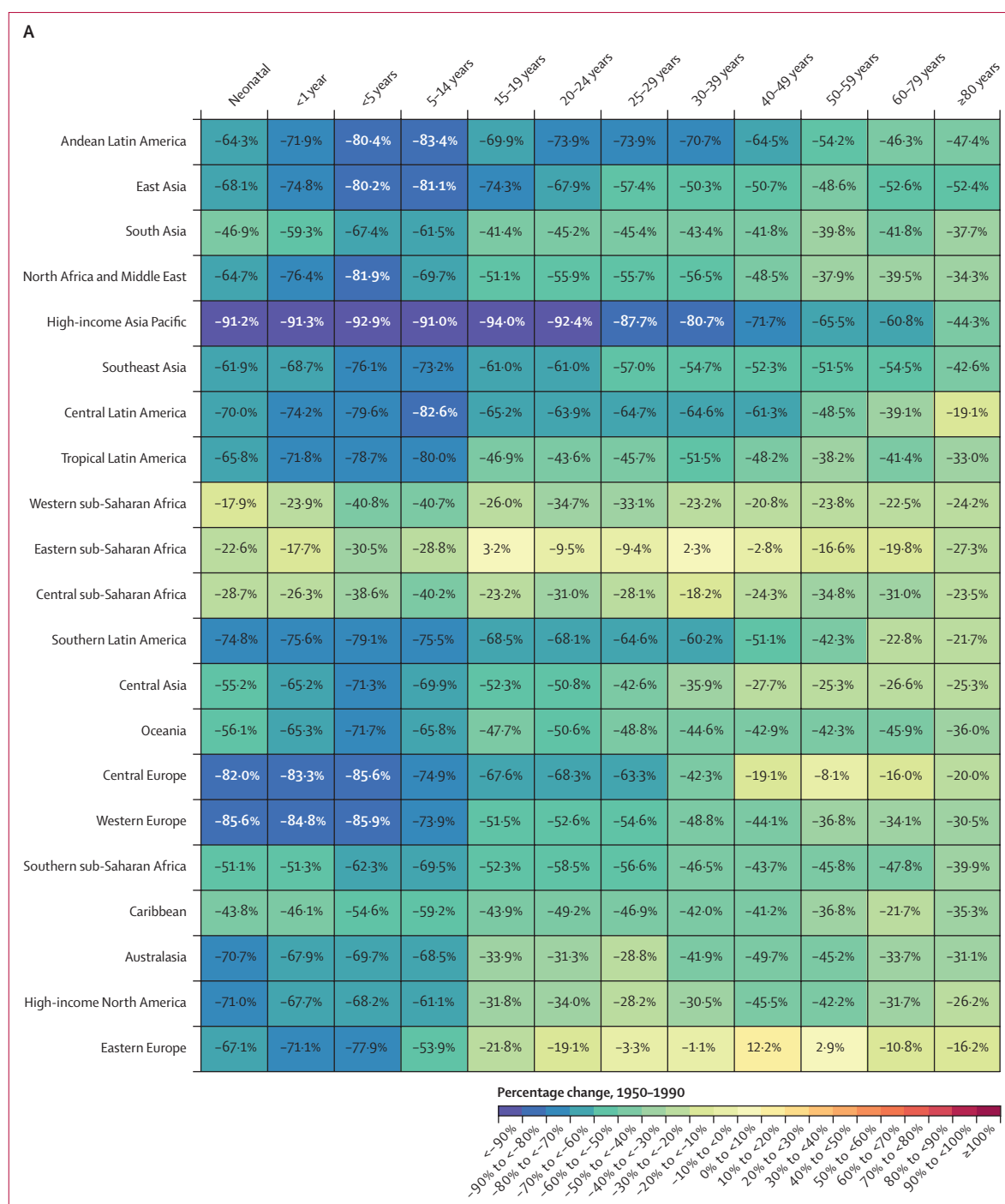


Figure 4: All-cause mortality rates globally and by GBD super-region across the lifespan in females and males, 1950–2023

Mortality rates are expressed as the number of deaths per 1000 population. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

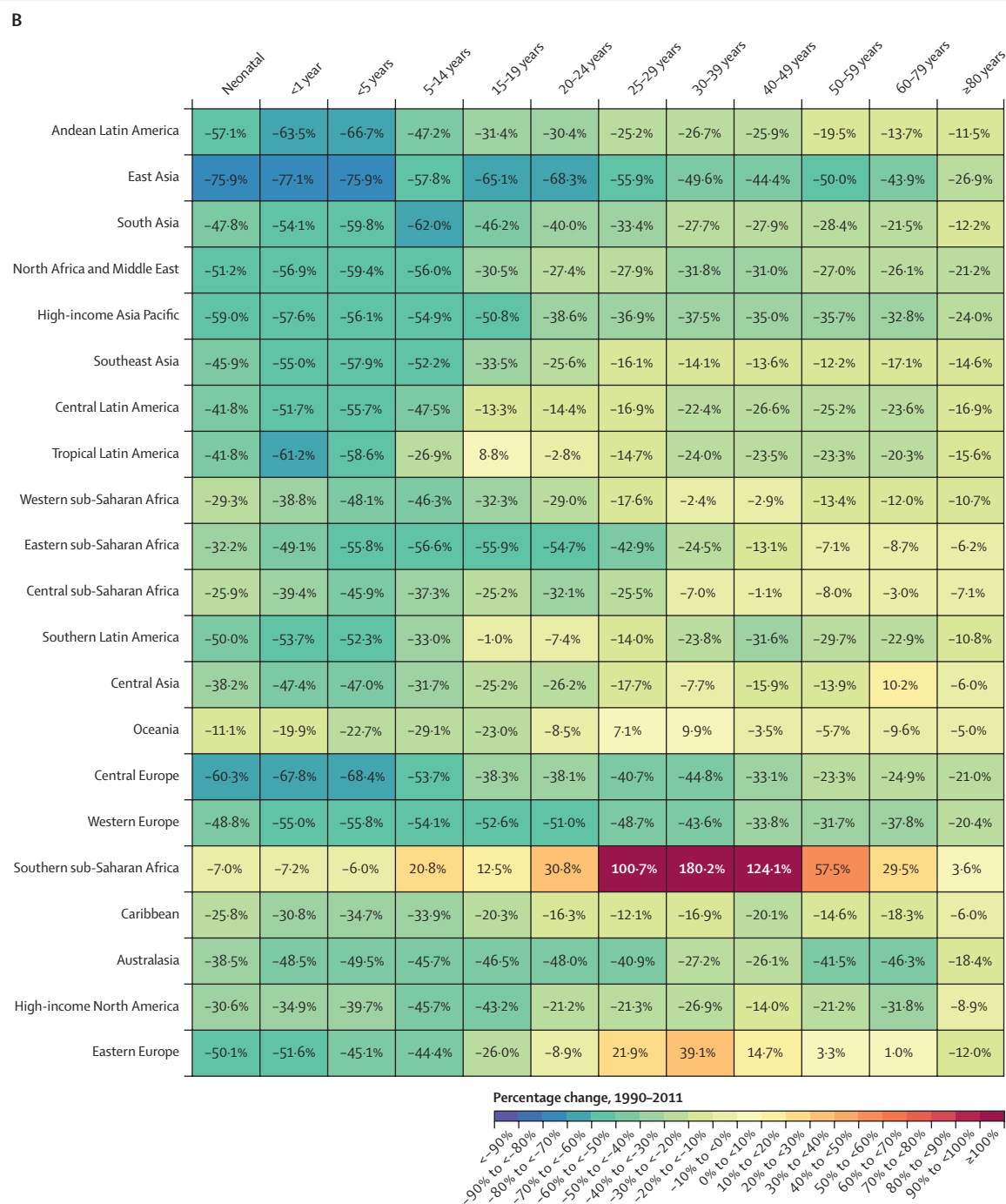


(Figure 5 continues on next page)

central Europe, eastern Europe, and central Asia or in sub-Saharan Africa (figure 6A).

Age-specific mortality also generally decreased between 1990 and 2011 across regions, but with several key exceptions (figure 5B, figure 6B). Under-5 mortality rates decreased most sharply in east Asia (75.9% decline), with large declines across all regions except for

southern sub-Saharan Africa (6.0% decline). Notable increases in age-specific mortality occurred in eastern Europe in those aged 25-49 years (with smaller increases in those aged 50-79 years) and in southern sub-Saharan Africa in those aged 5 years and older. Between 2011 and 2023, under-5 mortality rates again decreased most sharply in east Asia (67.7% decline)



(Figure 5 continues on next page)

and conversely decreased the least in high-income North America (6.5% decline; figure 5C). High-income North America, Andean Latin America, and the Caribbean saw increases in mortality rates for all age groups between 5–14 years and 40–49 years (figure 5C). High-income North America had the largest increases in mortality rates for those aged 5–14, 25–29 years, and

30–39 years (increases of 11.5%, 31.7%, and 49.9%, respectively; figure 5C). Eastern Europe saw the largest increases in mortality rates for those aged 15–19 years and 20–24 years (53.9% and 40.1%, respectively), while north Africa and the Middle East saw small increases in those aged 20–24 years and 25–29 years (9.8% and 4.0%, respectively; figure 5C). Regions in sub-Saharan Africa

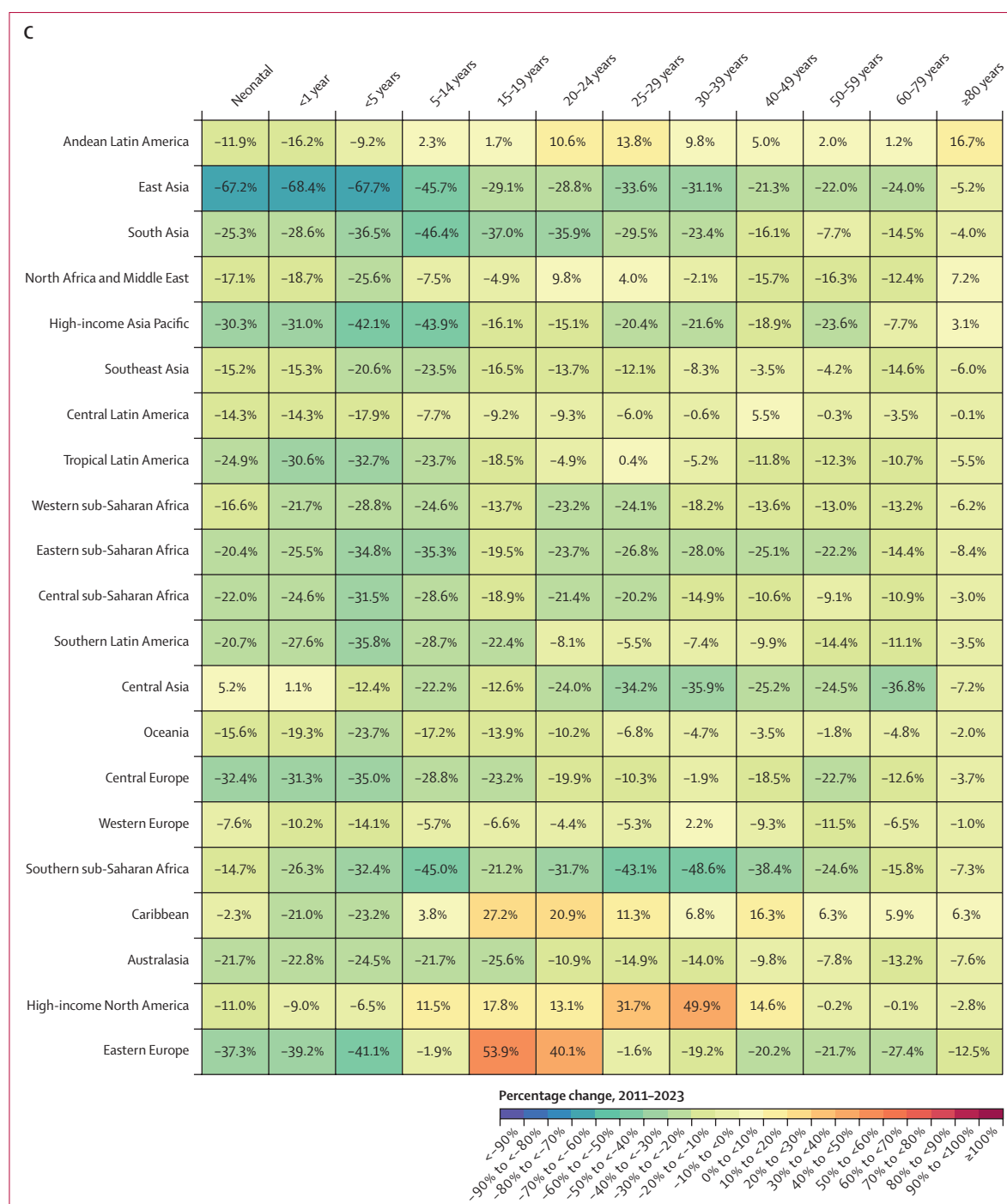


Figure 5: Percentage change in age-specific mortality rates by GBD region, 1950–1990 (A), 1990–2011 (B), and 2011–2023 (C)

Percentage change for a year range is calculated as the difference in the estimates between the second year and the first year, divided by the estimate in the first year. The boxes range from blue (indicating a decrease in mortality rate between the 2 years), to yellow (indicating no or minimal change between the 2 years), to red (indicating an increase in mortality rate between the 2 years). Darker colours represent a more substantial change. GBD regions are listed in descending order by greatest increase in life expectancy from 1950 to 2023. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

saw declines in neonatal mortality during this period that ranged from 14.7% in southern sub-Saharan Africa to 22.0% in central sub-Saharan Africa (figure 5C). At the national level in 2011–23, countries in south Asia had the

largest annual declines in age-specific mortality on average in every age group from birth up to age 19 years (figure 6C). In each 5-year age group between 30 years and 74 years, every super-region had at least one country

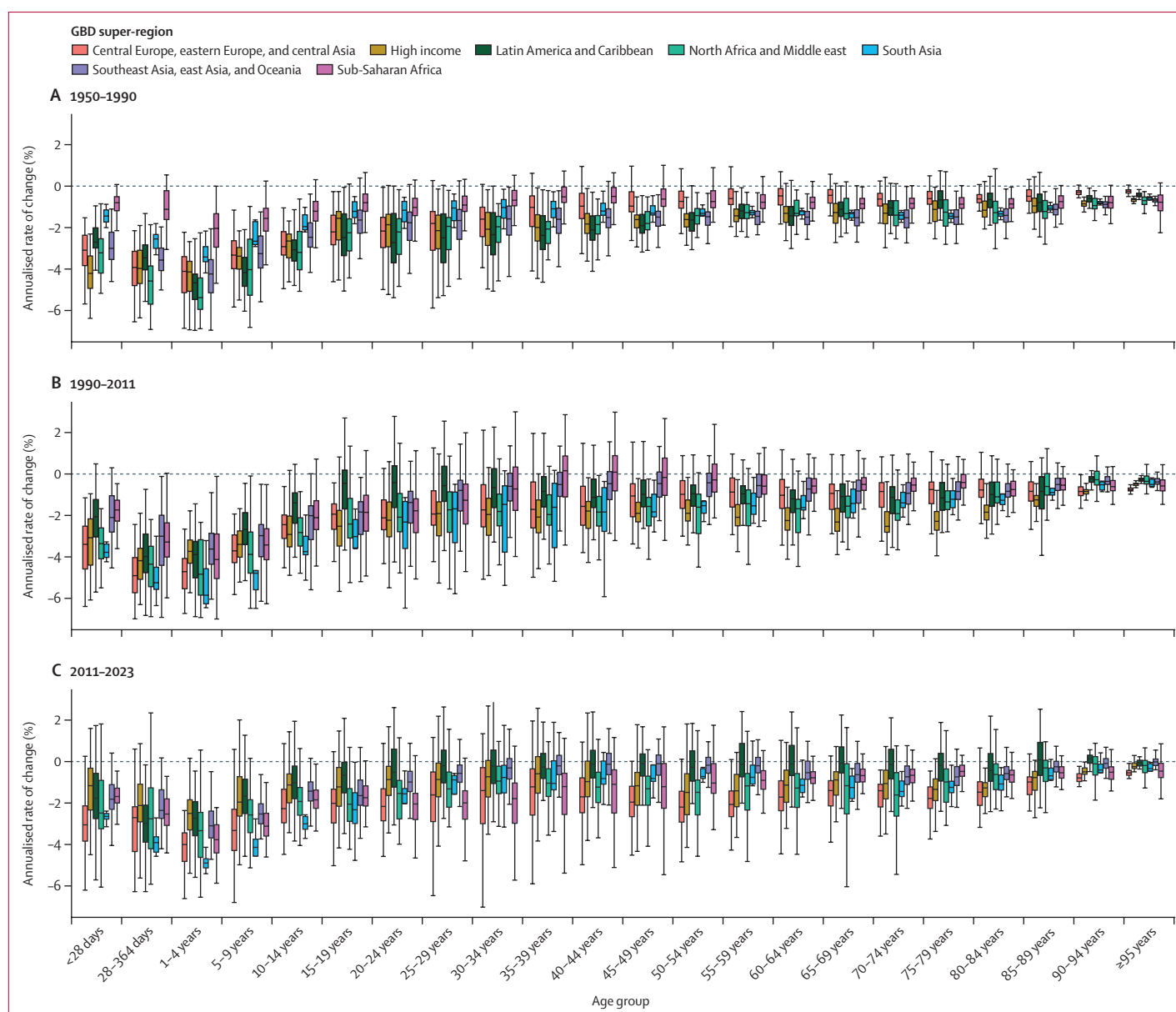


Figure 6: Distribution of ARC in age-specific mortality rates across countries and territories by GBD super-region, 1950–1990 (A), 1990–2011 (B), and 2011–2023 (C)

Percentage change for a year range is calculated as the difference in the estimates between the second year and the first year, divided by the estimate in the first year. The boxes represent the middle 50% of the distribution (25th and 75th percentiles), the horizontal line in the boxes indicates the median, and the whiskers show the middle 95% of the distribution (2·5th and 97·5th percentiles). GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

or territory with a positive ARC (ie, an increase) in age-specific mortality, with the exception of South Asia in age groups 45–49 years, 50–54 years, 65–69 years, and 70–74 years. In age groups older than 75 years, countries in central Europe, eastern Europe, and central Asia had the largest annual decreases in mortality on average.

The sub-Saharan Africa super-region saw the largest changes in estimated age-specific mortality rates compared to previous estimates in GBD 2021.¹² On average across countries and territories over the 1950–2021 time period, mortality rates for all sexes aged

5–14 years were 87·3% higher than estimated in GBD 2021, while mortality rates for females aged 15–29 years were 61·2% higher than previously estimated. Conversely, mortality rates for all sexes aged 50 years and older were 13·2% lower than GBD 2021 on average across countries and territories over the 1950–2021 time period.

Life expectancy

Female global life expectancy at birth increased from 51·2 (95% UI 50·6–51·7) years in 1950 to 76·3 (76·0–76·6) years in 2023, an increase of 25·1

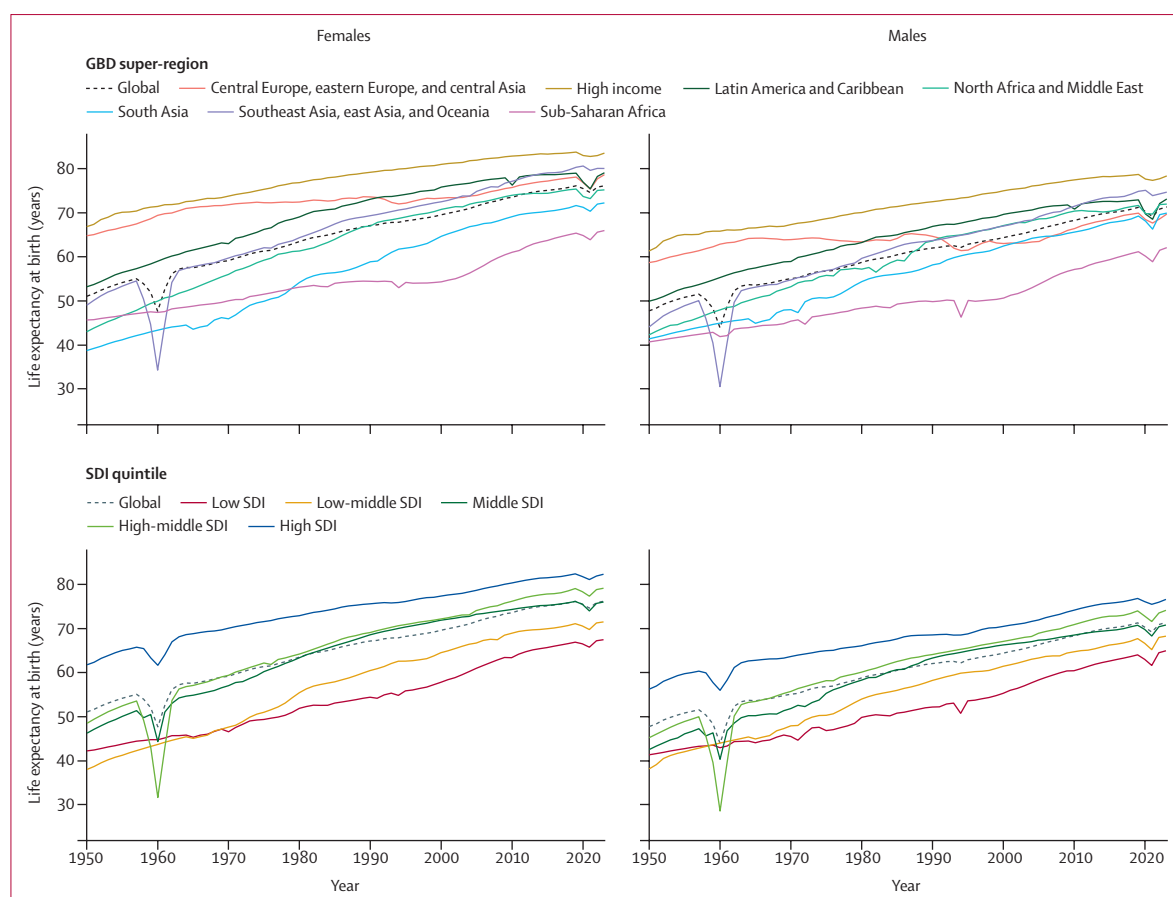


Figure 7: Life expectancy at birth across GBD super-regions and SDI quintiles in females and males, 1950–2023

The different colours represent GBD super-regions in the top row and SDI quintiles in the bottom row. The decline in life expectancy in 1960 for the southeast Asia, east Asia, and Oceania super-region (purple line) was due to famine. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. SDI=Socio-demographic Index.

(24.5–25.7) years, while male life expectancy increased by 23.6 (23.0–24.2) years over the same period, from 47.9 (47.4–48.4) years to 71.5 (71.2–71.8) years (figure 7; tables 2, 3). Global trends mask substantial heterogeneity between GBD super-regions. In 2023, life expectancy varied from 83.7 (83.7–83.7) years for females and 78.5 (78.5–78.6) years for males in the high-income super-region to 66.1 (65.8–66.4) years for females and 62.2 (62.0–62.5) years for males in sub-Saharan Africa (figure 7; tables 2, 3). Super-regional life expectancy progressed inconsistently over the study period, with stagnation in central Europe, eastern Europe, and central Asia between 1970 and 2000, and in sub-Saharan Africa between 1980 and 2000; these super-regions saw no substantial improvement in life expectancy over these periods. By contrast, the largest absolute increase in female life expectancy occurred in south Asia, nearly doubling between 1950 and 2023, from 38.8 (37.3–40.3) years to 72.4 (71.5–73.3) years, an increase of 33.6 (31.7–35.4) years. For males, the largest absolute increase occurred in southeast Asia, east Asia, and Oceania between

1950 and 2023 (from 44.2 [43.1–45.2] years to 74.8 [74.1–75.6] years, an improvement of 30.6 [29.3–32.1] years). The smallest improvements occurred in males in central Europe, eastern Europe, and central Asia (an increase of 11.0 [10.6–11.4] years, from 58.8 [58.6–59.0] years to 69.9 [69.5–70.1] years). Among countries and territories with populations greater than 1 million, female life expectancy at birth varied in 2023 from 87.5 (87.3–87.8) years in Singapore to 55.9 (54.6–57.1) years in the Central African Republic, as did male life expectancy, from 83.1 (82.9–83.4) years in Singapore to 54.1 (52.9–55.4) years in South Sudan (tables 2, 3).

Mortality and life expectancy during the COVID-19 pandemic and recovery periods

The number of deaths for all ages and sexes combined in 2023 represents a 8.9% (95% UI 7.2–10.6) decrease from the COVID-19 pandemic era high of 65.9 million (65.6–66.3) deaths in 2021, but an 8.9% (6.8–11.0) increase from 2019 (55.2 million [54.8–55.5]; appendix 2 table S5A). Measured by percentage change

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Difference	SDI
	life expectancy	life expectancy		life expectancy	life expectancy		life expectancy	life expectancy		life expectancy	life expectancy		life expectancy	life expectancy			
Global	51.2 (50.6 to 51.7)	63.7 (63.6 to 63.7)	-12.5	67.3 (67.1 to 67.5)	72.2 (72.2 to 72.3)	-4.9	69.7 (69.6 to 69.8)	73.8 (73.8 to 73.9)	-4.1	73.7 (73.5 to 73.8)	75.2 (75.1 to 75.3)	-1.5	76.3 (76.0 to 76.6)	76.8 (76.8 to 76.8)	-0.5	0.68	
Central Europe, eastern Europe, and central Asia	64.9 (64.7 to 65.2)	71.8 (71.7 to 71.8)	-6.9	73.8 (73.7 to 73.8)	75.8 (75.7 to 75.8)	-2.0	73.5 (73.4 to 73.5)	76.9 (76.9 to 77.0)	-3.5	75.9 (75.9 to 76.0)	78.2 (78.2 to 78.3)	-2.4	78.8 (78.7 to 79.0)	79.4 (79.4 to 79.5)	-0.6	0.78	
Central Asia	58.5 (58.0 to 59.1)	67.6 (67.6 to 67.7)	-9.1	71.1 (71.0 to 71.3)	73.3 (73.3 to 73.4)	-2.2	71.2 (71.0 to 71.4)	74.1 (74.1 to 74.2)	-2.9	73.7 (73.5 to 73.8)	75.6 (75.6 to 75.7)	-2.0	76.8 (76.6 to 77.0)	76.5 (76.5 to 76.6)	0.2	0.67	
Armenia	61.0 (59.4 to 62.4)	68.7 (68.7 to 68.8)	-7.8	73.7 (73.2 to 74.2)	72.8 (72.7 to 72.8)	0.9	75.4 (75.0 to 75.9)	74.1 (74.1 to 74.2)	1.3	77.3 (76.9 to 77.7)	76.2 (76.1 to 76.2)	1.1	82.6 (82.0 to 83.1)	77.7 (77.7 to 77.8)	4.8	0.72	
Azerbaijan	49.0 (47.0 to 50.8)	66.5 (66.4 to 66.6)	-17.5	70.1 (69.6 to 70.6)	74.8 (74.7 to 74.8)	-4.7	71.6 (71.1 to 72.0)	74.1 (74.1 to 74.2)	-2.6	74.1 (73.7 to 74.5)	76.2 (76.1 to 76.2)	-2.0	75.4 (74.7 to 76.1)	77.5 (77.4 to 77.5)	-2.1	0.71	
Georgia	62.6 (61.5 to 63.8)	73.1 (73.1 to 73.2)	-10.5	73.1 (72.7 to 73.5)	76.4 (76.4 to 76.5)	-3.3	73.1 (72.5 to 73.7)	75.6 (75.6 to 75.7)	-2.5	76.4 (75.9 to 76.8)	76.8 (76.8 to 76.8)	-0.4	79.4 (78.9 to 79.9)	78.8 (78.8 to 78.9)	0.6	0.75	
Kazakhstan	64.2 (63.1 to 65.4)	68.7 (68.7 to 68.8)	-4.5	72.2 (71.9 to 72.5)	74.5 (74.4 to 74.5)	-2.3	71.2 (70.9 to 71.5)	76.0 (76.0 to 76.1)	-4.8	73.6 (73.2 to 73.9)	77.1 (77.0 to 77.1)	-3.5	78.7 (78.3 to 79.1)	78.0 (78.0 to 78.1)	0.7	0.73	
Kyrgyzstan	56.8 (55.3 to 58.3)	67.6 (67.6 to 67.7)	-10.9	70.8 (70.3 to 71.3)	72.0 (72.0 to 72.1)	-1.2	71.2 (70.8 to 71.7)	72.8 (72.7 to 72.8)	-1.5	73.5 (73.0 to 73.9)	73.1 (73.1 to 73.2)	0.3	77.8 (77.2 to 78.5)	75.3 (75.3 to 75.4)	2.5	0.63	
Mongolia	48.0 (46.2 to 49.8)	59.0 (59.0 to 59.2)	-11.0	65.1 (64.4 to 65.7)	69.8 (69.7 to 69.8)	-4.7	66.9 (66.3 to 67.5)	72.6 (72.5 to 72.6)	-5.7	71.6 (71.0 to 72.1)	74.5 (74.4 to 74.5)	-2.9	78.2 (77.4 to 79.0)	76.3 (76.2 to 76.3)	1.9	0.66	
Tajikistan	52.7 (51.1 to 54.4)	60.0 (60.0 to 60.1)	-7.3	69.5 (68.9 to 70.0)	70.0 (69.9 to 70.0)	-0.5	70.4 (69.8 to 71.0)	68.7 (68.7 to 68.8)	1.7	73.6 (73.1 to 74.0)	70.9 (70.9 to 71.0)	2.6	73.0 (71.9 to 74.1)	73.0 (73.0 to 73.0)	0.1	0.55	
Turkmenistan	55.4 (53.9 to 56.9)	67.9 (67.8 to 68.0)	-12.5	69.4 (68.9 to 70.0)	73.8 (73.8 to 73.9)	-4.4	70.2 (69.7 to 70.8)	74.0 (73.9 to 74.0)	-3.8	72.9 (72.4 to 73.5)	75.5 (75.4 to 75.5)	-2.5	74.1 (72.8 to 75.3)	76.8 (76.8 to 76.8)	-2.7	0.68	
Uzbekistan	59.2 (57.8 to 60.4)	63.7 (63.6 to 63.7)	-4.5	71.2 (70.9 to 71.6)	71.4 (71.3 to 71.4)	-0.1	71.2 (70.8 to 71.5)	73.3 (73.3 to 73.4)	-2.1	72.8 (72.5 to 73.1)	75.1 (75.0 to 75.1)	-2.3	75.0 (74.6 to 75.4)	75.5 (75.4 to 75.5)	-0.4	0.63	
Central Europe	61.7 (61.5 to 61.9)	69.8 (69.7 to 69.8)	-8.1	74.6 (74.6 to 74.7)	75.6 (75.6 to 75.7)	-1.0	76.5 (76.5 to 76.6)	77.2 (77.2 to 77.2)	-0.7	79.0 (79.0 to 79.1)	78.8 (78.8 to 78.9)	0.2	81.0 (80.9 to 81.1)	80.4 (80.4 to 80.5)	0.6	0.81	
Albania	56.3 (54.8 to 57.7)	62.0 (62.0 to 62.1)	-5.7	74.9 (74.4 to 75.5)	72.8 (72.7 to 72.8)	2.2	78.1 (77.6 to 78.5)	73.7 (73.6 to 73.7)	4.4	80.5 (81.0 to 81.0)	75.8 (75.7 to 75.8)	4.7	82.1 (81.4 to 82.7)	77.5 (77.4 to 77.5)	4.6	0.71	
Bosnia and Herzegovina	53.0 (52.4 to 53.7)	59.4 (59.3 to 59.5)	-6.4	75.3 (75.0 to 75.6)	72.0 (72.0 to 72.1)	3.3	77.3 (76.9 to 77.6)	74.1 (74.1 to 74.2)	3.1	78.6 (78.3 to 78.8)	76.3 (76.2 to 76.3)	2.3	80.1 (79.4 to 80.8)	77.7 (77.7 to 77.8)	2.3	0.71	

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference		
(Continued from previous page)																	
Bulgaria	61.6 (61.2 to 62.0)	68.5 (68.4 to 68.5)	-6.9	74.7 (74.6 to 74.9)	75.3 (75.3 to 75.4)	-0.6	75.1 (75.0 to 75.3)	76.7 (76.6 to 76.7)	-1.5	77.6 (77.4 to 77.7)	78.1 (78.1 to 78.2)	-0.6	79.5 (79.3 to 79.7)	79.3 (79.2 to 79.3)	0.2	0.77	
Croatia	58.4 (58.0 to 58.6)	69.3 (69.2 to 69.3)	-10.9	76.2 (76.0 to 76.3)	76.3 (76.2 to 76.3)	-0.1	78.0 (77.8 to 78.1)	77.1 (77.0 to 77.1)	0.9	79.8 (79.7 to 80.0)	78.4 (78.4 to 78.5)	1.4	81.7 (81.4 to 81.9)	79.6 (79.5 to 79.6)	2.1	0.78	
Czechia	67.5 (67.3 to 67.7)	73.3 (73.3 to 73.4)	-5.8	75.4 (75.3 to 75.5)	76.7 (76.6 to 76.7)	-1.3	78.4 (78.2 to 78.5)	79.0 (78.9 to 79.1)	-0.6	80.7 (80.6 to 80.8)	80.1 (80.1 to 80.2)	0.5	82.8 (82.6 to 82.9)	81.0 (81.0 to 81.0)	1.8	0.83	
Hungary	65.3 (64.9 to 65.7)	70.7 (70.7 to 70.8)	-5.4	73.8 (73.7 to 73.9)	75.9 (75.8 to 75.9)	-2.1	76.1 (75.9 to 76.2)	77.6 (77.6 to 77.6)	-1.5	78.4 (78.2 to 78.5)	79.0 (78.9 to 79.1)	-0.6	80.1 (79.9 to 80.2)	80.0 (80.0 to 80.1)	0.1	0.79	
Montenegro	63.0 (62.5 to 63.5)	68.5 (68.4 to 68.5)	-5.5	75.9 (75.7 to 76.2)	76.4 (76.4 to 76.5)	-0.5	75.9 (75.7 to 76.1)	76.4 (76.4 to 76.5)	-0.5	77.5 (77.3 to 77.8)	78.1 (78.1 to 78.2)	-0.6	79.5 (79.1 to 79.9)	79.9 (79.9 to 79.9)	-0.3	0.79	
North Macedonia	49.6 (49.0 to 50.2)	66.5 (66.4 to 66.6)	-16.9	73.3 (73.1 to 73.6)	74.8 (74.7 to 74.8)	-1.4	75.0 (74.7 to 75.2)	75.9 (75.8 to 75.9)	-0.9	76.8 (76.6 to 77.0)	77.5 (77.4 to 77.5)	-0.6	78.9 (78.5 to 79.4)	79.0 (78.9 to 79.1)	-0.0	0.76	
Poland	62.5 (62.3 to 62.8)	70.7 (70.7 to 70.8)	-8.2	75.7 (75.6 to 75.8)	75.6 (75.6 to 75.7)	0.1	78.1 (78.0 to 78.2)	77.7 (77.7 to 77.8)	0.3	80.5 (80.4 to 80.6)	79.6 (79.5 to 79.6)	0.9	82.2 (82.1 to 82.4)	81.4 (81.4 to 81.4)	0.8	0.85	
Romania	63.0 (62.3 to 63.6)	66.5 (66.4 to 66.6)	-3.5	73.3 (73.2 to 73.5)	74.9 (74.9 to 75.0)	-1.6	74.7 (74.5 to 74.8)	76.2 (76.1 to 76.2)	-1.5	77.7 (77.5 to 77.8)	77.6 (77.6 to 77.6)	0.1	80.1 (80.0 to 80.3)	79.3 (79.2 to 79.3)	0.9	0.77	
Serbia	55.3 (54.6 to 55.9)	67.4 (67.3 to 67.4)	-12.0	73.0 (72.7 to 73.3)	75.5 (75.4 to 75.5)	-2.5	74.1 (73.8 to 74.3)	76.0 (76.0 to 76.1)	-2.0	76.6 (76.4 to 76.8)	78.0 (78.0 to 78.1)	-1.4	78.2 (77.4 to 78.9)	79.7 (79.7 to 79.8)	-1.6	0.78	
Slovakia	64.2 (63.8 to 64.6)	72.0 (72.0 to 72.1)	-7.8	75.5 (75.3 to 75.6)	76.0 (76.0 to 76.1)	-0.6	77.4 (77.3 to 77.6)	78.1 (78.1 to 78.2)	-0.7	79.3 (79.1 to 79.4)	79.6 (79.5 to 79.6)	-0.3	81.4 (81.2 to 81.7)	80.6 (80.6 to 80.6)	0.9	0.81	
Slovenia	62.2 (61.7 to 62.6)	72.8 (72.7 to 72.8)	-10.6	77.2 (77.1 to 77.4)	77.9 (77.8 to 77.9)	-0.6	79.7 (79.5 to 79.8)	79.3 (79.2 to 79.3)	0.4	82.5 (82.3 to 82.6)	80.6 (80.6 to 80.6)	1.9	84.4 (84.1 to 84.6)	81.4 (81.4 to 81.4)	2.9	0.84	
Eastern Europe	68.1 (67.7 to 68.5)	73.1 (73.1 to 73.2)	-5.0	74.5 (74.5 to 74.6)	76.5 (76.5 to 76.6)	-2.0	73.1 (73.0 to 73.1)	77.6 (77.6 to 77.6)	-4.5	75.2 (75.2 to 75.3)	79.1 (79.1 to 79.2)	-3.9	78.9 (78.6 to 79.1)	80.6 (80.6 to 80.6)	-1.7	0.81	
Belarus	70.5 (69.9 to 71.1)	70.0 (69.9 to 70.0)	0.5	75.6 (75.4 to 75.7)	75.5 (75.4 to 75.5)	0.1	74.4 (74.2 to 74.5)	76.7 (76.6 to 76.7)	-2.3	76.5 (76.4 to 76.7)	78.6 (78.5 to 78.6)	-2.0	79.2 (78.6 to 79.7)	80.3 (80.3 to 80.3)	-1.1	0.80	
Estonia	70.6 (70.1 to 71.0)	73.3 (73.3 to 73.4)	-2.7	74.9 (74.7 to 75.1)	76.7 (76.6 to 76.7)	-1.8	76.4 (76.2 to 76.6)	78.4 (78.4 to 78.5)	-2.0	80.3 (80.1 to 80.4)	80.1 (80.1 to 80.2)	0.1	82.9 (82.6 to 83.2)	81.7 (81.7 to 81.7)	1.2	0.85	

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Difference	Difference
(Continued from previous page)																	
Latvia	72.1 (71.7 to 72.6)	73.8 (73.8 to 73.9)	-1.7	74.8 (74.6 to 75.0)	76.9 (76.9 to 77.0)	-2.1	75.7 (75.5 to 75.9)	78.3 (78.2 to 78.3)	-2.6	78.1 (77.9 to 78.3)	80.1 (80.1 to 80.2)	-2.0	80.6 (80.3 to 80.9)	81.6 (81.5 to 81.6)	-0.9	0.85	
Lithuania	67.5 (66.9 to 67.9)	70.0 (69.9 to 70.0)	-2.5	75.8 (75.6 to 75.9)	76.3 (76.2 to 76.3)	-0.5	77.2 (77.0 to 77.4)	77.7 (77.7 to 77.8)	-0.5	78.4 (78.2 to 78.6)	79.7 (79.7 to 79.8)	-1.3	81.2 (80.9 to 81.5)	81.7 (81.7 to 81.7)	-0.5	0.86	
Moldova	57.8 (56.4 to 59.1)	67.4 (67.3 to 67.4)	-9.6	71.5 (71.1 to 71.9)	74.5 (74.4 to 74.5)	-2.9	72.6 (72.2 to 73.0)	75.1 (75.0 to 75.1)	-2.4	74.7 (74.2 to 75.1)	76.3 (76.2 to 76.3)	-1.6	80.3 (79.6 to 81.0)	78.3 (78.2 to 78.3)	2.0	0.73	
Russia	67.8 (67.2 to 68.3)	73.1 (73.1 to 73.2)	-5.3	74.4 (74.3 to 74.4)	76.8 (76.8 to 76.8)	-2.4	72.6 (72.5 to 72.7)	77.9 (77.8 to 77.9)	-5.3	75.0 (75.0 to 75.1)	79.3 (79.2 to 79.3)	-4.2	78.8 (78.6 to 78.9)	80.9 (80.9 to 80.9)	-2.1	0.82	
Ukraine	69.2 (68.2 to 70.2)	73.5 (73.4 to 73.5)	-4.3	75.0 (74.8 to 75.1)	76.2 (76.1 to 76.2)	-1.2	73.8 (73.6 to 73.9)	76.7 (76.6 to 76.7)	-2.9	75.2 (75.1 to 75.4)	78.0 (78.0 to 78.1)	-2.8	78.5 (77.5 to 79.5)	79.1 (79.1 to 79.2)	-0.7	0.76	
High income	67.0 (66.9 to 67.1)	74.1 (74.1 to 74.2)	-7.1	79.4 (79.3 to 79.4)	79.0 (78.9 to 79.1)	0.4	81.2 (81.1 to 81.2)	80.0 (80.0 to 80.1)	1.2	83.0 (83.0 to 83.1)	80.9 (80.9 to 81.0)	2.2	83.7 (83.7 to 83.7)	82.0 (81.9 to 82.0)	1.7	0.87	
Australasia	71.9 (71.8 to 72.0)	73.7 (73.6 to 73.7)	-1.8	79.6 (79.6 to 79.7)	78.3 (78.2 to 78.3)	1.4	82.0 (82.0 to 82.1)	79.4 (79.5 to 79.5)	2.6	84.0 (83.9 to 84.0)	80.3 (80.3 to 80.3)	3.7	85.4 (85.4 to 85.5)	81.7 (81.7 to 81.7)	3.7	0.86	
Australia	72.0 (71.8 to 72.2)	73.3 (73.3 to 73.4)	-1.3	79.9 (79.8 to 80.0)	78.1 (78.1 to 78.2)	1.8	82.3 (82.2 to 82.4)	79.3 (79.2 to 79.3)	3.0	84.2 (84.1 to 84.3)	80.3 (80.3 to 80.3)	3.9	85.8 (85.8 to 85.9)	81.7 (81.7 to 81.7)	4.1	0.85	
New Zealand	71.4 (71.1 to 71.7)	74.5 (74.4 to 74.5)	-3.0	78.4 (78.2 to 78.6)	78.8 (78.8 to 78.9)	-0.4	80.9 (80.7 to 81.0)	79.9 (79.8 to 79.9)	1.0	82.8 (82.6 to 83.0)	80.6 (80.6 to 80.6)	2.2	83.4 (83.2 to 83.6)	82.0 (81.9 to 82.0)	1.4	0.87	
High-income Asia Pacific	57.3 (56.8 to 57.7)	71.4 (71.3 to 71.4)	-14.1	80.8 (80.7 to 80.9)	79.4 (79.4 to 79.5)	1.4	83.7 (83.6 to 83.8)	80.7 (80.7 to 80.7)	3.0	86.0 (85.9 to 86.0)	81.4 (81.4 to 81.4)	4.5	87.1 (87.0 to 87.1)	82.4 (82.3 to 82.4)	4.7	0.88	
Brunei	52.3 (51.5 to 53.2)	64.6 (64.6 to 64.7)	-12.3	73.8 (73.5 to 74.2)	76.7 (76.6 to 76.7)	-2.8	75.6 (75.3 to 76.0)	78.3 (78.2 to 78.3)	-2.6	78.0 (77.7 to 78.3)	79.9 (79.8 to 79.9)	-1.8	79.4 (78.8 to 80.0)	81.0 (81.0 to 81.0)	-1.6	0.83	
Japan	60.8 (60.7 to 60.9)	72.8 (72.7 to 72.8)	-12.0	82.1 (82.1 to 82.2)	80.0 (80.0 to 80.1)	2.1	84.6 (84.6 to 84.7)	80.9 (80.9 to 80.9)	3.8	86.4 (86.4 to 86.4)	81.4 (81.4 to 81.4)	5.0	87.2 (87.2 to 87.2)	82.2 (82.2 to 82.3)	4.9	0.88	
Singapore	60.8 (60.3 to 61.2)	61.4 (61.3 to 61.4)	-0.6	78.3 (78.1 to 78.5)	77.3 (77.3 to 77.4)	1.0	81.5 (81.3 to 81.8)	79.6 (79.5 to 79.6)	2.0	85.1 (84.9 to 85.3)	81.3 (81.3 to 81.3)	3.8	87.5 (87.3 to 87.8)	82.1 (82.1 to 82.1)	5.4	0.87	
South Korea	45.6 (43.9 to 47.0)	60.0 (60.0 to 60.1)	-14.5	76.0 (75.7 to 76.3)	77.3 (77.3 to 77.4)	-1.4	79.7 (79.4 to 79.9)	79.9 (79.8 to 79.9)	-0.2	84.0 (83.7 to 84.2)	81.4 (81.4 to 81.4)	2.5	86.1 (85.9 to 86.2)	82.6 (82.6 to 82.7)	3.4	0.89	

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Difference	Difference
(Continued from previous page)																	
High-income North America	71.3 (71.2 to 71.3)	75.3 (75.3 to 75.4)	-4.0	79.0 (79.0 to 79.0)	79.4 (79.4 to 79.5)	-0.4	79.7 (79.6 to 79.7)	80.3 (80.3 to 80.3)	-0.6	81.3 (81.3 to 81.3)	81.1 (81.1 to 81.2)	0.2	81.4 (81.4 to 81.5)	82.4 (82.3 to 82.4)	-0.9	0.88	
Canada	70.9 (70.7 to 71.0)	75.6 (75.6 to 75.7)	-4.7	80.6 (80.5 to 80.6)	80.1 (80.1 to 80.2)	0.4	81.9 (81.8 to 82.0)	81.1 (81.1 to 81.2)	0.8	83.6 (83.6 to 83.7)	81.8 (81.8 to 81.9)	1.8	84.1 (83.8 to 84.4)	82.5 (82.4 to 82.5)	1.6	0.89	
Greenland	49.0 (48.2 to 49.8)	74.9 (74.9 to 75.0)	-25.9	66.6 (66.2 to 67.0)	79.1 (79.1 to 79.2)	-12.5	67.6 (67.2 to 68.0)	79.1 (79.1 to 79.2)	-11.5	70.6 (70.2 to 71.0)	80.9 (80.9 to 80.9)	-10.2	73.4 (72.8 to 74.1)	81.8 (81.8 to 81.9)	-8.4	0.86	
USA	71.4 (71.3 to 71.4)	75.3 (75.3 to 75.4)	-4.0	78.9 (78.8 to 78.9)	79.4 (79.4 to 79.5)	-0.6	79.4 (79.4 to 79.5)	80.1 (80.1 to 80.2)	-0.7	81.0 (81.0 to 81.1)	81.1 (81.1 to 81.2)	-0.1	81.1 (81.1 to 81.1)	82.2 (82.2 to 82.3)	-1.1	0.88	
Southern Latin America	62.6 (62.4 to 62.8)	70.5 (70.4 to 70.5)	-7.9	76.2 (76.1 to 76.3)	74.8 (74.7 to 74.8)	1.4	78.5 (78.4 to 78.6)	76.3 (76.2 to 76.3)	2.2	79.6 (79.6 to 79.7)	77.2 (77.2 to 77.2)	2.4	81.1 (80.8 to 81.4)	79.3 (79.2 to 79.3)	1.8	0.77	
Argentina	66.1 (65.9 to 66.3)	71.2 (71.1 to 71.2)	-5.1	75.8 (75.7 to 75.9)	74.9 (74.9 to 75.0)	0.9	77.9 (77.8 to 78.0)	76.3 (76.3 to 76.3)	1.6	78.9 (78.8 to 79.0)	77.1 (77.0 to 77.1)	1.8	80.3 (79.9 to 80.7)	79.1 (79.1 to 79.2)	1.2	0.76	
Chile	53.0 (52.7 to 53.3)	68.2 (68.1 to 68.3)	-15.2	76.9 (76.7 to 77.0)	74.5 (74.4 to 74.5)	2.4	80.1 (79.9 to 80.2)	76.3 (76.2 to 76.3)	3.8	81.6 (81.4 to 81.7)	77.6 (77.6 to 77.6)	4.0	83.3 (83.1 to 83.4)	79.9 (79.8 to 79.9)	3.4	0.79	
Uruguay	68.2 (67.8 to 68.6)	70.5 (70.4 to 70.5)	-2.3	76.8 (76.6 to 77.0)	74.5 (74.5 to 74.5)	2.3	78.5 (78.3 to 78.7)	75.6 (75.6 to 75.7)	2.9	80.0 (79.8 to 80.2)	76.8 (76.8 to 76.8)	3.2	80.6 (80.3 to 80.8)	78.6 (78.5 to 78.6)	2.0	0.75	
Western Europe	69.0 (68.9 to 69.0)	73.7 (73.6 to 73.7)	-4.7	79.6 (79.5 to 79.6)	78.8 (78.8 to 78.9)	0.7	81.6 (81.6 to 81.6)	80.0 (80.0 to 80.1)	1.6	83.5 (83.5 to 83.5)	80.9 (80.9 to 80.9)	2.6	84.4 (84.3 to 84.4)	82.0 (81.9 to 82.0)	2.4	0.86	
Andorra	74.3 (73.7 to 74.9)	74.5 (74.4 to 74.5)	-0.1	83.1 (82.7 to 83.4)	79.7 (79.7 to 79.8)	3.4	84.2 (83.9 to 84.5)	80.4 (80.4 to 80.5)	3.8	85.7 (85.3 to 86.0)	81.6 (81.5 to 81.6)	4.1	86.2 (85.6 to 86.8)	82.4 (82.3 to 82.4)	3.8	0.88	
Austria	67.9 (67.7 to 68.1)	74.9 (74.9 to 75.0)	-7.0	79.0 (78.9 to 79.1)	78.7 (78.6 to 78.8)	0.3	81.2 (81.1 to 81.3)	79.9 (79.8 to 79.9)	1.3	83.1 (83.0 to 83.2)	80.7 (80.7 to 80.7)	2.3	84.2 (84.1 to 84.4)	81.7 (81.7 to 81.7)	2.5	0.85	
Belgium	70.8 (70.4 to 71.2)	73.7 (73.6 to 73.7)	-2.9	79.3 (79.2 to 79.4)	78.8 (78.8 to 78.9)	0.4	81.0 (80.9 to 81.1)	80.0 (80.0 to 80.1)	1.0	82.6 (82.5 to 82.7)	81.0 (81.0 to 81.0)	1.6	84.2 (84.1 to 84.3)	82.2 (82.2 to 82.3)	2.0	0.88	
Cyprus	64.9 (63.8 to 66.0)	67.1 (67.0 to 67.2)	-2.2	77.4 (76.7 to 78.1)	76.0 (76.0 to 76.1)	1.4	79.4 (78.7 to 80.1)	78.7 (78.6 to 78.8)	0.7	81.6 (80.9 to 82.3)	80.7 (80.7 to 80.7)	0.9	82.6 (81.8 to 83.4)	81.7 (81.7 to 81.7)	0.9	0.86	
Denmark	71.6 (71.4 to 71.8)	75.1 (75.0 to 75.1)	-3.4	77.8 (77.7 to 78.0)	80.6 (80.6 to 80.6)	-2.7	79.1 (79.0 to 79.3)	81.6 (81.6 to 81.6)	-2.4	81.3 (81.2 to 81.5)	82.4 (82.4 to 82.4)	-1.0	83.6 (83.4 to 83.7)	83.3 (83.2 to 83.3)	0.3	0.92	
Finland	68.3 (68.1 to 68.6)	72.6 (72.5 to 72.6)	-4.3	79.1 (79.0 to 79.3)	79.3 (79.2 to 79.3)	-0.1	81.3 (81.1 to 81.4)	80.4 (80.4 to 80.5)	0.8	83.3 (83.2 to 83.5)	81.4 (81.4 to 81.4)	1.9	84.3 (84.1 to 84.4)	82.6 (82.6 to 82.7)	1.6	0.89	

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
France	69.8 (69.6 to 69.9)	71.6 (71.5 to 71.6)	-1.8	81.4 (81.4 to 81.5)	78.6 (78.5 to 78.6)	2.9	82.9 (82.9 to 83.0)	79.7 (79.7 to 79.8)	3.2	84.7 (84.6 to 84.7)	80.7 (80.7 to 80.7)	4.0	85.5 (85.4 to 85.5)	81.8 (81.8 to 81.9)	3.7	0.86
Germany	70.0 (69.7 to 70.3)	75.1 (75.0 to 75.1)	-5.1	78.6 (78.6 to 78.7)	80.0 (80.0 to 80.1)	-1.4	81.1 (81.1 to 81.2)	81.0 (81.0 to 81.0)	0.1	82.8 (82.8 to 82.9)	81.7 (81.7 to 81.7)	1.1	83.4 (83.1 to 83.6)	82.4 (82.3 to 82.4)	1.0	0.88
Greece	69.9 (69.5 to 70.3)	70.2 (70.2 to 70.3)	-0.3	79.4 (79.3 to 79.5)	76.9 (76.9 to 77.0)	2.5	80.8 (80.7 to 80.9)	78.7 (78.6 to 78.8)	2.1	82.8 (82.7 to 82.9)	80.0 (80.0 to 80.1)	2.8	83.8 (83.6 to 83.9)	81.0 (81.0 to 81.0)	2.8	0.83
Iceland	73.7 (73.3 to 74.2)	72.8 (72.7 to 72.8)	1.0	80.4 (80.1 to 80.7)	79.1 (79.1 to 79.2)	1.3	81.7 (81.4 to 82.0)	80.3 (80.3 to 80.3)	1.4	83.5 (83.2 to 83.8)	81.4 (81.4 to 81.4)	2.1	84.3 (83.8 to 84.6)	82.6 (82.6 to 82.7)	1.6	0.89
Ireland	67.1 (66.8 to 67.4)	74.1 (74.1 to 74.2)	-7.0	77.7 (77.6 to 77.9)	78.6 (78.5 to 78.6)	-0.8	79.4 (79.2 to 79.6)	80.3 (80.3 to 80.3)	-0.9	82.7 (82.6 to 82.9)	81.7 (81.7 to 81.7)	1.0	84.3 (84.1 to 84.5)	83.0 (82.9 to 83.1)	1.2	0.91
Israel	69.0 (68.7 to 69.4)	71.6 (71.5 to 71.6)	-2.6	79.1 (78.9 to 79.2)	78.1 (78.1 to 78.2)	0.9	81.1 (81.0 to 81.3)	79.3 (79.2 to 79.3)	1.8	83.7 (83.6 to 83.9)	80.0 (80.0 to 80.1)	3.7	85.3 (85.2 to 85.5)	81.3 (81.3 to 81.3)	4.1	0.84
Italy	67.4 (67.3 to 67.6)	70.9 (70.9 to 71.0)	-3.5	80.3 (80.2 to 80.3)	78.0 (78.0 to 78.1)	2.3	82.5 (82.4 to 82.5)	79.3 (79.2 to 79.3)	3.2	84.3 (84.2 to 84.3)	80.1 (80.1 to 80.2)	4.1	85.1 (85.1 to 85.2)	81.1 (81.1 to 81.2)	4.0	0.83
Luxembourg	68.8 (68.4 to 69.1)	74.5 (74.4 to 74.5)	-5.7	78.6 (78.3 to 78.8)	79.4 (79.4 to 79.5)	-0.8	81.1 (80.8 to 81.3)	80.7 (80.7 to 80.7)	0.4	83.3 (83.0 to 83.5)	81.7 (81.7 to 81.7)	1.6	85.1 (84.7 to 85.5)	82.8 (82.7 to 82.8)	2.4	0.89
Malta	65.8 (65.3 to 66.3)	65.6 (65.5 to 65.7)	0.2	78.4 (78.1 to 78.7)	76.4 (76.4 to 76.5)	2.0	80.5 (80.2 to 80.8)	78.0 (78.0 to 78.1)	2.5	82.9 (82.7 to 83.2)	79.3 (79.2 to 79.3)	3.7	84.7 (84.3 to 85.1)	81.0 (81.0 to 81.0)	3.7	0.83
Monaco	71.8 (70.8 to 72.9)	75.9 (75.8 to 75.9)	-4.1	79.7 (79.0 to 80.5)	81.4 (81.4 to 81.4)	-1.7	80.7 (80.0 to 81.4)	82.2 (82.2 to 82.3)	-1.5	81.9 (81.2 to 82.6)	82.9 (82.8 to 82.9)	-1.0	83.1 (82.1 to 84.1)	83.5 (83.4 to 83.6)	-0.4	0.92
Netherlands	72.5 (72.4 to 72.7)	75.6 (75.6 to 75.7)	-3.1	80.0 (79.9 to 80.1)	80.3 (80.3 to 80.3)	-0.3	80.6 (80.5 to 80.7)	81.4 (81.4 to 81.4)	-0.9	82.6 (82.5 to 82.7)	82.2 (82.2 to 82.3)	0.4	83.6 (83.5 to 83.7)	83.1 (83.1 to 83.2)	0.4	0.91
Norway	73.6 (73.3 to 73.8)	76.8 (76.8 to 76.8)	-3.2	79.8 (79.7 to 80.0)	80.3 (80.3 to 80.3)	-0.5	81.3 (81.2 to 81.5)	81.6 (81.5 to 81.6)	-0.2	83.2 (83.1 to 83.3)	82.4 (82.3 to 82.4)	0.8	84.6 (84.5 to 84.8)	83.3 (83.2 to 83.3)	1.4	0.92
Portugal	61.8 (61.4 to 62.0)	66.2 (66.1 to 66.3)	-4.4	77.7 (77.5 to 77.8)	75.1 (75.0 to 75.1)	2.6	80.3 (80.1 to 80.4)	76.9 (76.9 to 77.0)	3.3	83.1 (83.0 to 83.2)	78.3 (78.2 to 78.3)	4.8	84.8 (84.7 to 85.0)	79.7 (79.7 to 79.8)	5.1	0.79
San Marino	72.6 (71.5 to 73.6)	74.0 (73.9 to 74.0)	-1.4	82.2 (81.5 to 83.0)	79.7 (79.7 to 79.8)	2.5	84.1 (83.4 to 84.8)	81.1 (81.1 to 81.2)	3.0	86.8 (86.1 to 87.4)	81.8 (81.8 to 81.9)	5.0	87.2 (86.3 to 88.1)	82.5 (82.4 to 82.5)	4.7	0.88
Spain	64.4 (64.3 to 64.6)	68.2 (68.1 to 68.3)	-3.8	80.4 (80.3 to 80.5)	76.5 (76.5 to 76.6)	3.9	82.8 (82.8 to 82.9)	78.1 (78.1 to 78.2)	4.7	85.0 (84.9 to 85.0)	79.3 (79.2 to 79.3)	5.7	85.9 (85.8 to 85.9)	80.4 (80.4 to 80.5)	5.4	0.81

Table 2 continues on next page)

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Difference	
(Continued from previous page)																	
Sweden	72.5 (72.3 to 72.6)	75.8 (75.7 to 75.8)	-3.3	80.6 (80.5 to 80.7)	80.0 (80.0 to 80.1)	0.6	82.0 (81.9 to 82.1)	81.4 (81.4 to 81.4)	0.6	83.5 (83.4 to 83.6)	82.1 (82.1 to 82.1)	1.4	85.0 (84.9 to 85.1)	83.1 (83.1 to 83.2)	1.8	0.91	
Switzerland	71.1 (70.9 to 71.3)	78.8 (78.8 to 78.9)	-7.8	81.0 (80.9 to 81.2)	82.2 (82.2 to 82.3)	-1.2	82.9 (82.7 to 83.0)	82.8 (82.7 to 82.8)	0.1	84.6 (84.4 to 84.7)	83.4 (83.3 to 83.5)	1.2	86.2 (86.1 to 86.3)	84.0 (84.1 to 84.1)	2.2	0.95	
UK	70.9 (70.9 to 71.0)	75.1 (75.0 to 75.1)	-4.1	78.5 (78.4 to 78.5)	79.1 (79.1 to 79.2)	-0.6	80.3 (80.2 to 80.3)	80.3 (80.3 to 80.3)	-0.0	82.3 (82.3 to 82.4)	81.1 (81.1 to 81.2)	1.2	82.9 (82.9 to 83.0)	82.4 (82.4 to 82.4)	0.5	0.88	
England	71.5 (71.3 to 71.8)	75.5 (75.4 to 75.5)	-3.9	78.7 (78.6 to 78.8)	79.3 (79.2 to 79.3)	-0.6	80.5 (80.4 to 80.5)	80.4 (80.4 to 80.5)	0.0	82.6 (82.5 to 82.6)	81.1 (81.1 to 81.2)	1.4	83.2 (83.1 to 83.2)	82.5 (82.4 to 82.5)	0.7	0.88	
Northern Ireland	68.0 (67.1 to 69.0)	74.5 (74.4 to 74.5)	-6.5	77.6 (77.3 to 77.9)	78.8 (78.8 to 78.9)	-1.2	79.8 (79.6 to 80.1)	80.1 (80.1 to 80.2)	-0.3	81.8 (81.5 to 82.0)	80.9 (80.9 to 80.9)	0.9	82.5 (82.2 to 82.8)	82.0 (81.9 to 82.0)	0.5	0.86	
Scotland	67.5 (66.6 to 68.4)	73.3 (73.3 to 73.4)	-5.8	76.8 (76.6 to 77.0)	78.6 (78.5 to 78.6)	-1.8	78.6 (78.4 to 78.8)	80.0 (80.0 to 80.1)	-1.4	80.6 (80.4 to 80.8)	81.0 (81.0 to 81.0)	-0.4	81.1 (80.9 to 81.4)	82.4 (82.3 to 82.4)	-1.2	0.88	
Wales	69.9 (68.6 to 71.2)	71.6 (71.5 to 71.6)	-1.6	78.6 (78.1 to 79.1)	77.6 (77.6 to 77.6)	1.0	79.9 (79.5 to 80.4)	79.1 (79.1 to 79.2)	0.8	81.9 (81.5 to 82.4)	80.1 (80.1 to 80.2)	1.8	82.0 (81.4 to 82.6)	81.7 (81.7 to 81.7)	0.3	0.85	
Latin America and Caribbean	53.3 (52.8 to 53.9)	58.0 (57.9 to 58.2)	-4.7	73.2 (73.1 to 73.3)	71.4 (71.3 to 71.4)	1.9	76.0 (75.9 to 76.1)	73.3 (73.3 to 73.4)	2.7	76.4 (76.2 to 76.6)	75.1 (75.0 to 75.1)	1.4	79.0 (78.9 to 79.1)	76.7 (76.6 to 76.7)	2.3	0.67	
Andean Latin America	43.9 (43.2 to 44.6)	59.4 (59.3 to 59.5)	-15.5	72.6 (72.3 to 72.8)	71.2 (71.1 to 71.2)	1.4	75.4 (75.2 to 75.6)	72.8 (72.7 to 72.8)	2.6	78.4 (78.2 to 78.5)	74.8 (74.7 to 74.8)	3.6	78.4 (78.1 to 78.6)	76.8 (76.8 to 76.8)	1.6	0.68	
Bolivia	36.8 (35.7 to 38.1)	56.4 (56.3 to 56.6)	-19.6	65.6 (65.3 to 66.0)	67.4 (67.3 to 67.4)	-1.7	69.4 (69.0 to 69.7)	70.7 (70.7 to 70.8)	-1.3	71.9 (71.6 to 72.2)	73.1 (73.1 to 73.2)	-1.2	74.5 (73.9 to 75.2)	75.5 (75.4 to 75.5)	-0.9	0.63	
Ecuador	51.6 (50.7 to 52.5)	61.4 (61.3 to 61.4)	-9.8	73.3 (73.0 to 73.5)	72.4 (72.4 to 72.4)	0.9	74.6 (74.4 to 74.8)	73.3 (73.3 to 73.4)	1.3	78.5 (78.3 to 78.7)	74.9 (74.9 to 75.0)	3.6	79.9 (79.6 to 80.1)	77.1 (77.0 to 77.1)	2.8	0.69	
Peru	44.2 (43.1 to 45.2)	59.7 (59.6 to 59.8)	-15.5	74.8 (74.4 to 75.1)	71.6 (71.5 to 71.6)	3.2	78.1 (77.8 to 78.4)	73.1 (73.1 to 73.2)	5.0	80.7 (80.4 to 81.0)	75.1 (75.0 to 75.1)	5.7	79.0 (78.6 to 79.3)	76.9 (76.9 to 77.0)	2.0	0.69	
Caribbean	56.8 (56.2 to 57.5)	61.7 (61.7 to 61.7)	-4.9	69.8 (69.5 to 70.1)	72.4 (72.4 to 72.4)	-2.6	72.3 (72.0 to 72.6)	73.7 (73.6 to 73.7)	-1.4	75.0 (75.5 to 75.4)	75.2 (75.1 to 75.3)	-18.2	73.8 (73.3 to 74.4)	76.4 (76.4 to 76.5)	-2.6	0.66	
Antigua and Barbuda	60.9 (60.2 to 61.5)	61.0 (61.0 to 61.1)	-0.2	76.1 (75.8 to 76.5)	75.1 (75.0 to 75.1)	1.1	77.7 (77.4 to 78.1)	76.4 (76.4 to 76.5)	1.3	80.1 (79.8 to 80.4)	77.7 (77.7 to 77.8)	2.4	79.7 (79.2 to 80.3)	78.8 (78.8 to 78.9)	0.9	0.76	

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
The Bahamas	63.2 (62.5 to 64.0)	70.2 (70.2 to 70.3)	-7.0	74.7 (74.4 to 75.1)	77.3 (77.3 to 77.4)	-2.6	74.7 (74.4 to 75.0)	78.6 (78.5 to 78.6)	-3.9	75.5 (75.2 to 75.8)	79.4 (79.4 to 79.5)	-3.9	75.8 (75.2 to 76.4)	80.6 (80.6 to 80.6)	-4.8	0.81
Barbados	59.6 (58.9 to 60.2)	65.3 (65.2 to 65.4)	-5.7	76.4 (76.1 to 76.8)	76.3 (76.2 to 76.3)	0.1	77.6 (77.2 to 77.9)	76.9 (76.9 to 77.0)	0.6	79.5 (79.2 to 79.8)	77.9 (77.8 to 77.9)	1.6	79.0 (78.4 to 79.5)	78.8 (78.8 to 78.9)	0.1	0.75
Belize	60.3 (59.5 to 61.1)	59.0 (59.0 to 59.2)	1.3	75.5 (75.1 to 75.9)	67.6 (67.6 to 67.7)	7.8	73.6 (73.2 to 74.0)	71.4 (71.3 to 71.4)	2.2	76.5 (76.0 to 76.9)	73.7 (73.6 to 73.7)	2.8	78.0 (77.3 to 78.7)	75.5 (75.4 to 75.5)	2.5	0.63
Bermuda	67.5 (67.0 to 68.0)	67.1 (67.0 to 67.2)	0.4	78.1 (77.8 to 78.4)	77.3 (77.3 to 77.4)	0.8	80.0 (79.7 to 80.3)	78.4 (78.4 to 78.5)	1.5	83.3 (83.1 to 83.6)	79.7 (79.7 to 79.8)	3.6	83.4 (82.9 to 83.8)	80.9 (80.9 to 80.9)	2.5	0.83
Cuba	71.3 (70.4 to 72.3)	65.6 (65.5 to 65.7)	5.7	77.3 (76.9 to 77.7)	74.1 (74.1 to 74.2)	3.2	79.3 (78.9 to 79.7)	74.3 (74.3 to 74.4)	5.0	80.5 (80.2 to 80.9)	75.8 (75.7 to 75.8)	4.8	80.6 (79.4 to 81.7)	77.2 (77.2 to 77.2)	3.4	0.69
Dominica	58.3 (57.4 to 59.2)	63.7 (63.6 to 63.7)	-5.3	76.8 (76.5 to 77.2)	73.0 (72.9 to 73.0)	3.9	77.8 (77.4 to 78.1)	76.0 (76.0 to 76.1)	1.7	78.2 (77.9 to 78.5)	77.3 (77.3 to 77.4)	0.8	78.7 (78.2 to 79.3)	78.8 (78.8 to 78.9)	-0.1	0.75
Dominican Republic	56.5 (55.5 to 57.3)	49.4 (49.3 to 49.5)	7.0	73.4 (73.1 to 73.8)	68.5 (68.4 to 68.5)	5.0	77.3 (76.9 to 77.6)	70.9 (70.9 to 71.0)	6.3	78.2 (77.8 to 78.5)	73.8 (73.8 to 73.9)	4.4	76.4 (75.8 to 76.9)	76.3 (76.2 to 76.3)	0.1	0.66
Grenada	57.1 (55.8 to 58.3)	51.2 (51.2 to 51.3)	5.9	73.1 (72.4 to 73.7)	69.3 (69.2 to 69.3)	3.8	75.8 (75.2 to 76.4)	73.5 (73.4 to 73.5)	2.3	77.6 (76.9 to 78.2)	75.2 (75.1 to 75.3)	2.4	77.2 (76.0 to 78.3)	76.8 (76.8 to 76.8)	0.4	0.68
Guyana	55.1 (54.0 to 56.2)	57.7 (57.6 to 57.9)	-2.6	68.2 (67.4 to 68.9)	68.7 (68.7 to 68.8)	-0.6	69.7 (69.0 to 70.4)	72.0 (72.0 to 72.1)	-2.3	71.1 (70.4 to 71.8)	74.1 (74.1 to 74.2)	-3.0	72.5 (71.3 to 73.8)	77.2 (77.2 to 77.2)	-4.7	0.70
Haiti	38.2 (36.4 to 40.0)	52.9 (52.9 to 53.0)	-14.7	52.2 (51.4 to 53.1)	60.4 (60.3 to 60.4)	-8.1	56.8 (56.1 to 57.6)	64.0 (63.9 to 64.1)	-7.2	27.9 (26.1 to 29.7)	67.1 (67.0 to 67.2)	-39.1	62.2 (60.9 to 63.3)	69.3 (69.2 to 69.3)	-7.1	0.46
Jamaica	59.8 (58.7 to 60.8)	64.0 (63.9 to 64.1)	-4.2	76.4 (75.7 to 76.9)	72.8 (72.7 to 72.8)	3.6	76.5 (75.9 to 77.1)	74.8 (74.7 to 74.8)	1.7	79.2 (78.6 to 79.8)	76.0 (76.0 to 76.1)	3.2	78.9 (77.6 to 80.1)	77.1 (77.0 to 77.1)	1.8	0.69
Puerto Rico	62.4 (62.0 to 62.9)	66.5 (66.4 to 66.6)	-4.0	79.2 (79.0 to 79.4)	76.9 (76.9 to 77.0)	2.2	80.5 (80.3 to 80.7)	78.3 (78.2 to 78.3)	2.2	82.7 (82.6 to 83.0)	79.6 (79.5 to 79.6)	3.2	84.5 (84.2 to 84.8)	81.6 (81.5 to 81.6)	2.9	0.85
Saint Kitts and Nevis	66.1 (65.5 to 66.6)	42.7 (42.4 to 43.0)	23.3	71.5 (71.2 to 71.9)	74.0 (73.9 to 74.0)	-2.4	74.5 (74.2 to 74.8)	75.9 (75.8 to 75.9)	-1.4	76.9 (76.6 to 77.2)	77.6 (77.6 to 77.6)	-0.7	77.5 (76.9 to 78.0)	78.8 (78.8 to 78.9)	-1.4	0.75
Saint Lucia	55.7 (54.3 to 57.3)	57.7 (57.6 to 57.9)	-2.0	73.2 (72.5 to 73.9)	71.4 (71.3 to 71.4)	1.9	76.6 (75.9 to 77.3)	74.6 (74.6 to 74.7)	2.0	78.8 (78.1 to 79.4)	76.2 (76.1 to 76.2)	2.6	80.2 (79.0 to 81.3)	77.5 (77.4 to 77.5)	2.7	0.70
Saint Vincent and the Grenadines	59.1 (57.0 to 60.5)	57.1 (57.0 to 57.3)	2.0	74.0 (73.3 to 74.7)	70.2 (70.2 to 70.3)	3.8	74.3 (73.7 to 75.0)	72.6 (72.5 to 72.6)	1.7	76.1 (75.5 to 76.7)	74.3 (74.3 to 74.4)	1.8	77.9 (76.8 to 79.1)	76.3 (76.2 to 76.3)	1.7	0.66

Table 2 continues on next page)

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Difference	Difference
(Continued from previous page)																	
Suriname	63.7 (63.2 to 64.2)	59.0 (59.0 to 59.2)	4.6	73.5 (73.3 to 73.8)	71.8 (71.7 to 71.8)	1.8	74.0 (73.8 to 74.3)	73.3 (73.3 to 73.4)	0.7	75.4 (75.2 to 75.7)	75.1 (75.0 to 75.1)	0.4	75.9 (75.4 to 76.3)	76.2 (76.1 to 76.2)	-0.3	0.65	
Trinidad and Tobago	60.3 (59.8 to 60.9)	65.3 (65.2 to 65.4)	-5.0	71.4 (71.1 to 71.6)	75.1 (75.0 to 75.1)	-3.7	72.3 (72.0 to 72.6)	76.4 (76.4 to 76.5)	-4.1	76.2 (75.9 to 76.5)	78.1 (78.1 to 78.2)	-1.9	76.2 (75.8 to 76.7)	79.3 (79.2 to 79.3)	-3.0	0.77	
Virgin Islands	65.4 (64.5 to 66.4)	69.8 (69.7 to 69.8)	-4.4	75.0 (74.4 to 75.6)	76.3 (76.2 to 76.3)	-1.3	77.8 (77.2 to 78.3)	77.9 (77.9 to 77.9)	-0.1	80.7 (80.1 to 81.3)	79.4 (79.4 to 79.5)	1.3	81.6 (80.5 to 82.7)	81.0 (81.0 to 81.0)	0.6	0.83	
Central Latin America	52.7 (52.3 to 53.0)	58.7 (58.6 to 58.8)	-6.0	73.9 (73.8 to 74.0)	70.7 (70.7 to 70.8)	3.2	76.8 (76.7 to 76.9)	73.0 (72.9 to 73.0)	3.8	78.6 (78.6 to 78.7)	74.6 (74.6 to 74.7)	4.0	79.3 (79.2 to 79.5)	76.4 (76.4 to 76.5)	2.9	0.67	
Colombia	55.2 (54.7 to 55.6)	58.7 (58.6 to 58.8)	-3.6	75.4 (75.2 to 75.6)	70.7 (70.7 to 70.8)	4.7	77.7 (77.5 to 77.9)	73.0 (72.9 to 73.0)	4.7	81.1 (81.0 to 81.3)	74.9 (74.9 to 75.0)	6.2	83.2 (83.0 to 83.4)	77.1 (77.0 to 77.1)	6.1	0.69	
Costa Rica	60.2 (59.6 to 60.7)	61.4 (61.3 to 61.4)	-1.2	79.1 (78.8 to 79.3)	72.2 (72.2 to 72.3)	6.9	80.2 (79.9 to 80.4)	74.1 (74.1 to 74.2)	6.0	82.4 (82.2 to 82.6)	75.6 (75.6 to 75.7)	6.7	82.2 (81.9 to 82.4)	77.7 (77.7 to 77.8)	4.4	0.72	
El Salvador	49.0 (48.2 to 49.7)	54.2 (54.1 to 54.4)	-5.2	73.3 (73.0 to 73.6)	65.3 (65.2 to 65.4)	8.0	76.3 (76.0 to 76.6)	69.0 (68.9 to 69.1)	7.3	77.7 (77.4 to 78.0)	72.0 (72.0 to 72.1)	5.7	76.8 (76.1 to 77.5)	74.9 (74.9 to 75.0)	1.9	0.61	
Guatemala	43.9 (42.8 to 44.9)	53.6 (53.5 to 53.7)	-9.7	64.8 (64.3 to 65.3)	60.4 (60.3 to 60.4)	4.4	70.9 (70.4 to 71.3)	65.0 (64.9 to 65.0)	5.9	74.2 (73.8 to 74.6)	69.8 (69.7 to 69.8)	4.4	75.5 (74.4 to 76.5)	73.1 (73.1 to 73.2)	2.4	0.55	
Honduras	41.9 (41.2 to 42.7)	53.3 (53.2 to 53.4)	-11.3	73.0 (72.7 to 73.3)	61.4 (61.3 to 61.4)	11.6	74.1 (73.8 to 74.4)	64.6 (64.6 to 64.7)	9.5	75.7 (75.4 to 76.0)	68.7 (68.7 to 68.8)	6.9	77.6 (77.1 to 78.1)	71.8 (71.7 to 71.8)	5.8	0.52	
Mexico	51.9 (51.3 to 52.5)	59.0 (59.0 to 59.2)	-7.1	74.0 (73.8 to 74.1)	71.6 (71.5 to 71.6)	2.4	76.9 (76.8 to 77.0)	73.7 (73.6 to 73.7)	3.2	78.1 (78.0 to 78.2)	75.1 (75.0 to 75.1)	3.1	79.2 (79.1 to 79.4)	77.2 (77.2 to 77.2)	2.0	0.69	
Nicaragua	51.4 (49.8 to 53.1)	54.5 (54.4 to 54.7)	-3.1	73.9 (73.3 to 74.5)	62.7 (62.6 to 62.7)	11.2	77.7 (77.1 to 78.3)	67.1 (67.0 to 67.2)	10.6	77.7 (78.3 to 78.3)	69.8 (69.7 to 69.8)	8.0	79.2 (80.2 to 80.2)	72.4 (72.4 to 72.4)	6.8	0.54	
Panama	65.4 (64.9 to 65.9)	62.7 (62.6 to 62.7)	2.7	78.6 (78.3 to 78.9)	73.0 (72.9 to 73.0)	5.7	80.1 (79.9 to 80.4)	74.3 (74.3 to 74.4)	5.8	81.2 (81.0 to 81.5)	75.3 (75.3 to 75.4)	5.9	81.9 (81.4 to 82.3)	77.7 (77.7 to 77.8)	4.1	0.72	
Venezuela	60.1 (59.7 to 60.6)	61.4 (61.3 to 61.4)	-1.2	74.6 (74.5 to 74.8)	72.0 (72.0 to 72.1)	2.6	77.4 (77.2 to 77.5)	73.7 (73.6 to 73.7)	3.7	78.8 (78.6 to 78.9)	74.9 (74.9 to 75.0)	3.9	75.3 (74.7 to 75.9)	74.0 (73.9 to 74.0)	1.3	0.58	
Tropical Latin America	55.7 (54.2 to 57.0)	55.8 (55.7 to 56.0)	-0.1	73.6 (73.4 to 73.7)	71.4 (71.3 to 71.4)	2.2	76.2 (76.0 to 76.4)	73.5 (73.4 to 73.5)	2.7	78.5 (78.3 to 78.6)	75.5 (75.4 to 75.5)	3.0	80.1 (80.0 to 80.2)	76.9 (76.9 to 77.0)	3.2	0.68	

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
Brazil	55.4 (53.9 to 56.8)	55.5 (55.4 to 55.7)	-0.0	73.5 (73.3 to 73.6)	71.6 (71.5 to 71.6)	1.9	76.2 (76.0 to 76.3)	73.7 (73.6 to 73.7)	2.5	78.5 (78.4 to 78.7)	75.5 (75.4 to 75.5)	3.0	80.2 (80.0 to 80.3)	76.9 (76.9 to 77.0)	3.3	0.68
Paraguay	65.4 (64.8 to 66.1)	58.4 (58.3 to 58.5)	7.1	76.7 (76.4 to 77.0)	69.8 (69.7 to 69.8)	6.9	77.1 (76.8 to 77.4)	72.4 (72.4 to 72.4)	4.7	76.8 (76.5 to 77.0)	74.5 (74.4 to 74.5)	2.3	76.2 (75.6 to 76.9)	76.7 (76.6 to 76.7)	-0.4	0.67
North Africa and Middle East	43.1 (42.5 to 43.8)	52.9 (52.9 to 53.0)	-9.8	67.2 (67.0 to 67.3)	68.2 (68.1 to 68.3)	-1.0	70.9 (71.1 to 71.1)	72.0 (72.0 to 72.1)	-1.1	74.1 (74.0 to 74.3)	74.6 (74.6 to 74.7)	-0.5	75.4 (75.0 to 75.7)	76.9 (76.9 to 77.0)	-1.6	0.68
Afghanistan	50.1 (48.1 to 52.0)	46.3 (46.0 to 46.4)	3.9	59.8 (58.8 to 60.7)	51.2 (51.2 to 51.3)	8.5	62.1 (61.2 to 63.0)	51.2 (51.2 to 51.3)	10.8	66.3 (65.6 to 67.1)	55.8 (55.7 to 56.0)	10.5	69.0 (67.7 to 70.3)	61.4 (61.3 to 61.4)	7.6	0.33
Algeria	36.5 (35.2 to 37.8)	48.7 (48.6 to 48.8)	-12.1	69.9 (69.6 to 70.2)	68.5 (68.4 to 68.5)	1.4	73.6 (73.3 to 73.9)	71.8 (71.7 to 71.8)	1.8	75.7 (75.4 to 76.0)	74.5 (74.4 to 74.5)	1.3	77.6 (77.1 to 78.2)	76.3 (76.2 to 76.3)	1.3	0.66
Bahrain	49.0 (47.1 to 50.6)	54.5 (54.4 to 54.7)	-5.6	71.1 (70.3 to 71.7)	74.1 (74.1 to 74.2)	-3.1	72.3 (71.6 to 73.0)	75.9 (75.8 to 75.9)	-3.6	75.8 (75.1 to 76.4)	77.6 (77.6 to 77.6)	-1.8	79.1 (80.2 to 80.2)	79.7 (79.7 to 79.8)	-0.6	0.78
Egypt	39.6 (37.2 to 42.1)	55.8 (55.7 to 56.0)	-16.2	64.7 (64.4 to 64.9)	67.6 (67.6 to 67.7)	-3.0	68.7 (68.4 to 68.9)	71.8 (71.7 to 71.8)	-3.1	69.9 (69.7 to 70.1)	73.7 (73.6 to 73.7)	-3.8	71.1 (69.9 to 72.2)	76.7 (76.6 to 76.7)	-5.6	0.68
Iran	37.6 (36.1 to 39.1)	51.2 (51.2 to 51.3)	-13.7	67.8 (67.4 to 68.2)	68.7 (68.7 to 68.8)	-0.9	74.6 (74.2 to 74.9)	73.7 (73.6 to 73.7)	0.9	78.3 (78.0 to 78.6)	76.0 (76.0 to 76.1)	2.3	80.6 (80.1 to 81.1)	77.9 (77.8 to 77.9)	2.7	0.72
Iraq	59.1 (58.3 to 60.1)	49.8 (49.7 to 49.9)	9.3	70.3 (69.9 to 70.6)	67.4 (67.3 to 67.4)	2.9	70.9 (70.5 to 71.2)	69.8 (69.7 to 69.8)	1.1	71.8 (71.5 to 72.2)	72.2 (72.2 to 72.3)	-0.4	74.2 (73.5 to 74.8)	76.2 (76.1 to 76.2)	-2.0	0.65
Jordan	47.5 (46.4 to 48.6)	52.9 (52.9 to 53.0)	-5.4	74.1 (73.8 to 74.5)	73.0 (73.0 to 73.0)	1.2	74.0 (73.6 to 74.3)	74.5 (74.4 to 74.5)	-0.5	76.6 (76.4 to 76.9)	76.2 (76.1 to 76.2)	0.5	80.4 (79.9 to 80.9)	77.9 (77.8 to 77.9)	2.5	0.72
Kuwait	66.9 (66.2 to 67.5)	61.4 (61.3 to 61.4)	5.5	74.1 (73.8 to 74.4)	76.9 (76.9 to 77.0)	-2.8	76.5 (76.1 to 76.8)	78.4 (78.4 to 78.5)	-2.0	78.8 (78.4 to 79.1)	80.3 (80.3 to 80.3)	-1.5	81.7 (81.2 to 82.3)	82.2 (82.2 to 82.3)	-0.5	0.88
Lebanon	58.0 (56.1 to 59.8)	61.4 (61.3 to 61.4)	-3.3	77.2 (76.5 to 78.0)	73.5 (73.4 to 73.5)	3.7	80.6 (79.9 to 81.3)	74.8 (74.7 to 74.8)	5.9	82.0 (81.5 to 82.6)	76.3 (76.2 to 76.3)	5.8	80.9 (79.8 to 82.2)	78.0 (78.0 to 78.1)	2.9	0.72
Libya	35.9 (34.5 to 37.2)	49.4 (49.3 to 49.5)	-13.5	73.1 (72.7 to 73.5)	74.0 (73.9 to 74.0)	-0.9	75.0 (74.7 to 75.3)	76.8 (76.8 to 76.8)	-1.8	75.4 (75.1 to 75.7)	78.6 (78.5 to 78.6)	-3.1	70.0 (69.2 to 70.7)	79.3 (79.2 to 79.3)	-9.3	0.77
Morocco	38.8 (36.9 to 40.8)	45.0 (44.7 to 45.2)	-6.2	65.1 (64.5 to 65.7)	63.7 (63.6 to 63.7)	1.5	68.3 (67.7 to 68.9)	67.4 (67.3 to 67.4)	0.9	70.7 (70.2 to 71.3)	71.2 (71.1 to 71.2)	-0.4	72.8 (71.8 to 73.8)	74.9 (74.9 to 75.0)	-2.1	0.61

(Table 2 continues on next page)

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Difference	Difference
(Continued from previous page)																	
Oman	43.6 (41.8 to 45.4)	47.9 (47.7 to 48.0)	-4.3	72.7 (72.0 to 73.3)	68.2 (68.1 to 68.3)	4.5	76.8 (76.1 to 77.3)	75.2 (75.1 to 75.3)	1.6	77.7 (77.2 to 78.3)	77.7 (77.7 to 77.8)	-0.0	79.5 (78.6 to 80.3)	79.6 (79.5 to 79.6)	-0.1	0.78	
Palestine	54.0 (52.7 to 55.0)	49.1 (48.9 to 49.1)	4.9	73.4 (73.0 to 73.7)	66.8 (66.7 to 66.9)	6.6	74.9 (74.5 to 75.2)	69.8 (69.7 to 69.8)	5.1	76.2 (76.0 to 76.5)	72.2 (72.2 to 72.3)	4.0	72.0 (71.2 to 72.7)	75.8 (75.7 to 75.8)	-3.7	0.64	
Qatar	48.7 (46.7 to 50.6)	57.1 (57.0 to 57.3)	-8.4	72.4 (71.7 to 73.1)	75.5 (75.4 to 75.5)	-3.1	73.8 (73.1 to 74.6)	78.0 (78.0 to 78.1)	-4.2	77.8 (77.0 to 78.5)	80.0 (80.0 to 80.1)	-2.2	82.4 (81.3 to 83.5)	81.8 (81.8 to 81.9)	0.5	0.86	
Saudi Arabia	35.8 (33.5 to 38.1)	42.3 (41.9 to 42.6)	-6.5	71.6 (71.0 to 72.2)	68.2 (68.1 to 68.3)	3.4	75.6 (75.1 to 76.1)	75.9 (75.8 to 75.9)	-0.3	74.5 (74.1 to 74.9)	78.7 (78.6 to 78.8)	-4.2	75.6 (74.6 to 76.5)	81.0 (81.0 to 81.0)	-5.4	0.83	
Sudan	40.3 (38.1 to 42.4)	47.1 (46.9 to 47.2)	-6.8	57.4 (56.4 to 58.3)	59.4 (59.3 to 59.5)	-2.0	61.8 (60.9 to 62.5)	63.4 (63.3 to 63.4)	-1.6	67.2 (66.4 to 68.0)	69.3 (69.2 to 69.3)	-2.1	70.5 (69.3 to 71.7)	73.8 (73.8 to 73.9)	-3.3	0.57	
Syria	58.1 (57.1 to 59.0)	50.2 (50.1 to 50.2)	7.9	71.2 (70.9 to 71.6)	66.8 (66.7 to 66.9)	4.5	73.0 (72.8 to 73.2)	69.0 (68.9 to 69.1)	4.0	76.0 (75.8 to 76.2)	72.2 (72.2 to 72.3)	3.8	77.1 (76.6 to 77.6)	74.3 (74.3 to 74.4)	2.8	0.59	
Tunisia	44.6 (43.4 to 45.6)	49.8 (49.7 to 49.9)	-5.2	71.4 (71.1 to 71.8)	69.5 (69.4 to 69.6)	1.9	74.1 (73.8 to 74.5)	73.1 (73.1 to 73.2)	1.0	76.7 (76.4 to 77.0)	75.3 (75.3 to 75.4)	1.4	77.9 (77.5 to 78.4)	76.9 (76.9 to 77.0)	1.0	0.68	
Türkiye	51.3 (49.1 to 53.4)	56.7 (56.6 to 56.9)	-5.4	71.2 (70.8 to 71.6)	70.0 (69.9 to 70.0)	1.2	75.3 (75.0 to 75.7)	73.1 (73.1 to 73.2)	2.2	80.0 (79.7 to 80.3)	75.3 (75.3 to 75.4)	4.7	78.3 (77.2 to 79.4)	78.1 (78.1 to 78.2)	0.2	0.73	
United Arab Emirates	45.4 (43.8 to 47.0)	52.3 (52.2 to 52.3)	-6.9	71.9 (71.3 to 72.4)	75.9 (75.8 to 75.9)	-4.0	74.5 (74.0 to 75.1)	79.1 (79.1 to 79.2)	-4.6	77.3 (77.8 to 77.8)	81.1 (81.1 to 81.2)	-3.8	79.6 (80.4 to 80.4)	81.8 (81.8 to 81.9)	-2.2	0.86	
Yemen	43.0 (40.7 to 45.3)	43.2 (42.8 to 43.5)	-0.2	62.6 (61.7 to 63.4)	53.3 (53.2 to 53.4)	9.3	67.8 (67.1 to 68.6)	59.0 (59.0 to 59.2)	8.8	71.8 (71.0 to 72.5)	65.6 (65.5 to 65.7)	6.2	74.2 (72.9 to 75.3)	68.2 (68.1 to 68.3)	6.0	0.45	
South Asia	38.8 (37.3 to 40.3)	51.9 (51.9 to 52.0)	-13.1	59.0 (58.4 to 59.6)	61.0 (61.0 to 61.1)	-2.0	64.8 (64.4 to 65.2)	65.0 (64.9 to 65.0)	-0.1	69.3 (68.9 to 69.6)	69.0 (68.9 to 69.1)	0.3	72.4 (71.5 to 73.3)	74.1 (74.1 to 74.2)	-1.8	0.59	
Bangladesh	42.0 (40.1 to 43.7)	40.4 (39.9 to 40.7)	1.6	56.6 (55.8 to 57.4)	55.2 (55.0 to 55.3)	1.4	63.8 (63.1 to 64.4)	59.7 (59.6 to 59.8)	4.1	69.3 (68.7 to 69.9)	64.3 (64.3 to 64.4)	5.0	71.2 (70.1 to 72.2)	71.6 (71.5 to 71.6)	-0.4	0.52	
Bhutan	34.1 (31.9 to 36.2)	41.8 (41.4 to 42.1)	-7.7	58.7 (57.8 to 59.6)	54.5 (54.4 to 54.7)	4.2	63.0 (62.2 to 63.7)	59.7 (59.6 to 59.8)	3.3	69.5 (68.8 to 70.2)	66.5 (66.4 to 66.6)	3.0	72.4 (71.2 to 73.6)	72.0 (72.0 to 72.1)	0.4	0.52	
India	37.8 (35.9 to 39.7)	52.6 (52.6 to 52.7)	-14.8	58.9 (58.2 to 59.6)	61.7 (61.7 to 61.7)	-2.8	64.9 (64.4 to 65.4)	65.9 (65.8 to 66.0)	-1.0	69.6 (69.1 to 70.0)	69.8 (69.7 to 69.8)	-0.2	73.0 (71.8 to 74.1)	74.8 (74.7 to 74.8)	-1.8	0.61	
Nepal	44.7 (43.0 to 46.5)	45.8 (45.6 to 46.0)	-1.1	58.6 (57.7 to 59.4)	53.3 (53.2 to 53.4)	5.3	66.7 (66.0 to 67.3)	57.7 (57.6 to 57.9)	8.9	72.8 (72.1 to 73.4)	63.4 (63.3 to 63.4)	9.4	75.1 (74.0 to 76.3)	69.5 (69.4 to 69.6)	5.6	0.47	

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Difference	Difference
(Continued from previous page)																	
Pakistan	43.7 (41.9 to 45.4)	49.4 (49.3 to 49.5)	-5.7	62.6 (61.7 to 63.4)	60.0 (60.0 to 60.1)	2.6	65.1 (64.3 to 65.8)	63.7 (63.6 to 63.7)	1.4	67.3 (66.6 to 68.1)	67.4 (67.3 to 67.4)	-0.0	70.1 (68.8 to 71.3)	71.6 (71.5 to 71.6)	-1.5	0.51	
Southeast Asia, east Asia, and Oceania	49.1 (48.1 to 50.1)	53.3 (53.2 to 53.4)	-4.1	69.5 (69.0 to 70.0)	69.8 (69.7 to 69.8)	-0.3	72.7 (72.3 to 73.0)	73.1 (73.1 to 73.2)	-0.5	77.3 (77.0 to 77.6)	75.5 (75.4 to 75.5)	1.8	80.2 (79.6 to 81.0)	77.5 (77.4 to 77.5)	2.8	0.71	
East Asia	50.0 (48.6 to 51.3)	52.3 (52.2 to 52.3)	-2.3	70.0 (69.4 to 70.6)	69.8 (69.7 to 69.8)	0.2	73.2 (72.7 to 73.6)	73.3 (73.3 to 73.4)	-0.1	78.8 (78.4 to 79.3)	75.9 (75.8 to 75.9)	2.9	82.6 (81.7 to 83.6)	78.1 (78.1 to 78.2)	4.5	0.73	
China	50.1 (48.6 to 51.4)	51.9 (51.9 to 52.0)	-1.8	69.8 (69.2 to 70.4)	69.3 (69.2 to 69.3)	0.5	73.1 (72.6 to 73.6)	73.0 (72.9 to 73.0)	0.1	78.9 (78.4 to 79.3)	75.8 (75.7 to 75.8)	3.1	82.8 (81.8 to 83.7)	78.1 (78.1 to 78.2)	4.6	0.73	
North Korea	42.3 (40.7 to 43.8)	58.0 (57.9 to 58.2)	-15.7	74.7 (74.0 to 75.3)	70.9 (70.9 to 71.0)	3.7	71.9 (69.7 to 73.4)	70.9 (70.9 to 71.0)	1.0	75.3 (74.7 to 76.0)	72.6 (72.5 to 72.6)	2.7	76.0 (74.9 to 77.1)	73.8 (73.8 to 73.9)	2.2	0.58	
Taiwan*	59.4 (58.7 to 60.0)	58.4 (58.3 to 58.5)	1.0	77.0 (76.8 to 77.1)	76.8 (76.8 to 76.8)	0.2	79.7 (79.6 to 79.9)	79.0 (78.9 to 79.1)	0.8	82.6 (82.5 to 82.7)	81.0 (81.0 to 81.0)	1.6	83.9 (83.7 to 84.0)	82.4 (82.3 to 82.4)	1.5	0.88	
Oceania	49.6 (48.5 to 50.5)	53.9 (53.8 to 54.0)	-4.4	65.9 (65.3 to 66.3)	65.6 (65.5 to 65.7)	0.3	66.3 (65.8 to 66.9)	67.6 (67.6 to 67.7)	-1.3	66.9 (66.4 to 67.4)	68.7 (68.7 to 68.8)	-1.9	67.8 (66.9 to 68.6)	69.8 (69.7 to 69.8)	-2.0	0.48	
American Samoa	64.2 (63.2 to 65.3)	69.8 (69.7 to 69.8)	-5.5	73.2 (72.6 to 73.8)	75.0 (75.1 to 75.1)	-1.8	72.4 (71.7 to 73.0)	75.9 (75.8 to 75.9)	-3.5	72.6 (71.9 to 73.2)	76.7 (76.6 to 76.7)	-4.1	74.4 (73.2 to 75.5)	78.6 (78.5 to 78.6)	-4.2	0.74	
Cook Islands	53.8 (53.1 to 54.5)	64.6 (64.6 to 64.7)	-10.9	71.3 (71.0 to 71.6)	74.0 (73.9 to 74.0)	-2.7	73.9 (73.5 to 74.2)	76.4 (76.4 to 76.5)	-2.5	75.5 (75.2 to 75.9)	78.0 (78.0 to 78.1)	-2.5	76.5 (75.9 to 77.1)	79.4 (79.4 to 79.5)	-2.9	0.78	
Federated States of Micronesia	49.0 (48.3 to 49.8)	54.2 (54.1 to 54.4)	-5.2	68.0 (67.7 to 68.3)	69.3 (69.3 to 69.3)	-1.2	68.3 (68.0 to 68.6)	71.6 (71.6 to 71.6)	-3.3	70.1 (69.8 to 70.5)	73.0 (72.9 to 73.0)	-2.9	70.9 (70.3 to 71.5)	74.5 (74.4 to 74.5)	-3.5	0.60	
Fiji	60.2 (59.6 to 60.8)	59.0 (59.0 to 59.2)	1.1	70.6 (70.3 to 70.9)	72.6 (72.5 to 72.6)	-2.0	69.7 (69.4 to 70.0)	74.6 (74.6 to 74.7)	-4.9	69.2 (68.9 to 69.5)	75.6 (75.6 to 75.7)	-6.4	69.5 (68.9 to 70.0)	76.9 (76.9 to 77.0)	-7.5	0.69	
Guam	71.5 (71.1 to 72.0)	73.8 (73.8 to 73.9)	-2.3	77.2 (76.9 to 77.6)	76.8 (76.8 to 76.8)	0.4	78.6 (78.2 to 78.9)	78.0 (78.0 to 78.1)	0.6	80.4 (80.1 to 80.7)	78.6 (78.5 to 78.6)	1.8	79.5 (78.9 to 80.0)	80.4 (80.4 to 80.5)	-1.0	0.81	
Kiribati	51.6 (50.6 to 52.5)	58.4 (58.3 to 58.5)	-6.8	69.3 (68.9 to 69.7)	67.4 (67.3 to 67.4)	1.9	70.8 (70.4 to 71.2)	69.0 (68.9 to 69.1)	1.8	72.6 (72.2 to 72.9)	70.5 (70.4 to 70.5)	2.1	74.5 (73.7 to 75.2)	72.8 (72.7 to 72.8)	1.7	0.54	
Marshall Islands	48.6 (47.8 to 49.4)	54.9 (54.7 to 55.0)	-6.2	65.2 (64.9 to 65.5)	67.9 (67.8 to 68.0)	-2.7	64.7 (64.4 to 65.1)	70.0 (69.9 to 70.0)	-5.3	65.0 (64.6 to 65.3)	71.8 (71.7 to 71.8)	-6.8	65.2 (64.5 to 65.9)	74.8 (74.7 to 74.8)	-9.6	0.61	
Nauru	50.3 (49.7 to 51.0)	68.5 (68.4 to 68.5)	-18.1	61.3 (61.0 to 61.6)	73.3 (73.3 to 73.4)	-12.0	59.1 (58.7 to 59.4)	72.2 (72.2 to 72.3)	-13.1	59.4 (59.0 to 59.7)	72.4 (72.4 to 72.4)	-13.0	61.1 (60.4 to 61.7)	75.3 (75.3 to 75.4)	-14.2	0.63	

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Difference	Difference
(Continued from previous page)																	
Niue	55.7 (55.0 to 56.3)	62.4 (62.3 to 62.4)	-6.7	73.2 (72.9 to 73.5)	74.6 (74.6 to 74.7)	-1.4	73.7 (73.4 to 74.0)	75.9 (75.8 to 75.9)	-2.2	74.6 (74.3 to 74.9)	77.2 (77.2 to 77.2)	-2.6	74.8 (74.2 to 75.4)	78.7 (78.6 to 78.8)	-3.9	0.75	
Northern Mariana Islands	55.4 (56.0)	68.2 (68.1 to 68.3)	-12.8	71.7 (71.4 to 71.9)	77.7 (77.7 to 77.8)	-6.1	71.8 (71.5 to 72.1)	78.7 (78.6 to 78.8)	-6.9	72.3 (72.6)	79.0 (79.9 to 79.9)	-6.7	72.8 (72.3 to 73.4)	79.9 (79.8 to 79.9)	-7.0	0.79	
Palau	50.5 (49.7 to 51.2)	67.6 (67.6 to 67.7)	-17.2	69.0 (68.7 to 69.3)	76.9 (76.9 to 77.0)	-7.9	69.4 (69.2 to 69.8)	77.9 (77.8 to 77.9)	-8.4	70.0 (69.7 to 70.3)	78.3 (78.2 to 78.3)	-8.3	70.2 (69.6 to 70.8)	78.8 (78.8 to 78.9)	-8.7	0.76	
Papua New Guinea	45.2 (43.7 to 46.6)	48.3 (48.1 to 48.4)	-3.1	63.7 (63.0 to 64.4)	60.7 (60.7 to 60.8)	3.0	64.7 (63.9 to 65.4)	63.7 (63.6 to 63.7)	1.0	65.5 (64.8 to 66.3)	65.6 (65.5 to 65.7)	-0.1	67.0 (65.8 to 68.2)	67.4 (67.3 to 67.4)	-0.4	0.43	
Samoa	62.0 (61.3 to 62.8)	59.7 (59.6 to 59.8)	2.3	74.6 (74.3 to 74.9)	70.7 (70.7 to 70.8)	3.9	74.6 (74.3 to 75.0)	72.0 (72.0 to 72.1)	2.6	75.1 (74.8 to 75.4)	73.5 (73.4 to 73.5)	1.6	74.5 (73.9 to 75.1)	74.8 (74.7 to 74.8)	-0.2	0.60	
Solomon Islands	53.6 (52.9 to 54.2)	51.2 (51.2 to 51.3)	2.3	65.5 (65.2 to 65.9)	60.4 (60.3 to 60.4)	5.2	66.9 (66.5 to 67.2)	64.0 (63.9 to 64.1)	2.9	67.8 (67.5 to 68.1)	65.9 (65.8 to 66.0)	1.9	66.2 (65.5 to 66.8)	69.0 (68.9 to 69.1)	-2.8	0.46	
Tokelau	53.4 (52.6 to 54.1)	57.7 (57.6 to 57.9)	-4.3	73.7 (73.4 to 74.0)	73.1 (73.1 to 73.2)	0.6	74.2 (73.9 to 74.5)	74.8 (74.7 to 74.8)	-0.5	75.2 (74.9 to 75.5)	76.4 (76.4 to 76.5)	-1.2	76.1 (75.5 to 76.7)	78.7 (78.6 to 78.8)	-2.6	0.75	
Tonga	59.6 (58.9 to 60.3)	58.4 (58.3 to 58.5)	1.2	73.5 (73.2 to 73.8)	71.4 (71.3 to 71.4)	2.2	73.9 (73.5 to 74.2)	73.1 (73.1 to 73.2)	0.7	73.6 (73.2 to 73.9)	74.0 (74.0 to 74.0)	-0.4	72.9 (72.3 to 73.6)	75.6 (75.6 to 75.7)	-2.7	0.64	
Tuvalu	47.4 (46.5 to 48.3)	58.7 (58.6 to 58.8)	-11.3	63.1 (62.8 to 63.5)	68.2 (68.1 to 68.3)	-5.1	62.1 (61.7 to 62.6)	71.4 (71.3 to 71.4)	-9.2	66.1 (65.8 to 66.5)	73.1 (73.1 to 73.2)	-7.0	66.8 (66.2 to 67.4)	74.9 (74.9 to 75.0)	-8.1	0.61	
Vanuatu	58.4 (57.7 to 59.0)	53.3 (53.2 to 53.4)	5.1	71.5 (71.2 to 71.9)	63.0 (63.0 to 63.1)	8.5	72.2 (71.8 to 72.5)	65.3 (65.2 to 65.4)	6.9	73.2 (72.9 to 73.6)	67.4 (67.3 to 67.4)	5.9	73.3 (72.7 to 74.0)	69.8 (69.7 to 69.8)	3.6	0.48	
Southeast Asia	47.3 (46.3 to 48.2)	54.5 (54.4 to 54.7)	-7.3	69.2 (68.8 to 69.5)	69.5 (69.4 to 69.6)	-0.3	72.2 (71.9 to 72.5)	72.6 (72.5 to 72.6)	-0.4	74.5 (74.2 to 74.8)	74.3 (74.3 to 74.4)	0.2	76.2 (75.7 to 76.7)	76.3 (76.2 to 76.3)	-0.1	0.66	
Cambodia	47.2 (45.5 to 48.8)	52.3 (52.2 to 52.3)	-5.1	61.3 (60.4 to 62.1)	59.0 (59.0 to 59.2)	2.2	65.2 (64.4 to 66.0)	62.0 (62.0 to 62.1)	3.2	72.8 (72.1 to 73.5)	67.1 (67.0 to 67.2)	5.7	75.2 (74.1 to 76.3)	70.9 (70.9 to 71.0)	4.3	0.50	
Indonesia	43.1 (41.4 to 44.9)	52.9 (52.9 to 53.0)	-9.8	67.9 (67.0 to 68.8)	69.0 (68.9 to 69.1)	-1.1	72.0 (71.3 to 72.8)	72.4 (72.4 to 72.4)	-0.4	73.4 (72.6 to 74.2)	74.1 (74.1 to 74.2)	-0.7	75.2 (74.0 to 76.4)	76.4 (76.4 to 76.5)	-1.2	0.67	
Laos	35.9 (33.9 to 37.8)	48.7 (48.6 to 48.8)	-12.7	52.7 (51.6 to 53.8)	57.7 (57.6 to 57.9)	-5.0	59.0 (58.2 to 59.9)	61.4 (61.3 to 61.4)	-2.3	65.8 (65.0 to 66.5)	67.4 (67.3 to 67.4)	-1.6	67.2 (66.0 to 68.4)	71.6 (71.5 to 71.6)	-4.4	0.52	
Malaysia	51.6 (50.3 to 52.8)	54.2 (54.1 to 54.4)	-2.7	73.7 (73.3 to 74.1)	73.7 (73.6 to 73.7)	0.0	75.2 (74.9 to 75.5)	76.2 (76.1 to 76.2)	-1.0	77.2 (76.6 to 77.8)	77.6 (77.6 to 77.6)	-0.4	78.5 (78.1 to 78.9)	79.3 (79.2 to 79.3)	-0.8	0.77	

(Table 2 continues on next page)

	1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference		
(Continued from previous page)														
Maldives	39.5 (38.6 to 40.4)	52.9 (52.9 to 53.0)	-13.5	64.9 (64.6 to 65.2)	61.4 (61.3 to 61.4)	3.5	71.5 (71.2 to 71.8)	70.0 (69.9 to 70.0)	1.5	75.6 (75.3 to 75.8)	77.1 (76.5 to 77.6)	1.7	76.3 (76.2 to 76.3)	0.8
Mauritius	54.2 (53.5 to 54.8)	60.4 (60.3 to 60.4)	-6.2	73.9 (73.6 to 74.3)	73.3 (73.3 to 73.4)	0.6	75.5 (75.2 to 75.8)	75.2 (75.1 to 75.3)	0.3	77.5 (77.3 to 77.9)	77.6 (77.1 to 78.0)	0.9	78.3 (78.2 to 78.3)	-0.7
Myanmar	37.4 (35.4 to 39.2)	48.7 (48.6 to 48.8)	-11.3	59.2 (58.3 to 60.0)	60.7 (60.7 to 60.8)	-1.5	63.0 (62.2 to 63.8)	64.0 (63.9 to 64.1)	-1.0	67.5 (66.7 to 68.2)	69.4 (68.2 to 70.5)	-1.8	72.2 (72.2 to 72.3)	-2.8
Philippines	57.0 (56.3 to 57.7)	61.0 (61.0 to 61.1)	-4.0	72.2 (71.9 to 72.6)	71.6 (71.5 to 71.6)	0.7	74.2 (74.0 to 74.4)	73.0 (72.9 to 73.0)	1.2	74.4 (74.2 to 74.6)	75.4 (75.1 to 75.6)	0.6	76.5 (76.5 to 76.6)	-1.2
Seychelles	63.3 (62.8 to 63.9)	65.6 (65.5 to 65.7)	-2.2	75.4 (75.1 to 75.7)	74.5 (74.4 to 74.5)	1.0	76.8 (76.5 to 77.1)	76.5 (76.5 to 76.6)	0.3	77.5 (77.2 to 77.8)	78.5 (78.1 to 79.0)	0.2	78.8 (78.8 to 78.9)	-0.3
Sri Lanka	55.2 (54.8 to 55.6)	63.4 (63.3 to 63.4)	-8.2	74.0 (73.8 to 74.3)	72.8 (72.7 to 72.8)	1.2	76.6 (76.4 to 76.8)	74.6 (74.6 to 74.7)	2.0	77.8 (77.6 to 78.0)	79.5 (79.2 to 79.8)	1.6	78.1 (78.1 to 78.2)	1.3
Thailand	57.1 (56.6 to 57.5)	55.2 (55.0 to 55.3)	1.9	75.3 (75.2 to 75.5)	70.9 (70.9 to 71.0)	4.4	74.8 (74.6 to 75.0)	73.8 (73.8 to 73.9)	1.0	78.4 (78.3 to 78.5)	81.4 (81.2 to 81.7)	3.2	76.9 (76.9 to 77.0)	4.5
Timor-Leste	36.7 (34.8 to 38.8)	46.7 (46.5 to 46.8)	-9.9	58.2 (57.2 to 59.0)	57.4 (57.3 to 57.6)	0.8	64.4 (63.6 to 65.2)	62.7 (62.6 to 62.7)	1.7	69.4 (68.7 to 70.1)	70.1 (68.9 to 71.3)	3.5	70.2 (70.2 to 70.3)	-0.1
Viet Nam	56.1 (54.8 to 57.3)	53.9 (53.8 to 54.0)	2.2	73.5 (72.9 to 74.1)	66.5 (66.4 to 66.6)	7.0	77.2 (76.6 to 77.9)	70.9 (70.9 to 71.0)	6.3	78.6 (77.9 to 79.4)	80.2 (79.0 to 81.5)	5.0	75.9 (75.8 to 75.9)	4.4
Sub-Saharan Africa	45.8 (45.2 to 46.3)	49.4 (49.3 to 49.5)	-3.6	54.6 (54.3 to 54.9)	58.7 (58.6 to 58.8)	-4.1	54.5 (54.2 to 54.7)	61.0 (61.0 to 61.1)	-6.6	61.2 (61.0 to 61.4)	66.1 (65.8 to 66.4)	-3.4	69.8 (69.7 to 69.8)	-3.6
Central sub-Saharan Africa	45.7 (44.6 to 46.8)	49.4 (49.3 to 49.5)	-3.7	54.4 (53.7 to 55.0)	59.4 (59.3 to 59.5)	-5.0	54.6 (54.0 to 55.3)	60.7 (60.7 to 60.8)	-6.1	59.5 (59.0 to 60.0)	63.5 (62.7 to 64.4)	-5.1	70.0 (69.9 to 70.0)	-6.5
Angola	45.5 (43.7 to 47.3)	48.3 (48.1 to 48.4)	-2.8	54.0 (53.0 to 55.0)	57.4 (57.3 to 57.6)	-3.4	58.3 (57.4 to 59.2)	60.0 (60.0 to 60.1)	-1.7	64.1 (63.4 to 64.9)	67.9 (66.6 to 69.1)	-1.1	70.9 (70.9 to 71.0)	-3.0
Central African Republic	44.0 (42.3 to 45.7)	45.4 (45.2 to 45.6)	-1.4	50.2 (49.2 to 51.0)	52.9 (52.9 to 53.0)	-2.8	43.8 (42.8 to 44.8)	54.2 (54.1 to 54.4)	-10.4	50.9 (50.0 to 51.8)	55.9 (54.6 to 57.1)	-4.0	56.4 (56.3 to 56.6)	-0.6
Congo (Brazzaville)	38.2 (36.4 to 39.9)	50.5 (50.5 to 50.6)	-12.3	56.7 (55.8 to 57.6)	66.5 (66.4 to 66.6)	-9.8	55.9 (55.1 to 56.9)	68.7 (68.7 to 68.8)	-12.8	63.0 (62.3 to 63.7)	64.5 (63.3 to 65.8)	-7.7	74.0 (73.9 to 74.0)	-9.5
DR Congo	47.1 (45.3 to 48.7)	49.4 (49.3 to 49.5)	-2.3	54.6 (53.7 to 55.5)	58.4 (58.3 to 58.5)	-3.8	54.5 (53.6 to 55.4)	56.7 (56.6 to 56.9)	-2.3	58.5 (57.7 to 59.2)	62.6 (61.4 to 63.8)	0.4	65.3 (65.2 to 65.4)	-2.6

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Expected life expectancy	Difference
(Continued from previous page)																	
Equatorial Guinea	37.4 (35.6 to 39.1)	45.8 (45.6 to 46.0)	-8.5	52.5 (51.5 to 53.3)	57.1 (57.0 to 57.3)	-4.6	57.7 (56.9 to 58.6)	66.2 (66.1 to 66.3)	-8.4	61.9 (61.1 to 62.7)	72.8 (72.7 to 72.8)	-10.9	63.9 (62.5 to 65.2)	75.9 (75.8 to 75.9)	-12.0	0.65	
Gabon	41.4 (39.7 to 43.1)	50.2 (50.1 to 50.2)	-8.8	64.4 (63.7 to 65.1)	67.1 (67.0 to 67.2)	-2.7	62.5 (61.7 to 63.3)	71.2 (71.1 to 71.2)	-8.7	65.6 (64.8 to 66.3)	73.1 (73.1 to 73.2)	-7.5	67.8 (66.6 to 69.0)	75.5 (75.4 to 75.5)	-7.7	0.63	
Eastern sub-Saharan Africa	47.1 (46.5 to 47.6)	46.3 (46.0 to 46.4)	0.8	52.6 (52.2 to 52.9)	54.9 (54.7 to 55.0)	-2.3	53.3 (53.0 to 53.7)	56.7 (56.6 to 56.9)	-3.4	62.3 (62.0 to 62.6)	61.0 (61.0 to 61.1)	1.3	67.3 (66.9 to 67.7)	67.4 (67.3 to 67.4)	-0.1	0.43	
Burundi	43.6 (41.5 to 45.4)	44.5 (44.2 to 44.8)	-1.0	50.6 (49.6 to 51.6)	53.6 (53.5 to 53.7)	-3.0	49.3 (48.4 to 50.3)	54.2 (54.1 to 54.4)	-4.9	61.7 (60.9 to 62.5)	55.8 (55.7 to 56.0)	5.9	64.2 (63.1 to 65.4)	59.4 (59.3 to 59.5)	4.9	0.31	
Comoros	54.2 (52.8 to 55.6)	45.8 (45.6 to 46.0)	8.4	68.8 (68.1 to 69.6)	57.4 (57.3 to 57.6)	11.4	72.1 (71.4 to 72.8)	62.4 (62.3 to 62.4)	9.8	76.7 (76.0 to 77.4)	66.2 (66.1 to 66.3)	10.5	78.4 (77.2 to 79.5)	70.0 (69.9 to 70.0)	8.4	0.48	
Djibouti	52.8 (51.6 to 54.1)	50.2 (50.1 to 50.2)	2.6	64.0 (63.2 to 64.7)	61.4 (61.3 to 61.4)	2.6	65.1 (64.4 to 65.9)	63.0 (63.0 to 63.1)	2.1	66.7 (66.0 to 67.5)	65.6 (65.5 to 65.7)	1.1	69.9 (68.7 to 71.2)	70.5 (70.4 to 70.5)	-0.5	0.49	
Eritrea	38.4 (36.5 to 40.3)	41.8 (41.4 to 42.1)	-3.4	50.3 (49.3 to 51.2)	53.9 (53.8 to 54.0)	-3.6	58.2 (57.4 to 59.0)	60.4 (60.3 to 60.4)	-2.2	61.8 (61.0 to 62.6)	62.7 (62.6 to 62.7)	-0.9	64.5 (63.2 to 65.8)	66.5 (66.4 to 66.6)	-2.0	0.41	
Ethiopia	45.8 (44.3 to 47.5)	41.8 (41.4 to 42.1)	4.0	48.0 (47.0 to 49.0)	48.3 (48.1 to 48.4)	-0.3	52.0 (51.1 to 52.8)	50.2 (50.1 to 50.2)	1.8	62.4 (61.7 to 63.1)	55.8 (55.7 to 56.0)	6.6	66.7 (65.5 to 67.9)	65.3 (65.2 to 65.4)	1.4	0.39	
Kenya	49.6 (48.1 to 51.1)	45.8 (45.6 to 46.0)	3.8	63.9 (63.2 to 64.7)	61.7 (61.7 to 61.7)	2.2	58.9 (58.0 to 59.8)	64.6 (64.6 to 64.7)	-5.7	66.3 (65.6 to 67.0)	67.6 (67.6 to 67.7)	-1.3	71.7 (70.5 to 73.0)	73.0 (72.9 to 73.0)	-1.2	0.55	
Madagascar	46.0 (44.4 to 47.4)	47.9 (47.7 to 48.0)	-1.9	53.2 (52.4 to 54.1)	57.1 (57.0 to 57.3)	-3.9	58.5 (57.7 to 59.2)	57.4 (57.3 to 57.6)	1.1	62.2 (61.5 to 62.9)	59.0 (59.0 to 59.2)	3.1	63.9 (62.8 to 65.0)	64.3 (64.3 to 64.4)	-0.4	0.38	
Malawi	46.2 (44.2 to 48.1)	43.2 (42.8 to 43.5)	3.0	47.6 (46.6 to 48.6)	53.6 (53.5 to 53.7)	-6.0	45.9 (44.9 to 46.7)	55.5 (55.4 to 55.7)	-9.6	59.8 (59.0 to 60.6)	59.4 (59.3 to 59.5)	0.4	64.3 (63.0 to 65.6)	66.2 (66.1 to 66.3)	-1.9	0.41	
Mozambique	51.6 (49.9 to 53.3)	44.5 (44.2 to 44.8)	7.1	55.3 (54.3 to 56.4)	51.2 (51.2 to 51.3)	4.1	56.5 (55.6 to 57.4)	52.9 (52.9 to 53.0)	3.5	63.2 (62.4 to 64.0)	56.1 (56.0 to 56.3)	7.1	67.7 (66.6 to 68.9)	61.7 (61.7 to 61.7)	6.1	0.34	
Rwanda	39.6 (37.8 to 41.4)	47.5 (47.3 to 47.6)	-7.9	49.7 (48.8 to 50.7)	58.0 (57.9 to 58.2)	-8.3	49.5 (48.5 to 50.4)	58.4 (58.3 to 58.5)	-8.9	65.2 (64.5 to 65.9)	63.0 (63.0 to 63.1)	2.2	67.6 (66.5 to 68.7)	69.0 (68.9 to 69.1)	-1.4	0.46	
Somalia	56.2 (54.7 to 57.7)	37.9 (37.3 to 38.3)	18.4	54.5 (53.5 to 55.5)	40.4 (39.9 to 40.7)	14.1	56.3 (55.3 to 57.2)	40.8 (40.4 to 41.2)	15.4	54.7 (53.7 to 55.6)	46.7 (46.5 to 46.8)	8.0	67.0 (65.9 to 68.1)	54.5 (54.4 to 54.7)	12.5	0.23	
South Sudan	50.8 (49.2 to 52.1)	52.3 (52.2 to 52.3)	-1.5	53.3 (52.4 to 54.3)	57.7 (57.6 to 57.9)	-4.4	56.0 (55.1 to 56.8)	59.0 (59.0 to 59.2)	-3.0	58.6 (57.7 to 59.4)	62.7 (62.6 to 62.7)	-4.1	59.0 (57.8 to 60.2)	64.3 (64.3 to 64.4)	-5.3	0.38	

(Table 2 continues on next page)

(Table 2 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
Tanzania	46.9 (45.2 to 48.6)	45.0 (44.7 to 45.2)	1.9	56.3 (55.4 to 57.2)	56.7 (56.6 to 56.9)	-0.4	54.9 (54.0 to 55.8)	58.7 (58.6 to 58.8)	-3.8	63.4 (62.6 to 64.2)	63.0 (63.0 to 63.1)	0.4	71.1 (70.0 to 72.2)	69.3 (69.2 to 69.3)	1.9	0.47
Uganda	50.2 (48.7 to 51.7)	44.1 (43.8 to 44.3)	6.1	50.1 (49.1 to 51.0)	51.6 (51.6 to 51.6)	-1.5	51.2 (50.3 to 52.1)	54.5 (54.4 to 54.7)	-3.4	62.3 (63.0 to 63.0)	61.0 (61.0 to 61.1)	1.2	68.1 (66.9 to 69.3)	67.9 (67.8 to 68.0)	0.2	0.44
Zambia	45.4 (43.8 to 46.9)	47.9 (47.7 to 48.0)	-2.5	50.1 (49.1 to 51.0)	59.7 (59.6 to 59.8)	-9.6	43.8 (42.8 to 44.8)	60.4 (60.3 to 60.4)	-16.6	57.0 (56.3 to 57.8)	64.6 (64.6 to 64.7)	-7.6	62.6 (61.3 to 63.8)	71.2 (71.1 to 71.2)	-8.6	0.51
Southern sub-Saharan Africa	55.1 (54.0 to 56.1)	59.4 (59.3 to 59.5)	-4.3	70.8 (70.2 to 71.4)	71.6 (71.5 to 71.6)	-0.8	58.8 (58.5 to 59.1)	73.5 (73.4 to 73.5)	-14.7	60.4 (60.1 to 60.7)	74.8 (74.7 to 74.8)	-14.4	69.0 (68.7 to 69.4)	76.3 (76.2 to 76.3)	-7.3	0.66
Botswana	49.0 (48.1 to 49.8)	47.9 (47.7 to 48.0)	1.1	67.8 (67.5 to 68.2)	67.9 (67.8 to 68.0)	-0.1	51.5 (51.0 to 52.0)	72.8 (72.7 to 72.8)	-21.3	68.4 (68.1 to 68.8)	75.3 (75.3 to 75.4)	-6.9	72.7 (72.0 to 73.3)	76.8 (76.8 to 76.8)	-4.1	0.68
Eswatini	40.0 (38.3 to 41.5)	47.9 (47.7 to 48.0)	-7.9	60.6 (59.8 to 61.4)	65.6 (65.5 to 65.7)	-4.9	53.9 (52.9 to 54.9)	69.8 (69.7 to 69.8)	-15.9	51.4 (50.3 to 52.5)	72.4 (72.4 to 72.4)	-21.0	62.4 (61.0 to 63.9)	74.8 (74.7 to 74.8)	-12.4	0.61
Lesotho	50.0 (48.8 to 51.2)	50.5 (50.5 to 50.6)	-0.5	62.0 (61.4 to 62.7)	62.0 (62.0 to 62.1)	-0.0	50.4 (49.4 to 51.4)	65.6 (65.5 to 65.7)	-15.1	56.2 (55.3 to 57.1)	68.5 (68.4 to 68.5)	-12.2	60.4 (59.1 to 61.8)	71.4 (71.3 to 71.4)	-11.0	0.51
Namibia	47.1 (46.3 to 47.9)	52.9 (52.9 to 53.0)	-5.8	64.1 (63.7 to 64.5)	67.6 (67.6 to 67.7)	-3.5	57.9 (57.5 to 58.3)	70.7 (70.7 to 70.8)	-12.8	65.4 (65.0 to 65.7)	72.8 (72.7 to 72.8)	-7.4	69.1 (68.5 to 69.8)	75.2 (75.1 to 75.3)	-6.1	0.62
South Africa	56.3 (54.8 to 57.7)	61.7 (61.7 to 61.7)	-5.4	72.5 (71.6 to 73.3)	72.8 (72.7 to 72.8)	-0.3	62.3 (61.9 to 62.6)	74.6 (74.6 to 74.7)	-12.4	60.8 (60.4 to 61.2)	75.8 (75.7 to 75.8)	-14.9	69.7 (69.4 to 70.1)	77.2 (77.2 to 77.2)	-7.5	0.70
Zimbabwe	55.4 (54.1 to 56.7)	51.2 (51.2 to 51.3)	4.2	68.6 (67.9 to 69.4)	66.5 (66.4 to 66.6)	2.1	49.3 (48.3 to 50.3)	68.7 (68.7 to 68.8)	-19.4	58.6 (57.7 to 59.4)	67.4 (67.3 to 67.4)	-8.8	68.4 (67.1 to 69.7)	70.5 (70.4 to 70.5)	-2.1	0.49
Western sub-Saharan Africa	42.9 (41.7 to 44.0)	48.3 (48.1 to 48.4)	-5.3	53.2 (52.7 to 53.7)	57.1 (57.0 to 57.3)	-3.9	54.8 (54.4 to 55.3)	59.7 (59.6 to 59.8)	-4.9	61.2 (60.8 to 61.6)	63.7 (63.6 to 63.7)	-2.5	65.5 (65.0 to 66.0)	69.0 (68.9 to 69.1)	-3.5	0.46
Benin	47.0 (44.9 to 49.0)	45.8 (45.6 to 46.0)	1.2	57.7 (56.7 to 58.7)	53.9 (53.8 to 54.0)	3.8	61.1 (60.3 to 61.9)	56.1 (56.0 to 56.3)	5.0	65.9 (65.1 to 66.7)	59.0 (59.0 to 59.2)	6.8	69.2 (68.1 to 70.3)	65.9 (65.8 to 66.0)	3.3	0.41
Burkina Faso	47.6 (45.5 to 49.4)	41.3 (40.9 to 41.6)	6.3	51.8 (50.7 to 52.9)	47.9 (47.7 to 48.0)	4.0	55.8 (54.9 to 56.8)	50.9 (50.9 to 50.9)	4.9	65.5 (64.7 to 66.2)	54.2 (54.1 to 54.4)	11.2	70.1 (69.1 to 71.2)	59.4 (59.3 to 59.5)	10.8	0.31
Cabo Verde	60.7 (59.3 to 62.0)	49.4 (49.3 to 49.5)	11.3	72.3 (71.8 to 72.9)	58.4 (58.3 to 58.5)	14.0	75.5 (74.9 to 76.0)	64.0 (63.9 to 64.1)	11.5	78.5 (78.0 to 79.1)	69.5 (69.4 to 69.6)	9.0	78.5 (77.6 to 79.5)	73.3 (73.3 to 73.4)	5.2	0.56
Cameroon	41.6 (39.5 to 43.4)	47.9 (47.7 to 48.0)	-6.3	56.8 (56.0 to 57.6)	59.4 (59.3 to 59.5)	-2.5	52.8 (52.0 to 53.7)	62.4 (62.3 to 62.4)	-9.5	56.5 (55.7 to 57.4)	65.3 (65.2 to 65.4)	-8.7	62.9 (61.7 to 64.0)	70.2 (70.2 to 70.3)	-7.3	0.49

Table 2 continues on next page)

(Table 2 continues on next page)

(Continued from previous page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Life expectancy	Difference
Chad	47.0 (45.4 to 48.6)	41.8 (41.4 to 42.1)	5.2	49.7 (48.7 to 50.7)	46.3 (46.0 to 46.4)	3.5	51.3 (50.4 to 52.3)	48.3 (48.1 to 48.4)	3.0	56.3 (55.5 to 57.1)	51.6 (51.6 to 51.6)	4.7	59.7 (58.6 to 60.8)	55.2 (55.0 to 55.3)	4.6	0.24	
Côte d'Ivoire	44.3 (42.5 to 46.0)	46.7 (46.5 to 46.8)	-2.3	56.2 (55.4 to 57.1)	58.0 (57.9 to 58.2)	-1.8	52.2 (51.4 to 53.1)	61.4 (61.3 to 61.4)	-9.1	60.9 (60.1 to 61.7)	63.4 (63.3 to 63.4)	-2.5	66.2 (65.0 to 67.3)	68.5 (68.4 to 68.5)	-2.3	0.45	
The Gambia	51.5 (49.8 to 53.1)	47.9 (47.7 to 48.0)	3.6	63.2 (62.4 to 63.9)	55.5 (55.4 to 55.7)	7.7	65.0 (64.2 to 65.7)	59.4 (59.3 to 59.5)	5.6	67.5 (66.7 to 68.1)	62.7 (62.6 to 62.7)	4.8	68.6 (67.4 to 69.7)	67.6 (67.6 to 67.7)	0.9	0.43	
Ghana	48.5 (46.8 to 49.9)	54.9 (54.7 to 55.0)	-6.4	58.4 (57.6 to 59.3)	64.0 (63.9 to 64.1)	-5.6	61.0 (60.3 to 61.7)	67.6 (67.6 to 67.7)	-6.7	65.6 (64.8 to 66.3)	70.2 (70.2 to 70.3)	-4.7	68.0 (66.9 to 69.2)	73.8 (73.8 to 73.9)	-5.8	0.57	
Guinea	39.0 (37.0 to 41.0)	41.8 (41.4 to 42.1)	-2.8	49.3 (48.2 to 50.4)	51.6 (51.6 to 51.6)	-2.3	54.7 (53.8 to 55.6)	54.2 (54.1 to 54.4)	0.5	59.7 (59.0 to 60.5)	56.7 (56.6 to 56.9)	3.0	63.4 (62.3 to 64.6)	62.7 (62.6 to 62.7)	0.8	0.36	
Guinea-Bissau	40.5 (38.6 to 42.4)	42.3 (41.9 to 42.6)	-1.8	52.8 (51.9 to 53.8)	53.3 (53.2 to 53.4)	-0.4	55.6 (54.7 to 56.5)	56.1 (56.0 to 56.3)	-0.5	58.6 (57.8 to 60.0)	58.7 (58.6 to 58.8)	-0.1	61.9 (60.7 to 63.0)	64.0 (63.9 to 64.1)	-2.1	0.37	
Liberia	46.7 (44.9 to 48.4)	49.1 (48.9 to 49.1)	-2.4	51.0 (50.0 to 52.0)	55.5 (55.4 to 55.7)	-4.5	54.0 (53.0 to 54.9)	54.9 (54.7 to 55.0)	-0.9	59.2 (58.4 to 60.0)	58.4 (58.3 to 58.5)	0.8	62.7 (61.5 to 63.9)	64.6 (64.6 to 64.7)	-1.9	0.38	
Mali	42.1 (39.8 to 44.2)	41.8 (41.4 to 42.1)	0.3	48.9 (47.8 to 50.0)	47.5 (47.3 to 47.6)	1.5	54.5 (53.5 to 55.3)	49.8 (49.7 to 49.9)	4.7	62.7 (61.9 to 63.5)	52.9 (52.9 to 53.0)	9.7	64.9 (63.8 to 66.1)	58.0 (57.9 to 58.2)	6.9	0.28	
Mauritania	53.5 (52.2 to 54.8)	52.9 (52.9 to 53.0)	0.6	61.9 (61.1 to 62.6)	61.7 (61.7 to 61.7)	0.2	65.2 (64.5 to 65.9)	65.0 (65.0 to 65.0)	0.3	67.2 (66.6 to 67.9)	67.1 (67.0 to 67.2)	0.2	68.8 (67.6 to 69.8)	71.8 (71.7 to 71.8)	-3.0	0.52	
Niger	42.8 (40.5 to 45.1)	40.4 (39.9 to 40.7)	2.5	43.1 (41.8 to 44.4)	43.6 (43.3 to 43.9)	-0.5	48.9 (47.8 to 50.0)	45.8 (45.6 to 46.0)	3.1	57.0 (56.1 to 57.8)	48.3 (48.1 to 48.4)	8.7	60.6 (59.4 to 61.6)	52.9 (52.9 to 53.0)	7.6	0.20	
Nigeria	40.8 (38.5 to 42.9)	49.1 (48.9 to 49.1)	-8.3	52.8 (51.7 to 53.9)	59.0 (59.0 to 59.2)	-6.2	54.4 (53.5 to 55.3)	61.0 (61.0 to 61.1)	-6.6	61.1 (60.3 to 61.9)	65.9 (65.8 to 66.0)	-4.8	65.9 (64.9 to 67.1)	71.4 (71.3 to 71.4)	-5.5	0.51	
São Tomé and Príncipe	49.8 (47.9 to 51.7)	51.6 (51.6 to 51.6)	-1.8	65.4 (64.7 to 66.2)	60.4 (60.3 to 60.4)	5.1	66.8 (66.1 to 67.5)	61.7 (61.7 to 61.7)	5.1	68.8 (68.2 to 69.5)	65.9 (65.8 to 66.0)	3.0	72.1 (71.0 to 73.2)	72.0 (72.0 to 72.1)	0.1	0.52	
Senegal	49.9 (48.0 to 51.7)	44.5 (44.2 to 44.8)	5.3	60.1 (59.2 to 60.9)	55.2 (55.0 to 55.3)	5.0	64.3 (63.6 to 65.2)	58.4 (58.3 to 58.5)	6.0	69.3 (68.6 to 70.0)	61.0 (61.0 to 61.1)	8.2	71.7 (70.7 to 72.9)	66.5 (66.4 to 66.6)	5.3	0.41	
Sierra Leone	44.2 (42.4 to 45.9)	47.1 (46.9 to 47.2)	-2.9	49.6 (48.6 to 50.6)	53.6 (53.5 to 53.7)	-4.0	50.8 (49.8 to 51.8)	53.9 (53.8 to 54.0)	-3.1	55.7 (54.9 to 56.6)	58.0 (57.9 to 58.2)	-2.3	60.8 (59.6 to 61.9)	64.6 (64.6 to 64.7)	-3.9	0.38	
Togo	43.0 (41.0 to 44.8)	45.8 (45.6 to 46.0)	-2.9	58.2 (57.3 to 59.1)	58.4 (58.3 to 58.5)	-0.1	57.9 (57.1 to 58.7)	61.0 (61.0 to 61.1)	-3.1	61.3 (60.5 to 62.1)	63.4 (63.3 to 63.4)	-2.1	66.2 (65.1 to 67.4)	69.0 (68.9 to 69.1)	-2.8	0.46	

Data in parentheses are 95% uncertainty intervals. Life expectancies and differences between estimated and expected life expectancies are given in years. A positive difference indicates that the estimated life expectancy is better than would be expected solely on the basis of SDI, while a negative difference indicates worse than expected life expectancy. SDI—Socio-demographic Index. GBD—Global Burden of Diseases, Injuries, and Risk Factors Study. *UN convention recognises Taiwan as a province of China.

Table 2: Female life expectancy (estimated, expected based on SDI, and their difference) for 1950, 1990, 2000, 2010, and 2023, globally and for GBD super-regions, regions, and countries and territories

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Life expectancy	Difference
Global	47.9 (47.4 to 48.4)	59.8 (59.8 to 59.9)	-11.9	62.2 (62.0 to 62.4)	67.0 (66.9 to 67.0)	-4.8	64.5 (64.4 to 64.7)	68.3 (68.2 to 68.4)	-3.8	68.4 (68.3 to 68.6)	69.4 (69.3 to 69.5)	-1.0	71.5 (71.2 to 71.8)	70.8 (70.7 to 70.8)	0.7	0.68	
Central Europe, eastern Europe, and central Asia	58.8 (58.6 to 59.0)	66.7 (66.6 to 66.7)	-7.8	64.8 (64.7 to 64.8)	69.9 (69.8 to 69.9)	-5.1	63.2 (63.1 to 63.2)	70.9 (70.8 to 70.9)	-7.7	66.6 (66.5 to 66.6)	72.2 (72.2 to 72.3)	-5.7	69.9 (69.5 to 70.1)	73.6 (73.5 to 73.7)	-3.8	0.78	
Central Asia	52.4 (51.8 to 52.9)	63.2 (63.1 to 63.2)	-10.8	63.5 (63.3 to 63.7)	67.9 (67.8 to 67.9)	-4.4	63.8 (63.6 to 64.0)	68.6 (68.5 to 68.6)	-4.8	66.6 (66.5 to 66.8)	69.7 (69.7 to 69.8)	-3.1	70.5 (70.3 to 70.7)	70.5 (70.5 to 70.6)	0.0	0.67	
Armenia	56.4 (54.8 to 57.9)	64.1 (64.0 to 64.1)	-7.7	67.0 (66.5 to 67.5)	67.5 (67.4 to 67.5)	-0.4	69.7 (69.1 to 70.2)	68.6 (68.5 to 68.6)	1.1	70.7 (70.1 to 71.1)	70.2 (70.1 to 70.2)	0.5	76.3 (75.5 to 77.1)	71.6 (71.6 to 71.7)	4.7	0.72	
Azerbaijan	44.6 (42.8 to 46.4)	62.2 (62.1 to 62.3)	-17.6	62.1 (61.5 to 62.6)	69.1 (69.0 to 69.1)	-7.0	65.3 (64.8 to 65.9)	68.6 (68.5 to 68.6)	-3.2	68.8 (68.4 to 69.2)	70.2 (70.1 to 70.2)	-1.4	69.9 (69.2 to 70.6)	71.4 (71.3 to 71.4)	-1.5	0.71	
Georgia	55.2 (54.0 to 56.5)	67.8 (67.7 to 67.8)	-12.5	65.1 (64.6 to 65.5)	70.4 (70.4 to 70.4)	-5.3	65.7 (65.0 to 66.5)	69.7 (69.7 to 69.8)	-4.0	67.0 (66.5 to 67.4)	70.8 (70.7 to 70.8)	-3.8	70.1 (69.4 to 70.7)	72.9 (72.8 to 73.0)	-2.8	0.75	
Kazakhstan	55.9 (54.7 to 57.1)	64.1 (64.0 to 64.1)	-8.2	62.9 (62.6 to 63.3)	68.8 (68.8 to 68.9)	-5.9	60.7 (60.3 to 61.0)	70.1 (70.0 to 70.1)	-9.4	63.8 (63.5 to 64.2)	71.0 (71.0 to 71.0)	-7.2	70.8 (70.3 to 71.2)	71.9 (71.9 to 72.0)	-1.1	0.73	
Kyrgyzstan	49.5 (48.0 to 50.9)	63.2 (63.1 to 63.2)	-13.7	62.7 (62.1 to 63.2)	66.8 (66.8 to 66.9)	-4.2	62.9 (62.3 to 63.4)	67.5 (67.4 to 67.5)	-4.6	65.4 (64.9 to 65.8)	67.8 (67.7 to 67.8)	-2.4	72.5 (71.8 to 73.2)	69.5 (69.5 to 69.6)	3.0	0.63	
Mongolia	45.2 (43.3 to 47.0)	55.7 (55.7 to 55.8)	-10.5	58.1 (57.4 to 58.7)	64.9 (64.9 to 65.0)	-6.9	61.1 (60.5 to 61.7)	67.3 (67.3 to 67.4)	-6.2	62.7 (62.1 to 63.3)	68.8 (68.8 to 68.9)	-6.1	68.0 (67.1 to 68.9)	70.3 (70.2 to 70.3)	-2.3	0.66	
Tajikistan	47.9 (46.2 to 49.6)	56.6 (56.6 to 56.7)	-8.7	63.6 (62.9 to 64.2)	65.2 (65.1 to 65.2)	-1.6	65.8 (65.2 to 66.4)	64.1 (64.0 to 64.1)	1.7	69.9 (69.4 to 70.4)	65.9 (65.9 to 66.0)	4.0	70.6 (69.5 to 71.7)	67.6 (67.6 to 67.7)	3.0	0.55	
Turkmenistan	49.3 (47.7 to 50.8)	63.4 (63.3 to 63.5)	-14.1	62.5 (61.9 to 63.1)	68.3 (68.2 to 68.4)	-5.8	62.9 (62.3 to 63.5)	68.5 (68.5 to 68.5)	-5.5	66.0 (65.5 to 66.6)	69.6 (69.6 to 69.7)	-3.6	68.2 (67.0 to 69.5)	70.8 (70.7 to 70.8)	-2.5	0.68	
Uzbekistan	54.4 (53.0 to 55.8)	59.8 (59.8 to 59.9)	-5.4	65.2 (64.9 to 65.6)	66.3 (66.3 to 66.3)	-1.1	65.3 (65.0 to 65.6)	67.9 (67.8 to 67.9)	-2.6	67.5 (67.2 to 67.9)	69.3 (69.2 to 69.3)	-1.8	70.0 (69.6 to 70.3)	69.6 (69.6 to 69.7)	0.3	0.63	
Central Europe	57.5 (57.3 to 57.7)	64.9 (64.9 to 65.0)	-7.5	67.1 (67.0 to 67.2)	69.7 (69.7 to 69.8)	-2.6	69.2 (69.2 to 69.3)	71.1 (71.1 to 71.2)	-1.9	72.0 (71.9 to 72.0)	72.9 (72.8 to 73.0)	-0.9	74.4 (74.3 to 74.5)	75.0 (74.9 to 75.0)	-0.5	0.81	
Albania	53.8 (52.4 to 55.2)	58.4 (58.3 to 58.5)	-4.6	69.2 (68.6 to 69.7)	67.5 (67.5 to 67.5)	1.7	72.4 (72.0 to 72.9)	68.2 (68.1 to 68.2)	4.3	75.9 (75.4 to 76.4)	69.9 (69.8 to 69.9)	6.0	77.3 (76.6 to 77.9)	71.4 (71.3 to 71.4)	5.9	0.71	
Bosnia and Herzegovina	50.7 (50.0 to 51.3)	56.0 (56.0 to 56.1)	-5.4	69.5 (69.2 to 69.8)	66.8 (66.8 to 66.9)	2.7	72.2 (71.9 to 72.6)	68.6 (68.5 to 68.6)	3.7	73.7 (73.5 to 74.0)	70.3 (70.2 to 70.3)	3.4	75.3 (74.6 to 76.0)	71.6 (71.6 to 71.7)	3.7	0.71	
Bulgaria	58.3 (57.9 to 58.7)	63.9 (63.8 to 63.9)	-5.6	68.0 (67.9 to 68.2)	69.5 (69.5 to 69.6)	-1.5	68.2 (68.1 to 68.4)	70.6 (70.6 to 70.7)	-2.4	70.6 (70.4 to 70.8)	72.1 (72.0 to 72.2)	-1.5	72.5 (72.2 to 72.7)	73.4 (73.3 to 73.6)	-1.0	0.77	

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Life expectancy	SDI
(Continued from previous page)																	
Croatia	54.3 (54.0 to 54.7)	64.5 (64.5 to 64.6)	-10.2	68.8 (68.5 to 68.9)	70.3 (70.2 to 70.3)	-1.5	70.8 (70.6 to 71.0)	71.0 (71.0 to 71.0)	-0.2	73.4 (73.2 to 73.5)	72.4 (72.3 to 72.5)	1.0	75.5 (75.2 to 75.8)	73.8 (73.7 to 73.9)	1.7	0.78	
Czechia	62.7 (62.5 to 63.0)	67.9 (67.8 to 67.9)	-5.2	67.7 (67.6 to 67.9)	70.6 (70.6 to 70.7)	-2.9	71.6 (71.5 to 71.8)	73.1 (73.0 to 73.2)	-1.4	74.5 (74.3 to 74.6)	74.6 (74.5 to 74.7)	-0.1	76.9 (76.8 to 77.1)	75.7 (75.7 to 75.8)	1.2	0.83	
Hungary	60.7 (60.3 to 61.1)	65.7 (65.7 to 65.8)	-5.0	65.2 (65.0 to 65.3)	70.0 (69.9 to 70.0)	-4.8	67.5 (67.3 to 67.6)	71.5 (71.5 to 71.6)	-4.0	70.7 (70.6 to 70.8)	73.1 (73.0 to 73.2)	-2.4	73.4 (73.2 to 73.6)	74.4 (74.3 to 74.5)	-1.0	0.79	
Montenegro	62.0 (61.6 to 62.4)	63.9 (63.8 to 63.9)	-1.8	70.2 (70.0 to 70.5)	70.4 (70.4 to 70.4)	-0.2	70.6 (70.4 to 70.9)	70.4 (70.4 to 70.4)	0.2	72.7 (72.4 to 72.9)	72.1 (72.0 to 72.2)	0.6	74.7 (74.3 to 75.1)	74.2 (74.1 to 74.3)	0.5	0.79	
North Macedonia	50.6 (50.0 to 51.1)	62.2 (62.1 to 62.3)	-11.6	69.0 (68.8 to 69.3)	69.1 (69.0 to 69.1)	-0.0	70.5 (70.3 to 70.8)	70.0 (69.9 to 70.0)	0.6	73.0 (72.8 to 73.3)	71.4 (71.3 to 71.4)	1.7	75.2 (74.6 to 75.7)	73.1 (73.0 to 73.2)	2.1	0.76	
Poland	56.8 (56.6 to 57.0)	65.7 (65.7 to 65.8)	-9.0	66.8 (66.7 to 66.9)	69.7 (69.7 to 69.8)	-2.9	69.7 (69.6 to 69.8)	71.6 (71.6 to 71.7)	-1.9	72.3 (72.2 to 72.4)	73.8 (73.7 to 73.9)	-1.5	75.0 (74.8 to 75.1)	76.3 (76.2 to 76.3)	-1.3	0.85	
Romania	59.5 (58.8 to 60.3)	62.2 (62.1 to 62.3)	-2.7	66.9 (66.8 to 67.1)	69.2 (69.1 to 69.2)	-2.2	67.6 (67.5 to 67.8)	70.2 (70.1 to 70.2)	-2.5	70.2 (70.1 to 70.4)	71.5 (71.5 to 71.6)	-1.3	72.5 (72.3 to 72.7)	73.4 (73.3 to 73.6)	-0.9	0.77	
Serbia	51.3 (50.7 to 52.0)	62.9 (62.9 to 63.0)	-11.6	67.2 (66.9 to 67.5)	69.6 (69.6 to 69.7)	-2.4	68.7 (68.5 to 69.0)	70.1 (70.0 to 70.1)	-1.3	71.7 (71.4 to 71.9)	71.9 (71.9 to 72.0)	-0.3	73.9 (73.0 to 74.7)	74.0 (73.9 to 74.1)	-0.1	0.78	
Slovakia	60.3 (60.0 to 60.7)	66.8 (66.8 to 66.9)	-6.5	66.7 (66.6 to 66.9)	70.1 (70.0 to 70.1)	-3.3	69.2 (69.0 to 69.4)	72.1 (72.0 to 72.2)	-2.9	71.7 (71.5 to 71.9)	73.8 (73.7 to 73.9)	-2.1	74.8 (74.6 to 75.0)	75.2 (75.1 to 75.2)	-0.4	0.81	
Slovenia	57.2 (56.8 to 57.6)	67.5 (67.4 to 67.5)	-10.2	69.1 (68.9 to 69.4)	71.8 (71.7 to 71.9)	-2.6	71.9 (71.7 to 72.1)	73.4 (73.3 to 73.6)	-1.5	76.0 (75.8 to 76.1)	75.2 (75.1 to 75.2)	0.8	79.0 (78.7 to 79.2)	76.3 (76.2 to 76.3)	2.7	0.84	
Eastern Europe	60.9 (60.5 to 61.2)	67.8 (67.7 to 67.8)	-6.9	64.5 (64.5 to 64.6)	70.5 (70.5 to 70.6)	-6.0	60.6 (60.6 to 60.7)	71.5 (71.5 to 71.6)	-10.9	64.1 (64.1 to 64.2)	73.2 (73.1 to 73.4)	-9.1	67.8 (67.0 to 68.3)	75.2 (75.1 to 75.2)	-7.4	0.81	
Belarus	64.0 (63.4 to 64.6)	65.2 (65.1 to 65.2)	-1.2	66.0 (65.8 to 66.2)	69.6 (69.6 to 69.7)	-3.6	62.9 (62.7 to 63.1)	70.6 (70.6 to 70.7)	-7.7	64.7 (64.5 to 64.9)	72.5 (72.5 to 72.7)	-7.8	69.5 (68.9 to 70.2)	74.8 (74.7 to 74.8)	-5.3	0.80	
Estonia	62.4 (62.0 to 62.9)	67.9 (67.8 to 67.9)	-5.5	64.8 (64.6 to 65.1)	70.6 (70.6 to 70.7)	-5.8	65.3 (65.0 to 65.5)	72.4 (72.3 to 72.5)	-7.1	70.3 (70.1 to 70.6)	74.6 (74.5 to 74.7)	-4.3	74.2 (73.8 to 74.6)	76.7 (76.6 to 76.7)	-2.5	0.85	
Latvia	64.3 (63.7 to 64.8)	68.3 (68.2 to 68.4)	-4.0	64.7 (64.5 to 65.0)	70.9 (70.8 to 70.9)	-6.2	64.8 (64.6 to 65.1)	72.2 (72.2 to 72.3)	-7.4	68.1 (67.9 to 68.4)	74.6 (74.5 to 74.7)	-6.5	70.7 (70.3 to 71.1)	76.5 (76.4 to 76.5)	-5.7	0.85	
Lithuania	61.3 (60.8 to 61.9)	65.2 (65.1 to 65.2)	-3.8	65.9 (65.6 to 66.1)	70.3 (70.2 to 70.3)	-4.4	66.4 (66.1 to 66.6)	71.6 (71.6 to 71.7)	-5.3	67.2 (67.0 to 67.5)	74.0 (73.9 to 74.1)	-6.8	71.9 (71.5 to 72.2)	76.7 (76.6 to 76.7)	-4.8	0.86	

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
Moldova	51.7 (50.2 to 53.0)	62.9 (62.9 to 63.0)	-11.3	64.7 (64.2 to 65.2)	68.8 (68.8 to 68.9)	-4.1	65.1 (64.6 to 65.6)	69.3 (69.2 to 69.3)	-4.2	66.3 (65.9 to 66.8)	70.3 (70.2 to 70.3)	-4.0	71.6 (70.9 to 72.3)	72.2 (72.2 to 72.3)	-0.6	0.73
Russia	60.2 (59.7 to 60.6)	67.8 (67.7 to 67.8)	-7.6	64.0 (63.9 to 64.0)	70.8 (70.7 to 70.8)	-6.8	59.6 (59.5 to 59.6)	71.8 (71.7 to 71.9)	-12.2	63.5 (63.5 to 63.6)	73.4 (73.3 to 73.6)	-9.9	67.6 (66.7 to 68.3)	75.5 (75.5 to 75.6)	-7.9	0.82
Ukraine	63.0 (62.5 to 63.6)	68.0 (68.0 to 68.1)	-5.0	65.7 (65.6 to 65.8)	70.2 (70.1 to 70.2)	-4.5	62.6 (62.5 to 62.7)	70.6 (70.6 to 70.7)	-8.1	65.4 (65.3 to 65.5)	71.9 (71.9 to 72.0)	-6.6	66.6 (65.9 to 67.2)	73.2 (73.1 to 73.4)	-6.7	0.76
High income	61.5 (61.3 to 61.6)	68.6 (68.5 to 68.6)	-7.1	72.7 (72.7 to 72.7)	73.1 (73.0 to 73.2)	-0.4	75.2 (75.1 to 75.2)	74.4 (74.3 to 74.5)	0.8	77.6 (77.6 to 77.7)	75.5 (75.5 to 75.6)	2.1	78.5 (78.5 to 78.6)	77.0 (76.9 to 77.1)	1.5	0.87
Australasia	67.0 (66.9 to 67.1)	68.2 (68.1 to 68.2)	-1.2	73.6 (73.5 to 73.7)	72.2 (72.2 to 72.3)	1.3	76.7 (76.7 to 76.8)	73.6 (73.5 to 73.7)	3.1	79.6 (79.5 to 79.7)	74.8 (74.7 to 74.8)	4.8	81.6 (81.5 to 81.7)	76.7 (76.6 to 76.7)	4.9	0.86
Australia	66.9 (66.7 to 67.0)	67.9 (67.8 to 67.9)	-1.0	73.8 (73.7 to 73.9)	72.1 (72.0 to 72.2)	1.7	76.9 (76.8 to 77.0)	73.4 (73.3 to 73.6)	3.5	79.7 (79.6 to 79.8)	74.8 (74.7 to 74.8)	4.9	81.9 (81.8 to 82.0)	76.7 (76.6 to 76.7)	5.3	0.85
New Zealand	67.5 (67.2 to 67.8)	68.8 (68.8 to 68.9)	-1.3	72.7 (72.5 to 72.8)	72.9 (72.8 to 73.0)	-0.2	75.9 (75.8 to 76.1)	74.2 (74.1 to 74.3)	1.7	79.0 (78.8 to 79.2)	75.2 (75.1 to 75.2)	3.8	79.9 (79.7 to 80.1)	77.0 (76.9 to 77.1)	2.9	0.87
High-income Asia Pacific	49.6 (49.0 to 50.3)	66.3 (66.3 to 66.3)	-16.7	74.1 (74.0 to 74.2)	73.6 (73.5 to 73.7)	0.5	76.7 (76.6 to 76.7)	75.4 (75.3 to 75.4)	1.3	79.2 (79.1 to 79.2)	76.3 (76.2 to 76.3)	2.9	81.0 (81.0 to 81.1)	77.5 (77.4 to 77.6)	3.5	0.88
Brunei	53.1 (52.2 to 54.0)	60.6 (60.6 to 60.7)	-7.5	70.2 (69.9 to 70.6)	70.6 (70.6 to 70.7)	-0.4	72.7 (72.4 to 73.1)	72.2 (72.2 to 72.3)	0.5	75.1 (74.8 to 75.4)	74.2 (74.1 to 74.3)	0.9	76.9 (76.2 to 77.5)	75.7 (75.7 to 75.8)	1.1	0.83
Japan	57.4 (57.3 to 57.5)	67.5 (67.4 to 67.5)	-10.0	76.0 (76.0 to 76.1)	74.4 (74.3 to 74.5)	1.6	77.8 (77.7 to 77.8)	75.5 (75.5 to 75.6)	2.2	79.7 (79.7 to 79.8)	76.3 (76.3 to 76.3)	3.4	81.0 (81.0 to 81.1)	77.4 (77.3 to 77.4)	3.7	0.88
Singapore	53.8 (53.4 to 54.3)	57.8 (57.8 to 57.9)	-4.0	72.9 (72.7 to 73.1)	71.2 (71.2 to 71.3)	1.7	76.8 (76.6 to 77.0)	73.8 (73.7 to 73.9)	3.0	80.4 (80.2 to 80.6)	76.1 (76.1 to 76.1)	4.3	83.1 (82.9 to 83.4)	77.2 (77.1 to 77.3)	6.0	0.87
South Korea	29.4 (28.0 to 30.9)	56.6 (56.6 to 56.7)	-27.2	67.5 (67.2 to 67.8)	71.2 (71.2 to 71.3)	-3.7	72.5 (72.3 to 72.8)	74.2 (74.1 to 74.3)	-1.7	77.2 (77.0 to 77.5)	76.3 (76.2 to 76.3)	0.9	80.6 (80.4 to 80.8)	77.9 (77.7 to 78.0)	2.8	0.89
High-income North America	65.9 (65.8 to 65.9)	69.5 (69.5 to 69.6)	-3.6	72.2 (72.2 to 72.2)	73.6 (73.5 to 73.7)	-1.4	74.4 (74.4 to 74.4)	74.8 (74.7 to 74.8)	-0.4	76.6 (76.5 to 76.6)	75.9 (75.9 to 75.9)	0.6	76.3 (76.3 to 76.3)	77.5 (77.4 to 77.6)	-1.2	0.88
Canada	66.6 (66.5 to 66.8)	69.7 (69.7 to 69.8)	-3.1	74.2 (74.1 to 74.2)	74.6 (74.5 to 74.7)	-0.4	76.6 (76.5 to 76.7)	75.9 (75.9 to 76.0)	0.7	79.3 (79.2 to 79.3)	76.8 (76.8 to 76.9)	2.4	79.6 (79.4 to 79.9)	77.7 (77.6 to 77.8)	1.9	0.89
Greenland	46.7 (45.9 to 47.5)	69.2 (69.1 to 69.2)	-22.5	60.0 (59.6 to 60.4)	73.2 (73.1 to 73.4)	-13.2	62.6 (62.2 to 63.0)	73.2 (73.1 to 73.4)	-10.6	66.4 (66.0 to 66.7)	75.5 (75.5 to 75.6)	-9.2	70.0 (69.3 to 70.7)	76.8 (76.8 to 76.9)	-6.8	0.86

Table 3 continues on next page

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Life expectancy	SDI
(Continued from previous page)																	
USA	65.9 (65.8 to 65.9)	69.5 (69.5 to 69.6)	-3.7	72.0 (72.0 to 72.0)	73.6 (73.5 to 73.7)	-1.6	74.1 (74.1 to 74.2)	74.6 (74.5 to 74.7)	-0.4	76.3 (76.2 to 76.3)	75.9 (75.9 to 75.9)	0.3	75.9 (75.9 to 75.9)	77.4 (77.3 to 77.4)	-1.4	0.88	
Southern Latin America	57.9 (57.7 to 58.0)	65.6 (65.5 to 65.6)	-7.7	69.2 (69.2 to 69.3)	69.1 (69.0 to 69.1)	0.2	71.4 (71.3 to 71.4)	70.3 (70.2 to 70.3)	1.1	73.4 (73.3 to 73.4)	71.1 (71.1 to 71.2)	2.3	75.6 (75.3 to 75.8)	73.4 (73.3 to 73.6)	2.1	0.77	
Argentina	60.8 (60.7 to 61.0)	66.1 (66.1 to 66.2)	-5.3	68.9 (68.8 to 69.0)	69.2 (69.1 to 69.2)	-0.3	70.5 (70.4 to 70.6)	70.3 (70.2 to 70.3)	0.2	72.5 (72.4 to 72.6)	71.0 (71.0 to 71.0)	1.5	74.7 (74.3 to 75.0)	73.2 (73.1 to 73.4)	1.4	0.76	
Chile	48.6 (48.3 to 48.9)	63.6 (63.6 to 63.7)	-15.0	70.1 (69.9 to 70.3)	68.8 (68.8 to 68.9)	1.3	74.0 (73.8 to 74.1)	70.3 (70.2 to 70.3)	3.7	75.9 (75.7 to 76.1)	71.5 (71.5 to 71.6)	4.4	78.2 (78.0 to 78.4)	74.2 (74.1 to 74.3)	4.0	0.79	
Uruguay	64.6 (64.2 to 65.0)	65.6 (65.5 to 65.6)	-0.9	69.5 (69.3 to 69.7)	68.8 (68.8 to 68.9)	0.7	70.9 (70.6 to 71.1)	69.7 (69.7 to 69.8)	1.1	72.7 (72.5 to 72.9)	70.8 (70.7 to 70.8)	2.0	74.1 (73.8 to 74.4)	72.5 (72.5 to 72.7)	1.5	0.75	
Western Europe	64.5 (64.4 to 64.5)	68.2 (68.1 to 68.2)	-3.7	73.0 (72.9 to 73.0)	72.9 (72.8 to 73.0)	0.1	75.6 (75.6 to 75.6)	74.4 (74.3 to 74.5)	1.2	78.3 (78.3 to 78.4)	75.5 (75.5 to 75.6)	2.8	79.7 (79.6 to 79.7)	77.0 (76.9 to 77.1)	2.7	0.86	
Andorra	67.5 (66.8 to 68.2)	68.8 (68.8 to 68.9)	-1.3	76.5 (76.1 to 76.9)	74.0 (73.9 to 74.1)	2.5	78.1 (77.8 to 78.5)	75.0 (74.9 to 75.0)	3.1	80.3 (79.9 to 80.6)	76.5 (76.4 to 76.5)	3.8	81.8 (81.2 to 82.4)	77.5 (77.4 to 77.6)	4.3	0.88	
Austria	62.8 (62.6 to 63.0)	69.2 (69.1 to 69.2)	-6.4	72.3 (72.2 to 72.4)	72.7 (72.6 to 72.8)	-0.4	75.2 (75.0 to 75.3)	74.2 (74.1 to 74.3)	1.0	77.6 (77.5 to 77.7)	75.4 (75.3 to 75.4)	2.2	79.5 (79.4 to 79.7)	76.7 (76.6 to 76.7)	2.9	0.85	
Belgium	66.2 (65.8 to 66.5)	68.2 (68.1 to 68.2)	-2.0	72.6 (72.5 to 72.8)	72.9 (72.8 to 73.0)	-0.3	74.7 (74.6 to 74.8)	74.4 (74.3 to 74.5)	0.3	77.3 (77.2 to 77.4)	75.7 (75.7 to 75.8)	1.6	80.0 (79.9 to 80.1)	77.4 (77.3 to 77.4)	2.6	0.88	
Cyprus	59.6 (58.4 to 60.7)	62.7 (62.6 to 62.8)	-3.1	72.8 (71.9 to 73.6)	70.1 (70.0 to 70.1)	2.7	74.8 (74.0 to 75.6)	72.7 (72.6 to 72.8)	2.1	77.1 (76.4 to 77.8)	75.4 (75.3 to 75.4)	1.7	78.6 (77.7 to 79.5)	76.7 (76.6 to 76.7)	1.9	0.86	
Denmark	69.3 (69.0 to 69.5)	69.3 (69.2 to 69.3)	-0.0	72.2 (72.1 to 72.4)	75.2 (75.1 to 75.2)	-2.9	74.6 (74.4 to 74.7)	76.5 (76.4 to 76.5)	-1.9	77.2 (77.0 to 77.3)	77.5 (77.4 to 77.6)	-0.4	79.5 (79.4 to 79.7)	78.7 (78.5 to 78.9)	0.8	0.92	
Finland	61.1 (60.8 to 61.3)	67.3 (67.3 to 67.4)	-6.2	71.1 (71.0 to 71.3)	73.4 (73.3 to 73.6)	-2.3	74.3 (74.2 to 74.5)	75.0 (74.9 to 75.0)	-0.7	76.9 (76.7 to 77.0)	76.3 (76.2 to 76.3)	0.6	79.2 (79.0 to 79.3)	77.9 (77.7 to 78.0)	1.3	0.89	
France	64.4 (64.3 to 64.5)	66.5 (66.4 to 66.5)	-2.1	73.1 (73.1 to 73.2)	72.5 (72.5 to 72.7)	0.6	75.4 (75.4 to 75.5)	74.0 (73.9 to 74.1)	1.4	78.2 (78.1 to 78.2)	75.4 (75.3 to 75.4)	2.8	79.7 (79.6 to 79.8)	76.8 (76.8 to 76.9)	2.9	0.86	
Germany	65.3 (65.0 to 65.6)	69.3 (69.2 to 69.3)	-4.0	72.1 (72.1 to 72.2)	74.4 (74.3 to 74.5)	-2.3	75.2 (75.2 to 75.2)	75.7 (75.7 to 75.8)	-0.5	77.8 (77.7 to 77.8)	76.7 (76.6 to 76.7)	1.1	78.5 (78.2 to 78.8)	77.5 (77.4 to 77.6)	1.0	0.88	
Greece	66.6 (66.2 to 67.0)	65.4 (65.3 to 65.4)	1.3	74.7 (74.6 to 74.8)	70.9 (70.8 to 70.9)	3.8	75.9 (75.8 to 76.0)	72.7 (72.6 to 72.8)	3.2	77.8 (77.6 to 77.9)	74.4 (74.3 to 74.5)	3.4	78.3 (78.1 to 78.4)	75.7 (75.7 to 75.8)	2.5	0.83	

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
Iceland	69.1 (68.6 to 69.6)	67.5 (67.4 to 67.5)	1.6	75.5 (75.1 to 75.8)	73.2 (73.1 to 73.4)	2.2	77.9 (77.5 to 78.2)	74.8 (74.7 to 74.8)	3.1	79.9 (79.6 to 80.2)	76.3 (76.2 to 76.3)	3.6	80.8 (80.4 to 81.2)	77.9 (77.7 to 78.0)	2.9	0.89
Ireland	64.8 (64.6 to 65.1)	68.6 (68.5 to 68.6)	-3.7	72.3 (72.1 to 72.5)	72.5 (72.5 to 72.7)	-0.3	74.1 (73.9 to 74.3)	74.8 (74.7 to 74.8)	-0.7	78.3 (78.2 to 78.5)	76.7 (76.6 to 76.7)	1.7	80.8 (80.6 to 81.0)	78.4 (78.2 to 78.5)	2.4	0.91
Israel	67.0 (66.6 to 67.5)	66.5 (66.4 to 66.5)	0.6	75.6 (75.4 to 75.8)	72.1 (72.0 to 72.2)	3.5	76.9 (76.8 to 77.1)	73.4 (73.3 to 73.6)	3.5	80.1 (79.9 to 80.3)	74.4 (74.3 to 74.5)	5.7	81.2 (81.0 to 81.3)	76.1 (76.1 to 76.1)	5.1	0.84
Italy	64.0 (63.9 to 64.1)	65.9 (65.9 to 66.0)	-1.9	73.7 (73.6 to 73.7)	71.9 (71.9 to 72.0)	1.7	76.5 (76.4 to 76.5)	73.4 (73.3 to 73.6)	3.1	79.2 (79.2 to 79.3)	74.6 (74.5 to 74.7)	4.6	80.7 (80.7 to 80.8)	75.9 (75.9 to 75.9)	4.8	0.83
Luxembourg	63.9 (63.5 to 64.4)	68.8 (68.8 to 68.9)	-4.9	71.7 (71.4 to 72.0)	73.6 (73.5 to 73.7)	-1.9	75.1 (74.8 to 75.4)	75.4 (75.3 to 75.4)	-0.3	78.4 (78.1 to 78.7)	76.7 (76.6 to 76.7)	1.7	81.2 (80.8 to 81.7)	78.0 (77.9 to 78.2)	3.2	0.89
Malta	63.4 (62.8 to 63.9)	61.4 (61.4 to 61.5)	1.9	74.1 (73.7 to 74.4)	70.4 (70.4 to 70.4)	3.7	76.0 (75.7 to 76.3)	71.9 (71.9 to 72.0)	4.0	78.7 (78.4 to 79.0)	73.4 (73.3 to 73.6)	5.3	81.4 (81.0 to 81.8)	75.7 (75.7 to 75.8)	5.7	0.83
Monaco	66.1 (65.0 to 67.2)	70.0 (69.9 to 70.0)	-3.9	72.8 (72.0 to 73.5)	76.3 (76.2 to 76.3)	-3.5	73.5 (72.7 to 74.4)	77.4 (77.3 to 77.4)	-3.9	75.1 (74.3 to 75.8)	78.2 (78.1 to 78.3)	-3.2	77.9 (76.8 to 79.0)	79.0 (78.8 to 79.2)	-1.1	0.92
Netherlands	70.2 (70.1 to 70.4)	69.7 (69.7 to 69.8)	0.5	73.8 (73.7 to 73.9)	74.8 (74.7 to 74.8)	-1.0	75.5 (75.4 to 75.6)	76.3 (76.2 to 76.3)	-0.8	78.7 (78.6 to 78.8)	77.4 (77.3 to 77.4)	1.3	80.4 (80.3 to 80.5)	78.6 (78.4 to 78.7)	1.9	0.91
Norway	70.2 (70.0 to 70.4)	70.8 (70.7 to 70.8)	-0.5	73.5 (73.4 to 73.6)	74.8 (74.7 to 74.8)	-1.3	76.0 (75.8 to 76.1)	76.5 (76.4 to 76.5)	-0.5	78.8 (78.6 to 78.9)	77.5 (77.4 to 77.6)	1.2	81.4 (81.2 to 81.5)	78.7 (78.5 to 78.9)	2.6	0.92
Portugal	56.7 (56.4 to 56.9)	61.9 (61.9 to 62.0)	-5.3	70.7 (70.6 to 70.8)	69.3 (69.2 to 69.3)	1.4	73.4 (73.3 to 73.5)	70.9 (70.9 to 70.9)	2.5	76.9 (76.8 to 77.1)	72.2 (72.2 to 72.3)	4.7	79.0 (78.8 to 79.1)	74.0 (73.9 to 74.1)	5.0	0.79
San Marino	67.3 (66.1 to 68.5)	68.5 (68.4 to 68.5)	-1.2	74.9 (74.1 to 75.6)	74.0 (73.9 to 74.1)	0.9	77.6 (76.9 to 78.3)	75.9 (75.9 to 75.9)	1.7	81.6 (80.8 to 82.3)	76.8 (76.8 to 76.9)	4.8	83.2 (82.1 to 84.2)	77.7 (77.6 to 77.8)	5.4	0.88
Spain	59.5 (59.4 to 59.7)	63.6 (63.6 to 63.7)	-4.1	73.2 (73.2 to 73.3)	70.5 (70.5 to 70.6)	2.7	75.9 (75.8 to 76.0)	72.1 (72.0 to 72.2)	3.8	78.9 (78.9 to 79.0)	73.4 (73.3 to 73.6)	5.5	80.4 (80.3 to 80.5)	75.0 (74.9 to 75.0)	5.4	0.81
Sweden	69.8 (69.7 to 70.0)	69.9 (69.8 to 69.9)	-0.0	74.9 (74.8 to 75.0)	74.4 (74.3 to 74.5)	0.5	77.4 (77.3 to 77.5)	76.3 (76.2 to 76.3)	1.1	79.6 (79.5 to 79.7)	77.2 (77.1 to 77.3)	2.4	81.6 (81.5 to 81.7)	78.6 (78.4 to 78.7)	3.1	0.91
Switzerland	66.7 (66.5 to 66.9)	72.9 (72.8 to 73.0)	-6.2	74.2 (74.1 to 74.4)	77.4 (77.3 to 77.4)	-3.1	77.2 (77.1 to 77.3)	78.0 (77.9 to 78.2)	-0.8	80.1 (80.0 to 80.2)	78.9 (78.7 to 79.0)	1.2	82.6 (82.4 to 82.7)	79.7 (79.4 to 79.9)	2.9	0.95
UK	66.2 (66.1 to 66.3)	69.3 (69.2 to 69.3)	-3.1	72.9 (72.8 to 72.9)	73.2 (73.1 to 73.4)	-0.4	75.5 (75.4 to 75.5)	74.8 (74.7 to 74.8)	0.7	78.3 (78.3 to 78.4)	75.9 (75.9 to 75.9)	2.4	79.0 (79.0 to 79.1)	77.5 (77.4 to 77.6)	1.5	0.88

Table 3 continues on next page

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference		
(Continued from previous page)																	
England	66.6 (66.4 to 66.8)	69.6 (69.6 to 69.7)	-3.1	73.1 (73.0 to 73.2)	73.4 (73.3 to 73.6)	-0.3	75.7 (75.7 to 75.8)	75.0 (74.9 to 75.0)	0.8	78.6 (78.6 to 78.7)	75.9 (75.9 to 75.9)	2.7	79.3 (79.2 to 79.4)	77.7 (77.6 to 77.8)	1.6	0.88	
Northern Ireland	65.5 (64.4 to 66.5)	68.8 (68.8 to 68.9)	-3.4	71.7 (71.4 to 72.0)	72.9 (72.8 to 73.0)	-1.1	75.0 (74.7 to 75.2)	74.6 (74.5 to 74.7)	0.4	77.4 (77.1 to 77.6)	75.5 (75.5 to 75.6)	1.8	78.8 (78.4 to 79.1)	77.0 (76.9 to 77.1)	1.7	0.86	
Scotland	64.4 (63.4 to 65.3)	67.9 (67.8 to 67.9)	-3.6	71.2 (70.9 to 71.4)	72.5 (72.5 to 72.7)	-1.4	73.3 (73.1 to 73.5)	74.4 (74.3 to 74.5)	-1.1	76.3 (76.0 to 76.5)	75.7 (75.7 to 75.8)	0.5	77.1 (76.8 to 77.4)	77.5 (77.4 to 77.6)	-0.4	0.88	
Wales	65.3 (64.0 to 66.8)	66.5 (66.4 to 66.5)	-1.1	72.9 (72.4 to 73.4)	71.5 (71.5 to 71.6)	1.4	75.1 (74.6 to 75.5)	73.2 (73.1 to 73.4)	1.8	77.9 (77.4 to 78.4)	74.6 (74.5 to 74.7)	3.3	77.9 (77.3 to 78.6)	76.7 (76.6 to 76.7)	1.3	0.85	
Latin America and Caribbean	50.1 (49.4 to 50.7)	54.8 (54.8 to 55.0)	-4.8	67.1 (67.0 to 67.2)	66.3 (66.3 to 66.3)	0.8	69.8 (69.7 to 69.9)	67.9 (67.8 to 67.9)	1.9	71.0 (70.9 to 71.1)	69.3 (69.2 to 69.3)	1.7	73.0 (72.9 to 73.1)	70.6 (70.6 to 70.7)	2.4	0.67	
Andean Latin America	42.1 (41.5 to 42.7)	56.0 (56.0 to 56.1)	-13.9	68.3 (68.1 to 68.5)	66.1 (66.1 to 66.2)	2.2	70.9 (70.8 to 71.1)	67.5 (67.4 to 67.5)	3.5	74.1 (74.0 to 74.3)	69.1 (69.0 to 69.1)	5.1	73.8 (73.5 to 74.1)	70.8 (70.7 to 70.8)	3.0	0.68	
Bolivia	35.5 (34.5 to 36.7)	53.3 (53.2 to 53.5)	-17.8	60.5 (60.1 to 60.9)	62.9 (62.9 to 63.0)	-2.4	64.4 (64.0 to 64.7)	65.7 (65.7 to 65.8)	-1.4	67.1 (66.7 to 67.4)	67.8 (67.7 to 67.8)	-0.7	69.3 (68.7 to 70.0)	69.6 (69.6 to 69.7)	-0.3	0.63	
Ecuador	50.3 (49.4 to 51.2)	57.8 (57.8 to 57.9)	-7.5	68.7 (68.5 to 69.0)	67.2 (67.1 to 67.2)	1.6	69.1 (68.8 to 69.3)	67.9 (67.8 to 67.9)	1.2	73.2 (72.9 to 73.4)	69.2 (69.1 to 69.2)	4.0	73.6 (73.3 to 73.9)	71.0 (71.0 to 71.0)	2.6	0.69	
Peru	42.0 (41.1 to 42.9)	56.3 (56.3 to 56.4)	-14.3	71.0 (70.6 to 71.3)	66.5 (66.4 to 66.5)	4.5	74.5 (74.2 to 74.8)	67.8 (67.7 to 67.8)	6.7	77.3 (77.0 to 77.6)	69.3 (69.2 to 69.3)	8.0	75.3 (74.9 to 75.7)	70.9 (70.8 to 70.9)	4.4	0.69	
Caribbean	55.9 (55.4 to 56.5)	58.1 (58.1 to 58.2)	-2.2	65.6 (65.3 to 65.9)	67.2 (67.1 to 67.2)	-1.5	68.0 (67.7 to 68.2)	68.2 (68.1 to 68.2)	-0.2	59.1 (58.0 to 60.0)	69.4 (69.3 to 69.5)	-10.3	69.0 (68.4 to 69.6)	70.4 (70.4 to 70.4)	-1.4	0.66	
Antigua and Barbuda	57.2 (55.9 to 58.3)	57.5 (57.5 to 57.6)	-0.3	70.5 (69.8 to 71.2)	69.3 (69.2 to 69.3)	1.2	72.4 (71.6 to 73.1)	70.4 (70.4 to 70.4)	2.0	74.9 (74.2 to 75.5)	71.6 (71.6 to 71.7)	3.2	75.8 (74.6 to 76.9)	72.9 (72.8 to 73.0)	2.9	0.76	
The Bahamas	58.2 (57.5 to 59.0)	65.4 (65.3 to 65.4)	-7.1	67.2 (66.8 to 67.5)	71.2 (71.2 to 71.3)	-4.1	67.7 (67.3 to 68.0)	72.5 (72.5 to 72.7)	-4.9	69.3 (68.9 to 69.6)	73.6 (73.5 to 73.7)	-4.3	69.8 (69.2 to 70.5)	75.2 (75.1 to 75.2)	-5.3	0.81	
Barbados	54.7 (54.0 to 55.4)	61.2 (61.1 to 61.2)	-6.5	71.4 (71.0 to 71.8)	70.3 (70.2 to 70.3)	1.1	72.9 (72.5 to 73.3)	70.9 (70.8 to 70.9)	2.0	74.5 (74.1 to 74.8)	71.8 (71.7 to 71.9)	2.7	74.3 (73.7 to 75.0)	72.9 (72.8 to 73.0)	1.4	0.75	
Belize	56.9 (56.0 to 57.7)	55.7 (55.7 to 55.8)	1.1	71.1 (70.6 to 71.5)	63.2 (63.1 to 63.2)	7.9	67.4 (66.9 to 67.9)	66.3 (66.3 to 66.3)	1.1	71.3 (70.8 to 71.7)	68.2 (68.1 to 68.2)	3.1	72.6 (71.8 to 73.3)	69.6 (69.6 to 69.7)	3.0	0.63	
Bermuda	61.8 (61.3 to 62.4)	62.7 (62.6 to 62.8)	-0.8	70.4 (70.1 to 70.8)	71.2 (71.2 to 71.3)	-0.8	73.1 (72.7 to 73.4)	72.4 (72.3 to 72.5)	0.7	77.5 (77.2 to 77.8)	74.0 (73.9 to 74.1)	3.5	78.0 (77.5 to 78.5)	75.5 (75.5 to 75.6)	2.4	0.83	

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
Cuba	68.1 (67.0 to 69.2)	61.4 (61.4 to 61.5)	6.7	73.5 (73.1 to 73.9)	68.6 (68.5 to 68.6)	4.9	75.2 (74.8 to 75.6)	68.7 (68.6 to 68.7)	6.5	76.5 (76.2 to 76.8)	69.9 (69.8 to 69.9)	6.6	75.8 (74.7 to 77.0)	71.1 (71.1 to 71.2)	4.7	0.69
Dominica	54.7 (53.8 to 55.6)	59.8 (59.8 to 59.9)	-5.1	71.9 (71.5 to 72.2)	67.6 (67.6 to 67.7)	4.2	72.4 (72.1 to 72.8)	70.1 (70.0 to 70.1)	2.3	73.0 (72.7 to 73.4)	71.2 (71.2 to 71.3)	1.8	73.8 (73.2 to 74.4)	72.9 (72.8 to 73.0)	0.9	0.75
Dominican Republic	54.9 (54.0 to 55.9)	46.3 (46.3 to 46.4)	8.6	68.4 (68.0 to 68.8)	63.9 (63.8 to 63.9)	4.6	71.0 (70.6 to 71.4)	65.9 (65.9 to 66.0)	5.1	72.1 (71.8 to 72.5)	68.3 (68.2 to 68.4)	3.8	69.9 (69.3 to 70.6)	70.3 (70.2 to 70.3)	-0.4	0.66
Grenada	53.6 (52.3 to 54.9)	48.1 (48.1 to 48.2)	5.5	68.1 (67.4 to 68.8)	64.5 (64.5 to 64.6)	3.6	70.4 (69.7 to 71.1)	68.0 (68.0 to 68.1)	2.4	72.8 (72.1 to 73.5)	69.4 (69.3 to 69.5)	3.4	73.4 (72.1 to 74.7)	70.8 (70.7 to 70.8)	2.6	0.68
Guyana	51.6 (50.4 to 52.7)	54.5 (54.5 to 54.7)	-3.0	61.9 (61.1 to 62.6)	64.1 (64.0 to 64.1)	-2.2	63.5 (62.8 to 64.3)	66.8 (66.8 to 66.9)	-3.3	64.7 (64.0 to 65.5)	68.6 (68.5 to 68.6)	-3.8	65.8 (64.3 to 67.0)	71.1 (71.1 to 71.2)	-5.3	0.70
Haiti	40.5 (38.8 to 42.1)	49.9 (49.8 to 49.9)	-9.4	50.5 (49.6 to 51.4)	56.9 (56.9 to 57.0)	-6.4	55.5 (54.7 to 56.3)	60.1 (60.0 to 60.2)	-4.6	34.8 (33.1 to 36.4)	62.7 (62.6 to 62.8)	-27.9	59.9 (58.7 to 61.2)	64.5 (64.5 to 64.6)	-4.6	0.46
Jamaica	56.5 (55.4 to 57.5)	60.1 (60.0 to 60.2)	-3.6	73.4 (72.8 to 74.1)	67.5 (67.4 to 67.5)	6.0	72.4 (71.7 to 73.0)	69.1 (69.0 to 69.1)	3.3	75.5 (74.9 to 76.0)	70.1 (70.0 to 70.1)	5.4	73.5 (72.2 to 74.8)	71.0 (71.0 to 71.0)	2.5	0.69
Puerto Rico	59.6 (59.2 to 60.1)	62.2 (62.1 to 62.3)	-2.6	70.3 (70.0 to 70.5)	70.9 (70.8 to 70.9)	-0.6	72.6 (72.4 to 72.9)	72.2 (72.2 to 72.3)	0.4	75.5 (75.2 to 75.7)	73.8 (73.7 to 73.9)	1.7	77.3 (77.0 to 77.7)	76.5 (76.4 to 76.5)	0.9	0.85
Saint Kitts and Nevis	62.0 (61.4 to 62.7)	39.8 (39.4 to 40.0)	22.3	66.1 (65.7 to 66.5)	68.5 (68.4 to 68.5)	-2.4	68.4 (68.1 to 68.8)	70.0 (69.9 to 70.0)	-1.5	70.5 (70.2 to 70.9)	71.5 (71.5 to 71.6)	-1.0	72.2 (71.6 to 72.8)	72.9 (72.8 to 73.0)	-0.7	0.75
Saint Lucia	52.6 (51.0 to 54.1)	54.5 (54.5 to 54.7)	-2.0	68.0 (67.3 to 68.8)	66.3 (66.3 to 66.3)	1.7	71.3 (70.5 to 72.0)	69.0 (68.9 to 69.0)	2.3	72.7 (72.0 to 73.4)	70.2 (70.2 to 70.2)	2.5	74.8 (73.5 to 76.0)	71.4 (71.4 to 71.4)	3.5	0.70
Saint Vincent and the Grenadines	57.8 (56.4 to 59.2)	53.9 (53.8 to 54.1)	3.8	69.3 (68.6 to 70.0)	65.4 (65.3 to 65.4)	3.9	69.4 (68.7 to 70.2)	67.3 (67.3 to 67.4)	2.1	71.7 (71.0 to 72.3)	68.7 (68.6 to 68.7)	3.0	72.7 (71.5 to 74.0)	70.3 (70.2 to 70.3)	2.4	0.66
Suriname	59.6 (59.1 to 60.1)	55.7 (55.7 to 55.8)	3.8	68.1 (67.8 to 68.4)	66.7 (66.6 to 66.7)	1.5	68.1 (67.8 to 68.3)	67.9 (67.8 to 67.9)	0.2	69.5 (69.2 to 69.7)	69.3 (69.2 to 69.3)	0.2	70.4 (69.9 to 70.9)	70.2 (70.1 to 70.2)	0.2	0.65
Trinidad and Tobago	57.1 (56.6 to 57.6)	61.2 (61.1 to 61.2)	-4.1	66.8 (66.5 to 67.1)	69.3 (69.2 to 69.3)	-2.5	67.2 (66.9 to 67.5)	70.4 (70.4 to 70.4)	-3.2	70.3 (70.0 to 70.6)	72.1 (72.0 to 72.2)	-1.7	70.3 (69.8 to 70.8)	73.4 (73.3 to 73.6)	-3.1	0.77
Virgin Islands	60.3 (59.3 to 61.4)	64.9 (64.9 to 65.0)	-4.6	68.7 (68.0 to 69.4)	70.3 (70.2 to 70.3)	-1.6	69.9 (69.1 to 70.6)	71.8 (71.7 to 71.9)	-1.9	71.3 (70.5 to 72.0)	73.6 (73.5 to 73.7)	-2.3	71.7 (70.3 to 73.1)	75.7 (75.7 to 75.8)	-4.1	0.83
Central Latin America	49.8 (49.4 to 50.1)	55.4 (55.4 to 55.5)	-5.7	68.0 (67.9 to 68.1)	65.7 (65.7 to 65.8)	2.2	70.9 (70.8 to 71.0)	67.6 (67.6 to 67.7)	3.3	72.7 (72.6 to 72.8)	69.0 (68.9 to 69.0)	3.7	73.5 (73.3 to 73.6)	70.4 (70.4 to 70.4)	3.0	0.67

Table 3 continues on next page

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Life expectancy	SDI
(Continued from previous page)																	
Colombia	52.2 (51.8 to 52.6)	55.4 (55.4 to 55.5)	-3.2	68.5 (68.3 to 68.7)	65.7 (65.7 to 65.8)	2.8	70.0 (69.8 to 70.2)	67.6 (67.6 to 67.7)	2.4	74.9 (74.7 to 75.1)	69.2 (69.1 to 69.2)	5.7	77.0 (76.8 to 77.2)	71.0 (71.0 to 71.0)	6.0	0.69	
Costa Rica	58.2 (57.6 to 58.7)	57.8 (57.8 to 57.9)	0.3	74.5 (74.2 to 74.7)	67.0 (66.9 to 67.0)	7.5	75.2 (74.9 to 75.5)	68.6 (68.5 to 68.6)	6.6	77.2 (77.0 to 77.4)	69.7 (69.7 to 69.8)	7.4	76.9 (76.6 to 77.2)	71.6 (71.6 to 71.7)	5.2	0.72	
El Salvador	46.7 (45.8 to 47.6)	51.2 (51.1 to 51.3)	-4.5	63.9 (63.5 to 64.4)	61.2 (61.2 to 61.2)	2.8	67.4 (67.0 to 67.9)	64.3 (64.3 to 64.4)	3.1	69.0 (68.5 to 69.5)	66.8 (66.8 to 66.9)	2.2	69.0 (68.0 to 70.0)	69.2 (69.1 to 69.2)	-0.2	0.61	
Guatemala	44.2 (43.2 to 45.1)	50.5 (50.4 to 50.6)	-6.3	59.7 (59.1 to 60.3)	56.9 (56.9 to 57.0)	2.8	64.6 (64.1 to 65.1)	60.9 (60.8 to 61.0)	3.7	68.4 (68.0 to 68.8)	64.9 (64.9 to 65.0)	3.4	70.8 (69.6 to 72.0)	67.8 (67.7 to 67.8)	3.0	0.55	
Honduras	40.4 (39.6 to 41.2)	50.2 (50.1 to 50.3)	-9.8	68.1 (67.7 to 68.4)	57.8 (57.8 to 57.9)	10.3	70.3 (70.0 to 70.6)	60.6 (60.6 to 60.7)	9.7	72.5 (72.2 to 72.8)	64.1 (64.0 to 64.1)	8.4	74.4 (73.9 to 75.0)	66.7 (66.6 to 66.7)	7.8	0.52	
Mexico	48.4 (47.8 to 48.9)	55.7 (55.7 to 55.8)	-7.4	68.4 (68.2 to 68.5)	66.5 (66.4 to 66.5)	1.9	72.0 (71.9 to 72.2)	68.2 (68.1 to 68.2)	3.9	72.8 (72.7 to 72.9)	69.3 (69.2 to 69.3)	3.5	73.4 (73.3 to 73.5)	71.1 (71.1 to 71.2)	2.3	0.69	
Nicaragua	46.9 (45.2 to 48.3)	51.5 (51.4 to 51.6)	-4.6	68.0 (67.4 to 68.7)	59.0 (58.9 to 59.0)	9.1	71.9 (71.3 to 72.5)	62.7 (62.6 to 62.8)	9.2	72.2 (71.7 to 72.8)	64.9 (64.9 to 65.0)	7.3	74.1 (72.9 to 75.1)	67.2 (67.1 to 67.2)	6.9	0.54	
Panama	62.6 (62.0 to 63.1)	59.0 (58.9 to 59.0)	3.6	73.8 (73.5 to 74.1)	67.6 (67.6 to 67.7)	6.2	75.0 (74.8 to 75.3)	68.7 (68.6 to 68.7)	6.3	75.2 (75.0 to 75.5)	69.5 (69.5 to 69.6)	5.7	76.6 (76.0 to 77.1)	71.6 (71.6 to 71.7)	4.9	0.72	
Venezuela	57.7 (57.2 to 58.2)	57.8 (57.8 to 57.9)	-0.1	68.8 (68.6 to 69.0)	66.8 (66.8 to 66.9)	2.0	69.9 (69.7 to 70.1)	68.2 (68.1 to 68.2)	1.7	70.6 (70.4 to 70.7)	69.2 (69.1 to 69.2)	1.4	68.2 (67.5 to 68.9)	68.5 (68.4 to 68.5)	-0.2	0.58	
Tropical Latin America	50.9 (49.3 to 52.4)	52.7 (52.6 to 52.8)	-1.9	66.3 (66.1 to 66.5)	66.3 (66.3 to 66.3)	-0.0	68.9 (68.8 to 69.1)	68.0 (68.0 to 68.1)	0.9	71.3 (71.2 to 71.5)	69.6 (69.6 to 69.7)	1.7	73.4 (73.2 to 73.6)	70.9 (70.8 to 70.9)	2.5	0.68	
Brazil	50.6 (49.1 to 52.2)	52.4 (52.3 to 52.5)	-1.8	66.1 (65.9 to 66.3)	66.5 (66.4 to 66.5)	-0.4	68.8 (68.7 to 69.0)	68.2 (68.1 to 68.2)	0.7	71.3 (71.2 to 71.5)	69.6 (69.6 to 69.7)	1.7	73.5 (73.3 to 73.7)	70.9 (70.8 to 70.9)	2.6	0.68	
Paraguay	62.2 (61.5 to 62.9)	55.1 (55.1 to 55.3)	7.1	73.3 (72.9 to 73.6)	64.9 (64.9 to 65.0)	8.3	72.3 (71.9 to 72.6)	67.2 (67.1 to 67.2)	5.1	71.1 (70.8 to 71.4)	68.8 (68.8 to 68.9)	2.3	70.0 (69.3 to 70.8)	70.6 (70.6 to 70.7)	-0.6	0.67	
North Africa and Middle East	42.4 (41.9 to 42.9)	49.9 (49.8 to 49.9)	-7.4	63.8 (63.6 to 63.9)	63.6 (63.6 to 63.7)	0.1	67.3 (67.1 to 67.4)	66.8 (66.8 to 66.9)	0.4	70.5 (70.4 to 70.7)	69.0 (68.9 to 69.0)	1.6	72.1 (71.8 to 72.5)	70.9 (70.8 to 70.9)	1.3	0.68	
Afghanistan	48.2 (46.5 to 49.9)	43.2 (43.0 to 43.3)	5.0	58.1 (57.2 to 58.9)	48.1 (48.1 to 48.2)	9.9	60.3 (59.5 to 61.1)	48.1 (48.1 to 48.2)	12.2	65.0 (64.2 to 65.6)	52.7 (52.6 to 52.8)	12.2	68.1 (67.0 to 69.3)	57.8 (57.8 to 57.9)	10.3	0.33	
Algeria	35.7 (34.6 to 36.8)	45.6 (45.5 to 45.7)	-9.8	67.0 (66.7 to 67.3)	63.9 (63.8 to 63.9)	3.2	70.8 (70.5 to 71.1)	66.7 (66.6 to 66.7)	4.2	73.4 (73.1 to 73.7)	68.8 (68.8 to 68.9)	4.6	74.5 (74.1 to 75.0)	70.3 (70.2 to 70.3)	4.2	0.66	

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
Bahrain	48.9 (47.4 to 50.5)	51.5 (51.4 to 51.6)	-2.5	69.0 (68.4 to 69.6)	68.6 (68.5 to 68.6)	0.4	69.5 (68.9 to 70.1)	70.0 (69.9 to 70.0)	-0.5	74.1 (73.6 to 74.6)	71.5 (71.5 to 71.6)	2.6	75.9 (74.9 to 77.0)	74.0 (73.9 to 74.1)	1.9	0.78
Egypt	39.9 (38.0 to 41.9)	52.7 (52.6 to 52.8)	-12.8	63.0 (62.7 to 63.2)	63.2 (63.1 to 63.2)	-0.2	66.2 (66.0 to 66.4)	66.7 (66.6 to 66.7)	-0.4	67.6 (67.4 to 67.8)	68.2 (68.1 to 68.2)	-0.6	69.1 (68.0 to 70.2)	70.6 (70.6 to 70.7)	-1.5	0.68
Iran	41.6 (40.5 to 42.6)	48.1 (48.1 to 48.2)	-6.6	65.2 (64.9 to 65.5)	64.1 (64.0 to 64.1)	1.1	71.1 (70.8 to 71.4)	68.2 (68.1 to 68.2)	2.9	74.5 (74.3 to 74.8)	70.1 (70.0 to 70.1)	4.5	77.2 (76.7 to 77.7)	71.8 (71.7 to 71.9)	5.4	0.72
Iraq	52.1 (51.4 to 53.0)	46.7 (46.6 to 46.8)	5.4	63.6 (63.3 to 63.8)	62.9 (62.9 to 63.0)	0.6	64.6 (64.2 to 64.9)	64.9 (65.0 to 65.0)	-0.4	65.5 (65.1 to 65.8)	67.0 (66.9 to 67.0)	-1.5	68.3 (67.7 to 69.0)	70.2 (70.1 to 70.2)	-1.8	0.65
Jordan	44.9 (44.0 to 45.8)	49.9 (49.8 to 49.9)	-4.9	68.0 (67.7 to 68.4)	67.6 (67.6 to 67.7)	0.4	69.8 (69.5 to 70.1)	68.8 (68.9 to 68.9)	0.9	73.3 (73.1 to 73.5)	70.2 (70.2 to 70.2)	3.1	76.9 (76.4 to 77.4)	71.8 (71.7 to 71.9)	5.1	0.72
Kuwait	63.5 (63.0 to 64.1)	57.8 (57.8 to 57.9)	5.7	69.9 (69.5 to 70.4)	70.9 (70.8 to 70.9)	-0.9	74.6 (74.3 to 74.9)	72.4 (72.3 to 72.5)	2.2	77.4 (77.2 to 77.7)	74.8 (74.7 to 74.8)	2.6	80.9 (80.4 to 81.4)	77.4 (77.3 to 77.4)	3.5	0.88
Lebanon	57.3 (55.9 to 58.7)	57.8 (57.8 to 57.9)	-0.5	72.3 (71.5 to 73.2)	68.0 (68.0 to 68.1)	4.3	78.0 (77.3 to 78.7)	69.1 (69.0 to 69.1)	8.9	78.7 (78.1 to 79.2)	70.3 (70.2 to 70.3)	8.4	76.8 (75.6 to 78.1)	71.9 (71.9 to 72.0)	4.9	0.72
Libya	36.7 (35.5 to 37.8)	46.3 (46.3 to 46.4)	-9.6	68.4 (68.1 to 68.7)	68.5 (68.4 to 68.5)	-0.0	71.3 (71.0 to 71.6)	70.8 (70.7 to 70.8)	0.5	72.8 (72.6 to 73.1)	72.5 (72.5 to 72.7)	0.3	70.3 (69.7 to 70.9)	73.4 (73.3 to 73.6)	-3.1	0.77
Morocco	41.1 (39.4 to 42.8)	41.9 (41.7 to 42.1)	-0.8	65.0 (64.4 to 65.5)	59.8 (59.8 to 59.9)	5.1	68.3 (67.8 to 68.9)	62.9 (62.9 to 63.0)	5.4	71.2 (70.7 to 71.8)	66.1 (66.1 to 66.2)	5.1	73.3 (72.5 to 74.2)	69.2 (69.1 to 69.2)	4.1	0.61
Oman	41.0 (39.6 to 42.4)	44.8 (44.7 to 44.9)	-3.8	66.2 (65.7 to 66.8)	63.6 (63.6 to 63.7)	2.6	70.3 (69.8 to 70.8)	69.4 (69.3 to 69.5)	0.9	71.5 (71.1 to 71.9)	71.6 (71.6 to 71.7)	-0.2	75.2 (74.4 to 75.9)	73.8 (73.7 to 73.9)	1.3	0.78
Palestine	49.1 (47.5 to 50.1)	46.0 (45.9 to 46.0)	3.1	68.3 (68.0 to 68.7)	62.4 (62.4 to 62.5)	5.9	70.6 (70.3 to 70.9)	64.9 (64.9 to 65.0)	5.6	72.6 (72.3 to 72.8)	67.0 (67.0 to 67.0)	5.6	60.7 (59.4 to 62.0)	69.9 (69.8 to 69.9)	-9.1	0.64
Qatar	47.9 (46.2 to 49.5)	53.9 (53.8 to 54.1)	-6.1	71.4 (70.8 to 72.0)	69.6 (69.6 to 69.7)	1.7	73.3 (72.7 to 73.9)	71.9 (71.9 to 72.0)	1.4	77.2 (76.7 to 77.8)	74.4 (74.3 to 74.5)	2.8	80.6 (79.6 to 81.6)	76.8 (76.8 to 76.9)	3.8	0.86
Saudi Arabia	35.0 (33.1 to 36.8)	39.3 (39.0 to 39.6)	-4.3	66.3 (65.8 to 66.9)	63.6 (63.6 to 63.7)	2.7	71.1 (70.7 to 71.6)	70.0 (69.9 to 70.0)	1.2	69.7 (69.4 to 70.1)	72.7 (72.6 to 72.8)	-3.0	73.8 (73.0 to 74.6)	75.7 (75.7 to 75.8)	-1.9	0.83
Sudan	40.3 (38.5 to 42.0)	44.0 (43.8 to 44.1)	-3.7	54.6 (53.8 to 55.4)	56.0 (56.0 to 56.1)	-1.5	58.7 (58.0 to 59.4)	59.5 (59.5 to 59.6)	-0.8	64.3 (63.5 to 65.0)	64.5 (64.5 to 64.6)	-0.3	67.3 (66.2 to 68.5)	68.3 (68.2 to 68.4)	-1.0	0.57
Syria	52.7 (51.8 to 53.5)	47.1 (47.0 to 47.1)	5.6	67.3 (67.0 to 67.6)	62.4 (62.4 to 62.5)	4.8	69.9 (69.7 to 70.1)	64.3 (64.3 to 64.4)	5.6	73.2 (73.0 to 73.4)	67.0 (66.9 to 67.0)	6.2	73.9 (73.4 to 74.4)	68.7 (68.6 to 68.7)	5.2	0.59

(Table 3 continues on next page)

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Life expectancy	SDI
(Continued from previous page)																	
Tunisia	43.8 (42.9 to 44.7)	46.7 (46.6 to 46.8)	-2.9	66.8 (66.5 to 67.1)	64.7 (64.7 to 64.8)	2.0	69.1 (68.8 to 69.3)	67.8 (67.7 to 67.8)	1.3	71.2 (71.0 to 71.5)	69.5 (69.5 to 69.6)	1.7	73.4 (72.9 to 73.8)	70.9 (70.8 to 70.9)	2.5	0.68	
Turkiye	46.7 (45.0 to 48.3)	53.6 (53.5 to 53.8)	-7.0	65.2 (64.9 to 65.6)	65.2 (65.1 to 65.2)	0.1	69.2 (68.9 to 69.5)	67.8 (67.7 to 67.8)	1.5	74.6 (74.3 to 74.8)	69.5 (69.5 to 69.6)	5.0	73.9 (72.9 to 74.9)	72.1 (72.0 to 72.2)	1.8	0.73	
United Arab Emirates	44.9 (43.6 to 46.3)	49.2 (49.1 to 49.2)	-4.3	69.5 (69.0 to 70.0)	70.0 (70.0 to 70.0)	-0.4	71.7 (71.3 to 72.2)	73.2 (73.1 to 73.4)	-1.5	76.2 (75.8 to 76.6)	75.9 (75.9 to 75.9)	0.3	80.2 (79.5 to 80.9)	76.8 (76.8 to 76.9)	3.4	0.86	
Yemen	40.5 (38.7 to 42.3)	40.2 (39.9 to 40.5)	0.3	57.3 (56.5 to 58.2)	50.2 (50.1 to 50.3)	7.1	62.6 (61.9 to 63.4)	55.7 (55.7 to 55.8)	6.9	66.9 (66.2 to 67.6)	61.4 (61.4 to 61.5)	5.4	69.4 (68.4 to 70.6)	63.6 (63.6 to 63.7)	5.8	0.45	
South Asia	41.5 (40.1 to 42.9)	48.8 (48.8 to 48.9)	-7.3	58.3 (57.7 to 58.9)	57.5 (57.5 to 57.6)	0.8	62.6 (62.2 to 63.0)	60.9 (60.8 to 61.0)	1.7	65.8 (65.4 to 66.2)	64.3 (64.3 to 64.4)	1.5	70.1 (69.1 to 71.0)	68.6 (68.5 to 68.6)	1.5	0.59	
Bangladesh	44.3 (42.7 to 45.8)	37.5 (37.0 to 37.8)	6.9	57.5 (56.7 to 58.3)	52.1 (52.0 to 52.2)	5.4	63.5 (62.8 to 64.3)	56.3 (56.3 to 56.4)	7.2	67.4 (66.7 to 68.0)	60.4 (60.3 to 60.4)	7.0	71.0 (69.9 to 72.2)	66.5 (66.4 to 66.5)	4.5	0.52	
Bhutan	39.4 (37.5 to 41.4)	38.8 (38.5 to 39.1)	0.6	60.0 (59.3 to 60.8)	51.5 (51.4 to 51.6)	8.6	63.9 (63.1 to 64.7)	56.3 (56.3 to 56.4)	7.6	69.4 (68.6 to 70.1)	62.2 (62.1 to 62.3)	7.2	72.9 (71.7 to 74.1)	66.8 (66.8 to 66.9)	6.0	0.52	
India	40.6 (38.9 to 42.3)	49.5 (49.5 to 49.6)	-8.9	58.1 (57.4 to 58.8)	58.1 (58.1 to 58.2)	0.0	62.5 (62.0 to 63.0)	61.7 (61.6 to 61.8)	0.8	65.8 (65.3 to 66.2)	64.9 (64.9 to 65.0)	0.8	70.2 (69.1 to 71.3)	69.1 (69.0 to 69.1)	1.2	0.61	
Nepal	45.9 (44.4 to 47.4)	42.8 (42.6 to 42.9)	3.1	57.9 (57.1 to 58.8)	50.2 (50.1 to 50.3)	7.7	63.9 (63.2 to 64.6)	54.5 (54.5 to 54.7)	9.4	68.5 (68.0 to 69.1)	59.5 (59.5 to 59.6)	9.0	71.9 (70.7 to 73.1)	64.7 (64.7 to 64.8)	7.2	0.47	
Pakistan	46.1 (44.5 to 47.7)	46.3 (46.3 to 46.4)	-0.2	61.7 (60.9 to 62.4)	56.6 (56.6 to 56.7)	5.1	63.5 (62.7 to 64.4)	59.8 (59.8 to 59.9)	3.7	65.9 (65.1 to 66.6)	62.9 (62.9 to 63.0)	2.9	70.0 (68.7 to 71.2)	66.5 (66.4 to 66.5)	3.5	0.51	
Southeast Asia, east Asia, and Oceania	44.2 (43.1 to 45.2)	50.2 (50.1 to 50.3)	-6.0	63.9 (63.4 to 64.4)	64.9 (64.9 to 65.0)	-1.1	67.1 (66.7 to 67.5)	67.8 (67.7 to 67.8)	-0.6	71.7 (71.3 to 72.0)	69.6 (69.6 to 69.7)	2.0	74.8 (74.1 to 75.6)	71.4 (71.3 to 71.4)	3.5	0.71	
East Asia	44.4 (43.0 to 45.8)	49.2 (49.1 to 49.2)	-4.7	64.5 (63.9 to 65.1)	64.9 (64.9 to 65.0)	-0.5	68.0 (67.5 to 68.5)	67.9 (67.8 to 67.9)	0.1	73.5 (73.0 to 73.9)	70.0 (69.9 to 70.0)	3.5	77.5 (76.5 to 78.6)	72.1 (72.0 to 72.2)	5.5	0.73	
China	45.3 (43.8 to 46.8)	48.8 (48.8 to 48.9)	-3.5	64.3 (63.7 to 64.9)	64.5 (64.5 to 64.6)	-0.2	67.9 (67.4 to 68.4)	67.6 (67.6 to 67.7)	0.3	73.5 (73.0 to 73.9)	69.9 (69.8 to 69.9)	3.6	77.6 (76.6 to 78.7)	72.1 (72.0 to 72.2)	5.6	0.73	
North Korea	19.5 (18.3 to 20.6)	54.8 (54.8 to 55.0)	-35.4	67.7 (67.0 to 68.4)	65.9 (65.9 to 66.0)	1.8	65.7 (63.5 to 67.2)	65.9 (65.9 to 66.0)	-0.2	69.7 (69.0 to 70.4)	67.3 (67.3 to 67.4)	2.4	71.3 (70.2 to 72.5)	68.3 (68.2 to 68.4)	3.0	0.58	
Taiwan*	55.3 (54.7 to 55.8)	55.1 (55.1 to 55.3)	0.1	71.9 (71.7 to 72.0)	70.8 (70.7 to 70.8)	1.1	74.1 (73.9 to 74.2)	73.1 (73.0 to 73.2)	1.0	76.4 (76.3 to 76.5)	75.7 (75.7 to 75.8)	0.6	77.3 (77.2 to 77.5)	77.5 (77.4 to 77.6)	-0.2	0.88	

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference		
(Continued from previous page)																	
Oceania	47.9 (46.9 to 48.8)	50.8 (50.8 to 50.9)	-2.9	61.4 (60.9 to 61.9)	61.4 (61.4 to 61.5)	-0.0	62.8 (62.3 to 63.3)	63.2 (63.1 to 63.2)	-0.3	63.9 (63.4 to 64.4)	64.1 (64.0 to 64.1)	-0.2	65.6 (64.7 to 66.6)	64.9 (64.9 to 65.0)	0.7	0.48	
American Samoa	59.3 (58.3 to 60.3)	64.9 (64.9 to 65.0)	-5.7	66.3 (65.6 to 67.0)	69.3 (69.2 to 69.3)	-3.0	66.5 (65.8 to 67.1)	70.0 (69.9 to 70.0)	-3.5	67.8 (67.1 to 68.5)	70.6 (70.6 to 70.7)	-2.9	68.0 (66.8 to 69.2)	72.5 (72.5 to 72.7)	-4.6	0.74	
Cook Islands	53.4 (52.7 to 54.0)	60.6 (60.6 to 60.7)	-7.3	65.6 (65.2 to 65.9)	68.5 (68.4 to 68.5)	-2.8	68.0 (67.7 to 68.4)	70.4 (70.4 to 70.4)	-2.4	69.2 (68.9 to 69.6)	71.9 (71.9 to 72.0)	-2.7	69.7 (69.0 to 70.4)	73.6 (73.5 to 73.7)	-3.9	0.78	
Federated States of Micronesia	41.5 (40.8 to 42.1)	51.2 (51.1 to 51.3)	-9.7	57.9 (57.6 to 58.2)	64.5 (64.5 to 64.6)	-6.6	59.4 (59.1 to 59.7)	66.5 (66.4 to 66.5)	-7.1	61.8 (61.5 to 62.2)	67.6 (67.6 to 67.7)	-5.8	63.7 (63.0 to 64.2)	68.8 (68.8 to 68.9)	-5.2	0.60	
Fiji	59.5 (58.9 to 60.1)	55.7 (55.7 to 55.8)	3.8	64.7 (64.4 to 65.0)	67.3 (67.3 to 67.4)	-2.6	65.0 (64.6 to 65.3)	69.0 (68.9 to 69.0)	-4.0	65.5 (65.2 to 65.8)	69.7 (69.7 to 69.8)	-4.2	66.0 (65.4 to 66.5)	70.9 (70.8 to 70.9)	-4.9	0.69	
Guam	67.2 (66.7 to 67.8)	68.3 (68.2 to 68.4)	-1.1	71.3 (70.9 to 71.6)	70.7 (70.7 to 70.8)	0.5	72.7 (72.3 to 73.0)	71.9 (71.9 to 72.0)	0.8	73.1 (72.7 to 73.4)	72.5 (72.5 to 72.7)	0.5	71.9 (71.3 to 72.5)	75.0 (74.9 to 75.0)	-3.1	0.81	
Kiribati	46.0 (45.1 to 46.9)	55.1 (55.1 to 55.3)	-9.1	61.0 (60.6 to 61.3)	62.9 (62.9 to 63.0)	-2.0	62.9 (62.5 to 63.3)	64.3 (64.3 to 64.4)	-1.4	65.1 (64.8 to 65.5)	65.6 (65.5 to 65.6)	-0.4	67.6 (66.8 to 68.3)	67.5 (67.4 to 67.5)	0.1	0.54	
Marshall Islands	44.1 (43.3 to 44.8)	51.8 (51.7 to 51.9)	-7.7	58.7 (58.4 to 59.1)	63.4 (63.3 to 63.5)	-4.7	59.8 (59.5 to 60.2)	65.2 (65.1 to 65.2)	-5.3	61.4 (61.1 to 61.7)	66.7 (66.6 to 66.7)	-5.3	63.1 (62.4 to 63.7)	69.1 (69.0 to 69.1)	-6.0	0.61	
Nauru	47.1 (46.3 to 47.8)	63.9 (63.8 to 63.9)	-16.8	55.4 (55.0 to 55.8)	67.9 (67.8 to 67.9)	-12.5	54.7 (54.3 to 55.1)	67.0 (66.9 to 67.0)	-12.3	55.4 (55.0 to 55.8)	67.2 (67.1 to 67.2)	-11.8	57.2 (56.5 to 57.9)	69.5 (69.5 to 69.6)	-12.3	0.63	
Niue	50.3 (49.6 to 51.0)	58.7 (58.6 to 58.7)	-8.4	65.9 (65.6 to 66.2)	69.0 (68.9 to 69.0)	-3.1	67.2 (66.8 to 67.5)	70.0 (69.9 to 70.0)	-2.8	68.7 (68.4 to 69.1)	71.1 (71.1 to 71.2)	-2.4	69.5 (68.8 to 70.2)	72.7 (72.6 to 72.8)	-3.2	0.75	
Northern Mariana Islands	52.4 (51.8 to 53.0)	63.6 (63.6 to 63.7)	-11.3	66.0 (65.7 to 66.3)	71.6 (71.6 to 71.7)	-5.6	66.9 (66.6 to 67.2)	72.7 (72.6 to 72.8)	-5.8	67.9 (67.6 to 68.3)	73.1 (73.0 to 73.2)	-5.1	69.0 (68.5 to 69.7)	74.2 (74.1 to 74.3)	-5.2	0.79	
Palau	46.6 (45.8 to 47.3)	63.2 (63.1 to 63.2)	-16.6	64.0 (63.6 to 64.3)	70.9 (70.8 to 70.9)	-6.9	65.3 (65.0 to 65.6)	71.8 (71.7 to 71.9)	-6.5	66.5 (66.2 to 66.8)	72.2 (72.2 to 72.3)	-5.7	67.7 (67.2 to 68.4)	72.9 (72.8 to 73.0)	-5.1	0.76	
Papua New Guinea	45.0 (43.5 to 46.4)	45.2 (45.1 to 45.3)	-0.2	60.5 (59.8 to 61.2)	57.2 (57.2 to 57.3)	3.3	62.3 (61.6 to 63.0)	59.8 (59.8 to 59.9)	2.5	63.6 (62.9 to 64.3)	61.4 (61.4 to 61.5)	2.1	65.8 (64.6 to 67.1)	62.9 (62.9 to 63.0)	2.9	0.43	
Samoa	57.6 (56.8 to 58.3)	56.3 (56.3 to 56.4)	1.2	68.6 (68.2 to 69.0)	65.7 (65.7 to 65.8)	2.9	69.2 (68.8 to 69.6)	66.8 (66.8 to 66.9)	2.4	70.5 (70.2 to 70.9)	68.0 (68.0 to 68.1)	2.5	70.9 (70.2 to 71.6)	69.1 (69.0 to 69.1)	1.8	0.60	
Solomon Islands	49.9 (49.3 to 50.5)	48.1 (48.1 to 48.2)	1.7	59.1 (58.8 to 59.5)	56.9 (56.9 to 57.0)	2.2	60.8 (60.5 to 61.2)	60.1 (60.0 to 60.2)	0.8	62.0 (61.6 to 62.3)	61.7 (61.6 to 61.8)	0.3	61.9 (61.3 to 62.6)	64.3 (64.3 to 64.4)	-2.4	0.46	

Table 3 continues on next page

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI		
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference
(Continued from previous page)																		
Tokelau	51.3 (50.5 to 52.1)	54.5 (54.5 to 54.7)	-3.2	70.1 (69.8 to 70.4)	67.8 (67.7 to 67.8)	2.3	71.6 (71.3 to 71.9)	69.1 (69.0 to 69.1)	2.5	73.4 (73.0 to 73.7)	70.4 (70.4 to 70.4)	2.9	74.7 (74.1 to 75.4)	72.7 (72.6 to 72.8)	2.0	0.75		
Tonga	56.0 (55.4 to 56.8)	55.1 (55.1 to 55.3)	0.9	68.0 (67.7 to 68.3)	66.3 (66.3 to 66.3)	1.7	68.8 (68.5 to 69.1)	67.8 (67.7 to 67.8)	1.0	69.8 (69.5 to 70.1)	68.5 (68.4 to 68.5)	1.4	70.4 (69.7 to 71.0)	69.7 (69.7 to 69.8)	0.6	0.64		
Tuvalu	44.7 (43.9 to 45.5)	55.4 (55.4 to 55.5)	-10.8	56.2 (55.9 to 56.6)	63.6 (63.6 to 63.7)	-7.4	54.9 (54.4 to 55.3)	66.3 (66.3 to 66.3)	-11.4	60.4 (59.7 to 60.4)	67.8 (67.7 to 67.8)	-7.8	60.4 (59.7 to 61.1)	69.2 (69.1 to 69.2)	-8.8	0.61		
Vanuatu	50.8 (50.1 to 51.5)	50.2 (50.1 to 50.3)	0.6	62.9 (62.5 to 63.3)	59.3 (59.2 to 59.3)	3.6	64.4 (64.0 to 64.8)	61.2 (61.1 to 61.2)	3.2	66.2 (65.8 to 66.6)	62.9 (62.9 to 63.0)	3.3	67.4 (66.6 to 68.2)	64.9 (64.9 to 65.0)	2.5	0.48		
Southeast Asia	43.3 (42.4 to 44.2)	51.5 (51.4 to 51.6)	-8.2	62.6 (62.2 to 62.9)	64.7 (64.7 to 64.8)	-2.2	65.4 (65.1 to 65.7)	67.3 (67.3 to 67.4)	-1.9	67.8 (67.4 to 68.1)	68.7 (68.6 to 68.7)	-0.9	70.1 (69.6 to 70.7)	70.3 (70.2 to 70.3)	-0.2	0.66		
Cambodia	41.7 (40.0 to 43.3)	49.2 (49.1 to 49.2)	-7.5	55.2 (54.2 to 56.1)	55.7 (55.7 to 55.8)	-0.6	59.4 (58.5 to 60.3)	58.4 (58.3 to 58.5)	1.0	67.0 (66.3 to 67.8)	62.7 (62.6 to 62.8)	4.4	70.8 (69.5 to 72.0)	65.9 (65.9 to 66.0)	4.8	0.50		
Indonesia	41.1 (39.5 to 42.8)	49.9 (49.8 to 49.9)	-8.8	62.5 (61.6 to 63.3)	64.3 (64.3 to 64.4)	-1.8	66.4 (65.6 to 67.1)	67.2 (67.1 to 67.2)	-0.8	67.3 (66.5 to 68.1)	68.6 (68.5 to 68.6)	-1.3	70.0 (68.7 to 71.3)	70.4 (70.4 to 70.4)	-0.4	0.67		
Laos	32.9 (30.9 to 34.8)	45.6 (45.5 to 45.7)	-12.6	48.9 (47.9 to 50.1)	54.5 (54.5 to 54.7)	-5.6	54.9 (54.0 to 55.8)	57.8 (57.8 to 57.9)	-2.9	62.2 (61.4 to 63.0)	62.9 (62.9 to 63.0)	-0.7	65.2 (63.9 to 66.5)	66.5 (66.4 to 66.5)	-1.3	0.52		
Malaysia	48.0 (46.8 to 49.2)	51.2 (51.1 to 51.3)	-3.1	69.3 (68.9 to 69.7)	68.2 (68.1 to 68.2)	1.1	70.5 (70.2 to 70.8)	70.2 (70.1 to 70.2)	0.3	72.8 (72.1 to 73.5)	71.5 (71.5 to 71.6)	1.3	74.6 (74.2 to 75.1)	73.4 (73.3 to 73.6)	1.2	0.77		
Maldives	45.5 (44.4 to 46.5)	49.9 (49.8 to 49.9)	-4.4	65.0 (64.7 to 65.4)	57.8 (57.8 to 57.9)	7.2	70.7 (70.4 to 71.0)	65.2 (65.1 to 65.2)	5.6	73.9 (73.6 to 74.2)	68.3 (68.2 to 68.4)	5.6	75.2 (74.7 to 75.7)	70.3 (70.2 to 70.3)	4.9	0.66		
Mauritius	50.8 (50.2 to 51.4)	56.9 (56.9 to 57.0)	-6.2	66.1 (65.7 to 66.4)	67.9 (67.8 to 67.9)	-1.8	68.5 (68.2 to 68.9)	69.4 (69.3 to 69.5)	-0.9	70.6 (70.3 to 70.9)	70.6 (70.6 to 70.7)	-0.0	70.3 (69.8 to 70.8)	72.2 (72.2 to 72.3)	-1.9	0.74		
Myanmar	32.9 (31.0 to 34.6)	45.6 (45.5 to 45.7)	-12.6	51.0 (50.1 to 51.9)	57.2 (57.2 to 57.3)	-6.2	55.1 (54.3 to 56.0)	60.1 (60.0 to 60.2)	-5.0	59.5 (58.8 to 60.4)	64.5 (64.5 to 64.6)	-5.0	61.6 (60.1 to 63.0)	67.0 (66.9 to 67.0)	-5.4	0.53		
Philippines	54.9 (54.3 to 55.5)	57.5 (57.5 to 57.6)	-2.7	65.6 (65.4 to 65.9)	66.5 (66.4 to 66.5)	-0.8	67.1 (66.9 to 67.3)	67.6 (67.6 to 67.7)	-0.5	67.4 (67.2 to 67.6)	68.3 (68.2 to 68.4)	-0.9	68.9 (68.6 to 69.2)	70.5 (70.5 to 70.6)	-1.6	0.67		
Seychelles	57.5 (57.0 to 58.0)	61.4 (61.4 to 61.5)	-3.9	66.1 (65.7 to 66.4)	68.8 (68.8 to 68.9)	-2.7	67.7 (67.3 to 68.0)	70.5 (70.5 to 70.6)	-2.9	69.3 (69.0 to 69.7)	71.2 (71.2 to 71.3)	-1.9	72.2 (71.7 to 72.7)	72.9 (72.8 to 73.0)	-0.7	0.75		
Sri Lanka	55.6 (55.1 to 56.1)	59.5 (59.5 to 59.6)	-3.9	65.5 (65.2 to 65.9)	67.5 (67.4 to 67.5)	-1.9	67.5 (67.3 to 67.8)	69.0 (68.9 to 69.0)	-1.4	70.7 (70.4 to 70.9)	70.2 (70.1 to 70.2)	0.5	73.6 (73.3 to 73.9)	72.1 (72.0 to 72.2)	1.5	0.73		

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
Thailand	52.2 (51.7 to 52.6)	52.1 (52.0 to 52.2)	0.1	68.6 (68.4 to 68.8)	65.9 (65.9 to 66.0)	2.6	67.4 (67.2 to 67.6)	68.3 (68.2 to 68.4)	-1.0	72.0 (71.8 to 72.1)	69.4 (69.3 to 69.5)	2.5	73.7 (73.4 to 73.9)	70.9 (70.8 to 70.9)	2.8	0.69
Timor-Leste	38.5 (36.4 to 40.5)	43.6 (43.4 to 43.7)	-5.1	56.8 (56.0 to 57.7)	54.2 (54.1 to 54.4)	2.6	62.9 (62.1 to 63.6)	59.0 (58.9 to 59.0)	3.9	67.7 (67.0 to 68.4)	61.7 (61.6 to 61.8)	6.0	69.6 (70.9)	65.4 (65.3 to 65.4)	4.3	0.48
Viet Nam	46.3 (45.0 to 47.4)	50.8 (50.8 to 50.9)	-4.6	64.9 (64.3 to 65.4)	62.2 (62.1 to 62.3)	2.7	68.0 (67.4 to 68.5)	65.9 (65.9 to 66.0)	2.0	69.7 (69.0 to 70.5)	68.2 (68.1 to 68.2)	1.5	71.9 (70.6 to 73.2)	70.0 (69.9 to 70.0)	2.0	0.64
Sub-Saharan Africa	40.8 (40.3 to 41.3)	46.3 (46.3 to 46.4)	-5.5	50.0 (49.7 to 50.2)	55.4 (55.4 to 55.5)	-5.5	50.8 (50.5 to 51.1)	57.5 (57.5 to 57.6)	-6.7	57.3 (57.1 to 57.5)	60.6 (60.6 to 60.7)	-3.3	62.2 (62.0 to 62.5)	64.9 (64.9 to 65.0)	-2.7	0.47
Central sub-Saharan Africa	39.6 (38.5 to 40.6)	46.3 (46.3 to 46.4)	-6.7	49.3 (48.7 to 49.9)	56.0 (56.0 to 56.1)	-6.7	50.4 (49.8 to 51.1)	57.2 (57.2 to 57.3)	-6.8	55.8 (55.3 to 56.4)	60.6 (60.6 to 60.7)	-4.8	60.0 (60.8)	65.2 (65.1 to 65.2)	-5.1	0.48
Angola	37.5 (35.8 to 39.0)	45.2 (45.1 to 45.3)	-7.7	46.4 (45.5 to 47.4)	54.2 (54.1 to 54.4)	-7.8	50.5 (49.6 to 51.3)	56.6 (56.6 to 56.7)	-6.2	56.4 (55.6 to 57.1)	61.2 (61.1 to 61.2)	-4.8	60.7 (59.5 to 62.0)	65.9 (65.9 to 66.0)	-5.2	0.50
Central African Republic	40.0 (38.4 to 41.4)	42.4 (42.1 to 42.5)	-2.4	46.9 (46.0 to 47.8)	49.9 (49.8 to 49.9)	-3.0	45.0 (44.1 to 45.8)	51.2 (51.1 to 51.3)	-6.1	50.6 (49.7 to 51.4)	51.8 (51.7 to 51.9)	-1.1	54.3 (53.2 to 55.4)	53.3 (53.2 to 53.5)	1.0	0.26
Congo (Brazzaville)	36.6 (35.0 to 38.2)	47.4 (47.4 to 47.5)	-10.8	53.7 (52.9 to 54.6)	62.2 (62.1 to 62.3)	-8.5	54.4 (53.6 to 55.2)	64.1 (64.0 to 64.1)	-9.7	61.0 (60.3 to 61.6)	65.7 (65.7 to 65.8)	-4.8	62.9 (61.7 to 64.1)	68.5 (68.4 to 68.5)	-5.5	0.58
DR Congo	40.7 (39.1 to 42.3)	46.3 (46.3 to 46.4)	-5.6	49.9 (49.1 to 50.8)	55.1 (55.1 to 55.3)	-5.2	50.5 (49.6 to 51.4)	53.6 (53.5 to 53.8)	-3.2	55.6 (54.8 to 56.4)	54.8 (54.8 to 55.0)	0.7	60.0 (58.9 to 61.1)	61.2 (61.1 to 61.2)	-1.2	0.40
Equatorial Guinea	31.6 (30.0 to 33.3)	42.8 (42.6 to 42.9)	-11.2	45.9 (45.1 to 46.8)	53.9 (53.8 to 54.1)	-8.0	51.0 (50.2 to 51.8)	61.9 (61.9 to 62.0)	-11.0	56.8 (56.1 to 57.5)	67.5 (67.4 to 67.5)	-10.7	58.6 (57.2 to 59.8)	70.0 (69.9 to 70.0)	-11.4	0.65
Gabon	38.5 (36.7 to 40.0)	47.1 (47.0 to 47.1)	-8.6	59.7 (58.8 to 60.4)	62.7 (62.6 to 62.8)	-3.0	60.6 (59.9 to 61.4)	66.1 (66.1 to 66.2)	-5.5	63.9 (63.2 to 64.6)	67.8 (67.7 to 67.8)	-3.9	66.4 (65.2 to 67.7)	69.6 (69.6 to 69.7)	-3.2	0.63
Eastern sub-Saharan Africa	41.3 (40.7 to 41.9)	43.2 (43.0 to 43.3)	-1.9	47.4 (47.0 to 47.8)	51.8 (51.7 to 51.9)	-4.4	49.7 (49.2 to 50.0)	53.6 (53.5 to 53.8)	-4.0	58.3 (58.0 to 58.6)	57.5 (57.5 to 57.6)	0.7	63.3 (62.9 to 63.7)	62.9 (62.9 to 63.0)	0.3	0.43
Burundi	37.9 (36.1 to 39.6)	41.5 (41.3 to 41.7)	-3.7	45.5 (44.5 to 46.5)	50.5 (50.4 to 50.6)	-5.0	41.7 (40.8 to 42.6)	51.2 (51.1 to 51.3)	-9.4	56.6 (55.8 to 57.4)	52.7 (52.6 to 52.8)	3.9	59.8 (58.6 to 61.0)	56.0 (56.0 to 56.1)	3.7	0.31
Comoros	48.8 (47.3 to 50.2)	42.8 (42.6 to 42.9)	6.0	64.4 (63.6 to 65.2)	54.2 (54.1 to 54.4)	10.1	68.2 (67.5 to 68.9)	58.7 (58.6 to 58.7)	9.5	72.9 (72.2 to 73.6)	61.9 (61.9 to 62.0)	11.0	74.3 (73.1 to 75.5)	65.2 (65.1 to 65.2)	9.1	0.48
Djibouti	47.7 (46.4 to 49.0)	47.1 (47.0 to 47.1)	0.6	59.4 (58.7 to 60.3)	57.8 (57.8 to 57.9)	1.6	61.3 (60.5 to 62.0)	59.3 (59.2 to 59.3)	2.0	63.5 (62.7 to 64.3)	61.4 (61.4 to 61.5)	2.1	67.2 (66.0 to 68.5)	65.6 (65.5 to 65.6)	1.7	0.49

Table 3 continues on next page

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
Eritrea	32.4 (30.6 to 34.2)	38.8 (38.5 to 39.1)	-6.5	40.5 (39.0 to 41.9)	50.8 (50.8 to 50.9)	-10.4	53.6 (52.7 to 54.4)	56.9 (56.9 to 57.0)	-3.3	58.3 (57.4 to 59.1)	59.0 (58.9 to 59.0)	-0.7	61.3 (60.0 to 62.5)	62.2 (62.1 to 62.3)	-0.9	0.41
Ethiopia	39.1 (37.6 to 40.7)	38.8 (38.5 to 39.1)	0.3	41.5 (40.6 to 42.3)	45.2 (45.1 to 45.3)	-3.7	47.8 (46.4 to 48.8)	47.1 (47.0 to 47.1)	0.7	58.9 (58.2 to 59.6)	52.7 (52.6 to 52.8)	6.2	63.0 (61.8 to 64.1)	61.2 (61.1 to 61.2)	1.8	0.39
Kenya	46.3 (44.9 to 47.7)	42.8 (42.6 to 42.9)	3.5	60.2 (59.4 to 60.9)	58.1 (58.1 to 58.2)	2.1	55.7 (54.9 to 56.6)	60.6 (60.6 to 60.7)	-4.9	62.6 (61.9 to 63.4)	63.2 (63.1 to 63.2)	-0.5	68.2 (66.9 to 69.4)	67.6 (67.6 to 67.7)	0.6	0.55
Madagascar	41.4 (40.0 to 42.9)	44.8 (44.7 to 44.9)	-3.4	50.5 (49.7 to 51.4)	53.9 (53.8 to 54.1)	-3.4	55.8 (55.1 to 56.6)	54.2 (54.1 to 54.4)	1.6	59.3 (58.6 to 59.9)	55.7 (55.7 to 55.8)	3.5	61.2 (60.1 to 62.2)	60.4 (60.3 to 60.4)	0.8	0.38
Malawi	39.9 (38.1 to 41.6)	40.2 (39.9 to 40.5)	-0.3	43.9 (42.9 to 44.8)	50.5 (50.4 to 50.6)	-6.7	44.2 (43.3 to 45.0)	52.4 (52.3 to 52.5)	-8.2	55.0 (54.2 to 55.9)	56.0 (56.0 to 56.1)	-1.0	59.7 (58.5 to 60.8)	61.9 (61.9 to 62.0)	-2.3	0.41
Mozambique	44.7 (43.1 to 46.3)	41.5 (41.3 to 41.7)	3.2	49.5 (48.5 to 50.4)	48.1 (48.1 to 48.2)	1.3	51.7 (50.9 to 52.6)	49.9 (49.8 to 49.9)	1.9	56.9 (56.1 to 57.7)	53.0 (52.9 to 53.2)	3.9	62.0 (60.8 to 63.2)	58.1 (58.1 to 58.2)	3.9	0.34
Rwanda	33.8 (32.1 to 35.5)	44.4 (44.3 to 44.5)	-10.6	43.0 (42.0 to 43.9)	54.8 (54.8 to 55.0)	-11.9	43.4 (42.5 to 44.3)	55.1 (55.1 to 55.3)	-11.7	59.3 (58.6 to 60.0)	59.3 (59.2 to 59.3)	0.1	61.8 (60.7 to 63.0)	64.3 (64.3 to 64.4)	-2.5	0.46
Somalia	49.3 (47.9 to 50.8)	35.0 (34.5 to 35.5)	14.3	50.2 (49.2 to 51.2)	37.5 (37.0 to 37.8)	12.8	52.6 (51.7 to 53.5)	37.9 (37.5 to 38.3)	14.7	50.3 (49.4 to 51.2)	43.6 (43.4 to 43.7)	6.7	62.6 (61.6 to 63.7)	51.5 (51.4 to 51.6)	11.2	0.23
South Sudan	42.8 (41.3 to 44.3)	49.2 (49.1 to 49.2)	-6.4	47.8 (46.8 to 48.7)	54.5 (54.5 to 54.7)	-6.8	50.5 (49.6 to 51.4)	55.7 (55.7 to 55.8)	-5.2	54.0 (53.2 to 54.8)	59.0 (58.9 to 59.0)	-5.0	54.1 (52.9 to 55.4)	60.4 (60.3 to 60.4)	-6.2	0.38
Uganda	42.7 (41.1 to 44.2)	41.1 (40.8 to 41.3)	1.6	44.3 (43.5 to 45.2)	48.5 (48.5 to 48.5)	-4.2	46.1 (45.2 to 47.0)	51.5 (51.4 to 51.6)	-5.3	56.5 (55.7 to 57.3)	57.5 (57.5 to 57.6)	-1.0	63.1 (61.9 to 64.3)	63.4 (63.3 to 63.5)	-0.3	0.44
Tanzania	43.8 (42.1 to 45.2)	41.9 (41.7 to 42.1)	1.8	53.8 (52.9 to 54.6)	53.6 (53.5 to 53.8)	0.1	53.8 (52.9 to 54.6)	55.4 (55.4 to 55.5)	-1.7	61.5 (60.7 to 62.3)	59.3 (59.2 to 59.3)	2.2	67.8 (66.6 to 68.9)	64.5 (64.5 to 64.6)	3.3	0.47
Zambia	42.2 (40.7 to 43.6)	44.8 (44.7 to 44.9)	-2.6	47.8 (46.9 to 48.7)	56.3 (56.3 to 56.4)	-8.5	42.5 (41.7 to 43.4)	56.9 (56.9 to 57.0)	-14.4	53.9 (53.1 to 54.6)	60.6 (60.6 to 60.7)	-6.8	60.4 (59.1 to 61.6)	66.1 (66.1 to 66.2)	-5.8	0.51
Southern sub-Saharan Africa	47.5 (46.4 to 48.6)	56.0 (56.0 to 56.1)	-8.5	62.0 (61.3 to 62.7)	66.5 (66.4 to 66.5)	-4.5	52.6 (52.3 to 52.9)	68.0 (68.0 to 68.1)	-15.4	55.2 (54.9 to 55.4)	69.0 (69.0 to 69.1)	-13.9	62.9 (62.6 to 63.2)	70.3 (70.2 to 70.3)	-7.4	0.66
Botswana	44.2 (43.4 to 45.0)	44.8 (44.7 to 44.9)	-0.6	61.0 (60.7 to 61.4)	63.4 (63.3 to 63.5)	-2.4	46.6 (46.2 to 47.0)	67.5 (67.4 to 67.5)	-20.9	63.1 (62.8 to 63.4)	69.5 (69.5 to 69.6)	-6.5	67.4 (66.7 to 67.9)	70.8 (70.7 to 70.8)	-3.4	0.68
Eswatini	36.2 (34.8 to 37.5)	44.8 (44.7 to 44.9)	-8.6	52.5 (51.6 to 53.3)	61.4 (61.4 to 61.5)	-8.9	46.6 (45.7 to 47.5)	64.9 (64.9 to 65.0)	-18.4	45.0 (44.0 to 46.0)	67.2 (67.1 to 67.2)	-22.1	58.8 (57.4 to 60.2)	69.1 (69.0 to 69.1)	-10.3	0.61

(Table 3 continues on next page)

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	
(Continued from previous page)																
Lesotho	43.1 (41.7 to 44.3)	47.4 (47.4 to 47.5)	-4.4	55.1 (54.4 to 55.9)	58.4 (58.3 to 58.5)	-3.3	45.3 (44.4 to 46.1)	61.4 (61.4 to 61.5)	-16.1	50.1 (49.3 to 51.0)	63.9 (63.8 to 63.9)	-13.7	55.3 (53.9 to 56.7)	66.3 (66.3 to 66.3)	-11.0	0.51
Namibia	40.6 (39.8 to 41.3)	49.9 (49.8 to 49.9)	-9.3	56.4 (56.0 to 56.8)	63.2 (63.1 to 63.2)	-6.8	52.1 (51.6 to 52.5)	65.7 (65.7 to 65.8)	-13.7	58.9 (58.5 to 59.3)	67.5 (67.4 to 67.5)	-8.6	63.4 (62.6 to 64.1)	69.4 (69.3 to 69.5)	-6.0	0.62
South Africa	48.1 (46.6 to 49.6)	58.1 (58.1 to 58.2)	-10.0	63.0 (62.1 to 63.9)	67.5 (67.4 to 67.5)	-4.5	55.6 (55.3 to 55.9)	69.0 (68.9 to 69.0)	-13.3	55.4 (55.1 to 55.7)	69.9 (69.8 to 69.9)	-14.5	63.3 (63.0 to 63.5)	71.1 (71.1 to 71.2)	-7.8	0.70
Zimbabwe	49.1 (47.8 to 50.4)	48.1 (48.1 to 48.2)	1.0	61.4 (60.6 to 62.1)	62.2 (62.1 to 62.3)	-0.8	44.6 (43.7 to 45.5)	64.1 (64.0 to 64.1)	-19.5	54.8 (53.9 to 55.6)	62.9 (62.9 to 63.0)	-8.2	63.8 (62.5 to 65.1)	65.6 (65.5 to 65.6)	-1.8	0.49
Western sub-Saharan Africa	39.5 (38.6 to 40.5)	45.2 (45.1 to 45.3)	-5.7	50.3 (49.8 to 50.7)	53.9 (53.8 to 54.1)	-3.7	52.1 (51.7 to 52.5)	56.3 (56.3 to 56.4)	-4.3	57.8 (57.5 to 58.2)	59.8 (59.8 to 59.9)	-2.0	62.3 (61.8 to 62.8)	64.3 (64.3 to 64.4)	-2.0	0.46
Benin	40.5 (38.8 to 42.1)	42.8 (42.6 to 42.9)	-2.3	51.3 (50.4 to 52.1)	50.8 (50.8 to 50.9)	0.4	55.2 (54.4 to 56.0)	53.0 (52.9 to 53.2)	2.2	59.4 (58.6 to 60.1)	55.7 (55.7 to 55.8)	3.6	63.4 (62.3 to 64.6)	61.7 (61.6 to 61.8)	1.8	0.41
Burkina Faso	41.7 (39.8 to 43.5)	38.4 (38.0 to 38.7)	3.3	48.3 (47.3 to 49.3)	44.8 (44.7 to 44.9)	3.5	51.0 (50.0 to 51.9)	47.8 (47.7 to 47.8)	3.2	60.9 (60.1 to 61.6)	51.2 (51.1 to 51.3)	9.7	65.4 (64.3 to 66.5)	56.0 (56.0 to 56.1)	9.3	0.31
Cabo Verde	56.2 (54.9 to 57.5)	46.3 (46.3 to 46.4)	9.9	66.4 (65.8 to 67.1)	55.1 (55.1 to 55.3)	11.3	68.6 (67.9 to 69.2)	60.1 (60.0 to 60.2)	8.5	71.2 (70.5 to 71.8)	64.7 (64.7 to 64.8)	6.4	72.8 (71.8 to 73.9)	67.9 (67.8 to 67.9)	4.9	0.56
Cameroon	38.3 (36.5 to 39.9)	44.8 (44.7 to 44.9)	-6.5	53.3 (52.4 to 54.1)	56.0 (56.0 to 56.1)	-2.7	51.0 (50.1 to 51.8)	58.7 (58.6 to 58.7)	-7.7	55.0 (54.2 to 55.8)	61.2 (61.1 to 61.2)	-6.2	61.1 (59.9 to 62.2)	65.4 (65.3 to 65.4)	-4.3	0.49
Chad	41.8 (40.3 to 43.3)	38.8 (38.5 to 39.1)	2.9	46.7 (45.8 to 47.6)	43.2 (43.0 to 43.3)	3.5	48.3 (47.5 to 49.1)	45.2 (45.1 to 45.3)	3.2	52.9 (52.0 to 53.7)	48.5 (48.5 to 48.5)	4.4	56.7 (55.6 to 57.8)	52.1 (52.0 to 52.2)	4.6	0.24
Côte d'Ivoire	39.8 (38.1 to 41.3)	43.6 (43.4 to 43.7)	-3.8	53.0 (52.2 to 53.9)	54.8 (54.8 to 55.0)	-1.8	51.8 (51.0 to 52.7)	57.8 (57.8 to 57.9)	-6.0	58.5 (57.7 to 59.3)	59.5 (59.5 to 59.6)	-1.1	62.6 (61.4 to 63.7)	63.9 (63.8 to 63.9)	-1.3	0.45
The Gambia	47.0 (45.5 to 48.5)	44.8 (44.7 to 44.9)	2.2	59.0 (58.1 to 59.8)	52.4 (52.3 to 52.5)	6.6	61.0 (60.3 to 61.7)	56.0 (56.0 to 56.1)	4.9	64.3 (63.5 to 65.0)	59.0 (58.9 to 59.0)	5.3	66.1 (64.9 to 67.2)	63.2 (63.1 to 63.2)	2.9	0.43
Ghana	43.5 (42.1 to 44.9)	51.8 (51.7 to 51.9)	-8.3	54.2 (53.4 to 54.9)	60.1 (60.0 to 60.2)	-5.9	56.5 (55.8 to 57.2)	63.2 (63.1 to 63.2)	-6.7	59.8 (59.1 to 60.5)	65.4 (65.3 to 65.4)	-5.5	62.9 (61.7 to 64.0)	68.3 (68.2 to 68.4)	-5.4	0.57
Guinea	36.7 (34.9 to 38.5)	38.8 (38.5 to 39.1)	-2.1	47.9 (46.9 to 48.9)	48.5 (48.5 to 48.5)	-0.6	52.3 (51.4 to 53.2)	51.2 (51.1 to 51.3)	1.2	57.6 (56.9 to 58.4)	53.6 (53.5 to 53.8)	4.0	61.8 (60.6 to 62.9)	59.0 (58.9 to 59.0)	2.8	0.36
Guinea-Bissau	36.2 (34.2 to 38.0)	39.3 (39.0 to 39.6)	-3.1	48.8 (47.8 to 49.8)	50.2 (50.1 to 50.3)	-1.4	51.8 (51.0 to 52.7)	53.0 (52.9 to 53.2)	-1.2	56.7 (55.9 to 57.4)	55.4 (55.4 to 55.5)	1.2	60.5 (59.4 to 61.6)	60.1 (60.0 to 60.2)	0.5	0.37

(Table 3 continues on next page)

(Table 3 continues on next page)

	1950			1990			2000			2010			2023			SDI	
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Life expectancy	Difference
(Continued from previous page)																	
Liberia	39.0 (37.3 to 40.6)	46.0 (45.9 to 46.0)	-7.0	43.4 (42.4 to 44.4)	52.4 (52.3 to 52.5)	-9.0	49.7 (48.9 to 50.6)	51.8 (51.7 to 51.9)	-2.0	56.8 (56.0 to 57.5)	55.1 (55.1 to 55.3)	1.6	60.4 (59.3 to 61.5)	60.6 (60.6 to 60.7)	-0.2	0.38	
Mali	39.1 (37.0 to 41.0)	38.8 (38.5 to 39.1)	0.3	47.7 (46.6 to 48.8)	44.4 (44.3 to 44.5)	3.3	52.0 (51.1 to 52.9)	46.7 (46.6 to 46.8)	5.3	59.1 (58.3 to 59.9)	49.9 (49.8 to 49.9)	9.3	62.4 (61.2 to 63.5)	54.8 (54.8 to 55.0)	7.6	0.28	
Mauritania	50.4 (49.1 to 51.7)	49.9 (49.8 to 49.9)	0.6	59.5 (58.7 to 60.2)	58.1 (58.1 to 58.2)	1.4	62.4 (61.7 to 63.1)	60.9 (60.8 to 61.0)	1.5	65.0 (64.3 to 65.7)	62.7 (62.6 to 62.8)	2.3	67.5 (66.5 to 68.6)	66.7 (66.6 to 66.7)	0.9	0.52	
Niger	39.3 (37.2 to 41.3)	37.5 (37.0 to 37.8)	1.8	42.1 (40.8 to 43.4)	40.6 (40.4 to 40.9)	1.5	47.7 (46.6 to 48.8)	42.8 (42.6 to 42.9)	4.9	54.4 (53.5 to 55.3)	45.2 (45.1 to 45.3)	9.2	58.2 (57.1 to 59.3)	49.9 (49.8 to 49.9)	8.4	0.20	
Nigeria	38.7 (36.8 to 40.6)	46.0 (45.9 to 46.0)	-7.2	50.3 (49.3 to 51.2)	55.7 (55.7 to 55.8)	-5.5	51.9 (51.0 to 52.6)	57.5 (57.5 to 57.6)	-5.7	57.9 (57.2 to 58.8)	61.7 (61.6 to 61.8)	-3.7	63.1 (61.9 to 64.1)	66.3 (66.3 to 66.3)	-3.2	0.51	
São Tomé and Príncipe	45.6 (44.0 to 47.4)	48.5 (48.5 to 48.5)	-2.9	61.7 (60.9 to 62.5)	56.9 (56.9 to 57.0)	4.8	62.2 (61.5 to 62.9)	58.1 (58.1 to 58.2)	4.1	64.3 (63.6 to 65.0)	61.7 (61.6 to 61.8)	2.6	68.6 (67.4 to 69.7)	66.8 (66.8 to 66.9)	1.8	0.52	
Senegal	44.4 (42.7 to 45.9)	41.5 (41.3 to 41.7)	2.8	55.2 (54.3 to 56.1)	52.1 (52.0 to 52.2)	3.1	59.3 (58.5 to 60.1)	55.1 (55.1 to 55.3)	4.2	65.1 (64.4 to 65.8)	57.5 (57.5 to 57.6)	7.6	68.5 (67.4 to 69.7)	62.2 (62.1 to 62.3)	6.3	0.41	
Sierra Leone	37.9 (36.4 to 39.5)	44.0 (43.8 to 44.1)	-6.1	44.9 (43.9 to 46.0)	50.5 (50.4 to 50.6)	-5.6	46.2 (45.4 to 47.2)	50.8 (50.8 to 50.9)	-4.6	52.1 (51.3 to 53.0)	54.8 (54.8 to 55.0)	-2.7	57.3 (56.1 to 58.5)	60.6 (60.6 to 60.7)	-3.3	0.38	
Togo	38.4 (36.6 to 40.2)	42.8 (42.6 to 42.9)	-4.4	53.4 (52.5 to 54.3)	55.1 (55.1 to 55.3)	-1.7	53.6 (52.8 to 54.5)	57.5 (57.5 to 57.6)	-3.9	57.7 (56.9 to 58.5)	59.5 (59.5 to 59.6)	-1.8	62.8 (61.6 to 63.9)	64.3 (64.3 to 64.4)	-1.5	0.46	

Data in parentheses are 95% uncertainty intervals. Life expectancies and differences between estimated and expected life expectancies are given in years. A positive difference indicates that the estimated life expectancy is better than would be expected solely on the basis of SDI, while a negative difference indicates worse than expected life expectancy. SDI=Socio-demographic Index. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. *UN convention recognises Taiwan as a province of China.

Table 3: Male life expectancy (estimated, expected based on SDI, and their difference) for 1950, 1990, 2000, 2010, and 2023, and SDI in 2023, globally and for GBD super-regions, regions, and countries and territories

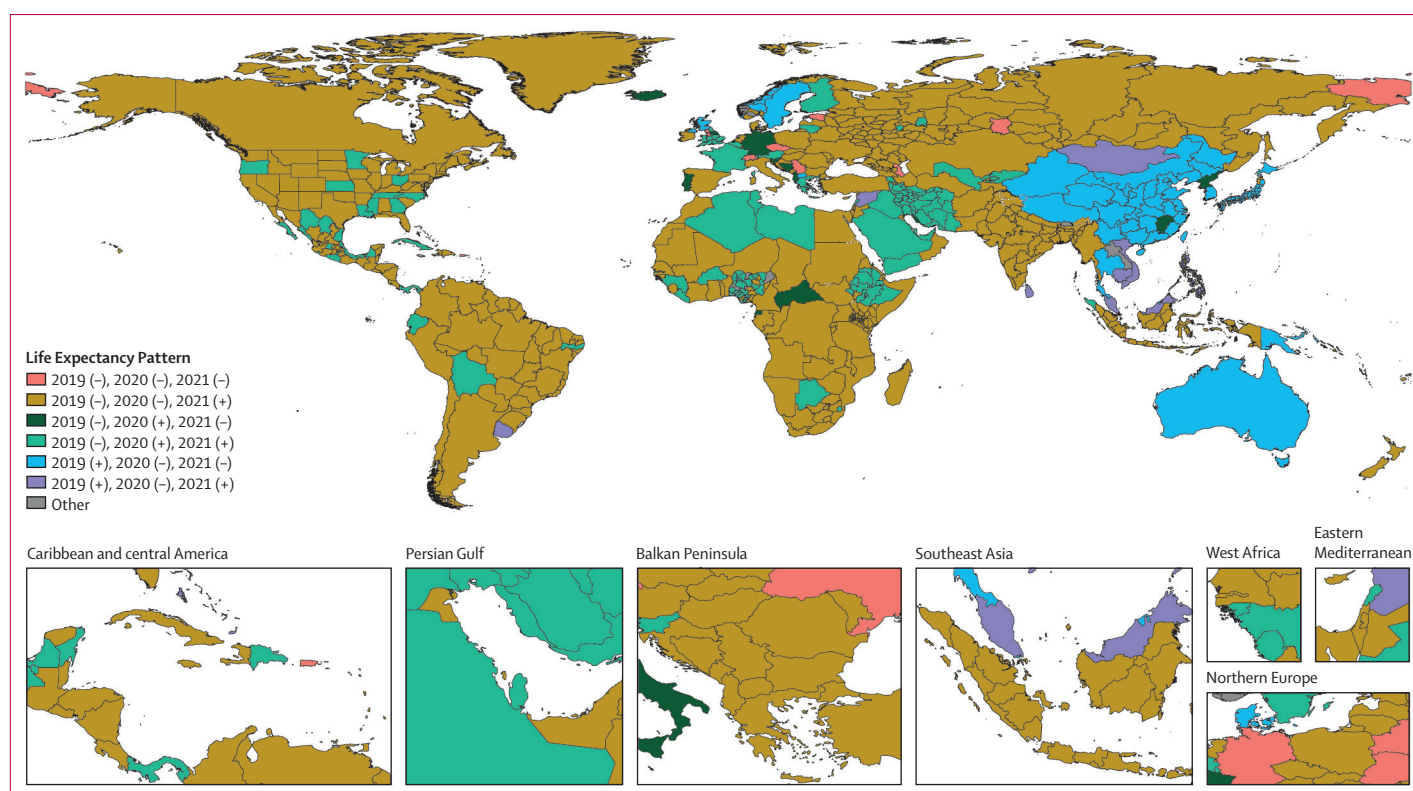


Figure 8: Patterns of location-specific changes in life expectancy during and following the COVID-19 pandemic (2019–22)

The life expectancy pattern is based on whether life expectancy increased (+) or decreased (–) between two adjacent years. The + or – after 2019 compares 2019 to 2020, the + or – after 2020 compares 2020 to 2021, and the + or – after 2021 compares 2021 to 2022. For example, the – after 2019 indicates that life expectancy was lower in 2020 compared to 2019. The Other category corresponds to the remaining 2 life expectancy patterns not otherwise listed.

in number of deaths, the largest post-pandemic recovery occurred in Tunisia, Bolivia, and Peru, where the number of deaths declined by 37.4% (35.7–39.1), 36.8% (35.1–38.5), and 36.0% (34.6–37.4), respectively, between 2021 and 2023. In total, 162 countries and territories experienced a decrease in deaths over this pandemic recovery period. The number of deaths increased in the remaining 42 countries and territories, with the largest increases occurring in Palestine (101.9% [91.1–113.9]), the United Arab Emirates (14.2% [6.7–22.1]), and Japan (12.1% [11.9–12.3]).

Globally, age-standardised mortality rates increased by 14.0% (95% UI 13.1 to 14.9) from 2019 to 2021, and subsequently declined by 12.4% (10.9 to 13.9) from 2021 to 2023 (appendix 2 table S3A). Super-regional rankings remained unchanged between 2019 and 2023. Between 2019 and 2023, the largest declines occurred in central Europe, eastern Europe, and central Asia (3.4% [2.1 to 4.4] decrease) and sub-Saharan Africa (3.2% [1.7 to 4.5] decrease), while little to no increase occurred in the high-income super-region (2.4% [2.2 to 2.7]); southeast Asia, east Asia, and Oceania (1.8% [–3.8 to 7.5]); and Latin America and the Caribbean (0.7% [0.1 to 1.4]). In the pandemic recovery period (2021–23), age-standardised mortality rates improved for 194 (95.1%) of

204 countries, with the largest declines occurring in Tunisia (40.3% [38.7 to 41.9] improvement), Malawi (39.6% [35.3 to 43.9] improvement), and Namibia (38.7 [37.5–39.9]). Among the remaining ten countries and territories, the largest increases in age-standardised mortality rates between 2021 and 2023 were in Palestine (25.1% [20.3 to 30.5]), Japan (4.7% [4.5 to 5.0]), and New Zealand (4.3% [2.8 to 5.8]). 194 (95.1%) of 204 countries and territories saw at least partial recovery from the pandemic by 2023, with nearly two-thirds (125 [61.3%] of 204) recovering to pre-pandemic (2019) levels (appendix 2 table S3A).

At the global level, the ARC in life expectancy was 0.5% (95% UI 0.5 to 0.5) between 2000 and 2019, and –1.3% (–1.4 to –1.2) between 2019 and 2021 (appendix 2 table S4A), reflecting a decline in overall life expectancy from 76.3 (76.2 to 76.4) years for females and 71.4 (71.3 to 71.5) years for males in 2019 to 74.7 (74.6 to 74.8) years for females and 69.3 (69.2 to 69.4) years for males in 2021 (appendix 2 tables S4B, S4C). Between 2021 and 2023, the ARC was 1.3% (1.1 to 1.5), rising to 76.3 (76.0 to 76.6) years for females and 71.5 (71.2 to 71.8) years for males in 2023 (appendix 2 tables S4B, S4C). These estimates demonstrate a decline in life expectancy in the 2020–21

	1990			2000			2010			2023		
	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference	Estimated life expectancy	Expected life expectancy	Difference
Global	49.5 (49.1 to 49.8)	61.6 (61.6 to 61.7)	-12.2	64.6 (64.5 to 64.8)	69.5 (69.5 to 69.5)	-4.9	71.0 (70.9 to 71.0)	72.2 (72.2 to 72.3)	-1.2	73.8 (73.6 to 74.1)	73.7 (73.7 to 73.7)	0.1
Low SDI	41.8 (41.4 to 42.3)	46.6 (46.5 to 46.7)	-4.8	53.3 (53.1 to 53.5)	53.8 (53.8 to 53.9)	-0.5	56.7 (56.4 to 56.7)	60.7 (60.7 to 60.8)	1.2	66.3 (66.0 to 66.6)	66.5 (66.5 to 66.6)	-0.2
Low-middle SDI	38.1 (37.3 to 39.0)	50.3 (50.2 to 50.3)	-12.1	59.4 (59.0 to 59.7)	60.4 (60.4 to 60.5)	-1.0	63.0 (62.8 to 63.2)	63.7 (63.6 to 63.7)	-0.7	70.0 (69.5 to 70.5)	71.0 (70.9 to 71.0)	-1.0
Middle SDI	44.3 (43.8 to 44.8)	53.2 (53.1 to 53.3)	-8.9	65.9 (65.7 to 66.1)	66.5 (66.5 to 66.6)	-0.6	69.1 (68.9 to 69.2)	69.1 (69.1 to 69.1)	-0.0	73.4 (73.1 to 73.7)	73.2 (73.2 to 73.3)	0.2
High-middle SDI	46.9 (46.2 to 47.6)	54.8 (54.7 to 54.9)	-7.9	66.5 (66.3 to 66.9)	68.1 (68.1 to 68.2)	-1.6	69.6 (69.4 to 69.8)	70.4 (70.3 to 70.4)	-0.8	76.6 (76.2 to 77.0)	74.3 (74.3 to 74.4)	2.2
High SDI	59.1 (58.7 to 59.4)	67.9 (67.9 to 67.9)	-8.8	72.2 (72.0 to 72.3)	73.5 (73.4 to 73.5)	-1.3	74.0 (73.9 to 74.1)	74.8 (74.7 to 74.8)	-0.8	79.5 (79.3 to 79.7)	77.9 (77.8 to 77.9)	1.7

Life expectancies and differences between estimated and expected life expectancies are given in years. A positive difference indicates that the estimated life expectancy is better than would be expected based on the basis of SDI, while a negative difference indicates worse than expected life expectancy. SDI=Socio-demographic Index.

Table 4: Life expectancy (estimated, expected based on SDI, and its difference), globally and by SDI quintile, for 1990, 2000, 2010, and 2023

pandemic period followed by a recovery to 2019 levels by 2023 (figure 7). That said, the impact of the COVID-19 pandemic on life expectancy varied across the world. The ARC during the pandemic years (ie, rates of change from 2019 to 2020 and 2021) varied from -2.7% (-2.8 to -2.7) in Latin America and the Caribbean to just -0.6% (-0.8 to -0.4) in southeast Asia, east Asia, and Oceania (appendix 2 table S4A). Likewise, the largest post-pandemic life expectancy rebound occurred in Latin America and the Caribbean (ARC 2.7% [2.6 to 2.7] in 2021–23), while the smallest rebound occurred in southeast Asia, east Asia, and Oceania (0.4% [0.0 to 0.8] in 2021–23).

At the national level, 157 (77.0%) of 204 countries and territories experienced life expectancy declines over the 2020–21 pandemic period compared to 2019 (appendix 2 table S4A). The largest absolute declines occurred in Malawi (a decrease of 5.6 [95% UI 5.1–6.1] years), Namibia (a decrease of 5.6 [5.5–5.7] years), and Paraguay (a decrease of 5.1 [5.0–5.3] years). Between 2021 and 2023, all but 13 (6.4%) countries and territories saw an increase in life expectancy (appendix 2 table S4A). The largest decrease between 2021 and 2023 occurred in Palestine (a decline of 8.6 [7.7–9.7] years), while the largest increases occurred in Namibia (an increase of 7.7 [7.4–8.1] years), Bolivia (an increase of 7.2 [6.9–7.6] years), and Zimbabwe (an increase of 6.8 [5.7–7.9] years). Similar to rebounds in age-standardised mortality rates, 2023 life expectancy exceeded 2019 life expectancy in nearly two-thirds (130 [63.7%] of 204) of countries and territories, demonstrating that life expectancy has largely returned to and is now exceeding pre-pandemic levels. The largest absolute increases in life expectancy between 2019 and 2023 in countries and territories with populations greater than 1 million occurred in Yemen (an increase of 2.9 [1.9–3.9] years) and Armenia (an increase of 2.3 [1.7–2.8] years).

Several major trends emerged when evaluating countries based on yearly increases or decreases in mean life expectancy during the 2020–23 pandemic and recovery periods (figure 8). The majority of countries and territories (126 [61.8%] of 204) had decreases in 2019–20 and 2020–21, followed by an increase in 2021–22. 118 of these countries and territories had a further increase in 2022–23. 33 countries and territories had decreases from 2019 to 2020 followed by increases in 2020–21 and 2021–22, with 29 of these having a further increase in 2022–23. These were the most common patterns, reflecting differences in pandemic severity in differing years across the 2020–2023 period. Additionally, 13 countries and territories had increased life expectancy in 2019–20, decreased life expectancy in 2020–21, and increased life expectancy in 2021–22, while 11 had increased life expectancy in 2019–20, decreased life expectancy in 2020–21, and decreased life expectancy again in 2021–22. Seven countries and

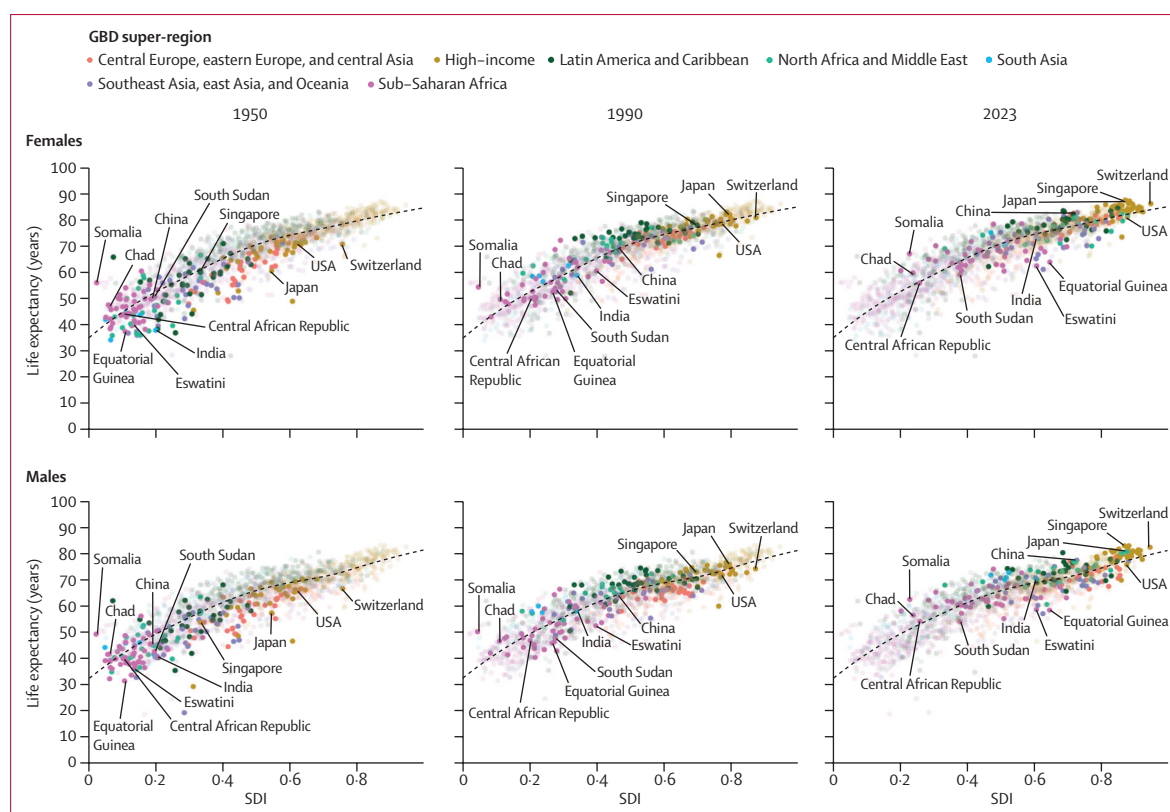


Figure 9: National life expectancy at birth versus SDI, and expected life expectancy based on SDI, in females and males, in 1950, 1990, and 2023

Life expectancy at birth is shown for 204 countries and territories coloured by GBD super-region. Transparent points in all plots show every fifth year between 1950, 2015, and 2023 in the first two columns. The black line represents the expected life expectancy at birth based on SDI, and the shaded area corresponds to 95% uncertainty intervals. The labelled countries are those mentioned in the Results section for having the highest or lowest value of a mortality indicator. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. SDI=Socio-demographic Index.

territories had decreased life expectancy in all years from 2019 to 2022: Belarus, Canada, Finland, Germany, Portugal, Puerto Rico, and Ukraine. Finally, 11 countries had decreased life expectancy in 2019–20, increased life expectancy in 2020–21, and decreased life expectancy again in 2021–22: Andorra, Chad, Eritrea, France, Iceland, Ireland, Italy, Malta, North Korea, San Marino, and Spain. These varying trajectories were observed within and across super-regions. Countries in sub-Saharan Africa generally had decreases in life expectancy in 2019–20 and 2020–21, followed by an increase in 2021–22, or had a decrease in 2019–20 followed by increases in 2020–21 and 2021–22. Countries that had increased life expectancy from 2019 to 2020 before decreasing in 2021 and 2022 were largely found in the high-income super-region and in southeast Asia, east Asia, and Oceania.

Estimated life expectancy versus expected life expectancy based on SDI

Over the 1950–2023 study period, life expectancy at birth was broadly positively associated with SDI level (figure 7, table 4). Likewise, between 1950 and 2023, both life expectancy and SDI increased in all 204 countries and

territories. However, there was considerable variation in the relationship between national-level life expectancy (as estimated), and the life expectancy that would be expected solely on the basis of the SDI level for that country (figure 9). In other words, some countries and territories performed better or worse on life expectancy compared to what would be expected based on that location's level of social and economic development. Overall, in 2023, 123 (60.3%) of 204 countries and territories overperformed (ie, estimated life expectancy was higher than expected based on SDI), while the remaining 81 had lower estimated life expectancy than expected based on SDI.

For females in 2023, the super-regions with the largest proportion of countries and territories with a higher than expected life expectancy were the high-income super-region (32 of 36 countries and territories above expected), Latin America and the Caribbean (24 of 33), and central Europe, eastern Europe, and central Asia (18 of 29; table 2). Meanwhile, the largest proportion of countries and territories with lower than expected life expectancy were found in southeast Asia, east Asia, and Oceania (24 of 34 countries and territories below expected), sub-Saharan Africa (29 of 46), and

south Asia (three of five). At the national level, the largest positive difference between estimated and expected life expectancy in females in 2023 was in Somalia (12·5 years; ie, it had the largest absolute overperformance in estimated life expectancy compared to SDI-expected life expectancy). Among countries and territories with populations greater than 1 million, the largest negative difference was in Eswatini (–12·4 years; table 2).

Estimates for males had some overlap with females, but with notable differences, especially at the super-region level (figure 9; table 3). For males, the largest proportions with better than expected life expectancy were in south Asia (five of five countries and territories), the high-income super-region (33 of 36), and north Africa and the Middle East (15 of 21), while the largest proportions with worse than expected life expectancy were in central Europe, eastern Europe, and central Asia (18 of 29), southeast Asia, east Asia, and Oceania (19 of 34), and sub-Saharan Africa (24 of 46). The country with a population greater than 1 million with the largest positive difference between estimated and expected life expectancy in males in 2023 was Somalia (11·3 years), while the largest negative difference was in Equatorial Guinea (–11·4 years; table 3).

Discussion

Main findings

This novel demographic analysis identified several key trends in all-cause mortality across age, location, and time. First, life expectancy and mortality have largely recovered to pre-COVID-19 pandemic levels, with essentially no difference in life expectancy or age-standardised mortality rates between 2019 and 2023 at the global level and in approximately two-thirds of countries and territories. That said, these broad patterns mask considerable heterogeneity in life expectancy and mortality trajectories during and following the pandemic at the national level. We also found that mortality patterns in recent years (2011–23) varied by age group and location, including widespread declines in the under-5 age group, with the largest declines occurring in east Asia; decreases in those aged 5–19 years across nearly all regions except for eastern Europe, high-income North America, and the Caribbean; and the largest increases in those aged 20–39 years occurring in high-income North America. These and other age-location-specific findings indicate that mortality rates in certain populations are substantially higher or lower than previously estimated by GBD, UNPD, and other major demographic studies. In particular, we identified higher than previously estimated mortality rates in sub-Saharan Africa for adolescents and young adult females, as well as lower than previously estimated rates mortality in older age groups in sub-Saharan Africa, reflecting advances in our modelling approach to incorporate previously

unusable and more readily available and reliable data sources.

Data availability and gaps

While the completeness of death registration has continuously increased globally since 1950, this progress has not been observed in all GBD super-regions. Civil registration and vital statistics are overwhelmingly scarce in sub-Saharan Africa, contributing to wide uncertainty for many estimates in this super-region. While South Africa has the best functioning VR system in the region, many others do not report any deaths from a central VR system. Developing and strengthening VR systems in these nations is crucial to improve data availability and quality to inform more accurate demographic and health estimates.²⁹ Although establishing fully complete death registration is the long-term goal, a short-term focus on establishing sample registration systems that are representative at the national level is one way to improve data availability and quality with less investment of money and time, while continuing to scale up national systems.³⁰ Development of such systems is currently underway in Sierra Leone,³¹ Mozambique,³² and Zambia.³³ Systems such as these will be able to provide more timely data, which is imperative for tracking emerging health events such as the COVID-19 pandemic if they are able to capture all deaths. Furthermore, releasing VR data as soon as possible, even in a preliminary state, is useful to inform trends in most recent years. Our new methodology allows incorporation of provisional data at large aggregation scales, such as yearly total deaths, which aids timeliness and relevancy of estimates.

Additionally, many countries and territories would benefit from collecting data from other sources, such as nationally representative surveys. For the 2020–23 period, 49 countries and territories had no available data on under-5 mortality, and 67 countries and territories had no available nationally representative data on mortality in those older than 15 years, predominantly in sub-Saharan Africa. However, funding of these collection efforts is in a concerning state, with the most prominent source of survey data in low-income and middle-income countries, the USAID Demographic and Health Surveys (DHS) Program, having had its operations suspended potentially permanently.³⁴ These data are crucial to inform health estimates; for 33 countries and territories, DHS has been the source of the majority of their data since 2000, with many of these countries and territories having high mortality and poor health outcomes, such as the Central African Republic and South Sudan. Losing these surveys in the coming years is of major concern to the estimation of demographic indicators and several other health metrics.

Long-term mortality trends

Many agencies and researchers have used mortality trends since 1950 to understand the global landscape of

health trajectories.^{35–38} One notable example is the UN Sustainable Development Goal (SDG) target 3.2 of an under-5 mortality rate of no more than 25 deaths per 1000 livebirths by 2030.³⁹ Progress on this target has varied considerably between countries and territories, with notable declines over the study period, but 69 of 204 countries and territories (as of 2023) are not on track to reach this target based on their trajectory of under-5 mortality rate between 2010 and 2023 (appendix 2 table S2A). To accelerate progress in these locations, reducing global inequities in access to high-quality health care, particularly maternal, neonatal, and child health services; vaccines; safe water, sanitation, and hygiene; and other essential health programmes and policies will be crucial, with greater funding and attention paid to the populations most affected by under-5 mortality.^{28,39} The substantial achievements in reducing under-5 mortality over the past several decades⁴⁰ are being threatened by the suspension of USAID—the US government contributed 22.6% of all development assistance for health in 2023⁴¹—and cuts to other funding sources, such as UK foreign aid.⁴² To maintain progress or even prevent reversals in under-5 mortality in high-risk populations, it will be imperative to mitigate the effects of these funding cuts, while also expanding other funding streams such as those from non-governmental organisations.

Although not all countries are on track to meet the SDG targets for under-5 mortality rates, the emphasis placed on policies and funding to address neonatal and under-5 mortality around the world has led to much larger improvements in the under-5 mortality rate over the past 25 years than in older children (aged 5–14 years), adolescents (aged 15–19 years), and young adults (aged 20–39 years). In particular, we found that mortality rates in those aged 5–14 years for both males and females and those aged 15–29 years for females in sub-Saharan Africa were higher than previously believed in sub-Saharan Africa, primarily due to the additional data included from complete birth histories. These data indicate higher mortality in those aged 5–14 years, which increased estimates for these ages directly and increased estimates for those aged 15–29 years indirectly through modelled age correlations. We also identified trends of substantively increasing mortality since 2011 in those aged 20–39 years in parts of North and Latin America, particularly the USA, Canada, Mexico, and Brazil. Our findings on mortality in these age groups illustrate that the current narrative on global mortality patterns does not follow the best available findings, and that prevailing approaches and policy priorities for mortality reduction around the world must shift to better address the current reality.

High mortality rates in children and adolescents aged 5–14 years in sub-Saharan Africa are heavily influenced by the particularly high rates of respiratory infections and tuberculosis, other infectious diseases, and

unintentional injuries, for which we estimated approximately double the mortality rate in 2021 in this study compared to GBD 2021.^{28,43} Meanwhile, mortality rates in females aged 15–29 years in sub-Saharan Africa are affected most by higher than previously estimated rates of maternal mortality and, to a lesser extent, road injuries and meningitis.^{28,43} By contrast, high mortality rates in the population aged 20–39 years in North and Latin America reflect high and persistent rates of so-called deaths of despair—a category of deaths due mainly to suicide, drug overdoses, and alcoholism driven by economic, social, and psychological factors.⁴⁴ Policy makers in these locations should thus prioritise policies that improve access to care and address the social determinants of health for these age groups in particular.

The different age patterns in mortality identified in this study largely reflect the methodological improvements in as well as access to and use of more, different, and timelier data sources than was previously possible in demographic modelling. In particular, we have used data from complete birth histories for the first time to model adolescent and young adult mortality, while in adult age groups we have stopped using less reliable sibling history data and are now also using HDSS data for older ages. Our novel approach to modelling all-cause mortality—and the capacity of this approach to incorporate more timely all-age VR data—gives us better insight than ever before into historical and recent trends as well as the current state of mortality across ages, sexes, and locations.

Mortality experiences during the COVID-19 pandemic

Our global analysis of age-standardised mortality rates and life expectancy during and after the COVID-19 pandemic reveals a nuanced view of health outcomes influenced by various factors. The post-pandemic period marked a substantial recovery in age-standardised mortality rates for 192 of 204 countries and territories, with substantial declines in mortality in countries such as Peru, Tunisia, and Namibia, and with complete recovery to 2019 levels in nearly two-thirds of countries and territories. However, the persistence of increased age-standardised mortality rates in some countries, alongside the incomplete recovery of life expectancy to pre-pandemic levels in more than a third of countries globally, highlights the uneven nature of pandemic recovery. Several factors could explain the disparate trajectories in mortality and life expectancy observed across countries and regions. Variations in health-care system resilience, public health responses, socioeconomic conditions, and the prevalence of comorbidities are likely to have played considerable roles in shaping outcomes.^{45,46}

The patterns of changes in life expectancy during the pandemic further highlight the differential impacts of COVID-19. The pronounced decline in life expectancy in Latin America and the Caribbean during the pandemic, followed by a significant rebound, could suggest that the

initial severe impact of the pandemic was met with effective recovery efforts, or that having a severe pandemic experience led to a smaller vulnerable population in subsequent years (ie, high infection-acquired immunity); meanwhile, the modest rebound in life expectancy in some countries within the high-income super-region (including New Zealand and Japan) might reflect ongoing challenges in pandemic management and recovery strategies or differential virus transmission over time.^{47,48} For several locations, most notably Palestine, decreases in life expectancy in the pandemic recovery period (2021–23) were largely due to the ongoing conflict, rather than a reflection of challenges in pandemic recovery.²⁸ The variable patterns of changes in life expectancy across countries highlight the influence of pandemic severity, health-care system capacity, public health interventions, and vaccine rollout effectiveness at different stages of the pandemic. Inconsistent increases in life expectancy underscore the need for targeted health policy interventions and health system strengthening to address these persistent challenges. These findings have major implications for global health policy and planning. The uneven recovery across countries emphasises the necessity for continued international cooperation, investment in health-care infrastructure, and tailored public health strategies to address the unique challenges posed by the pandemic and ensure equitable health outcomes. Moreover, the experiences of nations that have shown substantial recovery or resilience can offer valuable lessons in pandemic preparedness and response for future global health crises. These findings call for a nuanced, multifaceted approach to health policy and international cooperation to address the ongoing challenges of pandemic recovery and strengthen global health systems against future threats.

“Death” of model life table methods

The estimates presented in this Article are based on a new method that directly models age-specific mortality rates from all available data rather than relying on model life tables, which—despite being invaluable tools for estimating age patterns of mortality in populations where empirical data might be scarce—are associated with considerable challenges that affect their accuracy and applicability. The primary issue stems from the assumption that mortality patterns and the distribution of deaths by age in the models are directly applicable to the target populations. This assumption can lead to notable inaccuracies, as it fails to account for unique health challenges, demographic shifts, and the impact of specific interventions in different locales.²⁵ The reliance on historical mortality data from a limited set of populations, notably from middle-income and high-income countries, risks introducing a bias that might not fully represent the mortality patterns of diverse global populations and might fail to adequately account for more recent developments, including the progress

against infectious diseases, the rise of non-communicable diseases, and the impacts of global health initiatives.¹⁶ For example, there is evidence that mortality in older age groups in sub-Saharan Africa might be lower than estimates based on model life tables due to differing population-level characteristics compared to locations with mortality data used in model life tables.^{19,20} Misestimating mortality rates can lead to misallocation of resources, inadequately designed health interventions, and a misunderstanding of the health needs of a population. This is especially crucial in regions undergoing rapid changes in health profiles due to factors such as disease outbreaks, considerable improvements in health care, or socioeconomic development.

Another limitation of model life table systems used in GBD 2021 and by UNPD is their reliance on input parameters, such as child and adult mortality, which are estimated via separate models. Additionally, estimates from these model life table systems account for excess mortality from the HIV/AIDS epidemic and the COVID-19 pandemic via post-hoc incorporation of separately modelled estimates. These methods can be described as multistage modelling approaches that combine disconnected models. Multistage modelling methods have been shown to produce less accurate inference and predictions compared to unified frameworks that simultaneously estimate all outcomes in a single model.⁴⁹ By using a single model to estimate all age-specific mortality rates that includes covariates to account for excess mortality due to the HIV/AIDS epidemic and the COVID-19 pandemic, the method we developed for GBD 2023 is a marked improvement over previous methods. Furthermore, using separate estimates of excess mortality due to the COVID-19 pandemic can lead to further unreliable estimates. As we move further into the pandemic recovery period, using counterfactual mortality estimates as a basis to calculate excess mortality becomes more dangerous, since counterfactual estimates based on the assumption that the pandemic had not occurred are extrapolations of trends before 2019, which might not hold in more recent years. Our model avoids this limitation by directly incorporating information on COVID-19 mortality via covariates.

In response to these challenges, we developed a new method to directly model age-specific mortality rates from all available data without reliance on model life table systems. Our method allows the use of more data than previously used in GBD 2021—namely, data from children and adolescents aged 5–14 years from complete birth histories. Furthermore, age patterns of mortality estimated by OneMod in data-sparse locations are driven by modelled correlations among age groups that borrow strength across space, time, and covariates using all available data. This contrasts with model life table systems that impose age patterns based on historical mortality data from a limited set of populations. Finally,

our method is based on published statistical methodology that draws on statistical theory for increased reliability of estimates. This improvement is essential for enhancing the utility of mortality estimates in guiding public health research, policy making, and resource allocation more effectively. Since modelled estimates are the primary (or only) source of information on mortality in locations where data are scarce, improved reliability is paramount for local mortality monitoring. Although our estimates in these locations have substantial uncertainty, providing the best available estimates along with uncertainty intervals based on statistical theory allows decision makers to act on the basis of as much information as possible.

We used simulated data to verify the efficacy of OneMod as a modelling tool, and real data and past model results to validate OneMod results for understanding the pattern of mortality. For simulated data, we used mortality patterns for cardiovascular disease and ischaemic heart disease as true rates of interest and created noisy and down-sampled data. We compared the performance of OneMod to a state-of-the-art multistage ensemble tool (CODEm) for both in-sample and out-of-sample performance (*vs* true rates) and found that OneMod was able to consistently improve in both metrics. That is, OneMod had greater modelling power than previous tools, and was also less prone to over-fitting. Due to the complexity of previous modelling techniques in demographics analysis, it was not possible to do a head-to-head performance comparison on simulated data; instead, we validated results by comparing OneMod estimates to those produced in previous years by our highly specialised modelling pipeline. We found that in locations with many years of complete vital registration data, as well as for child age groups in locations with many reliable complete birth history surveys providing datapoints across many overlapping years, OneMod results and past results corresponded closely, but in locations with sparser data, particularly adult age groups in countries throughout sub-Saharan Africa, the results differed, and those of OneMod were consistent with new data types that we were able to incorporate into the model. We reviewed all results produced by OneMod and, where they differed from past results, found that it was easier to understand and explain the OneMod predictions from a scientific perspective. This includes OneMod estimates better following trends in data sources as well as, when no data are present, being able to better explain estimates based on factors such as covariate effects, regional trends, or age correlations.

Comparisons between GBD 2023 estimates and other estimates

As detailed above, there have been many improvements in data processing and statistical modelling approaches in GBD 2023 compared to other demographic studies,

particularly with respect to the novel tool introduced in this GBD cycle to estimate all-cause mortality by directly incorporating age-specific data in a single statistical model that does not require the use of model life table systems. These differences resulted in some important differences in estimates between sources.

We identified several key changes to age-sex-location-specific mortality estimates in GBD 2023 compared to GBD 2021.¹² Most notably, our latest mortality rate estimates for both males and females aged 5–14 years and females aged 15–29 years in sub-Saharan Africa were substantially higher than previously estimated (87·3% and 61·2% higher on average across countries and territories, respectively, for GBD 2023 compared to GBD 2021 over the 1950–2021 time period). Conversely, mortality rates in older age groups (aged ≥50 years) in sub-Saharan Africa were 13·2% lower on average across countries and territories for GBD 2023 compared to GBD 2021 over the 1950–2021 time period. However, estimates for locations with high-quality VR data were nearly identical between GBD 2023 and GBD 2021.

The latest UNICEF child mortality report,²² published in 2025, estimated a global under-5 mortality rate of 36·7 (90% UI 34·7–41·1) deaths per 1000 livebirths in 2023, compared to our estimate of 36·3 (95% UI 35·7–36·9) deaths per 1000 livebirths in 2023 (appendix 2 table 2A). At the national level, our 2023 under-5 mortality rate estimates had a mean relative difference 8·6% higher than those of UNICEF, ranging from 73·8% lower to 188·2% higher across countries and territories. The UNICEF report likewise estimated 803 000 (90% UI 747 800–895 000) global deaths among children aged 5–14 years in 2023 (a 51·3% decline from 1990), compared to our higher estimate of 872 000 (95% UI 845 000–902 000) deaths, a 49·9% decline from 1990 (appendix 2 table S7). Differences in national-level mortality rates for children and adolescents aged 5–14 years in 2023 between GBD 2023 and UNICEF varied by country, with our estimates an average of 17·6% higher than UNICEF's, ranging from 48·8% lower to 300·9% higher across countries and territories (appendix 2 table S7). These differences were primarily driven by differences in data inclusion and processing.

The UNPD's latest World Population Prospects revision²³ also estimated global life expectancy of 73·2 years in 2023, a 26·8-year increase from their estimate of 46·4 years in 1950. For comparison, we estimated a global life expectancy of 73·8 (95% UI 73·6–74·1) years in 2023, a 24·4-year increase from our estimate of 49·5 (95% UI 49·1–49·8) years in 1950. At the super-regional level, the largest discrepancy between these two sources was found in sub-Saharan Africa, where life expectancy in 2023 was 62·2 years according to UNPD and 64·2 years according to GBD 2023. National-level differences between the two sources varied in 2023, from 8·0 years lower to 10·1 years higher (mean difference 0·1 years). Over the

entire 1950–2023 study period, our life expectancy estimates had a mean difference of being 1·5 years higher than those from UNPD, ranging from 4·3 years lower to 13·1 years higher at the national level. The largest differences were observed in location-years with scarce high-quality VR data or large fatal discontinuities with high uncertainty in magnitude.

For model validation and further comparison to UNPD World Population Prospects estimates, we compared age-specific and sex-specific death counts from our study to those from all location-years of VR data deemed to have complete death registration. We similarly compared these VR data to UNPD estimates.²³ Our estimates had a mean absolute error (MAE) of 46·8 and root mean squared error (RMSE) of 171, indicating good fit to the data. These were lower (indicating better fit) than the MAE of 262 and RMSE of 904 for UNPD estimates.

Limitations and future directions

This study has several key limitations. First, as with any modelling study of this scale, the estimates are limited by the availability and scope of data sources, which varies considerably by location. The precision of estimates relies on the accuracy of the data used in the model. As discussed above, the absence of high-quality vital statistics and civil registration systems in many low-income and middle-income countries results in large-scale uncertainty in our estimates for these locations (reflected in wider 95% UIs). Furthermore, delays in reporting limit the availability of recent VR data, which specifically affects the latest years of estimates. Of 118 countries and territories with VR data in 2021, 105 had VR data for 2022 and only 81 had VR data for 2023 at the time of analysis. Prompt reporting of VR data is necessary for tracking emerging health events and responding to changes in demographic and health trends, even if these data are in a provisional or aggregated state, since our latest mortality model can use these preliminary data. Future development of reliable data sources is crucial because estimates improve as the quality of underlying data improves. Subsequent GBD cycles will provide revised estimates after additional data for recent years become available.

Second, sparse data availability restricted analyses of more granular subpopulations, including for most subnational locations as well as for different races and ethnicities within a single country or territory. The considerable heterogeneity in demographic patterns and health outcomes that can exist between certain subpopulations is obscured by the geographical scale at which our estimates are published, limiting the utility of our estimates to inform subpopulation-specific interventions. Expanding our work in this area will require more comprehensive and detailed data, such as by socioeconomic status, race, ethnicity, and smaller administrative levels across more countries and territories.^{40,50,51}

Third, our death distribution methods and existing correction strategies, which are used to estimate completeness of death registration from vital statistics systems, might not accurately account for migration between certain countries and territories. This is especially true for countries with high levels of migration, including the United Arab Emirates, Qatar, and Saudi Arabia.^{52,53} As population ageing, climate change, conflict, and other complex factors drive the increased need for migration in the coming years,^{54–56} improving our methods to more thoroughly account for migration will become increasingly important.

Fourth, we assumed a binomial distribution for our OneMod model. Although we modelled mortality rates, using a binomial likelihood was found to be more stable than other likelihoods tested such as the Poisson; Poisson is limited in extrapolating over low-data regimes and in locations that take extreme values of covariates. To account for mortality rates above 1, particularly for neonatal age groups, we used re-scaling to pre-process the data for binomial likelihood. Future work will explore additional likelihood parameterisations of OneMod to assess robustness.

Fifth, we used pre-processing and stage-wise analysis to disaggregate all-age and all-sexes-combined datapoints. Stage-wise analysis is typically more stable and robust but gives age-specific and sex-specific data more power to determine the age and sex patterns that are then applied. Future work will explore modelling the aggregation mechanism within OneMod, so that we can ascertain the impact of stagewise analysis compared to an all-at-once analysis that can use both specific and aggregated data.

Finally, we were unable to propagate uncertainty for all covariates used in the analyses or from our age-sex splitting method, due to computational resource limitations. 95% UIs reflect uncertainty from data sampling and model estimation, but not uncertainty from SDI and PAF covariates or from splitting data in aggregated age-sex groups into more granular mortality rates. This limitation is mitigated to some extent by our use of uncertainty calibration, which adjusts 95% UIs to guarantee the expected properties in Pearson residuals at a given level of location granularity, such as country or region (appendix 1 section 2.3.5.6). Future iterations of GBD will investigate incorporation of covariate uncertainty into OneMod, as well as adding additional uncertainty from age-sex splitting, to allow for all sources of uncertainty to be included in modelling.

Conclusion

The novel methodology presented in this study allows us to produce timelier and more accurate estimates of all-cause mortality and life expectancy across ages, sexes, locations, and years than ever before, which will be crucial for understanding and responding to long-term and emerging health trends across global populations now and in the coming years. Using this approach, we

identified several key differences in mortality trends compared to those previously estimated, including higher rates of adolescent mortality, higher rates of young adult mortality in females, and lower rates of mortality in older age groups in much of sub-Saharan Africa. These and other differences indicate that the existing narrative on mortality patterns does not perfectly align with the current reality of health outcomes for certain populations, and that prevailing policy priorities for mortality reduction around the world must shift if they are to best address this reality. In this first GBD report to investigate mortality in the several years following the height of the COVID-19 pandemic, we also found that most of the world has recovered to pre-pandemic levels of mortality and life expectancy, although with considerable differences in trends, both temporally and in magnitude, across locations. The findings from this study will help inform policy development, implementation, and evaluation to ensure that health-care systems, economies, and societies are prepared to address the world's greatest health needs.

GBD 2023 Demographics Collaborators

Austin E Schumacher*, Peng Zheng*, Ryan M Barber*, Bhoomadevi A, Mohammad Amin Aalipour, Hasan Aalruz, Hazim S Ababneh, Ukachukwu O Abaraogu, Cristiana Abbafati, Nasir Abbas, Mitra Abbasifard, Faezeh Abbaspour, Abdallah H A Abd Al Magied, Samar Abd ElHafeez, Mohammed Altigani Abdalla, Emad M Abdallah, Nadin M I Abdel Razeq, Reda Abdel-Hameed, Wael M Abdel-Rahman, Sherief Abd-Elsalam, Omar Ahmed Abdelwahab, Parsa Abdi, Arash Abdollahi, Meriem Abdoun, Arman Abdous, Deldar Morad Abdulah, Rizwan Suliankatchi Abdulkader, Auwal Abdullahi, Abdullahi Salahudeen Abdullaheem, Habtamu Abebe Abebe Getahun, Parisa Abedi, Armita Abedi, Asrat Agalu Abejew, Roberto Ariel Abeldano Zuñiga, Syed Hani Abidi, Alework Abie, Oluamide Abiodun, Olugbenga Olusola Abiodun, Richard Gyan Aboagye, Shady Abohashem, Ulric Sena Abonie, Nagah M Abourashed, Mohamed Abouzid, Dmitry Abramov, Lucas Guimarães Abreu, Dariush Abtahi, Rana Kamal Abu Farha, Fuad Hamdi A Abuadas, Aminu Kende Abubakar, Bilyaminu Abubakar, Eman Abu-Gharbieh, Sawzan Abuhammad, Ahmad Y Abuhelwa, Hana J Abukhadajah, Salahdein Aburuz, Dina Abushanab, Ahmed Abu- Zaid, Anirudh Balakrishna Acharya, Meshack Achore, Juan Manuel Acuna, Tim Adair, Lisa C Adams, Oladimeji Muritala Adebayo, Tajudeen Adesanmi Adebisi, David Adedia, Kamoru Ademola Adedokun, Oluwatobi E Adegbile, Nurudeen A Adegoke, Oluamide Thomas Adeleke, Miracle Ayomikun Adesina, Isaac Ayodeji Adesina, Olatunji O Adetokunboh, Temitayo Esther Adeyeoluwa, Mache Tsadik Adhana, Kishor Adhikari, Ripon Kumar Adhikary, Usha Adiga, Tanin Adl Parvar, Mohd Adnan, Qorinah Estiningtyas Sakilah Adnani, Leticia Akua Adzighbi, David Adzrago, Giuseppina Affinito, Aanuoluwapo Adeyimika Afolabi, Rotimi Felix Afolabi, Saira Afzal, Gizachew Beykaso Agafari, Navidha Aggarwal, Mahdi Aghaalkhani, Sepehr Aghajanian, Seyed Mohammad Kazem Aghamir, Feleke Doyore Agide, Mary Dada Agoi, César Agostinis Sobrinho, Anurag Agrawal, Williams Agyemang-Duah, Bright Opoku Ahinkorah, Rabbiya Ahmad, Danish Ahmad, Faisal Ahmad, Aqeel Ahmad, Muayyad M Ahmad, Khurshid Ahmad, Tauseef Ahmad, Waqas Ahmad, Aram Mahmood Ahmed, Muktar Beshir Ahmed, Ayman Ahmed, Ali Ahmed, Anisuddin Ahmed, Mushood Ahmed, Naveed Ahmed, Oli Ahmed, Meqdad Saleh Ahmed, Akeem Olayiwola Ahmed, Mehruunisha Sharif Ahmed, Syed Anees Ahmed, Gasha Salih Ahmed, Shabbir Ahmed, Haroon Ahmed, Luai A Ahmed, Gulzhanat Aimagambetova, Janardhana P Aithala, Marjan Ajami, Budi Aji, Hossein Akbarialiabad, Saied Akbarifard,

Oluwasefunmi Akeju, Roland Eghoghoso Akhigbe, Muhammad Nadeem Akhtar, Karolina Akinosoglou, Yagiz Matthew Akiska, Mohammed Ahmed Akkaif, Wole Akosile, Hammad Akram, Ashley E Akrami, Hanadi Al Hamad, Syed Mahfuz Al Hasan, Mohammad Khaled Al Nawayseh, Omar Al Omari, Mohammad Al Qadire, Zain Al Ta'ani, Yazan Al Thaher, Omar Ali Mohammed Al Zaabi, Mohammad Ahmmad Mahmoud Al Zoubi, Mousa Ali Al-Abbadi, Tariq A Alalwan, Ziyad Al-Aly, Mohammad Khurshed Alam, Khurshid Alam, Mostafa Alam, Manjurul Alam, Rasmieh Mustafa Al-Amer, Abebaw Alamrew, Amani Alansari, Turki M Alanzi, Fahmi Y Al-Ashwal, Mohammed Albashtawy, Khalifah A Aldawsari, Mohammed S Aldossary, Robert W Aldridge, Shereen M Aleidi, Bezawit Abeje Alemayehu, Tekletsadik Tekleslassie Alemayehu, Fentahun Alemnew, Ayman Al-Eyadhy, Ali M Alfalki, Abdelazeem M Algammal, Fadwa Naji Alhalaiqa, Mohammed Khaled Al-Hanawi, Aminu Alhassan Alhassan Ibrahim, Ashraf Alhumaidi, Fahad A Alhumaydhi, Shahid Ali, Mohammed Usman Ali, Kamran Ali, Mohammad Daud Ali, Irfan Ali, Syed Shujait Ali, Waad Ali, Haroon Muhammad Ali, Amjad Ali, Rafat Ali, Maratab Ali, Syed Yusuf Ali, Sameer Afif Ali, Akram Al-Ibraheem, Gianfranco Alicandro, Montaha Al-Iede, Sheikh Mohammad Alif, Hamid Alinejad Rokny, Samah W Al-Jabi, Mohamad Aljofan, Moath Saleh Aljohani, Adel Al-Jumaily, Syed Mohamed Aljunid, Ahmad Alkhatib, Mustafa Alkhawam, Atefeh Allahbakhshian, Mohammed Z Allouh, Wesam Taher Almagharbeh, Wael Almahmeed, Md Al-Mamun, Sabah Al- Marwani, Joseph Uy Almazan, Hesham M Al-Mekhlafi, Omar Almidani, Amr Almobyed, Khaldoun Aied, Alnawafleh, Hasan Yaser Alniss, Margret Beaula Alocious Sukumar, Mohammad R Alosta, Saleh A Alqahtani, Jaber S Alqahtani, Mohammad R Alqudimat, Ahmad Rajeh Al-Qudimat, Ahmad Alrawashdeh, Rami H Al-Rifai, Intima Alrimawi, Sahel Majed Alrousan, Salman Khalifah Al-Sabah, Mohammed A Alsabri, Najim Z Alshahrani, Zaid Altaany, Awais Altaf, Alaa B Al-Tammemi, Jaffar A Al-Tawfiq, Malik A Althobiani, Khalid A Altirkawi, Javier Alvarez-Galvez, Nelson Alvis-Guzman, Mohammad Al-Wardat, Yaser Mohammed Al-Worafi, Hany Aly, Mohammad Sharif Ibrahim Alyahya, Karem H Alzoubi, Md Akib Al- Zubayer, Uchenna Anderson Amaechi, Joy Amafah, Ekiyor Joseph Amafah, Masoud Aman Mohammadi, Faten Amer, Bardia Amidi, Tarek Tawfik Amin, Amr Amin, Alireza Amindarolzari, Saeed Amini, Ehsan Amini-Salehi, Nafiu Aminu, Majid Aminzare, Sohrab Amiri, Mohammad Hosein Amirzade-Iranqa, Joanne O Amlag, Dickson A Amugsi, Ganiyu Adeniyi Amusa, Filippas Anagnostakis, Roshan A Ananda, Nazanin Anaraki, Robert Ancuceanu, Deanna Anderlini, David B Anderson, Tudorel Andrei, Song Peng Ang, Nguyen Hoang Anh, Samuel Egyakwa Ankomah, Kabilan Annadurai, Amir Anoushiravani, Sumbul Ansari, Umair Ansari, Alireza Ansari-Moghaddam, Catherine M Antony, Ernoiz Antriyandarti, Boluwatife Stephen Anuoluwa, Iyadunni Adesola Anuoluwa, Saleha Anwar, Sumadi Lukman Anwar, Raziq Anwer, Shahnawaz Anwer, Anayochukwu Edward Anyasodor, Geminn Louis Carace Apostol, Juan Pablo Arab, Hossein Arabi, Jalal Arabloo, Mosab Arafat, Demelash Areda, Abdulfatai Aremu, Jorge Arias de la Torre, Ghazal Arjmand, Benedetta Armocida, Johan Ärnlöv, Jesu Arockiaraj, Mahwish Arooj, Anton A Artamonov, Deepavalli Arumuganainar, Nurila Aryntayeve, Mahsa Asadi Anar, Majid Asadi-Samani, Syed Mohammed Basheeruddin Asdaq, Saeed Asgary, Mohammad Asghari-Jafarabadi, Tahira Ashraf, Muhammad Abdul Basit Ashraf, Syed Amir Ashraf, Mitra Ashrafi, Milad Ashrafzadeh, Bernard Kwadwo Yeboah Asiamah-Asare, Muhammad Shahzad Aslam, Saeed Aslani, Yuni Asri, Anil Raj Assariparambil, Dereje Zewdu Assefa, Batyrbek Assembekov, Thomas Astell-Burt, Mirbahador Athari, Maha Moh'd Wahbi Atout, Alok Atreya, Julie Alaere Atta, Zeenah A Atwan, Marcel Ausloos, Abolfazl Avan, Núbia Carelli Pereira Avelar, Sana Javaid Awan, Amlaku Mulat Aweke, Babafela B Awosile, Adedapo Wasiu Awotidebe, Beatriz Paulina Ayala Quintanilla, Fekadu Belay Ayalew, Lemessa Assefa A Ayana, Haleh Ayatollahi, Olatunde O Ayinde, Yusuf Oloruntoyin Ayipo, Berrak Itr Aylı,

- Seyed Mohammad Ayyoubzadeh, Sina Azadnajafabad, Arian Azadnia, James Mba Azam, Alireza Azarboo, Ali Azargoonjahromi, Gulrez Shah Azhar, Farya Azimi, Sadat Abdulla Aziz, Mohd Yusmaide Aziz, Amin Azizan, Ahmed Y Azzam, Domenico Azzolino, Shahram Babadoust, Abraham Samuel Babu, Giridhara Rathnaiah Babu, Ashish D Badiye, Hunter Southwick Baggen, Elahe Baghizadeh, Sana Baghizadeh, Khlood K Baghlaf, Ahmed Salem BaHammam, Najmeh Bahmanziari, Razieh Bahreini, Yogesh Bahurupi, Ruhai Bai, Atif Amin Baig, Arun Balachandran, Wondu Feyisa Balcha, Maher Balkis, Jose Balmori-de-la-Miyar, Mohammadreza Balooch Hasankhani, Ovidiu Constantin Baltatu, Soham Bandyopadhyay, Palash Chandra Banik, Rajon Banik, Angelo Barbato, Suzanne Lyn Barker-Collo, Hiba Jawdat Barqawi, Amadou Barrow, Sandra Barteit, Zarrin Basharat, Shahid Bashir, Azadeh Bashiri, Guido Basile, Pritish Baskaran, Mohammad-Mahdi Bastan, Abdul-Monim Batiha, Kavita Batra, Bernhard T Baune, Mahdis Bayat, Mohammad Amin Bayat Tork, Mohsen Bayati, Mulat Tirfie Bayih, Thomas Beaney, Neeraj Bedi, Narasimha M Beeraka, Jina Behjati, Babak Behnam, Payam Behzadi, Diana Fernanda Bejarano Ramirez, Bezawit K Bekele, Almaz Nibret Belay, Melesse Belayneh, Asnake Gashaw Belayneh, Gokce Belge Bilgin, Bashir Bello, Muhammad Bashir Bello, Umar Muhammad Bello, Olorunjuwon Omolaja Bello, Luis Belo, Apostolos Beloukas, Riyad Bendarf, Samiun Nazrin Bente Kamal Tune, Habib Benzian, Maria Bergami, Alemshet Yirga Berhie, Abiye Assefa Berihun, Amiel Nazer C Bermudez, Robert S Bernstein, Ajeet Singh Bhadoria, Akshaya Srikanth Bhagavathula, Jeetendra Bhandari, Charmi Bhanushali, Pankaj Bhardwaj, Nikha Bhardwaj, Ashish Bhargava, Sonu Bhaskar, Arushee Bhatnagar, Shuvarthi Bhattacharjee, Priyadarshini Bhattacharjee, Manpreet S Singh Bhatti, Rajbir Bhatti, Gurjit Kaur Bhatti, Jasvinder Singh Bhatti, Soumitra S Bhuyan, Sibhatu Kassa Biadgilign, Raluca Bievel-Radulescu, Can Bilgin, Naif Kandash Binsaleh, Catherine Bisignano, Raaj Kishore Biswas, Mohammad Shahangir Biswas, Bijit Biswas, Ahmad Naoras Bitar, Molalegne Bitew, Bruno Bizzozero-Peroni, Virginia Bodolica, Mahmut Bodur, Lucimere Bohn, Obasanjo Afolabi Bolarinwa, Archith Bloor, Paria Bolourinejad, Sri Harsha Boppana, Berrak Bora Basara, Hamed Borhany, Arturo Borzutzky, Alejandro Botero Carvajal, Souad Bouaoud, Soufiane Boufous, Rupert R A Bourne, Christopher Boxe, Nicola Luigi Bragazzi, Dejana Braithwaite, Susanne Breitner, Hermann Brenner, Edmond D Brewer, Gabrielle Britton, Julie Brown, Annie J Browne, Raffaele Bugiardini, Linh Phuong Bui, Tsion Samuel Bunare, Richard A Burns, Felix Busch, Reinhard Busse, Yasser Bustanji, Zahid A Butt, Nadeem Shafique Butt, Lucero Cahuana-Hurtado, Tianji Cai, Rose Cairns, Daniela Calina, Luis Alberto Cámara, Luciana Aparecida Campos, Ismael Campos-Nonato, Si Cao, Yuchen Cao, Chao Cao, Angelo Capodici, Giulia Carreras, Austin Carter, Andrea Carugno, Márcia Carvalho, Andre F Carvalho, Ana Paula Carvalho-e-Silva, Joao Mauricio Castaldelli-Maia, Carlos A Castañeda-Orjuela, Giulio Castelpietra, Ferrán Catalá-López, Alberico L Catapano, Maria Sofia Cattaruzza, Luca Cegolon, Francieli Cembranel, Muthia Cenderadewi, Ester Cerin, Pamela Roxana Chacón-Uscamaita, Chiranjib Chakraborty, Sandip Chakraborty, Jeffrey Shi Kai Chan, Joht Singh Chandan, Rama Mohan Chandika, Miyuru Chandrasa, Jung-Chen Chang, Vijay Kumar Chattu, Victoria Chatzimavridou-Grigoriadou, Sirshendu Chaudhuri, Akhilanand Chaurasia, Galmesa Bekana Chemedha, An-Tian Chen, Hui Chen, Haowei Chen, Xiang Chen, Hana Chen, Meng Xuan Chen, Haojin Cheng, Ka Ching Cheung, Nicholas WS Chew, Fatemeh Chichagi, Ju-Huei Chien, Odgerel Chimed-Ochir, William C S Cho, Daniel Youngwhan Cho, Bryan Chong, Hitesh Chopra, Shivani Chopra, Sonali Gajanan Choudhari, Shanjida Chowdhury, Mohiuddin Ahsanul Kabir Chowdhury, Sreshtha Chowdhury, Dinh-Toi Chu, Hongyuan Chu, Isaac Sunday Chukwu, Stephen Chukwudeh, Eric Chung, Sheng-Chia Chung, Erin Chung, Sunghyun Chung, Cain C T Clark, Alyssa Columbus, Haley Comfort, Joao Conde, Nathalie Conrad, Samuele Cortese, Paolo Angelo Cortesi, Claudia Cosma, Michael H Criqui, Natalia Cruz-Martins, Garland T Culbreth, Nour Dababo, Ali Dabbagh, Omid Dadras, Zainab Umar Dahiru, Tukur Dahiru, Xiaochen Dai, Mayank Dalakoti, Koustuv Dalal, Gloria Dalla Costa, Emanuele D'Amico, Rakhi Dandona, Lalit Dandona, Lucio D'Anna, Pojsakorn Danpanichkul, Samuel E Danso, Samuel Demissie Darcho, Latefa Ali Dardas, Chengetai Dare, Jai K Das, Barbara A D'Avanzo, Claudio Alberto Dávila-Cervantes, Dimash Davletov, Kairat Davletov, Fernando Pio De la Hoz, Alejandro de la Torre-Luque, Edward Christopher Dee, Sindhura Deekonda, Louisa Degenhardt, Paria Dehesh, Lee Deitesfeld, Denise Myriam Dekker, Pouria Delbari, Mohammad Delsoz, Dessalegn Demeke, Andreas K Demetriades, Edgar Denova-Gutiérrez, Ismail Dergaa, Kebede Deribe, Hunegnaw Almay Derseh, Emina Dervišević, Hardik Dineshbhai Desai, Abraham Aregay Desta, Vinoth Gnana Chellaian Devanbu, Pradeep Kumar Devarakonda, Devananda Devegowda, Arkadeep Dhali, Kuldeep Dhama, Rajinder K Dhamija, Samath Dhamminda Dharmaratne, Meghnath Dhimal, Bibha Dhungel, Marcello Di Pumpo, Diana Dias da Silva, Luis Antonio Diaz, Daniel Diaz, Diego Diaz-Milanes, Elangovan Dilipan, Lauren K Dillard, Zhendong Ding, Xueting Ding, M Ashworth Dirac, Huyen Do, Thao Huynh Phuong Do, Phidelia Theresa Doegah, Sushil Dohare, Klara Georgieva Dokova, Regina-Mae Villanueva Dominguez, Francesco Dondi, Mario D'Oria, Fariba Dorostkar, Ojas Prakashbhai Doshi, Robert Kokou Dowou, Menayit Tamrat Dresse, Tim Robert Driscoll, Jiang Du, Judy R Dubno, Emeka W Dumbili, Samuel C Dumith, Bruce B Duncan, Jennifer Dunne, Andre Rodrigues Duraes, Senbagam Duraisamy, Oyewole Christopher Durojaiye, Siddhartha Dutta, Angel Belle Cheng Dy, Abdel Rahman E'mar, Osamudiamen Ebohon, Ejemai Eboime, Mohammed Hossein Ebrahimi, Abdelaziz Ed-Dra, David Edvardsson, Ferry Efendi, Behrad Eftekhari, Foolad Eghbali, Shayan Eghdami, Fatemeh Ehsani, Ashkan Eighaei Sedeh, Terje Andreas Eikemo, Ebrahim Eini, Michael Ekholuenetale, Temitope Cyrus Ekundayo, Rabie Adel El Arab, Maysaa El Sayed Zaki, Mohamed Ahmed Eladl, Reza Elahi, Said El-Ashker, Rana Elbeshbeishy, Faris El- Dahiyat, Marwa Eldegwi, Marwan El-Deyarbi, Noha Mousaad Elemam, Ghada Metwally Tawfik ElGohary, Muhammed Elhadi, Mohamed Elhoumed, Waseem El-Huneidi, Omar Abdelsadek Abdou Elmeligy, Mohamed A Elmonem, Adel B Elmoselhi, Mohamed Hassan Elnaem, Mohammed Elshaer, Ibrahim Elsohaby, Chadi Eltah, Abdelgawad Salah Abdelgawad Eltahawy, Tadele Emagneneh, Syed Emdadul Haque, Theophilus I Emeto, Victor Oghenekparobo Emojewte, Stanley Chinedu Eneh, Christopher Imokhuede Esezobor, Babak Eshtrati, Sharareh Eskandarieh, Majid Eslami, Rafaela Cavalheiro do Espírito Santo, Kara Estep, Elochukwu Ezenwankwo, Natalia Fabin, Heidar Fadavian, Adeniyi Francis Fagbamigbe, Ayesha Fahim, Razana Faiz, Ildar Ravisovich Fakhradiyev, Aliasghar Fakhri-Demeshghieh, Luca Falzone, Qiping Fan, Mohammad Farahmand, Seyed Nooreddin Faraji, Ali Faramarzi, Mohammad Fareed, Andre Faro, Syed Muhammad Yousaf Farooq, Fatemeh Farshad, Farima Farsi, Md Omar Faruk, Abidemi Omolara Fasanmi, Folorunso Oludayo Fasina, Modupe Margaret Fasina, Ali Fatehizadeh, Davood Fathi, Zareen Fatima, Timur Fazylov, Valery L Feigin, maryam feili, Alireza Feizkhah, Ginenus Fekadu, Xiaoqi Feng, Talukdar Raian Ferdous, Seyed-Mohammad Fereshtehnejad, Nuno Ferreira, Bikila Regassa Feyisa, Alexander Finnemore, Claudio Fiorilla, Ida Fitriana, Luisa S Flor, Artem Alekseevich Fomenkov, Marco Fonzo, Arianna Fornari, Behzad Foroutan, Daniela Fortuna, Matteo Foschi, Maryam Fotouhi, Kayode Raphael Fowobaje, Richard Charles Franklin, Alberto Freitas, Takeshi Fukumoto, Ami Fukunaga, John E Fuller, Nancy Fullman, Blima Fux, Sridevi G, Peter Andras Gaal, Muktar A Gadanya, Dominic Dormenyo Gadeka, Mária Gajdács, Emmanuela Gakidou, Yaseen Galali, Silvano Gallus, Dhanraj Ganapathy, Balasankar Ganesan, Shivaprakash Gangachannaiah, Xiang Gao, Yijie Gao, Bashiru Garba, Miguel Garcia- Argibay, David Garcia-Azorin, Jacopo Garlasco, Zisis Gatzoufas, Rupesh K Gautam, Prem Gautam, Bamba Gaye, Federica Gazzelloni, Hong-Han Ge, Feven Sahle Gebre, Miglas Welay Gebregergis, Haftay Gebremedhin Gebreslassie,

Miesa Gelchu, Stefano Gelibter, Nsikakabasi Samuel George, Ali Gerami Matin, Lemma Getacher, Genanew K Getahun, Kalab Yigermal Gete, Peter W Gething, Delaram J Ghadimi, Keyghobad Ghadiri, Arin Ghamkhar, Ali Ghandili, Mohammad-Reza Ghasemi, Moein Ghasemi, Shakiba Ghasemi Assl, Fariba Ghassemi, Ramy Mohamed Ghazy, Nermin Ghith, Zainab Gholami, Nasim Gholizadeh, Elena Ghotbi, Arun Ghuge, Alessandro Gialluisi, Konstantinos Giannakis, Ruth Margaret Gibson, Syed Abdullah Gilani, Tiffany K Gill, Alem Abera Girmay, Alessandro Girombelli, Laszlo Göbölös, Rajesh Kumar Goel, Anil Kumar Goel, Archit Goel, Kimiya Gohari, Mahaveer Golechha, Ali Golestani, Mohsen Golkar, Nelson G M Gomes, Philimon N Gona, Wenping Gong, Sameer Vali Gopalani, Giuseppe Gorini, Yitayal Ayalew Goshu, Alessandra C Goulart, Ayman Grada, Simon Matthew Matthew Graham, Michal Grivna, Ashna Grover, Habtamu Alganesh Guadie, Bin Guan, Shi-Yang Guan, Giovanni Guarducci, Mohammed Ibrahim Mohialdeen Gubari, Avirup Guha, Stefano Guicciardi, Zhifeng Guo, Xingzhi Guo, Zhaoyu Guo, Cui Guo, Zheng Guo, Rajat Das Gupta, Rajeev Gupta, Sapna Gupta, Lalit Gupta, Himanshu Gupta, Roberth Steven Gutiérrez-Murillo, Jose Guzman-Esquivel, Abrahm Tesfaye Tesfaye Habteyes, Awoke Derbie Derbie Habteyohannes, Tesfahun Simon Hadaro, Zahra Hadian, Sarah Hafsia, Faraidoon Haghdost, Arian Haghtalab, Nguyen Hai Nam, Arvin Haj-Mirzaian, Pritam Halder, Sebastian Haller, Rabi Halwani, Islam M Hamad, Randah R Hamadeh, Nadia M Hamdy, Samer Hamidi, Erin B Hamilton, Ahmad Hammoud, Mohammad Hamza, Didem Han Yekdes, Asif Hanif, Nasrin Hanifi, Graeme J Hankey, Fahad Hanna, Md Nuruzzaman Haque, Ashanul Haque, Obaid I Haque, Harapan Harapan, Hilda L Harb, Arief Hargono, Andy Martahan Andreas Hariandja, Josep Maria Haro, Eka Mishbahatul Marah Has, Ahmed I Hasaballah, Md Kamrul Hasan, Faizul Hasan, Towhid Hasan, Hamidreza Hasani, Ali Hasanpour-Dehkordi, Arezou Hashem Zadeh, Mohammad Hashem Hashempur, Nada Tawfig Hashim, Ammarah Hasnain, Ikrama Hassan, Ibrahim Nagmeldin Hassan, Nageeb Hassan, Yusuf Wada Hassan Wada, Mahgol Sadat Hassan Zadeh Tabatabaei, Rasmus J Havmoeller, Simon I Hay, Khezar Hayat, Jiawei He, Jeffrey J Hebert, Mohammad Heidari, Golnaz Heidari, Mehdi Hemmati, Claire A Henson, Claudiu Herteliu, Hamed Hesami, Sumudu Avanthi Hewage, Majid Heydari, Zahra Heydarifard, Yuta Hiraike, Ramesh Holla, Nobuyuki Horita, Md Belal Hossain, Md Mahbub Hossain, Md Sabbir Hossain, Alamgir Hossain, Mohammad Bellal Hossain, Lubna Hossain, Sorin Hostiu, Mihaela Hostiu, Peter J Hotez, Jada Averianna Houser, Amir Human Hoveidae, Hanno Hoven, Alexander Win Hsu, Chengxi Hu, Guoqing Hu, Yefei Huang, Zhenyao Huang, Junjie Huang, Weijun Huang, Mega Hasanul Huda, Ayesha Humayun, Waqar Husain, Kiavash Hushmandi, Javid Hussain, Nawfal R Hussein, Mohamed Ibrahim Hussein, Hong-Han Huynh, Bing-Fang Hwang, Luigi Francesco Iannone, Segun Emmanuel Ibitoye, Umar Idris Ibrahim, Ismail, A Atef Ismail Ahmed Ibrahim, Ramzi Ibrahim, Anel Ibrayeva, Fidelia Ida, Pulwasha Maria Iftikhar, Adalia Ikiroma, Kevin S Ikuta, Olayinka Stephen Ilesanmi, Irena M Ilic, Milena D Ilic, Masoud Imani, Mustapha Immurana, Lucius Chidiebere Imoh, Leeberk Raja Inbaraj, Arit Inok, Mujahid Iqbal, Muhammad Iqhrammullah, Mustafa Alhaji Isa, Benni Iskandar, Teresa R Iskander, Dr Md Shahinul Islam, Md Rabiul Islam, Md Shariful Islam, Farhad Islami, Nahlah Elkudssiah Ismail, Faisal Ismail, Yerlan Ismoldayev, Gaetano Isola, Masao Iwagami, Ihoghosa Osamuyi Iyamu, Mahalaxmi Iyer, Vinothini J, Jalil Jaafari, Udem Samuel Jacob, Kathryn H Jacobsen, Ali Jadidi, Mohammadsadegh Jafari, Ali Jafari-Khounigh, Morteza Jafarinia, Vennila Jaganathan, Haitham Jahrami, Ayushi Jain, Ammar Abdulrahman Jairoun, Mihajlo Jakovljevic, Ali Jalilayan, Mohamed Jalloh, Qazi Mohammad Sajid Jamal, Armaan Jamal, Jazlan Jamaluddin, Melika Jameie, Jerin James, Safayet Jamil, Masoud Jamshidi, Shaghayegh JamshidiRastabi, Esmaeil Jarrahi, Tahereh Javaheri, Syed Sarmad Javid, Anita Javanmardi, Javad Javidnia, Shubha Jayaram, Ruwan Duminda Jayasinghe, Yovanthi Anurangi Jayasinghe, Achala Upendra Jayatilleke, Felix K Jebasingh, Jayakumar Jeganathan, Seongsong Jeong,

Bijay Mukesh Jeswani, Zixiang Ji, Min Jiang, Wenyi Jin, Shuai Jin, Mohammad Jokar, Jost B Jonas, Darwin Phan Jones, Tamas Joo, Abu Jor, Nitin Joseph, Abel Joseph, Charity Ehimwenma Joshua, Katie Joskowicz, Kripa Josten, George Joy, Jacek Jerzy Jozwiak, Malik E Juweid, Vaishali K, Zubair Kabir, Dier H Hussein Kadir, Ashish Kumar Kakkar, Pradnya Vishal Kakodkar, Khalil Kalavani, Sanjay Kalra, Md Moustafa Kamal, Mehnaz Kamal, Sivesh Kathir Kamarajah, Rajesh Kamath, Saltanat Kamenova, Arun Kamireddy, Ramat T Kamorudeen, Devanish Narasimhasanth Kamtam, Naser Kamyari, Oleksandr Kamyshnyi, Mona Kanaan, Saddam Fuad Kanaan, Jiseung Kang, Samuel Berchi Kankam, Kehinde Kazeem Kanmodi, Rami S Kantar, Neeti Kapoor, Sujita Kumar Kar, Paschalis Karakasis, Reema A Karasneh, Mohammad Amin Karimi, Salah Eddin Karimi, Mohamed Isaqali Karobari, Tomasz M Karpiński, Sadanand Karun, Manoj Kumar Kashyap, Eden Asmare Kassahun, Nigussie Assefa Kassaw, Nicholas J Kassebaum, Molly B Kassel, Adarsh Katamreddy, Kanica Kaushal, Foad Kazemi, Nastaran Kazemi rad, Sina Kazemian, Hafte Kabsay Kebede, Chukwudi Keke, John H Kempen, Jessica A Kerr, Emmanuelle Kesse-Guyot, Reza Khademi, Inn Kynn Khaing, Himanshu Khajuria, Nauman Khalid, Sidra Khalid, Hazim O Khalifa, Anas Husam Khalifeh, Anees Ahmed Khalil, Pantea Khalili, Anita Khalili, Alireza Khalilian, Ghazaleh Khalili-Tanha, Mohamed khalis, Faham Khamesipour, Muhammad Mueed Khan, Zahid Khan, Zahid Khan, Abdul A Khan, Md Abdullah Saeed Khan, Serab Khan, Yusuf Saleem Khan, Ramsha Mushtaq Khan, Ajmal Khan, Mohammad Jobair Khan, Muhammad Hamza Khan, Iman Waheed Khan, Muhammad Umer Khan, Sumaiya Khan, Maseer Khan, Fayaz Khan, Srijana Khanal, Shaghayegh Khanmohammadi, Zenith Khashim, Khaled Khatib, Haitham Khatatbeh, Moawiah Mohammad Khatatbeh, Kavin Khatri, Hamid Reza Khayat Kashani, Khalid A Kheirallah, Sunil Kumar Khokhar, Mohammad Saeid Khonji, Zahra Khorrami, Najmaddin Salih Husen S H Khoshnaw, Atulya Aman Khosla, Sepehr Khosravi, Majid Khosravi, Mahmood Khosrowjerdi, Jagdish Khubchandani, Zemene Demelash Kifle, Min Seo Kim, Hye Jun Kim, Jinho Kim, Yun Jin Kim, Ruth W Kimokoti, Yohannes Kinfu, Sanjay Kini B, Mary Kirk, Adnan Kisa, Sezer Kisa, Ladli Kishore, Juniper Boroka Kiss, Mika Kivimäki, Shivakumar KM, Ann Kristin Skrido Knudsen, Nazarii Kobylak, Sonali Kochhar, Michail Kokkorakis, Ali-Asghar Kolahi, Diana Gladys Kolieghu Tcheumeni, Farzad Kompani, Aida Kondybayeva, Anastasios Georgios Panagiotis Konstantas, Isaac Koomson, Gerbrand Koren, Tapos Kormoker, Oleksii Korzh, Karel Kostev, Archana Koul, Sindhura Lakshmi Koulmane Laxminarayana, James-Paul Kretchy, Irene Akwo Kretchy, Kewal Krishan, Chong-Han Kua, Ananya Kuanar, Barthelemy Kuete Defo, Mohammed Kuddus, Ilari Kuittunen, Shikha Kukreti, Mukhtar Kulimbet, Vishnutheertha Kulkarni, Shweta Kulshreshtha, Sanjay Kirshan Kumar, Manasi Kumar, Dewesh Kumar, Tushar Kumar, Vijay Kumar, Jogender Kumar, Nithin Kumar, G Anil Kumar, Avinash Kumar, Jibin Kunjavara, Setor K Kunutsor, Almagul Kurmanova, Maria Dyah Kurniasari, Pramod Kumar Kushawaha, Asep Kusnali, Christina Yeni Yeni Kustanti, Dian Kusuma, Tezer Kutluk, Assylkhan Kuttybayev, Wai Hang Patrick Kwong, Grace Kwakyewaa Kyei, Evans F Kyei, Frank Kyei-Arthur, Ville Kytö, Hmwe Hmwe Kyu, Pallavi L C, Adriano La Vecchia, Carlo La Vecchia, Alessio Lachi, Muhammad Awwal Ladan, Lucie Laflamme, Chandrakant Lahariya, Daphne Teck Ching Lai, Balzhan Lakanova, Anita Lakhani, Dharmesh Kumar Lal, Ratilal Laloo, Tea Lallukka, Iván Landires, Berthold Langguth, Ariane Laplante-Lévesque, Dylan Lasher, Kamaluddin Latief, Mahrukh Latif, Colleen L L Lau, Saheed Akinmayowa Lawal, Aliyu Lawan, Trang Diep Thanh Le, Huu-Hoai Le, Nhi Huu Hanh Le, Minh Huu Nhat Le, Thao Thi Thu Le, Caterina Ledda, Wei-Chen Lee, Ivan Lee, Seung Won Lee, Yo Han Lee, Vasileios Leivaditis, Matthew J Lennon, Matilde Leonardi, Elyvna Leong, An Li, Jinbo Li, Hui Li, Yongze Li, Jianan Li, Ming-Chieh Li, Wei Li, Wei Li, Chengfeng Li, Wang-Zhong Li, Zhengrui Li, Zhaolong Adrian Li, Weilong Li, Jiaying Li, Yanxue Lian, Xue-Zhen Liang, Virendra S Ligade, Stephen S Lim, Ro-Ting Lin,

Queran Lin, Shuzi Lin, Jialing Lin, Daniel Lindholm, Yuwwei Ling, Xuefeng Liu, Xiaofeng Liu, Haipeng Liu, Xianliang Liu, Zhe Liu, Jue Liu, Gang Liu, Yubo Liu, Erand Llanaj, Michael J Loftus, Valerie Lohner, José Francisco López- Gil, Masoud Lotfizadeh, Surbala Devi Lourembam, Rafael Lozano, Shanjie Luan, Jailos Lubinda, Giancarlo Lucchetti, Susu Luo, Jay B Lusk, Angelina M Lutambi, Miltiadis D Lytras, Ellina Lytvyak, Hawraz Ibrahim, M Amin, Zheng Feei Ma, Kevin Sheng-Kai Ma, Kelsey Lynn Maass, Mahmoud Mabrok, Nikolaos Machairas, Monika Machoy, Firoozeh Madadi, Seyad Ataollah Madinezed, Christian Madsen, Aurea Marilia Madureira-Carvalho, Pasquale Maffia, Azzam A Maghazachi, D R Mahadeshwara Prasad, Sasikumar Mahalingam, Preeti Maharjan, Mina Maheri, Nozad Hussein Mahmood, Alireza Mahmoudi, Farhad Mahmoudi, Panagiota Maikanti-Charalampous, Rituparna Maiti, Marek Majdan, Abdelrahman M Makram, Reza Malekzadeh, Hardeep Singh Malhotra, Farihah Malik, Ahmad Azam Malik, Deborah Carvalho Malta, Mustapha Mangdow, Emery Manirambona, Lokesh Manjani, Yosef Manla, Fahmida Mannan, Kamaruddeen Mannethodi, Farheen Mansoor, Marjan Mansourian, Mohammad Ali Mansournia, Lorenzo Giovanni Mantovani, Changkun Mao, Tahir Maqbool, Hamid Reza Marateb, Joemer C Maravilla, Konstantinos Margetis, Mirko Marino, Adilson Marques, Gabriel Martinez, Bernardo Alfonso Martinez-Guerra, Ramon Martinez-Piedra, Daniela Martini, Francisco Rogerlândio Martins-Melo, Miquel Martorell, Roy Rillera Marzo, Sammer Marzouk, Sugeng Mashudi, Soroush Masrouri, Clara N Matei, Yasith Mathangasinghe, Stephanie Mathieson, Alexander G Mathioudakis, Medha Mathur, Neeta Mathur, Fernanda Penido Matozinhos, Rita Mattiello, Khurshid A Mattoo, Richard James Maude, Pallab K Maulik, Erin A May, Mahsa Mayeli, Mohsen Mazidi, John J McGrath, Martin McKee, Steven M McPhail, Michael A McPhail, Enkeleir A Mechili, Rishi P Mediratta, Riffat Mehboob, Ravi Mehrotra, Vini Mehta, Tesfahun Mekene Mote, Berhanu Abebay Mekonnen, Hadush Negash Meles, Addisu Melese, Satish Melwani, Walter Mendoza, Godfred Antony Menezes, Emiru Ayalew Mengistie, George A Mensah, Sulaim Ayoub Ayoub Meo, Michelangelo Mercogliano, Tuomo J Meretoja, Atte Meretoja, Tomislav Mestrovic, Chamila Dinushi Kukulege Mettananda, Sachith Mettananda, Mohamed M M Metwally, Tomasz Miazgowski, Irmina Maria Michalek, Andrea Michelerio, Hiwot Soboka Mideksa, Ted R Miller, Giuseppe Minervini, GK Mini, Mojgan Mirghafourvand, Seyed Ali Mirshahvalad, Mizan Kiros Mirutse, Maryam Mirzaei, Awoke Misganaw, Archana Mishra, Philip B Mitchell, Sayan Mitra, Chaitanya Mittal, Malihe Moazeni, Shivani Modi, Nouh Saad Mohamed, Mona Gamal Mohamed, Jama Mohamed, Khabab Abbasher Hussien Mohamed Ahmed, Taj Mohammad, Sakineh Mohammad-Alizadeh-Charandabi, Abdollah Mohammadian-Hafshejani, Saeed Mohammadpour, Ibrahim Mohammadzadeh, Shafiu Mohammed, Yahaya Mohammed, Hussen Mohammed, Abdulwase Mohammed, Omer Mohammed, Mustapha Mohammed, Suleiman Mohammed, Ammas Siraj Mohammed, Mohammad Mohseni, Ali H Mokdad, Sabrina Molinaro, Amirabbas Mollaei, Shaher Momani, Lorenzo Monasta, Himel Mondal, Stefania Mondello, Mohammad Ali Moni, Marco Montalti, Yousef Moradi, Maziar Moradi-Lakeh, Paula Moraga, Rafael Silveira Moreira, Shane Douglas Morrison, Mahmoud M Morsy, Reza Mosaddeghi Heris, Jonathan F Mosser, Elias Mossialos, Simin Mouodi, Mariana Mourgova, Asma Mousavi, Seyede Zohre Mousavi, Amin Mousavi Khaneghah, Seyed Mohamad Sadegh Mousavi Kiasary, Amanda Movo, Hagar Lotfy Mowafy, Kimia Mozahheb Yousefi, Matias Mrejen, Rabia Mubarak, Faraz Mughal, Syed Aun Muhammad, Oscar J Mujica, Sumoni Mukherjee, Sukhes Mukherjee, Amartya Mukhopadhyay, George Duke Mukoro, M A Mukhtadir, Francesk Mulita, Chalie Mulugeta, Mulyadi Mulyadi, Malaisamy Muniyandi, Kavita Munjal, Yanjinlkhram Munkhsaikhan, Javier Muñoz Laguna, Michio Murakami, Efren Murillo-Zamora, B V Murlimanju, Sani Musa, Ali Mushtaq, Sherzad Ibrahim Mustafa, Mubarak Taiwo Mustapha, Sathish Muthu, Saravanan Muthupandian, Claude Mambo Muvunyi, Muhammad Muzaffar, Woojoe Myung, Amin Navabi,

Ahamarshan Jayaraman Nagarajan, Shankar Prasad Nagaraju, Mohsen Naghavi, Ganesh R Naik, Firzan Nainu, Hastyar Hama Rashid Najmuldeen, Noureddin Nakhostin Ansari, Gopal Nambi, Vinay Nangia, Jobert Richie Nansseu, Yvonne Nartey, Bruno Ramos Nascimento, Gustavo G Nascimento, Abdallah Y Naser, Abdulqadir J Nashwan, Hamide Nasiri, Mahmoud Nassar, Zuhair S Natto, Zakira Naureen, Samidi Nirasha Kumari Navaratna, Nawsherwan , Biswa Prakash Nayak, Shalini Ganesh Nayak, Smitha Nayak, Shumaila Naz, G Takop Nchanji, Amanuel Tebabal Nega, Masoud Negahdar, Wubshet D Negash, Ruxandra Irina Negoi, Ionut Negoj, Jalil Nejati, Nikita A Nekliduov, Samata Negoj, Henok Biresaw Netsere, Charles Richard James Newton, Marie Ng, Georges Nguéfack- Tsague, Josephine W Ngunjiri, The Phuong Nguyen, Van Thanh Nguyen, Dang Nguyen, Long Nguyen, Nghia Phu Nguyen, Tu Anh Nguyen, Cuong Tat Nguyen, Ambe Marius Ngwa, Robina Khan Niazi, Luciano Nieddu, Ali Nikoobar, Vikram Niranjana, Abebe Melis Nisro, Jan Rene Nkeck, Chukwudi A Nnaji, Shuhei Nomura, Syed Toukir Ahmed Noor, Sana Noreen, Masoud Noroozi, Jean Jacques Noubiap, Valentine C Nriagu, Chisom Adaobi Nri-Ezedi, Jean Claude Nshimiymimana, Mpiko Ntshekhe, Fred Nduka, Atona Negera Nugusa, Mengistu H Nunemo, Nurfatimah Nurfatimah, Dieta Nurrika, Sylvester Dodzi Dodzi Nyadanu, Felix Kwasi Nyande, Ogochukwu Janet Nzopotum, Bogdan Oancea, Fabio Massimo Oddi, Ismail A Odetokun, Oluwakemi Ololade Odukoya, Joseph Kojo Odoro, Michael Safo Oduro, Akinyemi O D Ofakunrin, Onome Bright Oghenetega, Oluwafunmilayo Tosin Ogundeko-Olugbami, In-Hwan Oh, Sarah Oh, Edel T O'Hagan, Hassan Okati-Alibab, Sylvester Reuben Okeke, Deborah Oluwatosisin Okeke- Obayemi, Olaekan John Okesanya, Osaretin Christabel Okonji, Oluwaseyi Isaiah Olabisi, Andrew T Olagunju, Oladotun Victor Olalusi, Matthew Idowu Olatubi, Araújo Belitardo Oliveira, Gláucia Maria Moraes Oliveira, Abdulhakeem Abayomi Olurukooba, Oluseye Olaekan Oludoye, Jacob Oluasegun Olusanya, Bolajoko Olubukunola Olusanya, Goran Latif Omer, Sandersan Onie, Obinna E Onwujekwe, Marcel Opitz Aksoltan Shyrdurdyevna Oradova, Michal Ordak, Verner N Orish, Raffaele Ornello, Atakan Orscelik, Alberto Ortiz, Esteban Ortiz-Prado, Augustus Osborne, John W Ostrominski, Uchechukwu Levi Osuagwu, Olayinka Osulale, Godfred Otchere, Elham H Othman, Adrian Otioju, Oche Joseph Otokpka, Abdu Oumer, Jerry John Ouner, Amel Ouyahia, Mayowa O Owolabi, Irene Amoakoh Owusu, Kolapo Oyebola, Tope Oyelade, Oyetunde T Oyeyemi, Ilker Ozsahin, Mahesh P A, Alicia Padron-Monedero, Jagadish Rao Padubidri, Dimpal Manilal Pajja, Keyvan Pakshir, Tomás Palicz, Raffaele Palladino, Raul Felipe Palma-Alvarez, Tejasri Paluvali, Feng Pan, Sujogya Kumar Panda, Songhomitra Panda-Jonas, Seithikurippu R Pandi-Perumal, Carlo Irwin Able Panoel, Helena Ulyartha Pangariaban, Georgios D Panoel, Leonidas D Panos, Ioannis Pantazopoulos, Anca Pantea Stoian, Giovanni Paolino, Ilias Papadimopoulos, Paraskevi Papadopoulou, Parinaz Paranjkhoo, Shahina Pardhan, Peyvand Parhizkar Roudsari, Romil R Parikh, Chulwoo Park, Eun-Keel Park, Seoyeon Park, Arpit Parmar, Swapnil Parve, Maja Pasovic, Roberto Passera, Jay Patel, Satyananda Patel, Mitesh Patel, Sangram Kishor Patel, Hemal M Patel, Bhumi Hemal Patel, Heta Pavan Patel, Riya Jayesh Patel, Neel Navinkumar Patel, Angel J Paternina-Caicedo, Bharat Smita Umakant Patil, Shankargouda Patil, Ashlesh Patil, Apurba Patra, Venkata Suresh Pathipati, Shubhadarshini Pawar, Shrikant Pawar, Hamidreza Pazoki Toroudi, Spencer A Pease, Amy E Peden, Paolo Pedersini, Jarmila Pekarcikova, Veincent Christian Filipino Pepito, Prince Peprah, Emmanuel K Peprah, João Perdigão, Gavin Pereira, Maria Odete Pereira, Pablo Perez-Lopez, Arokiasamy Perianayagam, Norberto Perico, Simone Perna, Pavlo Petakh, Olumuyiwa James Peter, Fanny Emily Petermann-Rocha, Hoang Nhat Pham, Tung Thanh Pham, Hoang Tran Pham, Nhat Truong Pham, Anil K Philip, Hoang R Phillips, Zayar Phyo, David M Pigott, Zahra Zahid Piracha, Edoardo Piera, Moein Piroozkhah, Enrico Pisoni, Florian Ploekcl, Evgenii Plotnikov, Dimitri Poddighe, Roman V Polibin, Ramesh Poluru, Ville T Ponkilainen, Ion Popa, Djordje S Popovic, Sajjad Pourasghary, Reza Pourbabaian, Farzad Pourghazi, Naeimeh Pourtaheri, Sergio I Prada, Pranil Man Singh Pradhan, Jalandhar Pradhan,

Akila Prashant, Elton Junio Sady Prates, Harsh Priya, Nicola Riccardo Pugliese, Hery Purnobasuki, Shuby Puthussery, Jagadeesh Puvvula, Nameer Hashim Qasim, Zhipeng Qi, Xiang Qi, Jia-Yong Qiu, Zahiruddin Syed Quazi, Basuki Rachmat, Raghu Anekal Radhakrishnan, Hadi Raeisi Shahraki, Alberto Raggi, Pracheth Raghuvver, Hawbash Mohammed-Amin Rahim, Sajjad Rahimi, Vafa Rahimi-Movaghar, Muhammad Aziz Rahman, Mahbubur Rahman, Fryad Majeed Rahman, Md Mijanur Rahman, Mohammad Hifz Ur Rahman, Md Mosfequr Rahman, Mosiur Rahman, Amir Masoud Rahmani, Saeed Rahmani, Masoud Rahmati, Ghasem Rahmatpour Rokni, Hakim Rahmoune, Ivano Raimondo, Diego Raimondo, Sunil Kumar Raina, Jeffrey Pradeep Raj, Adarsh Raja, Sandesh Raja, Erta Rajabi, Gunaseelan Rajendran, Judah Rajendran, Mohammad Amin Rajizadeh, Mahmoud Mohammed Ramadan, Majed Ramadan, Kadar Ramadhan, Chitra Ramasamy, Shakthi Kumaran Ramasamy, Sheena Ramazan, Zahra Ramezani, Marzieh Ramezani Farani, Juwel Rana, Chhabi Lal Ranabhat, Nemanja Rancic, Smitha Rani, Kumuda Rao, Mithun Rao, Chyitra R Rao, Davide Rasella, Vahid Rashedi, Mohammad-Mahdi Rashidi, Ashkan Rasouli-Saravani, Prateek Rastogi, Azad Rasul, Devarajan Rathish, Abdur Rauf, Santosh Kumar Rauniyar, Ilari Rautalin, Ramin Ravangard, Dhvani Ravi, David Laith Rawaf, Reza Rawassizadeh, Ramu Rawat, Bahman Razi, Christian Razo, Murali Mohan Rama Krishna Reddy, Elrashdy Redwan, Sanika Rege, Wajiha Rehman, Rainer Reile, Giuseppe Remuzzi, Bhageerathy Reshmi, Stefano Restaino, Mina Rezaei, Marzieh Rezaei, Nazila Rezaei, Mohsen Rezaeian, Taeho Gregory Rhee, Antonio Luiz P Ribeiro, Tércia Moreira Ribeiro da Silva, Jennifer Rickard, Hannah Elizabeth Robinson-Oden, Hermanno Alexandre Lima Rocha, João Rocha Rocha-Gomes, Alfonso J Rodriguez-Morales, Leonardo Roever, Ravi Rohilla, Ifitakhur Rohmah, Susanne Röhr, David Rojas-Rueda, Megan L Rolfzen, Debby Sayhru Romadlon, Michele Romoli, Luca Ronfani, Moustaq Karim Khan Rony, Jennifer Jacqueline Rosauer, Emily Rosenblad, Amirhossein Roshanshad, Morteza Rostamian, Kunle Rotimi, Himanshu Sekhar Rout, Shiva Rouzbahani, Reza Rouzbahani, Hanieh Rouzbahani, Adrija Roy, Nitai Roy, Priyanka Roy, Parimal Roy, Bedanta Roy, Sharmistha Roy, Simanta Roy, Simanta Roy, Shubhanjali Roy, Parameswari Royapuram Parthasarathy, Enrico Rubagotti, Susan Fred Rumisha, Michele Russo, Godfrey M Rwegera, Poorvikha S, Chandan S N, Aly M A Saad, Zahra Saadatian, Michela Sabbatucci, Korosh Saber, Maha Mohamed Saber-Ayad, Cameron John Sabet, Siamak Sabour, Periminder S Sachdev, Kabir P Sadarangani, Seyed Kiarash Sadat Rafiei, Basema Ahmad Saddik, Adam Saddler, Bashdar Abuzed Sadee, Tarannom Sadegh, Erfan Sadeghi, Ehsan Sadeghi, Fatemeh Sadeghi-Ghyassi, Umar Saeed, Mohd Saeed, Maryam Saeedi, Mehdi Safari, Mahdi Safdarian, Sher Zaman Safi, Rajesh Sagar, Mastooreh Sagarichi, Amene Saghazadeh, Dominic Sagoe, Indranil Saha, Nondo Saha, Narjes Saheb Sharif-Askari, Fatemeh Saheb Sharif-Askari, Amirhossein Sahebkar, Biniyam Sahiledengle, Gülsüm Şahin Bodur, Pragyan Monalisa Sahoo, Zahra Saif, S Mohammad Sajadi, Md Refat Uz Zaman Sajib, Mirza Rizwan Sajid, Payman Salamati, Luciane B Salaroli, Mohamed A Saleh, Mahdi Salehi, Mohammed Z Y Salem, Marwa Rashad Salem, Dauda Salihu, Sohrab Salimi, Pegah Salimi Pormehr, Malik Sallam, Hossein Samadi Kafil, Saad Samargandy, Yoseph Leonardo Samodra, Abdallah M Samy, Sandeep G Sangle, Elaheh Sanjari, Sathish Sankar, Francesca Sanna, Lucas H C C Santos, Milena M Santric-Milicevic, Haaris Saqib, Sivan Yegnanarayana Iyer Saraswathy, Jacob Owusu Owusu Sarfo, Yaser Sarikhani, Tanmay Sarkar, Hemen Sarma, Mohammad Sarmadi, Sachin C Sarode, Gargi Sachin Sarode, Benn Sartorius, Arash Sarveazad, Michele Sassano, Brijesh Sathian, Mukesh Kumar Sathya Narayanan, Maheswar Satpathy, Jennifer Saulam, Mehrdad Savabi Far, Kimia Savoji, Monika Sawhney, Ganesh Kumar Saya, Abu Sayeed, Christophe Schinckus, Jurgen Carlo Schmidt, Maria Inés Schmidt, Aletta Elisabeth Schutte, Ghil Schwarz, David C Schwebel, Falk Schwendicke, Catherine Schwinger, Mario Şekerija, Siddharthan Selvaraj, Yuliya Semenova, Mohammad H Semreen, Ashenafi Kibret Sendekie, Yigit Can Senol, Subramanian Senthilkumaran, Sadaf G Sepanlou, Edson Serván-Mori, Yashendra Sethi, Seyed Mohammad Seyed Alshohadaei, Allen Seylani, Abubakar Sha'aban, Mahan Shafie, Arezoo Shafieion, Muhammad Shahab, Shazlin Shahrudin, Muhammad Shahbaz, Syed Ahsan Shahid, Samiah Shahid, Wajeehah Shahid, Endrit Shahini, Farshad Shahkarami, Fatemeh Shahrahmani, Hamid R Shahsavari, Moyad Jamal Shahwan, Masood Ali Shaikh, Nafhat Shaikh, Alireza Shakeri, Ali Shakerimoghaddam, Ali S Shalash, Sunder Sham, Muhammad Aaqib Shamim, Mehran Shams-Beyranvand, Anas Shamsi, Alfiya Shamsutdinova, Dan Shan, Mohd Shanawaz, Abhishek Shankar, Ben David Geller Shapiro, Amin Sharifan, Javad Sharifi Rad, Manoj Sharma, Ravi Kumar Sharma, Bunty Sharma, Ujjawal Sharma, Avimanu Sharma, Bhoopesh Kumar Sharma, Vishal Sharma, Armin Shavandi, Ramzi Shawahna, Maryam Shayan, Ali Sheidaei, Aziz Sheikh, Mahabalesh Shetty, Suraj S Shetty, Lin-Hong Shi, Fang Shi, Belayneh Fentahun Shibesh, Desalegn Shiferaw, Tariku Shimels, Md Monir Hossain Shimul, Min-Jeong Shin, Rahman Shiri, Reza Shirkoochi, Aminu Shittu, Abdul-karim Olayinka Shitu, Ivy Shiue, Velizar Shivarov, Ambreen Shoaib, Shayan Shojaei, Sina Shool, Seyed Afshin Shorofi, Sunil Shrestha, Suleiman Adeiza Adeiza Shuaibu, Kerem Shuval, Nicole R S Sibuyi, Emmanuel Edwar Siddig, Mohammad Sidiq, Luís Manuel Lopes Rodrigues Silva, Diego Augusto Santos Silva, Noah Joseph Bernard Silva de Leonardi, Biagio Simonetti, Amit Singh, Balbir Bagicha Singh, Jasvinder A Singh, Baljinder Singh, Harmanjit Singh, Narinder Pal Singh, Puneetpal Singh, Satwinder Singh, Poornima Suryanath Singh, Akanksha Singh, Harpreet Singh, Surendra Singh, Bhim Pratap Singh, Kalpana Singh, Samer Singh, Abhinav Singh, Mukesh Kumar Sinha, Robert Sinto, Freddy Sitas, Dagne Feleke Siyoum, Natia Skhvitardze, Valentin Yurievich Skryabin, Anna Aleksandrovna Skryabina, David A Sleet, Aalam Sohal, Md Salman Sohel, Somaye Sohrabi, Anton Sokhan, Shipra Solanki, Solikhah Solikhah, Sameh S M Soliman, Aayushi Sood, Prashant Sood, Soroush Sorane, Joan B Soriano, Michele Sorrentino, Fernando Sousa, Ireneus N Soyiri, Michael Spartalis, Chandrashekhar T Sreeramareddy, Bahadar S Srichawla, Shyamkumar Sriram, Devin Bailey Srivastava, Jeffrey D Stanaway, Nicholas Steel, Aleksandar Stevanović, Sebastian Straube, Peter Stubbs, Omer Subasi, Narayan Subedi, Vetrivelan Subramanian, Hasnat Sujon, Thitiporn Sukaew, Surajo Kamilu Sulaiman, Auwal Garba Suleiman, Muhammad Suleman, Desy Sulistiyorini, Mark J M Sullman, Jing Sun, Haitong Zhe Sun, Xiaohui Sun, Mao-ling Sun, Zhuanlan Sun, Suraj Sundaragiri, David Sunkersing, Sumam Sunny, Chandan Kumar Swain, Tasmin L Symons, Lukasz Szarpak, Mindy D Szeto, Sree Sudha T Y, Payam Tabae Damavandi, Rafael Tabarés-Seisdedos, Seyyed Mohammad Tabatabaei, Fatemeh Sadat Tabatabaei, Seyed Shahaboddin Tabatabaei, Shima Tabatabai, Celine Tabche, Ramin Tabibi, Mohammad Tabish, Takahiro Tabuchi, Santosh Kumar Tadakamadla, Buhari Abdullahi Tafida, Farzad Taghizadeh- Hesary, Zanan Mohammed-Ameen Taha, Yasaman Taheri Abkenar, Shima Tajabadi, Iman M Talaat, Mircea Tampa, Jacques Lukenze Tamuzi, Ker-Kan Tan, Shynar Tanabayeva, Haosu Tang, Guodong Tang, Mohsan Tanveer, Sarvenaz Taridashti, Ingan Ukur Tarigan, Mengistie Kassahun Tariku, Saba Tariq, Anika Tasnim, Seyed Mohammad Tavangar, Mebrahtu G Tedla, Mohamad-Hani Temsah, Reem Temsah, Masayuki Teramoto, Azimeraw Arega Tesfu, Jay Tewari, Alireza Teymouri, Chandan Kumar Thakur, Rekha Thapar, Ismael Tharwat, Samar Tharwat, Hadiza Theyra-Enias, Arun James Thirunavukarasu, Muthu Thiruvengadam, Manuel Sebastian Thomas, Jansje Henny Vera Ticoalu, Mariya Vladimirovna Titova, Yves Joel Tochie Noutakdie, Sojit Tomo, Marcello Tonelli, Roman Topor-Madry, Ali Torkashvand, Mathilde Touvier, Marcos Roberto Tovani-Palone, Khaled Trabelsi, Thang Huu Tran, Quynh Thuy Huong Tran, Tam Quoc Minh Tran, Mai Thi Ngoc Tran, Nguyen Tran Minh Duc, Domenico Trico, Indang Trihandini, Samuel Joseph Tromans, Claudia Truppa, Gary Tse, Evangelia Eirini Tsermpini, Munkhtuya Tumurkhuu, Zhouting Tuo, Biruk Shalmeno Tusa, Sok Cin Tye, Stefanos Tyrovolas, Aniefiok John Udoakang, Himayat Ullah, Saeed Ullah, Atta Ullah, Riaz Ullah, Muhammad Umair, Lawan Umar, Muhammad Umar,

Muhammad Umar, Bhaskaran Unnikrishnan, Dinesh Upadhyay, Era Upadhyay, Dipan Uppal, Jibrin Sammani Usman, Kelechi Julian Uzor, Hande Uzunçubuk, Pratyusha Vadagam, Asokan Govindaraj Vaithinathan, Pascual R Valdez, Mario Valenti, Zahir Vally, Jef Van den Eynde, Javad Varasteh, Joe Varghese, Priya Vart, Santosh Varughese, Tommi Juhani Vasankari, Sampara Vasishtha, Srivatsa Surya Vasudevan, Alireza Vaysi, Ashleigh S Vella, Balachandar Vellingiri, Gowri Venkatraman Subramanian, Narayanaswamy Venketasubramanian, Nicholas Alexander Verghese, Poonam Verma, Megan Verma, Madhur Verma, Massimiliano Veroux, Georgios-Ioannis Verras, Dominique Vervoort, Ramesh Vidavalur, Simone Villa, Jorge Hugo Villafañe, David Villarreal-Zegarra, Francesco S Violante, Sharath Chaitanya Vipparthy, Luciano Magalhães Vitorino, Stein Emil Vollset, Avina Vongpradith, Theo Vos, Elpida Vounzoulaki, Linh Vu, Henok Toga Wada, Yasir Waheed, Megha Walia, Lindsey E Wallace, Agnes Wamuyu Wamai, Jin-Yi Wan, Arvinder Wander, Shu Wang, Ruixuan Wang, Xing Wang, Shaopan Wang, Qingzhi Wang, Jinyu Wang, Fang Wang, Wei Wang, Yanzhong Wang, Denny Wang, Youxin Wang, Wanzhou Wang, Yuan-Pang Wang, Mary Njeri Wanjau, Ahmed Bilal Waqar, Muhammad Waqas, Paul Ward, Stefanie Watson, Kosala Gayan Weerakoon, Fei-Long Wei, Xueying Wei, Robert G Weintraub, Daniel J Weiss, Ronny Westerman, Joanna L Whisnant, Taweewat Wiangkham, Yohanes Cakrapradipta Wibowo, Anggi Lukman Wicaksana, Nuwan Darshana Darshana Wickramasinghe, Dakshitha Praneeth Wickramasinghe, Angga Wilandika, Peter Willeit, Andrew Awuah Wireko, Gemechu Kumera Wirtu, Charles Shey Wiysonge, Abay Tadesse Woday, Marcin W Wojewodzic, Axel Walter Wolf, Tewodros Eshete Wonde, Yen Jun Wong, Daniel Tarekegn Worede, Minichil Chanie Chanie Worku, James Fan Wu, Zenghong Wu, Jinyi Wu, Felicia Wu, Peng Wu, Yihun Miskir Wubie, Qing Xia, Zhijia Xia, Hong Xiao, Lishun Xiao, Guangqin Xiao, Na Xiao, Wanqing Xie, Wanqing Xu, Xiaoyue Xu, Suowen Xu, Wang-Dong Xu, Site Xu, Mingyang Xue, Mukesh Kumar Yadav, Vikas Yadav, Sajad Yaghoubi, Saba Yahoo (Syed), Kazumasa Yamagishi, Xinxin Yang, Haibo Yang, Yuichiro Yano, Haiqiang Yao, Laiang Yao, Amir Yarahmadi, Habib Yaribeygi, Haya Yasin, Mohamed A Yassin, Yuichi Yasufuku, Sanni Yaya, Pengpeng Ye, Meghdad Yeganeh, Ali Cem Yekdes, Mohammad Hossein YektaKooshali, Getaneh Atilikt Yemata, Subah Abderehim Yesuf, Saber Yezli, Siyan Yi, Muluken Yigezu, Dehui Yin, Yazachew Engida Yismaw, Malede Berihun Yismaw, Dong Keon Yon, Naohiro Yonemoto, Mustafa Z Younis, Abdilahi Yousuf, Jian Yu, Yong Yu, Chuanhua Yu, Hui Yuan, Ghazala Yunus, Umar Yunusa, Siddhesh Zadey, Vesna Zadnik, Mubashir Zafar, Manijeh Zaghampour, Mondal Hasan Zahid, Emilia Zainal Abidin, Fathiah Zakham, Giulia Zamagni, Sojib Bin Zaman, Abu Sarwar Zamani, Hussaini Zandam, Alireza Zangeneh, Aurora Zanghi, Iman Zare, Kourosh Zarea, Shirin Zaresharifi, Michael Zastrozhin, Mohammed Zawiah, Mohammed G M Zeariya, Dawit Zemedikun, Abay Mulu Zenebe, Sebastian Zensen, Eyal M Zeru, Tiansong Zhan, Yongle Zhan, Xiaoyi Zhang, Liqun Zhang, Haijun Zhang, Yunquan Zhang, Beijian Zhang, Ning Zhang, Xiu-Hang Zhang, Meixin Zhang, Zhiqiang Zhang, Casper J P Zhang, Jinpeng Zhang, Zhongyi Zhao, Shenglin Zhao, Sheng Zhao, Ming-Hua Zheng, Anthony Zhong, Claire Chenwen Zhong, Juexiao Zhou, Jiayan Zhou, Bin Zhu, Abzal Zhumagaliuly, Hafsa Zia, Ghazal Zoghi, Mohamed Ali Zoromba, Rafat Mohammad Zrieq, Liesl J Zuhlke, Lilik Zuhriyah, Alimuddin Zumla, Sa'ed H Zyoud, Shaher H Zyoud, Ahed H Zyoud, Aleksandr Y Aravkin**, Christopher J L Murray**. *Joint first authors **Joint senior authors

Affiliations

See Online for appendix 3 For collaborator affiliations see appendix 3 (pp 12–65).

Contributors

Please see appendix 3 (pp 66–90) for more detailed information about individual author contributions to the research, divided into the following categories: managing the overall research enterprise; writing the first draft of the manuscript; primary responsibility for applying analytical methods to produce estimates; primary responsibility for

seeking, cataloguing, extracting, or cleaning data; designing or coding figures and tables; providing data or critical feedback on data sources; developing methods or computational machinery; providing critical feedback on methods or results; drafting the manuscript or revising it critically for important intellectual content; and managing the estimation or publications process. The corresponding and senior authors had full access to all the data in the study and final responsibility for the decision to submit the manuscript for publication.

Declaration of interests

D Adzrago reports support for the present manuscript from the National Institute on Minority Health and Health Disparities at the National Institutes of Health. D Adzrago's efforts are supported by the Division of Intramural Research at the National Institute on Minority Health and Health Disparities, National Institutes of Health (ZIA MD000015). Opinions and comments expressed in this Article belong to the author and do not necessarily reflect those of the US Government, Department of Health and Human Services, National Institutes of Health, and National Institute on Minority Health and Health Disparities; support for meetings and/or travel from the National Institute on Minority Health and Health Disparities at the National Institutes of Health, outside the submitted work. S Afzal reports support for the present manuscript from the Institute of Public Health, Lahore, Pakistan; grants or contracts by the Dean Institute of Public Health, Lahore, Pakistan; honoraria for experts, lectures, visiting speakers and educational seminars were provided by the Dean Institute of Public Health, Lahore, Pakistan; support for attending meetings and travel was provided by the Dean Institute of Public Health, Lahore, Pakistan; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid as a Member of the Pakistan Higher Education Commission Research Committee, Member of the Pakistan Medical and Dental Commission Research and Journals Committee, Member of the Pakistan National Bioethics Committee, Member of the Pakistan Society of Internal Medicine, Member of the Pakistan Association of Medical Editors, Member of the Medical Microbiology and Infectious Diseases Society, Fellow of LEADS (Cohort15), 2010, Fellow of the Faculty of Public Health UK, Fellow of the College of Physicians and Surgeons Pakistan; receipt of equipment, materials, drugs, and services including computer software and equipment from Bergen University Norway for research writing; and other financial or non-financial support from the Dean Public Health Institute of Public Health, Lahore, Pakistan; outside the submitted work. C Agostinis Sobrinho reports grants or contracts from Fundação para a Ciência e a Tecnologia (FCT) - (CEECINST/00093/2021/CP2815/CT0001); outside the submitted work. R Ancuceanu reports royalties or licenses from AbbVie and Merck Romania; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, or educational events from AbbVie, Laropharm, Reckitt, and Merck Romania; and support for attending meetings and/or travel from Merck Romania and Reckitt; outside the submitted work. J Arnlov reports payment or honoraria for lecture fees, speakers bureaus, manuscript writing, or educational events from AstraZeneca, Boehringer Ingelheim, and Novartis; and participation on a Data Safety Monitoring Board or Advisory Board with AstraZeneca, Boehringer Ingelheim, and Astella; outside the submitted work. M S Aslam reports grants or contracts from Xiamen University Malaysia Research Fund (XMUMRF; grant number XMUMRF/2025-C15/ITCM/0006), Project title: Therapeutic and Toxicity Evaluation of Selected Medicinal Herbs for NAFLD: Exploring the Inter-Organelle Contact Sites Modulation Theory Role: Co-Investigator Dates: Jan 2025–Dec 2027 (ongoing) Internal XMUMRF research grant administered by Xiamen University Malaysia; funds disbursed to institutional research account only; no salary, honoraria, or personal payments to author, and grant number XMUMRF/2023-C11/ISEM/0041, project title: Children's Rights Education in the Early Years of Divorce: An Exploration of Adolescents' Perspectives Role: Co-Investigator Dates: Jan 2023 – Dec 2025 (ongoing) Internal XMUMRF research grant administered by Xiamen University Malaysia; funds disbursed to institutional research account only; no salary, honoraria, or personal payments to author; outside the submitted work. R Bai reports support for the present manuscript from the Fundamental Research Funds for the Central Universities (number 3092301101). O C Baltatu reports support for the present manuscript from Alfaisal University, Anima Institute (AI) Research

Professor Fellowship, National Council for Scientific and Technological Development Fellowship (CNPq, 304224/2022-7); Leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid as Managing Partner, VividiWise Analytics and as a Biotech Advisory Board Member, São José dos Campos Technology Park – CITE; outside the submitted work. S Barteit reports grants or contracts from the Carl-Zeiss Foundation research grant and the German research foundation (DFG) research grant; stock or stock options from the CHEERS company; outside the submitted work. A Beloukas reports grants or contracts with Gilead (research grant and sponsorship to the University of West Attica) and GSK (research sponsorship to the University of West Attica); payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, or educational events from Gilead and GSK (paid to the University of West Attica); support for attending meetings and/or travel from Gilead and GSK (paid to the University of West Attica); receipt of equipment, materials, drugs, services from Cepheid, and provided FOC reagents for a research project; outside the submitted work. S Bhaskar reports grants or contracts from Japan Society for the Promotion of Science (JSPS), Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT), Grant-in-Aid for Scientific Research (KAKENHI) (Grant ID: 23KF0126), JSPS and the Australian Academy of Science, JSPS International Fellowship (Grant ID: P23712; leadership or fiduciary role in other board, society, committee, or advocacy group, paid or unpaid as District Chair, Diversity, Equity, Inclusion & Belonging of Rotary District 9675 (Sydney, Australia), as Chair, Founding Member and Manager of the Global Health & Migration Hub Community, Global Health Hub Germany (Berlin, Germany), as Editorial Board Member of *PLOS One*, *BMC Neurology*, *Frontiers in Neurology*, *Frontiers in Stroke*, *Frontiers in Public Health*, *Journal of Aging Research*, *Neurology International*, *Diagnostics*, & *BMC Medical Research Methodology*, as a member of the College of Reviewers, Canadian Institutes of Health Research (CIHR), Government of Canada, as the Director of Research of World Headache Society (Bengaluru, India), as Expert Adviser/Reviewer of Cariplo Foundation (Milan, Italy), as Visiting Director of National Cerebral and Cardiovascular Center, Department of Neurology, Division of Cerebrovascular Medicine and Neurology, Suita (Osaka, Japan), as Member, Scientific Review Committee of Cardiff University Biobank (Cardiff, UK), as Chair of Rotary Reconciliation Action Plan, and Healthcare and Medical Adviser at Japan Connect (Osaka, Japan); outside the submitted work. M Carvalho reports other financial or non-financial support from LAQV/REQUIMTE, University of Porto (Porto, Portugal), FCT/MCTES under the scope of the project UIDP/50006/2020 (DOI 10.54499/UIDP/50006/2020); outside the submitted work. N Conrad reports grants or contracts from Wellcome Trust Career Development Award (grant number 318034/Z/24/Z) (personal fellowship for research support paid to their institution) and the Research Foundation Flanders (grant number 12ZU922N; personal fellowship for research support paid to their institution); outside the submitted work. S Cortese reports grants or contracts from the NIHR, European Research Agency; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, or educational events from with ACAMH, BAP, Medice; support for attending meetings and/or travel from ACAMH, BAP, Medice; leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid with Stein Committee and Eunethydid; outside the submitted work. E C Dee reports support for the present manuscript from NIH/NCI and the Prostate Cancer Foundation, funding in part through the NIH/NCI Support Grant P30 CA008748, and funding in part through the Prostate Cancer Foundation Young Investigator Award. A K Demetriades reports leadership, non-fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid with EANS (European Association of Neurosurgical Societies) as a Board member, AO SPINE as a Steering Committee Member of the Knowledge Forum Degenerative, and Board Member of the Global Neuro Foundation; outside the submitted work. X Ding reports grants or contracts from the American Heart Association 2-year predoctoral fellowship (DOI: 10.58275/AHA.25PRE1373497.pc.gr.227106; quarterly payments made to institution); outside the submitted work. A Faro reports support for the present manuscript from the Brazilian National Council for Scientific and Technological Development (CNPq, Brazil) CNPq-funded researcher (PQ).

A Fomenkov reports support for the present manuscript from the Ministry of Science and Higher Education of the Russian Federation (themes number 122042600086-7 and number 122042700043-9). R Franklin reports support for attending meetings and/or travel from ACTM Annual Conference 2022–2024; leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid as President of the Australasian College of Tropical Medicine, President of Kidsafe Australia, Board Member of Royal Life Saving Society Australia, and Board Member of Auschem Training; outside the submitted work. N Fullman reports grants or contracts from the Gates Foundation (since March 2024, for work focused on drivers of non-vaccination in select countries); and other financial or non-financial support from Gates Ventures (June 2020 to June 2025); outside the submitted work. N Githi reports grants or contracts from salary during employment at the Technical University of Denmark between 2019–2022 covered by a grant from Novo Nordisk Foundation (NNF16OC0021856) paid to the Technical University of Denmark between 2019–2022; support for attending meetings and/or travel from Danish Data Science Institute at the Technical University of Denmark, travel grant in 2023; outside the submitted work. A Guha reports grants or contracts from the American Heart Association and the US Department of Defense; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid on the Health Equity Task Force Zero Prostate Cancer; outside the submitted work. C Herteliu reports grants or contracts from a project “Analysis of the impact of Covid-19 on the main demographic indicators in Romania and the Republic of Moldova by using econometric modeling” code PN-IV-P8-8.3-ROMD-2023-0208 funded by the Romanian Ministry of Research, Innovation and Digitalization (MCID) through UEFISCDI. C Herteliu is partially supported by a grant from the European Commission Horizon 4PCAN (Personalised Cancer Primary Prevention Research through Citizen Participation and Digitally Enabled Social Innovation). C Herteliu is partially supported by the project “Societal and Economic Resilience within multi-hazards environment in Romania” funded by European Union – NextGenerationEU and Romanian Government, under National Recovery and Resilience Plan for Romania, contract number 760050/23.05.2023, cod PNRR-C9-I8-CF 267/ 29.11.2022, through the Romanian Ministry of Research, Innovation and Digitalization, within Component 9, Investment I8. C Herteliu is partially supported by the project “A better understanding of socio-economic systems using quantitative methods from Physics” funded by European Union – NextGenerationEU and Romanian Government, under National Recovery and Resilience Plan for Romania, contract number 760034/23.05.2023, cod PNRR-C9-I8-CF 255/ 29.11.2022, through the Romanian Ministry of Research, Innovation and Digitalization, within Component 9, Investment I8; outside the submitted work. A H Hoveidaei reports leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid as Guest Editor of *Frontiers in Sports and Active living*, as Editorial Board Member of *International Orthopaedics*, *Bone Reports*, *BMC Research Notes*, *PLoS One*, *Frontiers in Rehabilitation Sciences* (unpaid); outside the submitted work. I Ilic reports grants or contracts from the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (number 451-03-137/2025-03/200110); outside the submitted work. M Ilic reports grants or contracts from the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (number 451-03-47/2023-01/200111); outside the submitted work. N A Ismail reports leadership or fiduciary roles in board, society, committee or advocacy groups, unpaid as the Bursar and Council Member, Malaysian Academy of Pharmacy and Committee Member of the Malaysian Pharmacists Society Education Chapter Committee; outside the submitted work. I Iyamu reports grants or contracts from the Canadian Institutes for Health Research (CIHR) Health Systems Impact Fellowship (funding reference number IF8-196153), the Michael Smith Health Research BC Trainee Award (award number - HSIF-2024-04465), the CIHR Canadian HIV Trials Network (CTN+) postdoctoral fellowship; consulting fees from Excellence Community Education Welfare Scheme; support for attending meetings and/or travel from Pacific Public Health Foundation; leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid as Vice President - Public Health Association of British Columbia; participation on a DSMB or advisory

board as Vice President - Public Health Association of British Columbia; outside the submitted work. T Joo reports support for the present manuscript from the National Research, Development and Innovation Office in Hungary (RRF-2.3.1-21-2022-00006), Data-Driven Health Division of National Laboratory for Health Security, Funding of participation in the research project. J Jozwiak reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, educational events or personal fees from Novartis, Adamed, Amgen, Novo Nordisk, and Boehringer Ingelheim; outside the submitted work. M K Kashyap reports grants or contracts from Indian Council of Medical Research (ICMR), New Delhi, India (Grant # NCD/Ad-hoc/112/2021-22); outside the submitted work. N J Kassebaum reports grants or contracts from the Gates Foundation (grant funding for health metrics research); outside the submitted work. J H Kempen reports support for the present manuscript from Sight for Souls and Mass Eye and Ear Global Surgery Program; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid from Sight for Souls; stock or stock options in Betaliq and Tarsier; outside the submitted work. J Khubchandani reports grants or contracts from Merck Pharma and the National Science Foundation, outside the submitted work. M Kivimaki reports grants or contracts from the Wellcome Trust (221854/Z/20/Z), the UK Medical Research Council (MR/Y014154/1), the National Institute on Aging (National Institutes of Health), USA (R01AG056477, R01AG062553), the Research Council of Finland (350426; PI of research grants to university); outside the submitted work. A G Konstas reports grants or contracts from Thea Pharmaceuticals, Omni Vision, Vianex, Santen, Intermed, Bayer; consulting fees from Thea Pharmaceuticals and Santen; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, or educational events from Thea Pharmaceuticals, Vianex, Intermed, and Esteve Pharmaceuticals; support for attending meetings and/or travel from Vianex, Thea Pharmaceuticals, Intermed, and Santen; outside the submitted work. K Krishan reports other financial or non-financial interests from the UGC Centre of Advanced Study, CAS II, awarded to the Department of Anthropology, Panjab University (Chandigarh, India), outside the submitted work. T Lallukka reports support for the present manuscript from the Research Council of Finland (grant number 330527) payments made to institution. M Leonardi reports grants or contracts from the Ministry of Health, European Commission (payments made to institution); support for attending meetings and/or travel from WFNR, EAN, Italian Society of Neurology; participation on a DSMB or advisory board as a Member of the Board of the Centre of Bioethics of Catholic University; outside the submitted work. M-C Li reports grants or contracts from the National Science and Technology Council, Taiwan (NSTC 113-2314-B-003-002) and the "Higher Education Sprout Project" of National Taiwan Normal University; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid as Technical Editor of the *Journal of the American Heart Association*; outside the submitted work. W-Z Li reports support for the present manuscript from the National Natural Science Foundation of China (82303338) and the Grant of State Key Laboratory of Respiratory Disease (SKLRD-Z-202401). D Lindholm reports stock or stock options with AstraZeneca (during time of employment); other financial or non-financial interests as a former employee of AstraZeneca; outside the submitted work. J Liu reports support for the present manuscript and grants or contracts from the National Natural Science Foundation (72474005) and Beijing Natural Science Foundation (L222027). V Lohner reports support for the present manuscript from Marga and Walter Boll Foundation, Kerpen, Germany. E Lytyak reports grants or contracts from University of Alberta (Principal Investigator), Advanz Pharma (Co-Principal Investigator), WCB Alberta (Co-Principal Investigator), CPSA (Co-Principal Investigator); payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from the Alberta Obesity Society; other financial or non-financial interests from the University of Alberta as an employee and from Alberta Health Services; outside the submitted work. P Maffia reports grant or contract funding from the British Heart Foundation, NextGenerationEU PNRR, Heart Research UK, Italian Ministry of University, BBSRC International Partnerships Funding, and Scottish Founding Council; leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid as the

Vice-President and Chair of the Engagement Committee for the British Pharmacological Society (BPS), Chair of the Immunopharmacology Committee and vice-Chair of the Basic and Translational Section for the International Union of Basic and Clinical Pharmacology (IUPHAR), and Chair of the Translational Research Medical Review Panel for Heart Research UK (HRUK). Additionally, P Maffia serves as a Nucleus Member of the European Society of Cardiology (ESC) Working Group on Atherosclerosis & Vascular Biology and Cell Biology of the Heart and serves on the Executive Committee of the British Atherosclerosis Society (BAS), a part of the Immunotherapy Committee of the International Union of Immunological Societies (IUIS), and is a member of the Translational Clinical Studies (TCS) Grant Panel for the Chief Scientist Office (CSO); outside the submitted work. H R Marateb reports grants or contracts from Universitat Politècnica de Catalunya · Barcelona Tech – UPC; outside the submitted work. R Maude reports support for the present manuscript from the Wellcome Trust (grant number 220211) as it provides core funding for Mahidol Oxford Tropical Medicine Research and contributes to R Maude's salary. R Maude is required by Wellcome to acknowledge this grant in all publications. S A Meo reports grants or contracts from the Ongoing Research Funding Program (ORF-2025-47), King Saud University (Riyadh, Saudi Arabia); outside the submitted work. I Monasta reports support for the present manuscript from the Italian Ministry of Health (Ricerca Corrente 34/2017), payments made to the Institute for Maternal and Child Health IRCCS Burlo Garofolo. R Moreira reports grants or contracts from the CNPq Research Productivity Scholarship as a research productivity fellow by CNPq (National Council for Scientific and Technological Development), scholarship registration number 316607/2021-5; outside the submitted work. J Mosser reports support for the present manuscript from the Gates Foundation; grant or contract funding from Gavi; and support for attending meetings and/or travel from the Gates Foundation. F Mughal reports support for the present manuscript from NIHR (the views expressed in this manuscript are those of the authors and not those of the NIHR, NHS, or Department for Health and Social Care). S Nomura reports support for the present manuscript from the Ministry of Education, Culture, Sports, Science and Technology of Japan (24H00663) Grant and the Precursory Research for Embryonic Science and Technology from the Japan Science and Technology Agency (JPMJPR22R8) Grant. B Oancea reports support for the present manuscript from the Ministry of Research, Innovation and Digitalization through the Core Program of the National Research, Development and Innovation Plan 2022–2027, project number PN 23-02-0101-contract number 7N/2023 PNRR/2022/C9/MCID/18 project 760096. S Onie reports grants or contracts from Templeton World Charity Foundation; support for attending meetings and/or travel from Suicide Prevention Australia (Registration, Travel and Accommodation at National Suicide Prevention Conference 2025) and the International Association for Suicide Prevention (Registration for 2025 World Congress); leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid as Founding President of the Indonesian Association for Suicide Prevention; stock or stock options in Wellspring Indonesia, a local mental health clinic; outside the submitted work. R Ornello reports grants or contracts from the Italian Ministry of Health as co-investigator for grant-funded research; consulting fees from AbbVie, Eli Lilly, Pfizer, and Teva; payment or honoraria from AbbVie, Bayer, Eli Lilly, Lundbeck, Novartis, Organon, Pfizer, and Teva; support for attending meetings and/or travel from Novartis and Teva; participation on a DSMB or advisory board from AbbVie, Eli Lilly, and Pfizer; outside the submitted work. A Ortiz reports grants or contracts from Sanofi (to institution: IIS-FJD UAM), grants to Universidad Autonoma de Madrid (UAM) as Director of the Catedra Astrazeneca-UAM of chronic kidney disease and electrolytes; consulting fees from Astellas, AstraZeneca, Bioparto, Boehringer Ingelheim, Fresenius Medical Care, GSK, Bayer, Sanofi-Genzyme, Lilly, Chiesi, Otsuka, Novo Nordisk, and Sysmex; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, or educational events from Astellas, AstraZeneca, Bioparto, Boehringer Ingelheim, Fresenius Medical Care, GSK, Bayer, Sanofi-Genzyme, Sobi, Menarini, Lilly, Chiesi, Otsuka, Novo Nordisk, Sysmex, Vifor Fresenius Medical Care Renal Pharma, and Spafarma; support for attending meetings and/or travel from Astellas, AstraZeneca, Fresenius Medical Care, Boehringer

Ingelheim, Bayer, Sanofi-Genzyme, Chiesi, Sobi, Bayer, and participation on a data safety monitoring board or advisory board with Astellas, AstraZeneca, Boehringer Ingelheim, Fresenius Medical Care, Bayer, Sanofi-Genzyme, Chiesi, Otsuka, Novo Nordisk, and Sysmex; and leadership or fiduciary roles in board, society, committee or advocacy groups, unpaid as Council ERA with SOMANE; outside the submitted work. R Palma-Alvarez reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Casen Recordati, Angelini, Lundbeck, Rubió, Servier, Takeda, and Neuraxpharm; support for attending meetings and/or travel from Takeda, Advanz Pharma, Angelini, Italfarmaco, and Lundbeck; outside the submitted work. S Panda reports support for the present manuscript from Siksha 'O' Anusandhan (Deemed to be University); grants or contracts from file number 17-59/2023-24/CCRH/Tech./Coll./ICMR- Diabetes/960] as Co-Investigator, outside the submitted work. C I Panelo reports consulting fees from The Global Fund and the World Health Organization; participation on a DSMB or advisory board with University of the Philippines Manila Research Ethics Board: Member of Panel 2 (ongoing); leadership or fiduciary roles with the Culion Foundation as Elected Vice President and Board Member (2004 to present), Foundation for the Advancement of Clinical Epidemiology as Elected President (2018 to present); International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Philippine Chapter as Elected member of the Board (2024–2026); outside the submitted work. R Passero reports leadership or fiduciary roles in board, society, committee, or advocacy groups, unpaid as Member of the EBMT Statistical Committee, European Society for Blood and Marrow Transplantation, Paris, France (no payment received) and as Past member 2020–2023 (biostatistician) of the IRB/IEC Comitato Etico AO SS. Antonio e Biagio Alessandria-ASL AL-VC, Italy (no payment received); participation on a DSMB or advisory board member of the data safety monitoring board dello studio "Consolidation with ADCT-402 (loncastuximab tesirine) after immunochemotherapy: a phase II study in BTKi- treated/ineligible Relapse/Refractory Mantle Cell Lymphoma (MCL) patients' - FIL, Fondazione Italiana Linfomi, Alessandria, Italy (no payment received); outside the submitted work. A Peden reports support for the present manuscript from the Australian National Health and Medical Research Council (grant number: APP2009306). V C Pepito reports grants or contracts from Sanofi Consumer Healthcare grant to do a study on self-care in the Philippines and from the Zuellig Family Foundation grant to write manuscripts on health systems strengthening; outside the submitted work. M Piradov reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid as Editor-in-Chief of *Annals of Clinical and Experimental Neurology*; outside the submitted work. S Rege reports leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid as the Operational Lead – International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Medication Adherence and Persistence (MAP) Special Interest Group (SIG), Review Editor – Editorial Board of Pharmacoeconomics section within *Frontiers in Pharmacology*, Academic Editor – *PLoS One* Editorial Board, and Editorial Board Member – *Pain Management*; outside the submitted work. M Rolfzen reports grants or contracts from the Society of Cardiovascular Anesthesiologists in-training grant; outside the submitted work. L Ronfani reports support for the present manuscript from the Italian Ministry of Health (Ricerca Corrente 34/2017, payments made to the Institute for Maternal and Child Health IRCCS Burlo Garofolo. P Sachdev reports grants or contracts from the National Health and Medical Research Council of Australia, APP1169489 (payment to institution) and National Institutes of Health, USA; grants 1RF1AG057531-01 and 2R01AG057531-02A1 (payment to institution); leadership or fiduciary roles in board, society, committee or advocacy groups, unpaid with the International Neuropsychiatric Association as Executive Board member, and World Psychiatric Association on the Planning Committee; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, or educational events from Alkem Labs for a lecture as part of the Frontiers of Psychiatry 2023 seminar, Mumbai, India, June 2023; support for attending meetings and/or travel for attendance of four meetings; participation on a DSMB or advisory board with Biogen Australia Medical Advisory committee in 2020 and 2021 Roche Australia Medical Advisory Committee in 2022 and

Eli Lilly, Expert Advisory Panel, 2025; outside the submitted work. Y L Samodra reports grants or contracts from Taipei Medical University (Taiwan), Type A Doctoral Scholarship, EPM NTU & NSTC, Taiwan, postdoctoral fellow contract; leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid with Benang Merah Research Center, Indonesia (benangmerah.net); outside the submitted work. H Sarma reports support for the present manuscript from Bodoland University, Assam, India. A Schutte reports consulting fees from Medtronic, AstraZeneca, Sky Labs, and Omron; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, or educational events from Medtronic, AstraZeneca, Servier, Sanofi, Abbott, Omron, and Aktia; support for attending meetings and/or travel from Servier and Medtronic; outside the submitted work. F Shahkarami reports grants or contracts and payment or honoraria from Tehran University of Medical Sciences, School of Medicine, Department of Internal Medicine; outside the submitted work. V Sharma reports grants or contracts from DFSS (MHA)'s research project (DFSS28(1)2019/EMR/6) at Institute of Forensic Science & Criminology, Panjab University, Chandigarh, India; outside the submitted work. V Shivarov reports one patent from the Bulgarian patent office (#BG113116A); and other financial support from ICON plc (salary); outside the submitted work. L M L R da Silva reports grants or contracts from SPRINT - Sport Physical Activity and Health Research & Innovation Center, Polytechnic of Guarda, 6300-559 Guarda, Portugal and RISE-Health, Faculty of Health Sciences, University of Beira Interior, 6201-506 Covilhã, Portugal; outside the submitted work. J Singh reports consulting fees from ROMTech, Atheneum, ClearView Healthcare Partners, American College of Rheumatology, Yale, Hulio, Horizon Pharmaceuticals, DINORA, ANI/Exeltis, USA Inc., Frictionless Solutions, Schipher, Crealta/Horizon, Medisys, Fidia, PK Med, Two Labs Inc., Adept Field Solutions, Clinical Care options, Putnam Associates, Focus Forward, Navigant Consulting, Spherix, MedIQ, Jupiter Life Science, UBM LLC, Trio Health, Medscape, WebMD, and Practice Point Communications; and the National Institutes of Health; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, or educational events from Simply Speaking; support for attending meetings and/or travel from Simply Speaking; leadership or fiduciary role in other board, society, committee, or advocacy group, paid or unpaid as a past steering committee member of the OMERACT, an international organisation that develops measures for clinical trials and receives arm's length funding from 12 pharmaceutical companies, and as a Chair of the Veterans Affairs Rheumatology Field Advisory Committee, and as editor and the Director of the UAB Cochrane Musculoskeletal Group Satellite Center on Network Meta-analysis; stock or stock options in Atai Life Sciences, Kintara Therapeutics, Intelligent Biosolutions, Acumen Pharmaceutical, TPT Global Tech, Vaxart Pharmaceuticals, Atyu Biopharma, Adaptimmune Therapeutics, GeoVax Labs, Pieris Pharmaceuticals, EnzoLytics Inc., Seres Therapeutics, Tonix Pharmaceuticals Holding Corp., Aebona Pharmaceuticals, and Charlotte's Web Holdings, Inc., and previously owned stock options in Amarin, Viking, and Moderna Pharmaceuticals; outside the submitted work. I Soyiri reports leadership or fiduciary roles in board, society, committee or advocacy groups, unpaid as Trustee of the Citizens Advice Bureau for Hull & East Riding, UK; outside the submitted work. J D Stanaway reports support for the present manuscript from the Gates Foundation (grants paid to institution); and grants or contracts from Novo Nordisk Foundation (grants paid to institution), outside the submitted work. R Tabares-Seisdedos reports grants or contracts from Valencian Regional Government's Ministry of Education (PROMETEO/CIPROM/2022/58 (the funders were not involved in the design of the manuscript or decision to submit the manuscript for publication, nor will they be involved in any aspect of the study's conduct) and grants or contracts from the Spanish Ministry of Science, Innovation and Universities (PID2021-129099OB-I00; the funders were not involved in the design of the manuscript or decision to submit the manuscript for publication, nor will they be involved in any aspect of the study's conduct); outside the submitted work. T Tabuchi reports grants or contracts from Daiichi Sankyo Healthcare, Workout-Plus LLC, Johnson & Johnson, EMMA, and Data Seed; outside the submitted work. J H V Ticoalu reports leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid as co-founder of Benang

Merah Research Center, Indonesia (benangmerah.net); outside the submitted work. M Titova reports support for the present manuscript from the state assignment of the Ministry of Science and Higher Education of the Russian Federation (themes number 122042600086-7 and number 122042700043-9). S Tromans reports grants or contracts from part of the 2023/4 Adult Psychiatric Morbidity Survey team, collecting epidemiological data on community-based adults living in England. This is a contracted study from NHS Digital, via the Department of Health and Social Care. S Tromans reports contributions and data collection for the 2023/4 Adult Psychiatric Morbidity Survey report; payments made to University of Leicester; being lead on a study funded by the National Institute for Health and Care Research Clinical Research Network, on optimizing the survey design for people with learning disability and autism; leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid as Academic Secretary for the Neurodevelopmental Psychiatry Special Interest Group and Psychiatry of Intellectual Disability Faculty at the Royal College of Psychiatrists; as Editorial Board Member for *Progress in Neurology and Psychiatry*, *Advances in Mental Health and Intellectual Disabilities*, *Advances in Autism*, *BMC Psychiatry*, and *BJPsych Open*, and as Editor of *Psychiatry of Intellectual Disability Across Cultures* (Oxford University Press); support for attending meetings and/or travel from the Royal College of Psychiatrists; outside the submitted work. G Tse reports leadership or fiduciary roles in board, society, committee, or advocacy groups, paid or unpaid with the International Society of Electrocardiology and the International Society for Holter and Noninvasive Electrocardiology; participation on a DSMB or advisory board as a member of the Core Steering Committee meeting for the International Cardiovascular and Respiratory Alliance and the International Society of Electrocardiology, International Society for Holter and Noninvasive Electrocardiology; outside the submitted work. E Upadhyay reports the following patents planned, issued or pending with The Office of the Controller General of Patents, Designs & Trade Marks (CGPDTM; <https://iprsearch.ipindia.gov.in/PublicSearch/PublicationSearch/ApplicationStatus>): “Eco-friendly bio-shoe polish from banana and turmeric” (Filed 202511021382), “Honey-based polyherbal syrup composition to treat air pollution-induced inflammation and preparation method thereof” (Filed 202511035171), “Process for preparing a caffeine free, antioxidant and nutrient rich beverage” (Filed 202511042794), “A system and method of reusable filters for anti-pollution mask” (Published 202011003559), “A system and method for electricity generation through crop stubble by using microbial fuel cells” (Published 202011008531), “A system for disposed personal protection equipment (PPE) into biofuel through pyrolysis and method” (Published 202111005659), “A novel herbal pharmaceutical aid for formulation of gel and method thereof” (Published 202111023333), “Herbal drug formulation for treating lung tissue degenerated by particulate matter exposure” (Published 202311035276), “A method to transform cow dung into the wall paint by using natural materials and composition thereof” (Filed 202311085452), “Biodegradable packaging composition and method of preparation thereof” (Filed 202511017848); leadership or fiduciary role in other board, society, committee, or advocacy group as an Executive Council Member for the Indian Meteorological Society, Jaipur Chapter (India) and a Member Secretary for the DSTPURSE Program; outside the submitted work. E Vounzoulaki reports grants or contracts from an NIHR DSE Award until July 2026; outside the submitted work. P Willeit reports consulting fees from Novartis Pharmaceuticals; outside the submitted work. J Wu reports grants or contracts from the National Heart, Lung, and Blood Institute (R38HL167238) and acknowledges previous funding from the American Society of Hematology Opportunities for the Next Generation of Research Scientists (HONORS) Award, outside the submitted work. Y Yasufuku reports grants or contracts from Shionogi & Co., Ltd; employment expenses are paid from the joint research fund provided by this pharmaceutical company to The University of Osaka; outside the submitted work. S Zadey reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid on the Board of the Association for Socially Applicable Research Fellow, the Lancet Citizens’ Commission on Reimagining India’s Health System Chair, G4 Alliance Asia Working Group and as Fellow, Blood DESERT Coalition; payment or honoraria for lectures, presentations, speakers

bureaus, manuscript writing, or educational events from Think Global Health and Hindu; participation on a DSMB or advisory board with Nivarana - Advisory Board; outside the submitted work.

G Zamagni reports support for the present manuscript from the Italian Ministry of Health through the contribution given to the Institute for Maternal and Child Health IRCCS Burlo Garofolo, Trieste – Italy. L Zuhlke reports royalties or license from Up to Date; consulting fees from Le DucQ; and leadership or fiduciary roles in board, society, committee or advocacy groups, unpaid with Food Forward SA; outside the submitted work. All other authors declare no competing interests.

Data sharing

For detailed information on data sources and estimates, please visit the Global Health Data Exchange GBD 2023 website at <http://ghdx.healthdata.org/gbd-2023>.

Acknowledgments

Research reported in this publication was supported by the Gates Foundation (OPP1152504), UK Department of Health and Social Care, the Norwegian Institute of Public Health, and the New Zealand Ministry of Health. The Palestinian Central Bureau of Statistics granted the researchers access to relevant data in accordance with license number SLN2019-8-64, after subjecting data to processing aiming to preserve the confidentiality of individual data in accordance with the General Statistics Law - 2000. The researchers are solely responsible for the conclusions and inferences drawn upon available data. This publication uses data provided by Statistics Botswana. This analysis uses data or information from the LASI Pilot micro data and documentation. The development and release of the LASI Pilot Study was funded by the US National Institute on Ageing / US National Institute of Health (R21AG032572, R03AG043052, and R01 AG030153). We thank the Russia Longitudinal Monitoring Survey, RLMS-HSE, conducted by the National Research University Higher School of Economics and ZAO “Demoscope” together with Carolina Population Center, University of North Carolina at Chapel Hill and the Institute of Sociology RAS for making these data available. Data for this research was provided by MEASURE Evaluation, funded by the US Agency for International Development (USAID). Views expressed do not necessarily reflect those of USAID, the US Government, or MEASURE Evaluation.

Editorial note: The Lancet Group takes a neutral position with respect to territorial claims in published maps and institutional affiliations.

References

- 1 UN. World Population Prospects 2024: summary of results. July 2024. <https://desapublications.un.org/publications/world-population-prospects-2024-summary-results> (accessed July 15, 2025).
- 2 WHO. World health statistics 2024: monitoring health for the SDGs, sustainable development goals. May 21, 2024. <https://www.who.int/publications/i/item/9789240094703> (accessed July 15, 2024).
- 3 OECD. Health at a glance 2023: OECD indicators. Nov 7, 2023. <https://doi.org/10.1787/7a7afb35-en> (accessed July 15, 2025).
- 4 eurostat. Mortality and life expectancy statistics. March 2025. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Mortality_and_life_expectancy_statistics (accessed June 6, 2025).
- 5 Murray CJL. The Global Burden of Disease Study at 30 years. *Nat Med* 2022; 28: 2019–26.
- 6 Wang H, Dwyer-Lindgren L, Lofgren KT, et al. Age-specific and sex-specific mortality in 187 countries, 1970–2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* 2012; 380: 2071–94.
- 7 GBD 2013 Mortality and Causes of Death Collaborators. Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet* 2015; 385: 117–71.
- 8 GBD 2015 Mortality and Causes of Death Collaborators. Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980–2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet* 2016; 388: 1459–544.

- 9 GBD 2016 Mortality Collaborators. Global, regional, and national under-5 mortality, adult mortality, age-specific mortality, and life expectancy, 1970–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet* 2017; **390**: 1084–150.
- 10 GBD 2017 Mortality Collaborators. Global, regional, and national age-sex-specific mortality and life expectancy, 1950–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2018; **392**: 1684–735.
- 11 GBD 2019 Demographics Collaborators. Global age-sex-specific fertility, mortality, healthy life expectancy (HALE), and population estimates in 204 countries and territories, 1950–2019: a comprehensive demographic analysis for the Global Burden of Disease Study 2019. *Lancet* 2020; **396**: 1160–203.
- 12 GBD 2021 Demographics Collaborators. Global age-sex-specific mortality, life expectancy, and population estimates in 204 countries and territories and 811 subnational locations, 1950–2021, and the impact of the COVID-19 pandemic: a comprehensive demographic analysis for the Global Burden of Disease Study 2021. *Lancet* 2024; **403**: 1989–2056.
- 13 Coale A, Deneny P. Regional model life tables and stable populations. Princeton, NJ: Princeton University Press, 1966.
- 14 Brass W. On the scale of mortality. In: Brass W, ed. Biological aspects of demography. London: Taylor and Francis, 1971: 69–110.
- 15 Murray C, Ferguson B, Lopez A, Guillot M, Salomon J, Ahmad O. Modified logit life table system: principles, empirical validation, and application. *Popul Stud* 2003; **57**: 165–82.
- 16 Wilmoth J, Zureick S, Canudas-Romo V, Inoue M, Sawyer C. A flexible two-dimensional mortality model for use in indirect estimation. *Popul Stud* 2012; **66**: 1–28.
- 17 Clark S. A singular value decomposition-based factorization and parsimonious component model of demographic quantities correlated by age: predicting complete demographic age schedules with few parameters. May 2014. <https://csss.uw.edu/research/working-papers/singular-value-decomposition-based-factorization-and-parsimonious-component> (accessed March 11, 2025).
- 18 UN. World Population Prospects 2024: methodology of the United Nations population estimates and projections. July 2024. https://population.un.org/wpp/assets/Files/WPP2024_Methodology-Report_Final.pdf (accessed March 4, 2025).
- 19 Bendavid E, Seligman B, Kubo J. Comparative analysis of old-age mortality estimations in Africa. *PLoS One* 2011; **6**: e26607.
- 20 Ouedraogo S. Levels and trends of older adult mortality in Sub-Saharan Africa: comparison of sources and estimates. PhD thesis, Université Panthéon-Sorbonne-Paris I, 2022.
- 21 IHME. Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) Protocol. June 4, 2024. <https://www.healthdata.org/sites/default/files/2024-06/GBD%20Protocol%20060424.pdf> (accessed July 15, 2025).
- 22 UNICEF. Levels and trends in child mortality. United Nations Inter-Agency Group for Child Mortality Estimation (UN IGME), Report 2024. March 24, 2025. <https://data.unicef.org/resources/levels-and-trends-in-child-mortality-2024/> (accessed July 24, 2025).
- 23 UN Population Division. World Population Prospects - Population Division - United Nations. 2024. <https://population.un.org/wpp/> (accessed July 15, 2025).
- 24 Masquelier B, Hug L, Sharrow D, et al, and the United Nations Inter-agency Group for Child Mortality Estimation. Global, regional, and national mortality trends in older children and young adolescents (5–14 years) from 1990 to 2016: an analysis of empirical data. *Lancet Glob Health* 2018; **6**: e1087–99.
- 25 Preston SH, Heuveline P, Guillot M. Review of demography: measuring and modeling population processes. Oxford: Blackwell Publishers, 2001.
- 26 Zheng P, Barber R, Sorensen RJD, Murray CJL, Aravkin AY. Trimmed constrained mixed effects models: formulations and algorithms. *J Comput Graph Stat* 2021; **30**: 544–56.
- 27 Stevens GA, Alkema L, Black RE, et al, and The GATHER Working Group. Guidelines for Accurate and Transparent Health Estimates Reporting: the GATHER statement. *Lancet* 2016; **388**: e19–23.
- 28 GBD 2023 Causes of Death Collaborators. Global burden of 292 causes of death in 204 countries and territories and 660 subnational locations, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023. *Lancet* 2025; published online Oct 12. [https://doi.org/10.1016/S0140-6736\(25\)01917-8](https://doi.org/10.1016/S0140-6736(25)01917-8).
- 29 Phillips DE, AbouZahr C, Lopez AD, et al. Are well functioning civil registration and vital statistics systems associated with better health outcomes? *Lancet* 2015; **386**: 1386–94.
- 30 AbouZahr C, Rampatige R, Lopez A, deSavigny D. When civil registration is inadequate: interim methods for generating vital statistics. *Pac Health Dialog* 2012; **18**: 215–30.
- 31 Carshon-Marsh R, Aimone A, Ansumana R, et al. Child, maternal, and adult mortality in Sierra Leone: nationally representative mortality survey 2018–20. *Lancet Glob Health* 2022; **10**: e114–23.
- 32 Jiwani SS, Mavie VA, Williams E, Kante AM, Amouzou A. Implementing the countrywide mortality surveillance in action in Mozambique: how much did it cost? *Am J Trop Med Hyg* 2023; **108**: 40–46.
- 33 Zambia National Public Health Institute. Mortality surveillance meeting on development of a costed plan for ICT use with linkages to CRV's and data warehouse meeting. Oct 26, 2023. <https://w2.znphi.co.zm/2023/10/26/mortality-surveillance-meeting-on-development-of-a-costed-plan-for-ict-use-with-linkages-to-crvs-and-data-warehouse-meeting/> (accessed March 4, 2025).
- 34 Mandavilli A. Trump administration ends global health research program. The New York Times. Feb 26, 2025. <https://www.nytimes.com/2025/02/26/health/usaaid-global-health-surveys.html> (accessed March 19, 2025).
- 35 Ouellette N, Barbieri M, Wilmoth JR. Period-based mortality change: turning points in trends since 1950. *Popul Dev Rev* 2014; **40**: 77–106.
- 36 Case A, Deaton A. Mortality and morbidity in the 21st century. *Brookings Pap Econ Act* 2017; **2017**: 397–476.
- 37 van Raalte AA. What have we learned about mortality patterns over the past 25 years? *Popul Stud* 2021; **75**: 105–32.
- 38 Castro MC, Turra CM, Ponmattam J. Trends and decomposition of changes in mortality in low- and middle-income countries, 1950–2019. *Popul Dev Rev* 2025; **51**: 295–321.
- 39 UN. Goal 3: Ensure healthy lives and promote well-being for all at all ages. United Nations Sustainable Development. <https://www.un.org/sustainabledevelopment/health/> (accessed Jan 22, 2025).
- 40 Burstein R, Henry NJ, Collison ML, et al. Mapping 123 million neonatal, infant and child deaths between 2000 and 2017. *Nature* 2019; **574**: 353–58.
- 41 IHME. Financing global health 2023: the future of health financing in the post-pandemic era. May 14, 2024. https://www.healthdata.org/sites/default/files/2024-05/FGH_2023_Accessible_Digital_Version_with_Translations_2024.05.13.pdf (accessed July 15, 2025).
- 42 Lay K. 'This will cost lives': cuts to UK aid budget condemned as 'betrayal' by international development groups. The Observer. March 2, 2025. <https://www.theguardian.com/global-development/2025/mar/02/this-will-cost-lives-cuts-to-uk-aid-budget-condemned-as-betrayal-by-international-development-groups> (accessed March 19, 2025).
- 43 GBD 2021 Causes of Death Collaborators. Global burden of 288 causes of death and life expectancy decomposition in 204 countries and territories and 811 subnational locations, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *Lancet* 2024; **403**: 2100–32.
- 44 Rehder K, Lusk J, Chen JI. Deaths of despair: conceptual and clinical implications. *Cogn Behav Pract* 2021; **28**: 40–52.
- 45 Filip R, Gheorghita Puscaselu R, Anchidin-Norocel L, Dimian M, Savage WK. Global challenges to public health care systems during the COVID-19 pandemic: a review of pandemic measures and problems. *J Pers Med* 2022; **12**: 1295.
- 46 Mustafa S, Zhang Y, Zibwowa Z, et al. COVID-19 Preparedness and Response Plans from 106 countries: a review from a health systems resilience perspective. *Health Policy Plan* 2022; **37**: 255–68.
- 47 LaRotta J, Escobar O, Ávila-Aguero ML, et al. COVID-19 in Latin America: a snapshot in time and the road ahead. *Infect Dis Ther* 2023; **12**: 389–410.
- 48 Amul GG, Ang M, Kraybill D, Ong SE, Yoong J. Responses to COVID-19 in Southeast Asia: diverse paths and ongoing challenges. *Asian Econ Policy Rev* 2022; **17**: 90–110.
- 49 Schumacher AE, McCormick TH, Wakefield J, et al. A flexible Bayesian framework to estimate age- and cause-specific child mortality over time from sample registration data. *Ann Appl Stat* 2022; **16**: 124–43.

- 50 Golding N, Burstein R, Longbottom J, et al. Mapping under-5 and neonatal mortality in Africa, 2000–15: a baseline analysis for the Sustainable Development Goals. *Lancet* 2017; **390**: 2171–82.
- 51 Ho JY. What demographers need—and what the world needs from demographers—in response to Covid-19. In: MacKellar L, Friedman R, eds. Covid-19 and the global demographic research agenda. New York: Population Council, 2021: 33–36.
- 52 Hill K, Queiroz B. Adjusting the general growth balance method for migration. *Rev Bras Estud Popul* 2010; **27**: 7–20.
- 53 Monti A, Drefahl S, Mussino E, Härkönen J. Over-coverage in population registers leads to bias in demographic estimates. *Popul Stud* 2020; **74**: 451–69.
- 54 GBD 2021 Forecasting Collaborators. Burden of disease scenarios for 204 countries and territories, 2022–2050: a forecasting analysis for the Global Burden of Disease Study 2021. *Lancet* 2024; **403**: 2204–56.
- 55 GBD 2021 Fertility and Forecasting Collaborators. Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100: a comprehensive demographic analysis for the Global Burden of Disease Study 2021. *Lancet* 2024; **403**: 2057–99.
- 56 Vollset SE, Goren E, Yuan C-W, et al. Fertility, mortality, migration, and population scenarios for 195 countries and territories from 2017 to 2100: a forecasting analysis for the Global Burden of Disease Study. *Lancet* 2020; **396**: 1285–306.