

Burden of 375 diseases and injuries, risk-attributable burden of 88 risk factors, and healthy life expectancy in 204 countries and territories, including 660 subnational locations, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023



GBD 2023 Disease and Injury and Risk Factor Collaborators*



Summary

Background For more than three decades, the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) has provided a framework to quantify health loss due to diseases, injuries, and associated risk factors. This paper presents GBD 2023 findings on disease and injury burden and risk-attributable health loss, offering a global audit of the state of world health to inform public health priorities. This work captures the evolving landscape of health metrics across age groups, sexes, and locations, while reflecting on the remaining post-COVID-19 challenges to achieving our collective global health ambitions.

Methods The GBD 2023 combined analysis estimated years lived with disability (YLDs), years of life lost (YLLs), and disability-adjusted life-years (DALYs) for 375 diseases and injuries, and risk-attributable burden associated with 88 modifiable risk factors. Of the more than 310 000 total data sources used for all GBD 2023 (about 30% of which were new to this estimation round), more than 120 000 sources were used for estimation of disease and injury burden and 59 000 for risk factor estimation, and included vital registration systems, surveys, disease registries, and published scientific literature. Data were analysed using previously established modelling approaches, such as disease modelling meta-regression version 2.1 (DisMod-MR 2.1) and comparative risk assessment methods. Diseases and injuries were categorised into four levels on the basis of the established GBD cause hierarchy, as were risk factors using the GBD risk hierarchy. Estimates stratified by age, sex, location, and year from 1990 to 2023 were focused on disease-specific time trends over the 2010–23 period and presented as counts (to three significant figures) and age-standardised rates per 100 000 person-years (to one decimal place). For each measure, 95% uncertainty intervals [UIs] were calculated with the 2.5th and 97.5th percentile ordered values from a 250-draw distribution.

Findings Total numbers of global DALYs grew 6.1% (95% UI 4.0–8.1), from 2.64 billion (2.46–2.86) in 2010 to 2.80 billion (2.57–3.08) in 2023, but age-standardised DALY rates, which account for population growth and ageing, decreased by 12.6% (11.0–14.1), revealing large long-term health improvements. Non-communicable diseases (NCDs) contributed 1.45 billion (1.31–1.61) global DALYs in 2010, increasing to 1.80 billion (1.63–2.03) in 2023, alongside a concurrent 4.1% (1.9–6.3) reduction in age-standardised rates. Based on DALY counts, the leading level 3 NCDs in 2023 were ischaemic heart disease (193 million [176–209] DALYs), stroke (157 million [141–172]), and diabetes (90.2 million [75.2–107]), with the largest increases in age-standardised rates since 2010 occurring for anxiety disorders (62.8% [34.0–107.5]), depressive disorders (26.3% [11.6–42.9]), and diabetes (14.9% [7.5–25.6]). Remarkable health gains were made for communicable, maternal, neonatal, and nutritional (CMNN) diseases, with DALYs falling from 874 million (837–917) in 2010 to 681 million (642–736) in 2023, and a 25.8% (22.6–28.7) reduction in age-standardised DALY rates. During the COVID-19 pandemic, DALYs due to CMNN diseases rose but returned to pre-pandemic levels by 2023. From 2010 to 2023, decreases in age-standardised rates for CMNN diseases were led by rate decreases of 49.1% (32.7–61.0) for diarrhoeal diseases, 42.9% (38.0–48.0) for HIV/AIDS, and 42.2% (23.6–56.6) for tuberculosis. Neonatal disorders and lower respiratory infections remained the leading level 3 CMNN causes globally in 2023, although both showed notable rate decreases from 2010, declining by 16.5% (10.6–22.0) and 24.8% (7.4–36.7), respectively. Injury-related age-standardised DALY rates decreased by 15.6% (10.7–19.8) over the same period. Differences in burden due to NCDs, CMNN diseases, and injuries persisted across age, sex, time, and location. Based on our risk analysis, nearly 50% (1.27 billion [1.18–1.38]) of the roughly 2.80 billion total global DALYs in 2023 were attributable to the 88 risk factors analysed in GBD. Globally, the five level 3 risk factors contributing the highest proportion of risk-attributable DALYs were high systolic blood pressure (SBP), particulate matter pollution, high fasting plasma glucose (FPG), smoking, and low birthweight and short gestation—with high SBP accounting for 8.4% (6.9–10.0) of total DALYs. Of the three overarching level 1 GBD risk factor categories—behavioural, metabolic, and environmental and occupational—risk-attributable DALYs rose between 2010 and 2023 only for metabolic risks, increasing by 30.7% (24.8–37.3); however, age-standardised DALY

Published Online
October 12, 2025
[https://doi.org/10.1016/S0140-6736\(25\)01637-X](https://doi.org/10.1016/S0140-6736(25)01637-X)
See Online/Comment
[https://doi.org/10.1016/S0140-6736\(25\)02004-5](https://doi.org/10.1016/S0140-6736(25)02004-5)

*Collaborators listed at the end of the Article

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

rates attributable to metabolic risks decreased by 6.7% (2.0–11.0) over the same period. For all but three of the 25 leading level 3 risk factors, age-standardised rates dropped between 2010 and 2023—eg, declining by 54.4% (38.7–65.3) for unsafe sanitation, 50.5% (33.3–63.1) for unsafe water source, and 45.2% (25.6–72.0) for no access to handwashing facility, and by 44.9% (37.3–53.5) for child growth failure. The three leading level 3 risk factors for which age-standardised attributable DALY rates rose were high BMI (10.5% [0.1 to 20.9]), drug use (8.4% [2.6 to 15.3]), and high FPG (6.2% [–2.7 to 15.6]; non-significant).

Interpretation Our findings underscore the complex and dynamic nature of global health challenges. Since 2010, there have been large decreases in burden due to CMNN diseases and many environmental and behavioural risk factors, juxtaposed with sizeable increases in DALYs attributable to metabolic risk factors and NCDs in growing and ageing populations. This long-observed consequence of the global epidemiological transition was only temporarily interrupted by the COVID-19 pandemic. The substantially decreasing CMNN disease burden, despite the 2008 global financial crisis and pandemic-related disruptions, is one of the greatest collective public health successes known. However, these achievements are at risk of being reversed due to major cuts to development assistance for health globally, the effects of which will hit low-income countries with high burden the hardest. Without sustained investment in evidence-based interventions and policies, progress could stall or reverse, leading to widespread human costs and geopolitical instability. Moreover, the rising NCD burden necessitates intensified efforts to mitigate exposure to leading risk factors—eg, air pollution, smoking, and metabolic risks, such as high SBP, BMI, and FPG—including policies that promote food security, healthier diets, physical activity, and equitable and expanded access to potential treatments, such as GLP-1 receptor agonists. Decisive, coordinated action is needed to address long-standing yet growing health challenges, including depressive and anxiety disorders. Yet this can be only part of the solution. Our response to the NCD syndemic—the complex interaction of multiple health risks, social determinants, and systemic challenges—will define the future landscape of global health. To ensure human wellbeing, economic stability, and social equity, global action to sustain and advance health gains must prioritise reducing disparities by addressing socioeconomic and demographic determinants, ensuring equitable health-care access, tackling malnutrition, strengthening health systems, and improving vaccination coverage. We live in times of great opportunity.

Funding Gates Foundation and Bloomberg Philanthropies.

Copyright © 2025 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

Introduction

High-quality, comprehensive, mutually exclusive, and timely estimates of health and health loss produced through the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) are a valuable source of publicly accessible health data. For more than 30 years, GBD has equipped researchers, policy makers, and the public with evidence-based tools to better understand the global impact of diseases, injuries, and modifiable risk factors at the population level.¹ GBD has enabled close, quantitative monitoring of progress towards international health targets, especially the UN Sustainable Development Goals (SDGs). An early innovation of GBD was the metric of disability-adjusted life-years (DALYs), which measures overall disease burden as the years of lost health and life combined, and has been adopted by global health institutions such as WHO. More recent work, including reports by WHO World Health Statistics² the NCD Risk Factor Collaboration, and the Prospective Urban and Rural Epidemiological (PURE) study, provide estimates for specific diseases or risk factors; however, GBD is broader in scope.

Estimation of disease and injury burden in GBD has evolved since its inception and original publication, which established DALYs as the primary metric for

burden analysis. GBD 2010 highlighted the rise of non-communicable diseases (NCDs), particularly mental disorders, musculoskeletal conditions, and cardiovascular diseases, while also accounting for persistent burden from communicable, maternal, neonatal, and nutritional (CMNN) diseases in low-income regions.³ GBD 2015 introduced improved geographical detail, allowing for more granular subnational assessments of disease burden.⁴ The 2015 iteration reinforced the ongoing epidemiological shift, showing reductions in infectious disease burden but increases in NCD-related DALYs, particularly due to metabolic risks. GBD 2017 expanded risk factor analysis and also revealed growing disparities in NCD burden across regions, with lower-income countries experiencing a dual burden of infectious and chronic diseases.⁵ GBD 2019 further refined cause-of-death modelling and highlighted increasing longevity alongside persistent morbidity, demonstrating that years lived with disability (YLDs) were rising faster than mortality reductions.⁶ GBD 2021 incorporated disruptions related to the COVID-19 pandemic and improved modelling of multimorbidity, emphasising the continued shift in burden towards NCDs, with metabolic and behavioural risk factors increasingly driving DALYs, even in regions with a

For the NCD Risk Factor Collaboration see <https://www.ncdrisc.org/>

For the Prospective Urban and Rural Epidemiological (PURE) study see <https://www2.phri.ca/pure/>

Research in context

Evidence before this study

Since its inception in the early 1990s, the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) has systematically quantified health and health loss across time, age, sex, location, and sociodemographic groups. GBD introduced and uses disability-adjusted life-years (DALYs) as a measure of disease burden that captures disability and premature mortality. DALYs have been widely adopted by WHO, the UN, and public health agencies to measure overall disease burden in a population. Previous research efforts, including WHO World Health Statistics and initiatives such as the NCD Risk Factor Collaboration and the Prospective Urban and Rural Epidemiological (PURE) study, have advanced understanding of specific diseases or risk factors and, like GBD, are continuously updated, making it possible to track progress towards the UN Sustainable Development Goals. GBD stands out for its comprehensive scope, wealth of data, and rigorous methodological provenance and updates, as well as its global coverage and commitment to reporting scientific findings free of political bias and the influence of special interests.

Added value of this study

GBD 2023 analysed 375 diseases and injuries and 88 modifiable risk factors, providing updated estimates of prevalence, incidence, years lived with disability (YLDs), years of life lost (YLLs), DALYs, and risk-attributable DALYs for 204 countries and territories from 1990 to 2023. Our estimates of burden improved on those from GBD 2021 by the inclusion of data from more than 35 000 new sources, with particularly notable increases in data used to estimate the burden of diseases such as ischaemic heart disease, chronic obstructive pulmonary disease, and tuberculosis. Analyses were extended to five new causes: ulcerative colitis; Crohn's disease; thyroid diseases; other endocrine, metabolic, blood, and immune disorders; and electrocution. "Other pandemic-related outcomes" was removed as a cause. Additionally, we began to transition our primary tool to model prevalence from disease modelling meta-regression version 2.1 (DisMod-MR 2.1) to disease modelling age-time (DisMod-AT), which more effectively captures temporal trends in data. GBD 2023 advanced risk factor analyses from previous GBD cycles, strengthening attributable burden estimates by conducting 85 new or updated systematic reviews and incorporating

additional data from more than 16 000 new sources, particularly for intimate partner violence, lead exposure, high BMI, and high fasting plasma glucose. Based on new evidence or further specification of outcomes or mediation factors, 50 new risk–outcome pairs, such as the relationship between particulate matter pollution and dementia, were analysed; two pairs were excluded (child wasting and malaria, and high alcohol use and nasopharynx cancer) for not meeting inclusion criteria or for overlapping with other outcomes. In total, 676 risk–outcome pairs were analysed for GBD 2023. Methods were updated for specific risk factors, notably regarding estimation of burden attributable to lead exposure and revision of the theoretical minimum risk exposure level for diet high in trans fatty acids.

Implications of all the available evidence

This study reaffirms that the global epidemiological transition has continued up to 2023. Although the COVID-19 pandemic temporarily disrupted health trends, the long-term decline in burden due to communicable, maternal, neonatal, and nutritional (CMNN) diseases has continued, whereas absolute burden of NCDs has risen sharply, largely due to demographic changes. It is an opportune time to revisit these two patterns at the highest policy levels. First, acknowledging and celebrating the staggering success of reducing the impact of CMNN diseases worldwide is important, alongside warnings that progress is fragile. The threats of stagnation or resurgence do not recede simply because our global policy focus might shift. Second, there is an opportunity to make substantial progress in reducing the burden of NCDs across sociodemographic strata. Since our present analyses show that almost half of total disease burden is attributable to specific modifiable risk factors—with increasing contributions, especially in ageing populations, of metabolic risks (eg, high systolic blood pressure, smoking, lead exposure, and ambient particulate matter air pollution)—considerable progress can be made by addressing risk-attributable burden, although successful mitigation varies substantially across risk factors. Equitable scaling of implementation remains a challenge, requiring coordinated policy efforts, targeted prevention strategies, and strengthened health-care systems to mitigate disparities and improve population health outcomes.

historically high burden of infectious diseases.⁷ These advances underscore how the GBD framework has progressively illuminated the changing nature of global disease burden, reinforcing the need for targeted interventions to mitigate the growing impact of NCDs, while sustaining infectious disease control efforts. GBD 2023 shows disease burden trends amid a fundamentally altered and severely constrained global health financing system. As global budget cuts threaten progress towards the SDGs, future iterations of GBD

must prioritise monitoring of the impact on populations globally. GBD 2023 can inform priorities for international health agendas, while anticipating demographic trends, the growing burden of NCDs, and other challenges.

The comparative risk assessment framework of GBD has continually advanced in methodology and scope. Risk factor estimates have been a part of GBD since its inception. GBD 2010 refined a unified methodological foundation by systematically quantifying 67 risk factors across regions, highlighting a global epidemiological

See Online for appendices 1 and 2

shift from CMNN disease-related to NCD-related risk factors, such as high systolic blood pressure (SBP), smoking, and poor diet.⁸ Subsequent updates in GBD 2015 enhanced risk exposure estimation, particularly for dietary and metabolic risks, and intensified policy attention on cardiovascular implications of air pollution.⁹ GBD 2016 further emphasised behavioural risks, including alcohol and drug use, and provided detailed subnational estimates that promoted localised policy responses.¹⁰ GBD 2017 refined mediation pathways and updated risk curves.¹¹ GBD 2019 introduced methods to model non-linear exposure–response relationships and refined counterfactual analyses, shifting the policy discourse towards integrated, system-level interventions addressing complex interactions among risk factors.¹² Most recently, GBD 2021 leveraged advanced Bayesian techniques and explicitly recognised the rising importance of climate-sensitive risks.¹³ An added dimension is the burden-of-proof methodology, which quantitatively evaluates the strength of evidence between risks and outcomes.^{13–15} The methodological innovations and policy messages contained in GBD 2021 underscored the transition from addressing individual health behaviours towards comprehensive systemic interventions to mitigate interconnected and emerging global health threats.

As part of *The Lancet's* serialisation of GBD, GBD 2023 continues this theme by analysing the relationships between 375 diseases and injuries and 88 risk factors together in a single framework. GBD 2023 provides detailed and comprehensive estimates of health loss over the period of 1990–2023 to highlight major global trends that have preceded and persisted beyond the COVID-19 pandemic. GBD 2023 facilitates a deeper understanding of health disparities within and across populations, evaluates how differential health outcomes have changed over time, quantifies health improvements and gains, and serves as a valuable resource to help identify the specific policies and targeted interventions that will be most impactful. Here, the key GBD 2023 findings are presented for metrics quantifying health and health loss, including prevalence, incidence, YLDs, years of life lost (YLLs), and DALYs. Metrics used to measure the attributable burden of risk factors include relative risk and risk-attributable DALYs. The estimation of causes of deaths and YLLs for GBD 2023 is reported in a separate publication.¹⁶

This manuscript was produced with contributions from the GBD Collaborator Network and in accordance with the GBD Protocol.¹⁷

Methods

Overview

For each GBD round, newly available data and refined methods are used to update the complete time series of metrics from 1990 to the latest year of analysis. GBD 2023

results therefore supersede all previous estimates. GBD 2023 methods closely followed those used in GBD 2021.^{7,13} A summary of the methods is given, with emphasis on any notable improvements; a more detailed description of all methods is available in appendix 1 and appendix 2. Based on review and approval by the GBD Scientific Council, which considers factors such as policy relevance, data availability, and epidemiological profile, we report here for the first time on health outcomes for five additional causes: ulcerative colitis; Crohn's disease; thyroid diseases; other endocrine, metabolic, blood, and immune disorders; and electrocution. The cause introduced in GBD 2021 titled "other pandemic-related outcomes" was removed because improved data availability since 2021 allowed for more precise assignment of pandemic-related outcomes to specific causes.¹⁶ These changes bring the total number of diseases and injuries reported in GBD 2023 to 375. We improved our burden estimates through the incorporation of data from more than 35 000 new sources. Moreover, we began transitioning from our principal tool to model prevalence—disease modelling meta-regression version 2.1 (DisMod-MR 2.1; appendix 1 section 2.6)—to an updated version, disease modelling age-time (DisMod-AT), with one of the main improvements being the ability to factor cohort effects over time and location-level covariates by age and sex (appendix 1 section 2.7). This allows us to model changes in prevalence or incidence among specific age cohorts as population segments grow older to more accurately reflect how disease patterns evolve over time, which is important for diseases with rapidly changing epidemiology, such as diabetes. Data availability by location and year for modelling of disease and injury burden is included in appendix 1 (figures S1, S2). Additionally, changes to the estimation of impairments and aetiologies have been made for GBD 2023 (appendix 1 sections 2.8, 6). Similarly, by adding more than 16 000 new data sources on risk factors, we improved estimates of risk-attributable burden (appendix 2 table S7). For GBD 2023, we conducted 85 new or updated systematic reviews of the literature on relative risk (appendix 2 section 2.1.3) and risk factor exposure (appendix 2 section 2.2.1). No new risk factors were added for GBD 2023; however, based on new evidence or further specification of outcomes, 50 new risk–outcome pairs were added, eight of which were based on further specification of mediation factors. Two pairs were removed from the analysis (appendix 2 table S3). Across all analytical components of the risk factor estimation process, 676 risk–outcome pairs were analysed for GBD 2023. Details of our standardised inclusion and exclusion criteria for GBD 2023 risk–outcome pairs are provided in appendix 2 (section 2.1.1). We also updated our methods for certain risk–outcome pairs, such as lead exposure and ischaemic heart disease (appendix 2 section 4). The inclusion of new data sources

For *The Lancet's* serialisation of GBD see <https://www.thelancet.com/gbd>

and methodological improvements for GBD 2023 contributed to improvements in internal consistency, trend stability, and cross-source harmonisation.

Data sources and processing

Details for all data sources used for disease and injury burden and for risk factor estimation for GBD 2023 are available online via the GBD 2023 Sources Tool on the Global Health Data Exchange. All data sources underwent strict systematic quality assurance processes.¹ Data sources ensure quality by applying data-vetting protocols to assess internal consistency, completeness, and plausibility; using tools, such as MR-BRT (meta-regression—Bayesian, regularised, trimmed), to adjust for known biases; and cross-validating new sources against existing datasets.

Burden of diseases and injuries

DALY calculations for GBD 2023 were based on more than 120 000 cause-related data sources, of which more than 35 000 were newly added between GBD 2021 and the current release. Cause-related sources included more than 98 000 total entries, distributed over 50 000 incidence-related and 25 000 prevalence-related sources, and a range of other sources necessary for tracking severity splits, duration, and similar characteristics. GBD 2023 included newly incorporated data sources on numerous causes, including cardiovascular diseases (eg, ischaemic heart disease and ischaemic stroke), chronic obstructive pulmonary disease, tuberculosis, asthma, and chronic kidney disease. Notable changes were most evident in chronic respiratory conditions and in specific regions where the inclusion of new data addressed gaps. Details on data sources for YLLs are documented in another publication¹⁶ and are available via the GBD 2023 Sources Tool. Estimates of burden reported here draw from a wide range of sources, including scientific literature, household surveys, disease registries, and clinical informatics, as detailed in appendix 1 (section 2.1). The process for conducting cause-specific literature reviews is detailed in appendix 1 (section 2.1.1). The search strategy covered online research databases, public governmental and international organisation websites, and published reports, as well as contributions of primary data from GBD collaborators. The methods and data sources for fatal estimates, such as vital registration systems, are discussed in a separate publication.¹⁶

Cause-related data with known biases, such as alternative case definitions or measurement methods, were adjusted using the meta-regression tool MR-BRT (appendix 1 section 2.5).¹⁵ The adjustment process involved analysing paired estimates based on reference and alternative case definitions for the same age, sex, location, and year. For data sources without sex-specific information, we applied a correction factor derived from the pooled, within-study sex ratios. Data missing both age and sex details were adjusted using a process (age-sex

splitting) that leverages within-source sex ratios to adjust age-specific data from sources that reported by age and by sex separately. When data sources spanned wide age ranges (typically >25 years), we derived more granular age-specific estimates using age patterns based on other available data sources (appendix 1 section 2.3.5).

Data processing also extended to clinical data. The comprehensive series of data-processing steps are detailed in appendix 1 (section 2). We analysed data from several clinical settings, including inpatient hospital admissions, outpatient visits, and health insurance claims. For inpatient data reporting a single diagnosis, we adjusted data to account for factors such as re-admissions, non-primary diagnoses, and outpatient care. We made these adjustments by calculating age-sex-specific ratios by cause using RegMod, a new GBD regression modelling package, which was used in this instance to create correction factor models for clinical data (appendix 1 section 2.2.5). To ensure that estimates of inpatient data accurately reflected population data, inpatient sources were scaled using estimates of total inpatient admission rates per capita for each location-year-age-sex for which demographic data were incomplete.

Moreover, we adjusted inpatient sources to account for disparities in health-care access across all locations by scaling estimates using a scalar developed for the Healthcare Access and Quality Index (appendix 1 section 2.2.5).¹⁷ These adjustments produce standardised, population-level clinical estimates that represent both the incidence and prevalence of causes and mitigate the impact of known biases in the data.

Disease and injury burden attributable to risk factors

To estimate the burden of disease attributable to risk factors, we combined four inputs: exposure; relative risk of each health outcome associated with the risk factor; the theoretical minimum risk exposure level (TMREL); and deaths and burden for each of the health outcomes with which a risk factor is associated. In GBD 2023, we estimated the burden associated with 88 risk factors. The TMREL and deaths and burden for each health outcome associated with a risk factor are derived and did not require additional data, so data seeking for risk factor analyses focused on exposure and relative risks. The exposure estimation processes used more than 55 000 distinct data sources, about 16 000 of which were new for GBD 2023, related primarily to the incorporation of new data sources for various risk factors, such as sexual violence against children, intimate partner violence, bullying victimisation, high BMI, high fasting plasma glucose (FPG), and various dietary risk factors. These sources were identified through systematic reviews of risk factor exposure studies, in addition to other data that include household and health examination surveys and censuses, ground-sensing or remote-sensing data, and administrative records (appendix 2 section 2.2.1).

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

For the Global Health Data Exchange see <https://ghdx.healthdata.org/>

Relative risk estimates were derived from meta-analyses incorporating more than 3800 distinct data sources, more than 900 of which were new for GBD 2023. Data used to estimate relative risks were identified and extracted through systematic literature reviews of randomised controlled trials and prospective cohort studies reporting fatal and non-fatal health outcomes associated with risk factor exposures, and from studies underlying risk–outcome meta-analyses (appendix 2 section 2.1.3). Where data from randomised controlled trials or cohort studies were unavailable, odds ratios from case–control studies were potentially included in relative risk estimation (generally reflected by including a bias covariate in the burden-of-proof estimation framework). Across relative risk and exposure estimation processes, 85 new or updated systematic reviews were conducted. Decisions were made to undertake or prioritise reviews based on various circumstances, including the availability of literature providing new or more nuanced or detailed data, or newly available resources to support review of particular risk–outcome pairs. Appendix 2 includes PRISMA diagrams for each of the 85 systematic reviews and risk factor-specific strategies to maximise data collection, search procedures, and bias assessment (section 4), and systematic review and bias assessment guidelines (section 2.1.3). For risk factor exposure data, MR-BRT was used to adjust for bias and perform age–sex splitting; further details are provided in appendix 2 (section 2.2.2).

Estimation methods

Burden of diseases and injuries

GBD 2023 estimated incidence, prevalence, YLDs, YLLs, and DALYs for 375 diseases and injuries: 371 with non-fatal outcomes and 292 with fatal outcomes. Specific diseases and injuries are organised within a four-level cause hierarchy. The broadest category—level 1—includes three large cause groupings of NCDs, CMNN diseases, and injuries. Level 2 categories are further disaggregated into specific subgroupings, such as cardiovascular diseases and transport injuries. Level 3 causes include specific causes (eg, stroke and road injuries). In some cases, level 3 causes are the most granular level of analysis; however, in other cases, causes are further disaggregated at level 4. Level 4 causes are the most specific (eg, ischaemic stroke and pedestrian road injuries). Detailed information on the GBD cause hierarchy is in appendix 1 (table S3).

The modelling of prevalence and incidence was mainly conducted using DisMod-MR 2.1, a Bayesian disease modelling meta-regression tool.⁷ A new tool, DisMod-AT, modelled prevalence and incidence for four causes: type 1 diabetes, major depressive disorder, anxiety disorders, and autism spectrum disorders (appendix 1 section 2.7). For certain diseases and injuries, the use of spatiotemporal Gaussian process regression (ST-GPR) models allowed for the analysis of data that are both

heterogeneous and incomplete and which require statistical smoothing (appendix 1 section 2.4). The methodology for cause-specific estimations, including the calculation of sequela-specific prevalence, is described in appendix 1 (section 6).

To estimate YLDs, we calculated cause–age–sex–location–year-specific prevalence of sequelae (or duration of nature of injury) and then multiplied these prevalence values by their respective disability weights for each disease and injury. The process for estimating disability weights is detailed further in appendix 1 (section 2.9). YLDs were adjusted for comorbidity, assuming that a multiplicative function of disability weights accounts for the co-occurrence of non-fatal causes within individuals. YLLs were derived by multiplying the cause–age–sex–location–year-specific number of deaths by the standard life expectancy at the age of death for each cause, as detailed by the GBD 2023 Causes of Death Collaborators.¹⁶ DALYs were computed by summing YLDs and YLLs (appendix 1 section 4). A complementary measure to DALYs—healthy life expectancy (HALE), which measures a population's mean number of years of life spent in full health—was calculated using YLDs per capita and age-specific mortality rates by location, age, sex, year, and cause.¹⁶ This method was developed by Sullivan¹⁹ and described in appendix 1 (section 5). Both DALYs and HALE were estimated by location, age, sex, and year. More comprehensive details can be found in appendix 1 (sections 4, 5). Cause-specific disease and injury estimation methods were updated for GBD 2023 for several causes, including for rheumatic heart disease, autism spectrum disorders, and HIV/AIDS. Details on these and other cause-specific updates are in appendix 1 (section 6).

Disease and injury burden attributable to risk factors

Risk factor analysis was based on the comparative risk assessment framework, which is premised on a causal web of hierarchically organised, modifiable risk factors that affect health outcomes^{20,21} (appendix 2 section 2, table S2). Risk factors were classified into a four-level hierarchy with the broadest categories—environmental and occupational, behavioural, and metabolic risks—at level 1. Level 1 categories were then further disaggregated, allowing for analysis focused both on risk groups at level 2 (eg, air pollution) and on increasingly granular risk factors at levels 3 (eg, particulate matter pollution) and 4 (eg, household air pollution from solid fuels). GBD 2021 and GBD 2023 included 88 total risk factors across hierarchy levels (appendix 2 table S1). Risk factor definitions and modelling details are in appendix 2 (section 4).

Described briefly are the methods for estimating each of the four inputs into assessing risk-attributable burden: exposure, relative risk of each health outcome associated with the risk factor, the TMREL, and deaths and burden for each of the health outcomes with which a risk factor is associated.

Methods to estimate mean levels of exposure to each risk factor by age-sex-location-year varied across risks. Data for most risks were extracted from household surveys and the scientific literature and were modelled using either ST-GPR or DisMod-MR 2.1.^{7,13} Some risks (eg, ambient air pollution) required other approaches, such as satellite data and geospatial analysis for environmental exposures. For most risks, the distribution of exposure across individuals was estimated by modelling a measure of dispersion, usually the SD, and fitting an ensemble of parametric distributions to the predicted mean and SD (appendix 2 section 2.2.3 [step 2]). Summary exposure values (SEVs), reflecting both the prevalence of a given risk factor and the relative harm caused by that risk factor, were calculated from exposure estimates (appendix 2 section 2 [step 5]).

For the GBD 2023 risk factor analysis, we evaluated a total of 88 risk factors and 159 health outcomes, including four outcomes (bipolar disorder, bulimia nervosa, conduct disorder, and schizophrenia) that in previous iterations of the GBD had not been linked to any risk factors. At the most detailed risk and cause level, relative risks for a total of 676 risk–outcome pairs—including pairs in mediation pathways and pairs for which, by definition, a fixed percentage (often 100%) of the disease is attributed to the risk—were estimated. This included 50 new risk–outcome pairs, while two previously included pairs—child wasting and malaria, and high alcohol use and nasopharynx cancer—were excluded for not meeting inclusion criteria or for overlapping with other outcomes (appendix 2 table S3).

For 256 of the pairs for which standard effect size analyses were applicable to estimate the relative risk, we applied our burden-of-proof meta-regression approach.^{13–15} The burden-of-proof framework used a range of systematic strategies, including ensemble spline models to capture the potentially non-linear shape of the risk–outcome relationship, robust likelihood-based trimming of outliers, covariate selection and adjustment to account for known variation in input study design characteristics, and quantification and incorporation of remaining between-study heterogeneity into uncertainty. See appendix 2 (section 2.1.2–2.1.8 [step 1]) for details.

The burden-of-proof approach further generates a burden-of-proof risk function (BPRF), which is conservatively defined for harmful risks as the 5th and for protective risks as the 95th quantile relative risk curve, inclusive of between-study heterogeneity, closest to null. The BPRF extends relative risk estimates using the same data inputs and modelling processes to provide a conservative measure of both effect size and evidence strength that incorporates between-study heterogeneity to formally account for divergence or convergence in findings across input studies. For ease of interpretation and comparison, risk–outcome scores (ROSS) are calculated summarising average BPRFs across the

data-dense range (15th to 85th percentile) of risk exposure levels reported in the input studies, and summary scores are mapped to a (one to five) star rating system, with higher positive ROS values and more stars corresponding to incrementally stronger evidence for the risk–outcome relationship (appendix 2 section 2.1.6, table S8). The uncertainty intervals (UIs) for relative risks estimated with burden-of-proof methods in this analysis include between-study heterogeneity for all risk factors except tobacco use, given concerns raised during GBD 2021 regarding the interpretation of the resulting wide UIs with respect to policy. Efforts to review and potentially revise the incorporation of unexplained between-study heterogeneity in UIs are part of regular GBD methodology updates. For the purposes of this combined GBD 2023 disease burden and risk factor analysis, we present BPRF-related metrics only in appendix 3 (table S18). More detailed BPRF results can be found in GBD 2021 Risk Factor Collaborators¹³ and other risk-specific papers,^{22–27} and accessed through the Burden of Proof tool.

For each risk factor, the TMREL—the counterfactual level of exposure that is theoretically possible and would minimise health risks in exposed populations—was estimated either on the basis of epidemiological evidence quantifying risk–outcome relationships and the distribution of observed risk factor exposure (eg, ozone air pollution), or on the basis of risk factor definition (eg, smoking; appendix 2 section 2 [step 3], table S4). Differing TMREs reflect the range of behavioural, metabolic, and environmental risk factors, including those for which zero exposure is theoretically achievable and those for which non-zero levels reflect minimum risk.

For each risk–outcome pair, estimates of exposure, TMREL, and relative risk were used to compute the population attributable fraction (PAF; the proportional difference between disease or injury burden at current levels of risk factor exposure and the burden that would have occurred had the population been exposed to the risk factor at the TMREL; appendix 2 section 2 [step 4]). For associations involving risk factors that act on outcomes via intermediate risks (ie, many risk factors, particularly dietary risks, are associated with disease outcomes mediated through metabolic risks, such as a relationship between diet high in sodium and hypertensive heart disease mediated through high SBP), PAFs were adjusted based on values estimated in the GBD 2023 mediation matrix (appendix 2 section 2 [step 6], table S5). Eight additional risk–outcome pairs were incorporated in the 2023 matrix, for a total of 165 mediated pairs (appendix 2 table S6).

To calculate measures of risk-attributable burden—ie, the disease burden (DALYs, deaths, YLLs, or YLDs) attributable to a particular risk factor or combination of risks—PAFs were multiplied by the estimated disease burden associated with particular outcomes (appendix 2

See Online for appendix 3

For the Burden of Proof tool see <https://vizhub.healthdata.org/burden-of-proof/>

section 2 [step 7]). There have been several updates to the estimation of risk-attributable burden for GBD 2023, including for outcomes such as ischaemic heart disease, with prevalence and disease burden now modelled directly rather than on the basis of non-specific chest pain symptoms, and for risk factors such as lead exposure, with one of the important changes being that the effect of lead on ischaemic heart disease is now estimated directly, whereas this effect was previously exclusively mediated via high SBP. Additionally, names and case definitions were updated for some risk factors, such as sexual violence against children (previously childhood sexual abuse), and the TMREL was revised for one risk factor: diet high in trans fatty acids. See appendix 2 (section 4) for all GBD 2023 risk-specific methods.

For assessments of model robustness for the primary models used in estimating disease and injury burden and risk-attributable burden, refer to appendix 2 section 2.2.3 for ST-GPR, appendix 1 section 4.5 of GBD 2019 Diseases and Injuries Collaborators⁶ for DisMod-MR, appendix 1 section 6 for DisMod-AT, and Zheng and colleagues¹⁴ for burden-of-proof methods.

GBD research and reporting practices

This research complies with the GATHER statement;²⁸ a completed GATHER checklist is provided in appendix 1 (table S2). The University of Washington Institutional Review Board approved the GBD study (STUDY00009060) up to July 26, 2026. The software used for analyses included Python (version 3.10.4), Stata (version 13.1), and R (version 4.2.1). The statistical code used in GBD 2023 is publicly available online. An international network of collaborators helped to provide, review, and analyse the available data to generate health metrics; GBD 2023 drew on the expertise of more than 14 000 collaborators from more than 160 countries and territories.

All GBD 2023 estimates for diseases, injuries, and risk factors are reported by age, sex, location, and year for 25 age groups from early neonatal (0–6 days) to 95 years and older; for males, females, and all sexes combined; for every year from 1990 to 2023; and in 204 countries and territories grouped into 21 regions and seven super-regions. The super-regions are central Europe, eastern Europe, and central Asia; high income; Latin America and the Caribbean; north Africa and the Middle East; south Asia; southeast Asia, east Asia, and Oceania; and sub-Saharan Africa (appendix 1 section 1.1–1.2). GBD 2023 also produced estimates for 660 subnational locations in 20 countries (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). Results are also presented by Socio-demographic Index (SDI) quintile, which is a composite measure of lag-distributed income per capita, average

years of education, and fertility rates among females younger than 25 years.²⁹ Each location at the most specific level is assigned an SDI value ranging from 0 (lowest income and educational attainment, and highest fertility) to 100 and then grouped into quintiles from low SDI to high SDI (appendix 1 table S12).

Estimates are reported here as absolute counts and as rates per 100 000 person-years, with age-standardised rates calculated using the GBD 2023 world standard population³⁰ to account for varying age structures across populations. Count data are presented to three significant figures, and rates are presented to one decimal place. Uncertainty was propagated throughout the estimation process. Mean estimates for all metrics reported represent the mean value across 250 draws from the estimate's distribution, with 95% UIs calculated as the 2.5th and 97.5th percentile values across the draws. To reduce computing power and time across the estimation process, the number of draws was reduced from 500 in GBD 2021 to 250 for GBD 2023. Simulations revealed that estimates and uncertainty were minimally affected by this reduction (see appendix 1 section 1.1 for more details).

Role of the funding source

The funders of this study had no role in study design, data collection, data analysis, data interpretation, or the writing of the report.

Results

Overview

To capture worldwide long-term patterns of disease burden and changes in the global health outlook since the COVID-19 pandemic, we report estimated DALYs from 1990 to 2023, across level 1 causes, then primarily focus on results from 2010 to 2023, the most recent period of acute public health and policy interest. HALE results are presented in appendix 3 (table S9). For risk factor analyses, we present estimates of risk factor exposure in SEVs and risk-attributable burden in DALYs. More detailed estimates and metrics are presented in appendix 3. Comprehensive results can also be accessed through the GBD 2023 Results Tool and visualised via GBD Compare. Results specific to risk factor analyses can also be accessed through the Burden of Proof Tool.

The changing landscape of global health across sociodemographic levels

The number of global all-cause DALYs remained statistically stable between 1990 and 2023 (2.74 billion [95% UI 2.60–2.90] in 1990 and 2.80 billion [2.57–3.08] in 2023; appendix 3 table S10). This apparent stasis hides an epidemiological transition among level 1 causes that broadly reflects a decrease in burden due to CMNN diseases, a rise in NCD DALYs, and an unchanged level of injuries (figure 1A). Global age-standardised DALY rates—which account for variation in population

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

For the **GBD 2023 Results Tool** see <https://vizhub.healthdata.org/gbd-results/>

For **GBD Compare** see <https://vizhub.healthdata.org/gbd-compare/>

structure—decreased for CMNN diseases, NCDs, and injuries, reflecting per-person improvements in burden between 1990 and 2023 (figure 1B), but these gains were not seen in DALY counts for NCDs or injuries because the global population is growing and ageing. The biggest deviation during the COVID-19 pandemic from these long-term favourable trajectories in DALY rates was for CMNN diseases, and this disturbance was more acute in countries in lower SDI quintiles (ie, the effect of the pandemic was greatest for countries with lower income per capita and educational attainment and higher fertility rates; figure 1B). A similar pandemic-related disruption was not evident for NCDs or injuries at the global level.

Declines in age-standardised DALY rates for CMNN diseases were steepest over time at lower SDI levels and more attenuated with higher SDI. In the high SDI quintile, total DALY counts and age-standardised rates for CMNN diseases were below those for injuries in all but the pandemic years (figure 1). Much less substantial decreases in age-standardised rates were seen for NCDs and injuries except in the high-middle and high SDI quintiles.

Global trends in DALYs, 2010–23

Although the 2023 all-cause global DALYs rose 6·1% (95% UI 4·0–8·1) from 2·64 billion (2·46–2·86) in 2010 to 2·80 billion (2·57–3·08) in 2023, the global age-standardised DALY rate declined by 12·6% (11·0–14·1; appendix 3 table S10). Across level 1 causes, NCDs contributed the highest burden globally in 2023 and were the only disease group for which DALY counts increased between 2010 and 2023, from 1·45 billion (1·31–1·61) to 1·80 billion (1·63–2·03). However, age-standardised DALY rates for NCDs decreased during this period by 4·1% (1·9–6·3; appendix 3 table S10). DALY counts for CMNN diseases decreased from 874 million (837–917) in 2010 to 681 million (642–736) in 2023, and the age-standardised DALY rate decreased more markedly by 25·8% (22·6–28·7). DALY counts due to injuries also exhibited a decreasing but non-significant trend from 319 million (288–357) in 2010 to 316 million (280–356) in 2023. The age-standardised DALY rate due to injuries decreased by 15·6% (10·7–19·8) during the same period (appendix 3 table S10).

In 2023, males accounted for 1·47 billion (95% UI 1·37–1·59) global all-cause DALYs and females

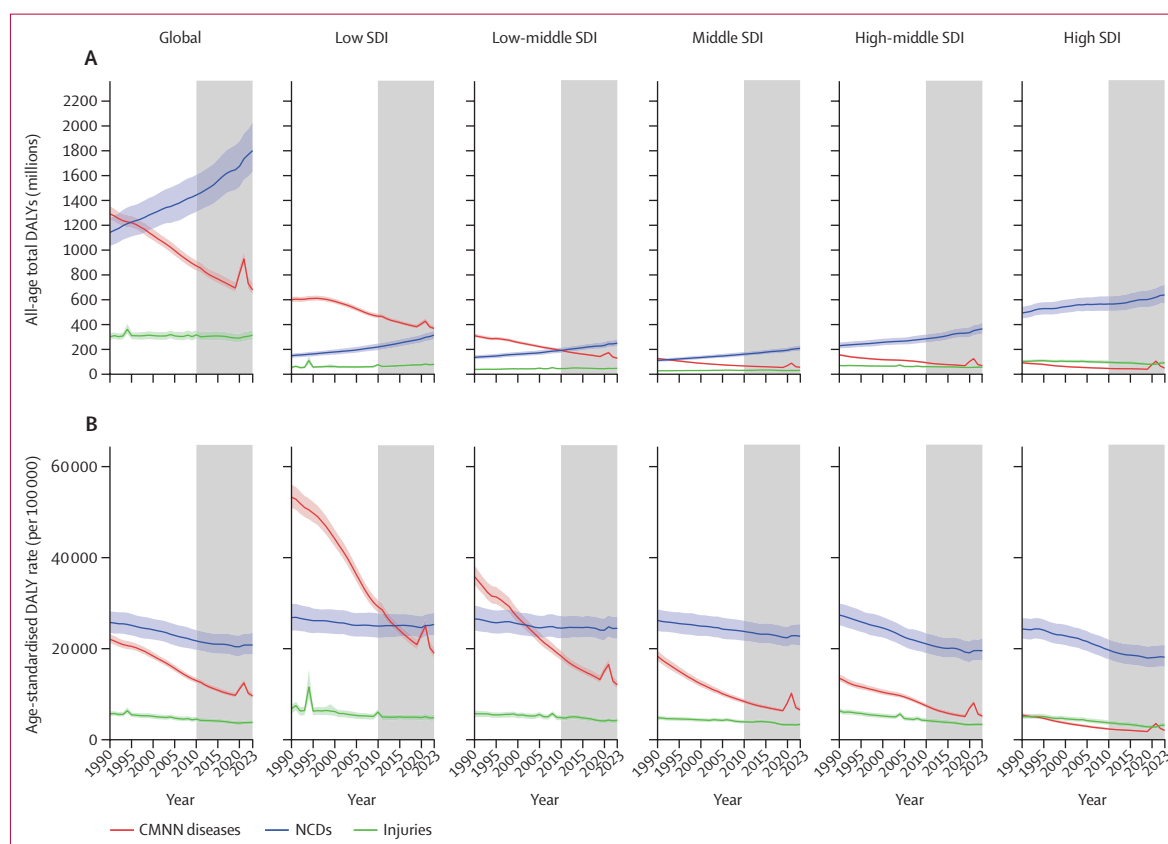


Figure 1: Trends of total DALYs (A) and age-standardised DALY rates (B) by GBD level 1 cause and by SDI quintile, 1990–2023

The grey shading indicates the 2010–23 period. The bump in injury-related DALYs that can be seen in the low SDI and global panels in 1994 is largely the result of the Rwanda genocide. The larger bump in CMNN diseases in almost all plots in 2021 and 2022 is the larger DALY effect of the COVID-19 pandemic. Shading around mean trend lines represents 95% uncertainty intervals. CMNN=communicable, maternal, neonatal, and nutritional. DALY=disability-adjusted life-year. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. NCDs=non-communicable diseases. SDI=Socio-demographic Index.

for 1.33 billion (1.20–1.49; appendix 3 table S3; see figure 2 for age-cause-specific DALYs, by sex). For both sexes, ischaemic heart disease was the leading level 3 cause of DALY burden in 2023 (74.8 million [64.2–84.8] DALYs in females and 118 million [106–130] in males), followed by neonatal disorders (71.7 million [65.7–78.9] in females and 98.3 million [89.4–107] in males) and stroke (70.8 million [61.8–83.4] in females and 85.7 million [75.8–97.8] in males; appendix 3 table S3). By age group, CMNN diseases were leading causes of burden in children younger than 5 years, with maternal and neonatal disorders the greatest cause of DALYs in the neonatal phase (age <28 days), accounting for 72.2% (68.4–75.3) of 184 million (178–190) total DALYs in this age group in 2023 (figure 2; see the GBD 2023 Results Tool for total DALYs by age group). NCDs increasingly contributed to disease burden with ageing, accounting for 45.0% (40.8–49.8) of 152 million (130–180) total DALYs in individuals aged 5–14 years, 61.6% (58.6–64.1) of 882 million (778–1006) total DALYs for those aged 15–49 years, and 85.5% (84.6–86.3) of 1150 million (1060–1260) total DALYs for those aged 55 years and older. The burden of injuries was higher in males aged 10–54 years, accounting for 24.7% (22.4–27.0) of 590 million (529–662) total DALYs in this age group, compared with 11.1% (9.7–12.5) of 540 million (463–631) total DALYs in females of the same age, with

the difference between sexes declining gradually for those 55 and older.

In total, 15 NCDs, seven CMNN diseases, and three types of injuries featured within the 25 leading level 3 causes of global DALYs in 2023 (figure 3). In 2010, neonatal disorders, ischaemic heart disease, and stroke were the leading causes of DALYs for all ages and sexes combined. In 2023, the top five causes were ischaemic heart disease (193 million [95% UI 176–209] DALYs), neonatal disorders (170 million [159–183]), stroke (157 million [141–172]), lower respiratory infections (98.7 million [87.7–112]), and diabetes (90.2 million [75.2–107]). Notable health gains among leading CMNN diseases included lower respiratory infections (with a decrease in the age-standardised DALY rate of 24.8% [7.4–36.7] between 2010 and 2023) and diarrhoeal diseases (decrease of 49.1% [32.7–61.0]). Rates also declined for HIV/AIDS (by 42.9% [38.0–48.0]), tuberculosis (42.2% [23.6–56.6]), and malaria (21.4% [5.4–45.4]). Another notable health gain among CMNN diseases was observed for neonatal disorders, which decreased in age-standardised DALY rate by 16.5% (10.6–22.0) and dropped from first ranking in 1990, 2000, and 2010 to second ranking globally in 2023.

Among the leading level 3 causes of DALYs in 2023, the largest health declines between 2010 and 2023—ie, increases in age-standardised DALY rates—were observed for NCD causes, including anxiety disorders

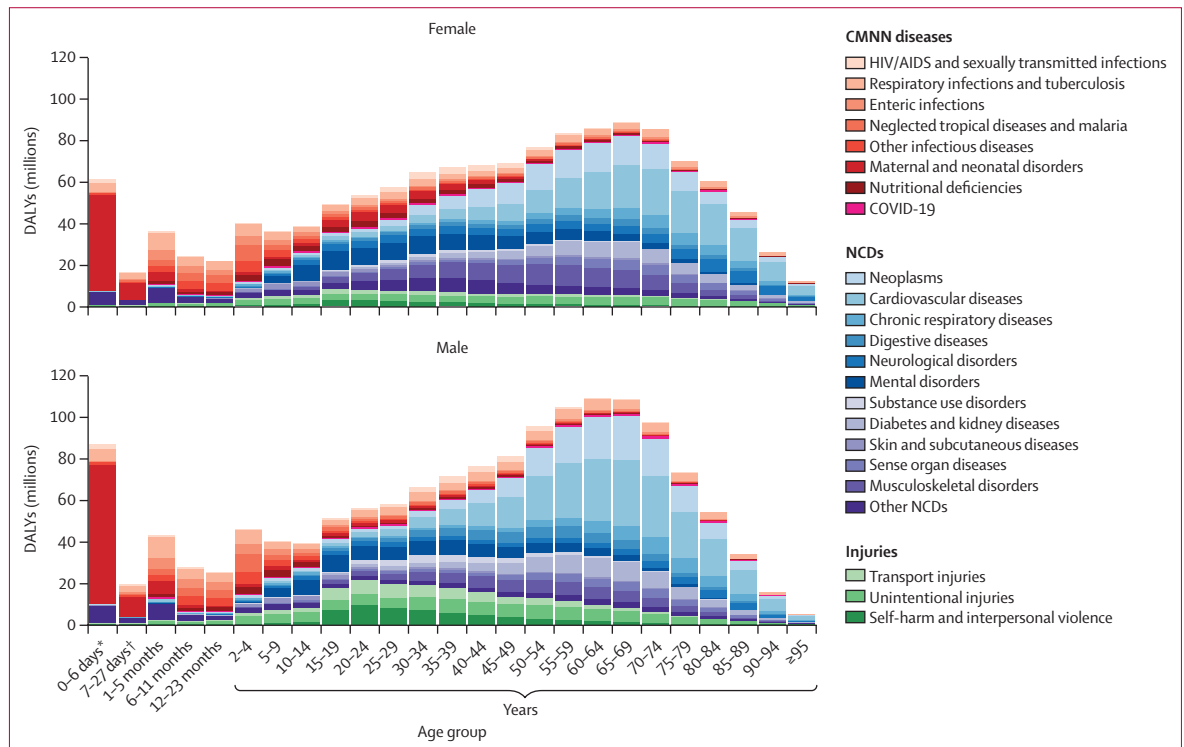


Figure 2: The distribution of global DALYs across age and sex for GBD level 2 causes in 2023
 CMNN=communicable, maternal, neonatal, and nutritional. DALYs=disability-adjusted life-years. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. NCDs=non-communicable diseases. *Early neonatal. †Late neonatal.

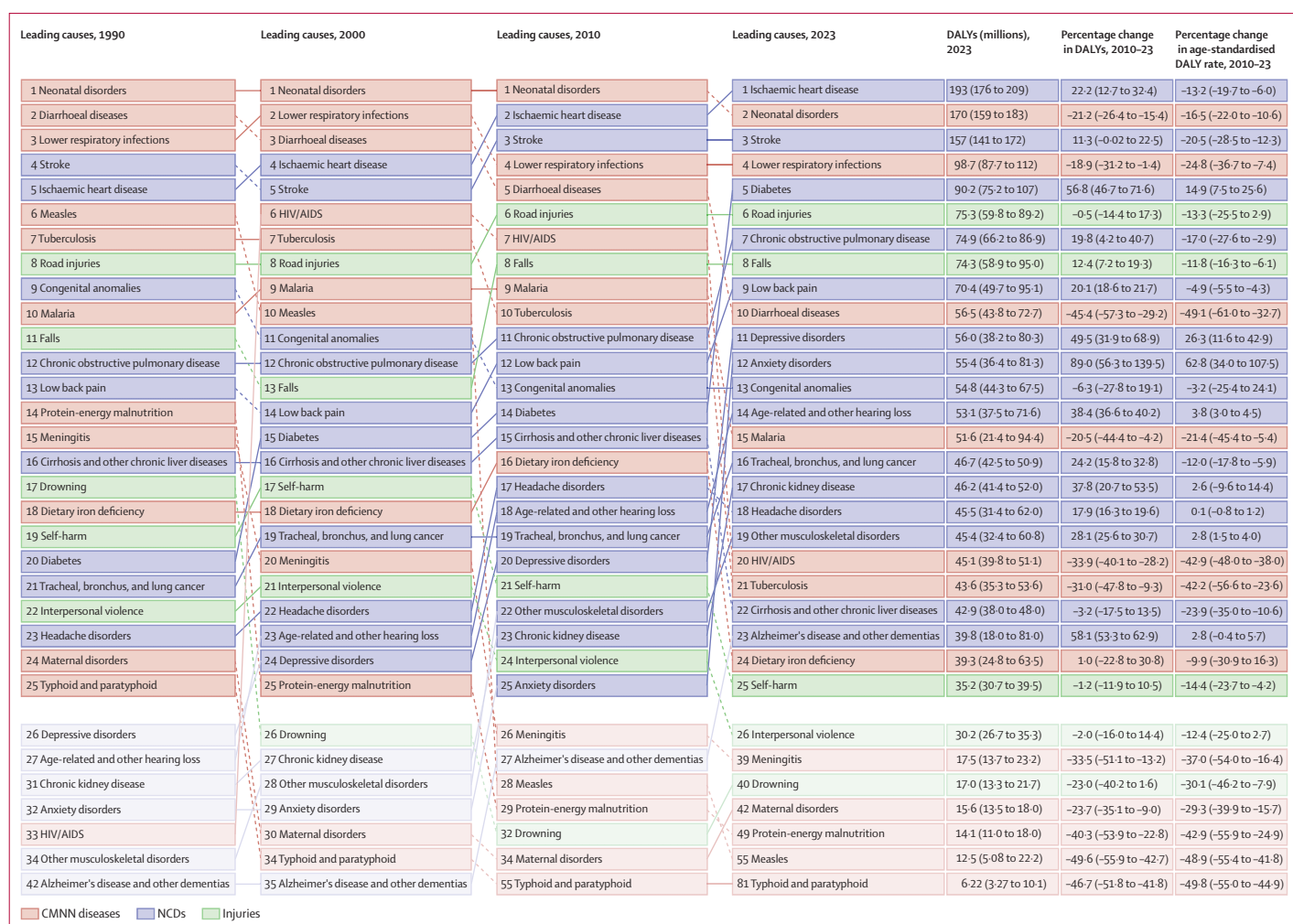


Figure 3: Leading 25 GBD level 3 causes of global DALYs in 1990, 2000, 2010, and 2023, for both sexes combined, and all ages
 Causes are connected by lines between time periods: solid lines represent an increase or no change in rank, and dashed lines represent a decrease in rank. Faded colours indicate that the cause is not within the top 25 causes of DALYs for that year. Data in parentheses are 95% uncertainty intervals. DALY=disability-adjusted life-year. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

with an increase of 62.8% (95% UI 34.0–107.5), depressive disorders (26.3% [11.6–42.9]), and diabetes (14.9% [7.5–25.6]; figure 3). Alzheimer's disease and other dementias also moved into the top 25 causes of DALYs for the first time (non-significant increase in age-standardised rate of 2.8% [-0.4 to 5.7]). With respect to level 3 categories of injury, age-standardised DALY rates did not show a statistical change for road injuries (non-significant decrease of 13.3% [-25.5 to 2.9]), but declined for falls by 11.8% (6.1 to 16.3) and self-harm by 14.4% (4.2 to 23.7). DALY counts and age-standardised DALY rates by cause for 2010 and 2023 are presented in appendix 3 (tables S3, S4).

Decomposition of DALYs into YLDs and YLLs

Global all-cause DALYs in 2023 were composed of 990 million (95% UI 756–1280) YLDs (equivalent

to 35.4% [29.5–41.5] of 2.80 billion total DALYs; appendix 3 tables S5, S6) and 1.81 billion (1.78–1.84) YLLs (equivalent to 64.6% [59.5–69.5] of total DALYs; appendix 3 tables S7, S8). Global YLDs exhibited a non-significant increase from 786 million (597–1000) in 2010, and YLLs decreased significantly from 1.85 billion (1.84–1.86) in 2010. All-cause, age-standardised YLD rates remained statistically stable between 2010 and 2023, with a non-significant increase of 2.3% (-0.2 to 5.4; appendix 3 table S11). A total of 21 NCDs, three CMNN diseases, and one injury featured within the 25 leading level 3 causes of YLDs globally in 2023 (table 1). Low back pain, depressive disorders, and anxiety disorders were the top three causes of YLDs. Global YLLs decreased by 2.4% (0.9–3.9) between 2010 and 2023, and age-standardised YLL rates decreased considerably by 18.7% (17.5–19.9; appendix 3 table S12). Age-standardised YLD and YLL rates and the number of YLDs and YLLs by

	Percentage of all-cause YLDs				YLDs				Age-standardised rate of YLDs				
	2010	2023	2023	2023	Counts (millions), 2010	Counts (millions), 2023	Percentage change, 2010-23	Per 100 000, 2010	Per 100 000, 2023	Percentage change, 2010-23	Per 100 000, 2010	Per 100 000, 2023	Percentage change, 2010-23
Low back pain	7.5% (6.4 to 8.7)	7.1% (6.1 to 8.3)	58.6 (41.4 to 78.9)	70.4 (49.7 to 95.1)	20.1% (18.6 to 21.7)	847.5 (600.4 to 1143.3)	805.9 (569.1 to 1084.1)	-4.9% (-5.5 to -4.3)					
Depressive disorders	4.8% (3.8 to 6.1)	5.7% (4.5 to 7.4)	37.5 (25.7 to 51.0)	56.0 (38.2 to 80.3)	49.5% (31.9 to 68.9)	527.6 (361.4 to 717.2)	666.4 (454.6 to 952.5)	26.3% (11.6 to 42.9)					
Anxiety disorders	3.7% (2.8 to 4.9)	5.6% (4.1 to 7.8)	29.3 (19.9 to 41.5)	55.4 (36.4 to 81.3)	89.0% (56.3 to 139.5)	415.6 (284.8 to 587.6)	676.6 (440.9 to 989.3)	62.8% (34.0 to 107.5)					
Falls	6.2% (5.3 to 7.1)	5.4% (4.6 to 6.1)	48.6 (35.2 to 65.6)	53.1 (38.4 to 72.2)	9.4% (7.2 to 11.5)	708.2 (514.3 to 955.8)	606.7 (438.0 to 822.5)	-14.3% (-15.8 to -12.8)					
Age-related and other hearing loss	4.9% (4.1 to 5.8)	5.4% (4.5 to 6.4)	38.4 (27.0 to 51.5)	53.1 (37.5 to 71.6)	38.4% (36.6 to 40.2)	577.4 (409.7 to 775.1)	599.1 (424.5 to 804.9)	3.8% (3.0 to 4.5)					
Headache disorders	4.9% (3.8 to 6.0)	4.6% (3.6 to 5.6)	38.6 (26.4 to 52.6)	45.5 (31.4 to 62.0)	17.9% (16.3 to 19.6)	541.3 (370.8 to 736.2)	542.0 (373.4 to 739.2)	0.1% (-0.8 to 1.2)					
Diabetes	3.6% (3.2 to 4.1)	4.5% (3.9 to 5.0)	28.5 (20.0 to 38.1)	44.2 (31.0 to 59.7)	55.0% (52.6 to 58.0)	422.5 (296.5 to 565.2)	489.3 (343.3 to 658.9)	15.8% (14.0 to 17.6)					
Other musculoskeletal disorders	4.3% (3.3 to 5.5)	4.4% (3.4 to 5.6)	33.6 (23.4 to 45.5)	43.2 (29.9 to 58.3)	28.4% (25.8 to 30.8)	479.1 (332.5 to 647.9)	494.1 (342.4 to 668.7)	3.1% (2.3 to 4.0)					
Dietary iron deficiency	4.9% (3.6 to 6.4)	3.9% (2.8 to 5.3)	38.9 (25.0 to 59.0)	39.3 (24.8 to 63.5)	1.0% (-2.2 to 3.0)	565.2 (361.8 to 856.5)	509.4 (321.3 to 818.3)	-9.9% (-30.9 to 16.3)					
Gynaecological diseases	2.9% (2.4 to 3.4)	2.9% (2.4 to 3.4)	22.8 (15.4 to 31.9)	28.6 (19.5 to 40.0)	25.6% (22.1 to 29.6)	315.6 (214.2 to 441.6)	341.4 (231.3 to 477.6)	8.2% (6.1 to 10.6)					
Oral disorders	2.4% (1.6 to 3.2)	2.4% (1.7 to 3.3)	18.6 (11.2 to 27.4)	23.9 (14.5 to 35.1)	28.8% (24.4 to 33.0)	273.7 (166.0 to 401.4)	272.9 (164.4 to 402.4)	-0.3% (-3.3 to 2.8)					
Blindness and vision loss	2.3% (2.0 to 2.8)	2.4% (1.9 to 2.9)	18.4 (12.9 to 26.0)	23.6 (16.3 to 33.5)	28.0% (25.5 to 30.6)	284.5 (198.8 to 399.5)	261.1 (180.3 to 368.9)	-8.2% (-10.4 to -6.1)					
Neonatal disorders	2.4% (2.0 to 2.8)	2.4% (2.0 to 2.8)	18.5 (13.8 to 24.1)	23.6 (18.0 to 29.8)	27.8% (17.4 to 37.0)	264.8 (197.8 to 345.4)	304.5 (232.2 to 384.6)	15.0% (5.7 to 23.3)					
Osteoarthritis	2.0% (1.2 to 3.8)	2.2% (1.3 to 4.3)	15.7 (7.47 to 33.7)	22.4 (10.7 to 48.2)	42.7% (41.0 to 44.4)	238.9 (114.1 to 513.1)	243.0 (115.8 to 523.5)	1.7% (0.7 to 2.8)					
Neck pain	2.1% (1.6 to 2.7)	2.1% (1.6 to 2.6)	16.7 (11.1 to 24.5)	20.7 (13.8 to 30.1)	24.0% (20.9 to 27.3)	237.9 (158.5 to 345.3)	238.3 (158.6 to 346.3)	0.2% (-0.4 to 0.7)					
Schizophrenia	1.8% (1.3 to 2.4)	1.7% (1.3 to 2.3)	14.0 (10.3 to 17.7)	17.0 (12.4 to 21.4)	21.1% (19.2 to 22.9)	196.2 (143.7 to 248.3)	197.4 (144.6 to 249.9)	0.6% (-0.1 to 1.3)					
Stroke	1.6% (1.3 to 1.9)	1.7% (1.4 to 2.0)	12.6 (9.0 to 16.1)	16.7 (12.0 to 21.2)	31.9% (29.7 to 34.1)	192.8 (137.7 to 245.9)	186.0 (133.8 to 236.4)	-3.6% (-4.9 to -2.3)					
Dermatitis	1.7% (1.1 to 2.5)	1.5% (1.0 to 2.2)	13.5 (7.88 to 21.8)	15.2 (8.9 to 24.2)	12.5% (11.0 to 14.4)	198.3 (115.7 to 321.5)	196.3 (114.7 to 316.7)	-1.0% (-1.7 to -0.5)					
Chronic obstructive pulmonary disease	1.5% (1.2 to 1.9)	1.5% (1.2 to 1.9)	11.6 (9.6 to 13.3)	15.0 (12.6 to 17.6)	30.0% (26.1 to 33.5)	178.3 (148.7 to 206.1)	166.3 (139.1 to 194.8)	-6.7% (-9.4 to -3.7)					
Asthma	1.5% (1.1 to 1.9)	1.4% (1.1 to 1.8)	11.5 (7.26 to 16.2)	14.1 (8.80 to 20.3)	22.6% (18.2 to 26.6)	167.3 (105.4 to 235.3)	173.7 (107.8 to 249.5)	3.8% (0.5 to 7.2)					
COVID-19	NA	1.3% (0.6 to 2.5)	NA	12.5 (5.33 to 25.7)	NA	NA	152.0 (64.5 to 313.6)	NA					
Alzheimer's disease and other dementias	1.0% (0.7 to 1.2)	1.2% (0.9 to 1.6)	7.69 (5.33 to 9.85)	12.2 (8.52 to 15.6)	58.3% (55.9 to 61.7)	131.6 (91.4 to 168.7)	137.4 (96.3 to 176.7)	4.4% (2.9 to 6.6)					
Alcohol use disorders	1.3% (1.0 to 1.6)	1.2% (0.9 to 1.4)	10.3 (7.23 to 14.5)	11.6 (8.08 to 16.5)	12.6% (9.6 to 15.3)	143.4 (101.1 to 202.0)	136.4 (95.2 to 194.5)	-4.9% (-6.7 to -3.1)					
Chronic kidney disease	1.0% (0.8 to 1.2)	1.0% (0.9 to 1.3)	7.48 (5.55 to 9.77)	10.3 (7.53 to 13.3)	37.0% (31.4 to 43.3)	114.9 (85.0 to 149.8)	114.5 (84.4 to 148.5)	-0.4% (-4.9 to 3.9)					
Ischaemic heart disease	1.0% (0.9 to 1.2)	1.0% (0.9 to 1.1)	8.06 (5.82 to 10.8)	10.0 (7.26 to 13.5)	24.1% (20.8 to 27.4)	123.3 (89.3 to 165.2)	110.2 (80.1 to 147.9)	-10.6% (-12.6 to -9.0)					

Data in parentheses are 95% uncertainty intervals. Causes are listed from first to last rank with respect to 2023 YLD counts and percentage of 2023 all-cause YLDs. Count data are presented to three significant figures, and rates are presented to one decimal place. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study, NA=not applicable. YLDs=years lived with disability.

Table 1: Top 25 leading level 3 causes of global YLDs in 2023 across all ages, for both sexes combined, YLD counts, age-standardised rates, and percentage change between 2010 and 2023

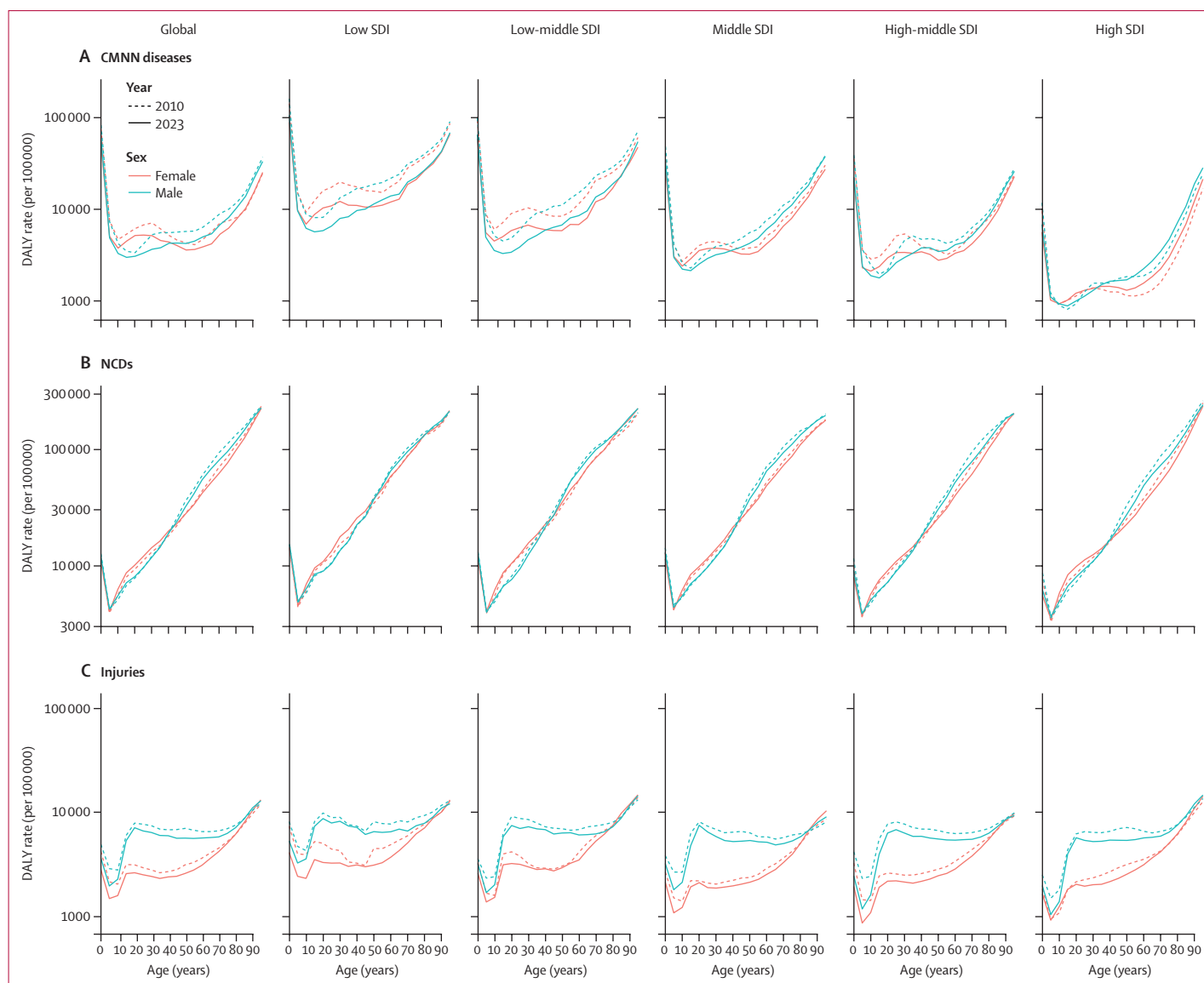


Figure 4: Age-specific DALY rates for CMNN diseases (A), NCDs (B), and injuries (C), by age, sex, year, and SDI quintile

The y axis shows DALYs per 100 000 person-years on a logarithmic scale. CMNN=communicable, maternal, neonatal, and nutritional. DALY=disability-adjusted life-year. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. NCDs=non-communicable diseases. SDI=Socio-demographic Index.

cause and sex for 2010, 2020, and 2023 are in appendix 3 (tables S5–S8).

Trends in DALYs by SDI, location, age, and sex

Trends in DALYs at the global level were informed by complex patterns of cause-specific burden across location, age, and sex. Age-standardised DALY rates for NCDs in males in 2023 ranged from 19 519.6 (95% UI 17 667.9–21 818.2) per 100 000 in the high SDI quintile to 25 205.2 (23 054.5–27 396.0) per 100 000 in the low SDI quintile. In females, age-standardised DALY rates for NCDs ranged from 17 017.8 (14 711.8–20 005.1) per 100 000 in the high SDI quintile to 25 574.4 (22 701.9–28 560.9) per

100 000 in the low SDI quintile (GBD 2023 Results Tool and GBD Compare). Across all SDI quintiles, age-specific DALY rates from NCDs decreased with increasing age from 0–6 days to 5–9 years and then increased gradually with age (figure 4).

Age-standardised DALY rates for CMNN diseases in males in 2023 ranged from 2257.1 (95% UI 2033.9–2553.5) per 100 000 in the high SDI quintile to 19 212.4 (18 052.2–20 819.7) per 100 000 in the low SDI quintile. In females, they ranged from 1909.6 (1655.9–2271.7) per 100 000 in the high SDI quintile to 18 824.3 (17 538.6–20 419.6) per 100 000 in the low SDI quintile (GBD 2023 Results Tool and GBD Compare).

SDI quintile	Leading ten level 3 causes									
	1	2	3	4	5	6	7	8	9	10
Low SDI	Neonatal disorders	Lower respiratory infections	Malaria	Diarrhoeal diseases	Road injuries	Ischaemic heart disease	Congenital anomalies	Stroke	HIV/AIDS	Tuberculosis
Low-middle SDI	Neonatal disorders	Ischaemic heart disease	Stroke	Lower respiratory infections	Diabetes	Chronic obstructive pulmonary disease	Road injuries	Diarrhoeal diseases	Tuberculosis	Congenital anomalies
Middle SDI	Ischaemic heart disease	Stroke	Neonatal disorders	Diabetes	Lower respiratory infections	Road injuries	Congenital anomalies	Low back pain	Cirrhosis and other chronic liver diseases	Chronic obstructive pulmonary disease
High-middle SDI	Ischaemic heart disease	Stroke	Diabetes	Chronic obstructive pulmonary disease	Falls	Neonatal disorders	Road injuries	Low back pain	Age-related and other hearing loss	Anxiety disorders
High SDI	Ischaemic heart disease	Stroke	Falls	Low back pain	Tracheal, bronchus, and lung cancer	Diabetes	Alzheimer's disease and other dementias	Chronic obstructive pulmonary disease	Age-related and other hearing loss	Depressive disorders
GBD super-region										
Central Europe, eastern Europe, and central Asia	Ischaemic heart disease	Stroke	Low back pain	Diabetes	Cirrhosis and other chronic liver diseases	Conflict and terrorism	Falls	Tracheal, bronchus, and lung cancer	Lower respiratory infections	Age-related and other hearing loss
Central Asia	Ischaemic heart disease	Neonatal disorders	Lower respiratory infections	Stroke	Low back pain	Cirrhosis and other chronic liver diseases	Congenital anomalies	Diabetes	Chronic obstructive pulmonary disease	Depressive disorders
Central Europe	Ischaemic heart disease	Stroke	Low back pain	Tracheal, bronchus, and lung cancer	Diabetes	Falls	Age-related and other hearing loss	Cirrhosis and other chronic liver diseases	Colon and rectum cancer	Chronic obstructive pulmonary disease
Eastern Europe	Ischaemic heart disease	Stroke	Conflict and terrorism	Low back pain	Cirrhosis and other chronic liver diseases	Cardiomyopathy and myocarditis	Falls	Diabetes	Self-harm	Age-related and other hearing loss
High income	Ischaemic heart disease	Falls	Low back pain	Stroke	Alzheimer's disease and other dementias	Tracheal, bronchus, and lung cancer	Diabetes	Chronic obstructive pulmonary disease	Drug use disorders	Anxiety disorders
Australasia	Low back pain	Falls	Ischaemic heart disease	Anxiety disorders	Alzheimer's disease and other dementias	Other musculoskeletal disorders	Tracheal, bronchus, and lung cancer	Stroke	Chronic obstructive pulmonary disease	Depressive disorders
High-income Asia Pacific	Alzheimer's disease and other dementias	Stroke	Low back pain	Ischaemic heart disease	Tracheal, bronchus, and lung cancer	Diabetes	Other musculoskeletal disorders	Falls	Age-related and other hearing loss	Colon and rectum cancer
High-income North America	Ischaemic heart disease	Drug use disorders	Falls	Low back pain	Diabetes	Chronic obstructive pulmonary disease	Stroke	Other musculoskeletal disorders	Tracheal, bronchus, and lung cancer	Alzheimer's disease and other dementias
Southern Latin America	Ischaemic heart disease	Lower respiratory infections	Low back pain	Anxiety disorders	Stroke	Other musculoskeletal disorders	Depressive disorders	Diabetes	Chronic kidney disease	Road injuries
Western Europe	Ischaemic heart disease	Falls	Low back pain	Alzheimer's disease and other dementias	Stroke	Tracheal, bronchus, and lung cancer	Anxiety disorders	Chronic obstructive pulmonary disease	Diabetes	Depressive disorders
Latin America and Caribbean	Ischaemic heart disease	Diabetes	Interpersonal violence	Neonatal disorders	Stroke	Anxiety disorders	Lower respiratory infections	Road injuries	Chronic kidney disease	Low back pain
Andean Latin America	Lower respiratory infections	Neonatal disorders	Anxiety disorders	Road injuries	Ischaemic heart disease	Diabetes	Stroke	Congenital anomalies	COVID-19	Chronic kidney disease
Caribbean	Ischaemic heart disease	Stroke	Neonatal disorders	Diabetes	Lower respiratory infections	Interpersonal violence	Road injuries	HIV/AIDS	Chronic kidney disease	Congenital anomalies
Central Latin America	Ischaemic heart disease	Diabetes	Interpersonal violence	Chronic kidney disease	Neonatal disorders	Falls	Road injuries	Low back pain	Anxiety disorders	Other musculoskeletal disorders
Tropical Latin America	Ischaemic heart disease	Interpersonal violence	Anxiety disorders	Stroke	Diabetes	Low back pain	Neonatal disorders	Road injuries	Lower respiratory infections	Other musculoskeletal disorders
North Africa and Middle East	Ischaemic heart disease	Neonatal disorders	Stroke	Diabetes	Congenital anomalies	Road injuries	Low back pain	Depressive disorders	Anxiety disorders	Lower respiratory infections
South Asia	Neonatal disorders	Ischaemic heart disease	Stroke	Chronic obstructive pulmonary disease	Diabetes	Lower respiratory infections	Diarrhoeal diseases	Dietary iron deficiency	Tuberculosis	Road injuries
Southeast Asia, east Asia, and Oceania	Stroke	Ischaemic heart disease	Falls	Chronic obstructive pulmonary disease	Tracheal, bronchus, and lung cancer	Diabetes	Age-related and other hearing loss	Road injuries	Low back pain	Alzheimer's disease and other dementias
East Asia	Stroke	Ischaemic heart disease	Falls	Tracheal, bronchus, and lung cancer	Chronic obstructive pulmonary disease	Age-related and other hearing loss	Alzheimer's disease and other dementias	Diabetes	Low back pain	Depressive disorders
Oceania	Ischaemic heart disease	Lower respiratory infections	Neonatal disorders	Diabetes	Stroke	Congenital anomalies	Malaria	Road injuries	Tuberculosis	Chronic obstructive pulmonary disease
Southeast Asia	Stroke	Ischaemic heart disease	Neonatal disorders	Diabetes	Lower respiratory infections	Road injuries	Cirrhosis and other chronic liver diseases	Tuberculosis	Chronic kidney disease	Chronic obstructive pulmonary disease
Sub-Saharan Africa	Neonatal disorders	Malaria	Lower respiratory infections	HIV/AIDS	Diarrhoeal diseases	Road injuries	Tuberculosis	Congenital anomalies	Stroke	Meningitis
Central sub-Saharan Africa	Malaria	Neonatal disorders	Road injuries	Lower respiratory infections	Tuberculosis	HIV/AIDS	Diarrhoeal diseases	Congenital anomalies	Stroke	Maternal disorders
Eastern sub-Saharan Africa	Neonatal disorders	HIV/AIDS	Lower respiratory infections	Diarrhoeal diseases	Malaria	Road injuries	Congenital anomalies	Tuberculosis	Stroke	Dietary iron deficiency
Southern sub-Saharan Africa	HIV/AIDS	Neonatal disorders	Lower respiratory infections	Interpersonal violence	Road injuries	Tuberculosis	Diabetes	Diarrhoeal diseases	Stroke	Ischaemic heart disease
Western sub-Saharan Africa	Neonatal disorders	Malaria	Lower respiratory infections	Diarrhoeal diseases	HIV/AIDS	Meningitis	Congenital anomalies	Road injuries	Stroke	Tuberculosis

Annualised rate of change, 2010-23

■ <-4.1%
■ -4.1% to <-2.9%
■ -2.9% to <-1.2%
■ -1.2% to <-0.7%
■ -0.7% to <0%
■ 0% to <1.6%
■ 1.6% to <3.3%
■ 3.3% to <4.9%
■ 4.9% to <6.6%
■ New to GBD cause hierarchy since 2010

Figure 5: Leading ten GBD level 3 causes of 2023 DALYs by SDI quintile, GBD region and super-region, and annualised rate of change between 2010 and 2023. Level 3 causes are ranked by 2023 DALY counts from left (first) to right (tenth) for each GBD region and SDI quintile, with GBD super-regions in bold. DALY=disability-adjusted life-year. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. SDI=Socio-demographic Index.

	SEV, 1990	SEV, 2010	SEV, 2023	Annualised rate of change, 1990–2023	Annualised rate of change, 2010–23
All risk factors	24.5 (21.7 to 26.0)	24.0 (21.4 to 25.5)	23.6 (20.7 to 25.0)	-0.1% (-0.2 to 0.0)	-0.1% (-0.3 to 0.1)
Environmental or occupational risks	45.6 (40.2 to 49.1)	41.8 (36.0 to 46.3)	37.7 (32.1 to 42.3)	-0.6% (-0.8 to -0.4)	-0.8% (-1.1 to -0.5)
Unsafe water, sanitation, and handwashing	44.4 (29.0 to 53.1)	33.7 (22.2 to 41.1)	28.1 (18.9 to 34.9)	-1.4% (-2.0 to -0.8)	-1.4% (-2.6 to -0.3)
Unsafe water source	44.7 (33.1 to 56.6)	38.7 (25.3 to 52.2)	36.5 (22.4 to 51.3)	-0.6% (-1.4 to 0.1)	-0.5% (-1.7 to 0.7)
Unsafe sanitation	56.9 (52.5 to 60.9)	40.7 (37.4 to 43.8)	30.8 (26.8 to 35.4)	-1.9% (-2.3 to -1.4)	-2.1% (-3.1 to -1.2)
No access to handwashing facility	32.6 (15.4 to 43.8)	25.7 (11.6 to 35.0)	21.4 (10.0 to 29.2)	-1.3% (-2.4 to 0.0)	-1.4% (-3.7 to 0.7)
Air pollution	51.5 (44.4 to 58.5)	45.4 (38.4 to 52.7)	37.6 (31.9 to 44.1)	-0.9% (-1.1 to -0.8)	-1.4% (-1.7 to -1.2)
Particulate matter pollution	56.8 (51.2 to 62.5)	49.5 (44.4 to 54.8)	41.7 (37.0 to 47.0)	-0.9% (-1.1 to -0.8)	-1.3% (-1.5 to -1.1)
Ambient particulate matter pollution	20.0 (16.0 to 25.3)	24.4 (20.1 to 29.2)	28.5 (23.6 to 33.8)	1.1% (0.5 to 1.7)	1.2% (0.9 to 1.5)
Household air pollution from solid fuels	35.5 (29.7 to 41.9)	25.5 (21.1 to 30.4)	16.9 (13.2 to 21.2)	-2.2% (-2.8 to -1.7)	-3.2% (-3.7 to -2.5)
Ambient ozone pollution	16.5 (14.3 to 20.1)	20.9 (18.1 to 25.2)	24.6 (21.6 to 28.8)	1.2% (1.1 to 1.3)	1.3% (1.1 to 1.4)
Ambient nitrogen dioxide pollution	22.3 (0.0 to 50.6)	20.8 (0.0 to 48.3)	14.4 (0.0 to 40.7)	-1.3% (-2.5 to 0.0)	-2.9% (-5.6 to 0.0)
Non-optimal temperature	28.5 (27.8 to 29.6)	33.9 (32.7 to 34.9)	32.2 (31.0 to 33.2)	0.4% (0.2 to 0.5)	-0.4% (-0.6 to -0.2)
High temperature	30.9 (28.7 to 32.9)	40.5 (37.1 to 43.1)	40.4 (37.4 to 43.0)	0.8% (0.7 to 0.9)	0.0% (-0.1 to 0.1)
Low temperature	25.6 (24.5 to 27.3)	26.5 (25.2 to 28.3)	24.2 (22.9 to 26.1)	-0.2% (-0.2 to -0.1)	-0.7% (-0.8 to -0.6)
Other environmental risks	41.9 (14.3 to 51.2)	44.5 (14.0 to 52.4)	41.1 (12.8 to 48.3)	-0.1% (-0.4 to 0.4)	-0.6% (-1.0 to -0.3)
Residential radon	25.7 (0.0 to 37.3)	25.2 (0.0 to 36.8)	25.0 (0.0 to 36.8)	-0.1% (-0.2 to 0.1)	0.0% (-0.2 to 0.1)
Lead exposure	49.2 (8.1 to 60.7)	53.1 (8.4 to 62.1)	48.1 (7.3 to 56.4)	-0.1% (-0.5 to 0.4)	-0.8% (-1.2 to -0.4)
Occupational risks	3.8 (2.4 to 8.2)	3.9 (2.6 to 8.3)	3.8 (2.5 to 8.3)	0.0% (-0.1 to 0.2)	-0.1% (-0.3 to 0.1)
Occupational carcinogens	0.9 (0.7 to 1.6)	1.1 (0.8 to 1.8)	1.1 (0.8 to 1.9)	0.6% (0.4 to 0.7)	0.4% (0.2 to 0.5)
Occupational exposure to asbestos	2.3 (2.2 to 2.4)	2.2 (2.1 to 2.3)	2.0 (1.9 to 2.2)	-0.4% (-0.7 to -0.2)	-0.8% (-1.1 to -0.5)
Occupational exposure to arsenic	0.4 (0.1 to 0.8)	0.5 (0.1 to 0.9)	0.5 (0.2 to 0.9)	0.3% (0.1 to 0.8)	0.1% (-0.1 to 0.5)
Occupational exposure to benzene	0.7 (0.3 to 1.7)	0.9 (0.4 to 2.0)	1.0 (0.5 to 2.1)	0.8% (0.6 to 1.1)	0.7% (0.5 to 0.9)
Occupational exposure to beryllium	0.1 (0.1 to 0.1)	0.1 (0.1 to 0.1)	0.1 (0.1 to 0.1)	0.5% (0.4 to 0.5)	0.3% (0.2 to 0.4)
Occupational exposure to cadmium	0.2 (0.2 to 0.2)	0.2 (0.2 to 0.2)	0.2 (0.2 to 0.2)	0.7% (0.6 to 0.8)	0.4% (0.2 to 0.6)
Occupational exposure to chromium	0.4 (0.4 to 0.4)	0.5 (0.4 to 0.5)	0.5 (0.5 to 0.5)	1.0% (0.9 to 1.0)	0.6% (0.4 to 0.9)
Occupational exposure to diesel engine exhaust	1.7 (1.7 to 1.7)	2.3 (2.2 to 2.3)	2.6 (2.6 to 2.7)	1.3% (1.2 to 1.3)	1.1% (0.9 to 1.2)
Occupational exposure to formaldehyde	0.8 (0.7 to 0.8)	0.9 (0.9 to 1.0)	1.0 (0.9 to 1.0)	0.7% (0.6 to 0.8)	0.4% (0.1 to 0.6)
Occupational exposure to nickel	0.4 (0.1 to 1.3)	0.5 (0.1 to 1.3)	0.5 (0.1 to 1.3)	0.2% (0.0 to 0.7)	0.1% (-0.2 to 0.5)
Occupational exposure to polycyclic aromatic hydrocarbons	0.7 (0.7 to 0.7)	0.9 (0.9 to 1.0)	1.0 (1.0 to 1.0)	1.0% (0.9 to 1.0)	0.7% (0.4 to 0.9)
Occupational exposure to silica	4.1 (1.7 to 9.8)	4.4 (2.1 to 10.0)	4.6 (2.2 to 10.3)	0.3% (0.1 to 0.7)	0.3% (0.1 to 0.5)
Occupational exposure to sulphuric acid	1.0 (0.6 to 2.0)	1.0 (0.7 to 2.0)	1.0 (0.7 to 2.0)	0.2% (0.0 to 0.4)	0.0% (-0.2 to 0.2)
Occupational exposure to trichloroethylene	0.2 (0.2 to 0.2)	0.3 (0.3 to 0.3)	0.3 (0.3 to 0.3)	1.0% (0.9 to 1.1)	0.7% (0.5 to 0.9)
Occupational asthmagens	17.9 (15.4 to 20.9)	18.1 (15.6 to 21.1)	17.7 (15.5 to 20.6)	0.0% (-0.2 to 0.1)	-0.2% (-0.5 to 0.1)
Occupational particulate matter, gases, and fumes	12.3 (0.0 to 73.5)	12.3 (0.0 to 72.0)	11.6 (0.0 to 69.0)	-0.2% (-0.3 to 0.0)	-0.4% (-0.6 to 0.0)
Occupational noise	10.6 (10.2 to 11.2)	10.9 (10.5 to 11.4)	10.7 (10.3 to 11.2)	0.0% (0.0 to 0.0)	-0.2% (-0.2 to -0.1)
Occupational injuries	NA	NA	NA	NA	NA
Occupational ergonomic factors	40.2 (0.0 to 79.6)	39.8 (0.0 to 81.9)	38.2 (0.0 to 82.1)	-0.2% (-0.3 to 0.1)	-0.3% (-0.6 to 0.0)
Behavioural risks	20.2 (16.7 to 22.4)	18.9 (15.9 to 20.9)	17.8 (14.6 to 19.8)	-0.4% (-0.6 to -0.2)	-0.4% (-0.7 to -0.2)
Child and maternal malnutrition	8.8 (4.5 to 14.7)	8.6 (4.5 to 14.3)	8.4 (4.2 to 13.8)	-0.1% (-0.4 to 0.2)	-0.2% (-0.6 to 0.2)
Suboptimal breastfeeding	38.7 (35.3 to 42.9)	33.9 (30.8 to 37.8)	32.3 (29.3 to 35.7)	-0.6% (-0.6 to -0.5)	-0.4% (-0.5 to -0.2)
Non-exclusive breastfeeding	43.7 (30.9 to 58.5)	38.8 (27.6 to 52.4)	35.7 (26.0 to 47.5)	-0.6% (-0.7 to -0.5)	-0.6% (-0.8 to -0.4)
Discontinued breastfeeding	41.8 (40.5 to 43.1)	36.0 (35.1 to 37.0)	34.9 (33.7 to 36.1)	-0.5% (-0.6 to -0.5)	-0.2% (-0.4 to -0.1)
Child growth failure	15.9 (10.1 to 23.0)	12.4 (7.9 to 19.0)	9.0 (5.2 to 14.9)	-1.7% (-2.6 to -1.3)	-2.5% (-4.1 to -1.6)
Child underweight	21.6 (17.4 to 25.3)	17.4 (14.1 to 20.7)	13.6 (10.8 to 16.6)	-1.4% (-1.7 to -1.3)	-1.9% (-2.4 to -1.6)
Child wasting	8.3 (5.6 to 10.5)	8.1 (5.5 to 10.1)	7.1 (4.8 to 9.2)	-0.5% (-0.9 to -0.1)	-1.0% (-2.0 to -0.3)
Child stunting	26.7 (23.7 to 28.9)	21.3 (19.1 to 23.2)	16.6 (14.7 to 18.6)	-1.4% (-1.7 to -1.2)	-1.9% (-2.6 to -1.3)
Low birthweight and short gestation	21.6 (19.0 to 24.4)	22.8 (20.1 to 25.8)	22.8 (20.2 to 25.8)	0.2% (0.1 to 0.2)	0.0% (-0.1 to 0.1)
Short gestation	31.2 (27.2 to 35.2)	32.1 (28.2 to 36.6)	31.8 (27.9 to 36.2)	0.1% (0.0 to 0.1)	-0.1% (-0.2 to 0.0)
Low birthweight	17.6 (16.0 to 19.2)	18.5 (16.9 to 20.3)	18.5 (16.9 to 20.2)	0.2% (0.1 to 0.2)	0.0% (-0.1 to 0.1)

(Table 2 continues on next page)

	SEV, 1990	SEV, 2010	SEV, 2023	Annualised rate of change, 1990–2023	Annualised rate of change, 2010–23
(Continued from previous page)					
Iron deficiency	8.5 (5.9 to 11.5)	7.9 (6.0 to 10.2)	7.3 (5.6 to 9.5)	-0.5% (-1.4 to 0.6)	-0.6% (-1.9 to 0.8)
Vitamin A deficiency	21.9 (0.0 to 38.6)	15.0 (0.0 to 22.9)	8.5 (0.0 to 13.7)	-2.9% (-3.9 to 0.0)	-4.4% (-5.5 to 0.0)
Zinc deficiency	26.4 (0.0 to 41.4)	22.3 (0.0 to 35.2)	18.5 (0.0 to 29.9)	-1.1% (-1.7 to 0.0)	-1.4% (-2.5 to 0.0)
Tobacco use	28.7 (26.8 to 30.8)	24.0 (22.7 to 25.4)	20.9 (19.6 to 22.6)	-1.0% (-1.2 to -0.6)	-1.1% (-1.6 to -0.5)
Smoking	23.4 (20.8 to 26.1)	19.2 (17.6 to 20.8)	16.2 (14.9 to 17.7)	-1.1% (-1.5 to -0.7)	-1.3% (-2.1 to -0.5)
Chewing tobacco	4.1 (2.3 to 6.8)	4.4 (3.3 to 5.9)	3.8 (2.5 to 5.8)	-0.3% (-2.1 to 1.7)	-1.1% (-4.1 to 1.9)
Second-hand smoke	43.6 (40.1 to 47.1)	37.7 (34.8 to 40.7)	33.9 (30.5 to 37.7)	-0.8% (-1.2 to -0.3)	-0.8% (-1.5 to -0.1)
High alcohol use	6.8 (4.9 to 9.5)	6.3 (4.7 to 8.6)	5.7 (4.3 to 7.8)	-0.5% (-1.0 to -0.1)	-0.8% (-1.3 to -0.2)
Drug use	0.6 (0.5 to 0.7)	0.6 (0.4 to 0.8)	0.7 (0.4 to 1.2)	0.7% (-0.4 to 1.5)	1.9% (0.5 to 2.6)
Dietary risks	39.9 (31.2 to 47.2)	38.6 (30.3 to 45.6)	38.4 (28.9 to 45.3)	-0.1% (-0.5 to 0.3)	0.0% (-0.7 to 0.6)
Diet low in fruits	42.9 (34.2 to 49.5)	40.7 (32.9 to 45.0)	40.5 (33.7 to 46.6)	-0.2% (-0.7 to 0.5)	0.0% (-1.1 to 0.8)
Diet low in vegetables	28.9 (17.0 to 36.5)	26.4 (16.0 to 31.4)	26.1 (15.2 to 31.9)	-0.3% (-1.1 to 0.4)	-0.1% (-1.5 to 1.2)
Diet low in legumes	50.9 (0.0 to 67.0)	43.8 (0.0 to 58.7)	42.2 (0.0 to 58.7)	-0.6% (-1.5 to 0.4)	-0.3% (-2.3 to 1.7)
Diet low in wholegrains	40.3 (31.2 to 50.6)	40.1 (31.9 to 49.9)	40.5 (30.9 to 51.4)	0.0% (-0.9 to 1.0)	0.1% (-1.7 to 1.6)
Diet low in nuts and seeds	56.7 (47.3 to 67.3)	45.3 (37.6 to 52.1)	42.0 (31.5 to 53.0)	-0.9% (-1.9 to 0.0)	-0.6% (-2.4 to 1.0)
Diet low in milk	63.1 (58.1 to 72.8)	65.0 (62.0 to 74.3)	65.1 (61.5 to 74.1)	0.1% (-0.2 to 0.3)	0.0% (-0.3 to 0.3)
Diet high in red meat	26.1 (0.0 to 39.6)	26.3 (0.0 to 38.9)	26.7 (0.0 to 40.4)	0.1% (-0.7 to 1.1)	0.1% (-1.7 to 2.0)
Diet high in processed meat	13.0 (9.1 to 17.6)	13.0 (10.5 to 15.7)	13.7 (10.8 to 17.1)	0.2% (-0.9 to 1.1)	0.4% (-1.9 to 2.4)
Diet high in sugar-sweetened beverages	10.2 (4.3 to 18.3)	13.6 (10.3 to 17.7)	16.7 (11.9 to 23.4)	1.5% (-0.4 to 4.3)	1.6% (-1.4 to 5.0)
Diet low in fibre	30.8 (16.7 to 47.5)	25.1 (14.0 to 41.1)	20.7 (9.3 to 35.2)	-1.2% (-3.7 to 1.1)	-1.5% (-5.3 to 1.7)
Diet low in calcium	28.1 (24.1 to 38.1)	22.8 (19.4 to 29.3)	20.3 (17.1 to 26.8)	-1.0% (-1.6 to -0.4)	-0.9% (-1.9 to 0.1)
Diet low in seafood omega-3 fatty acids	44.7 (31.8 to 56.1)	35.0 (21.6 to 46.9)	28.9 (15.4 to 42.9)	-1.3% (-2.9 to 0.1)	-1.5% (-5.2 to 1.1)
Diet low in omega-6 polyunsaturated fatty acids	69.1 (41.2 to 82.8)	61.4 (35.7 to 75.9)	57.8 (34.3 to 73.4)	-0.5% (-1.0 to -0.1)	-0.5% (-1.5 to 0.4)
Diet high in trans fatty acids	47.7 (32.6 to 61.1)	41.9 (29.3 to 54.4)	29.5 (19.8 to 40.2)	-1.5% (-2.8 to 0.0)	-2.7% (-5.6 to 0.6)
Diet high in sodium	41.3 (18.2 to 66.5)	42.0 (19.3 to 69.2)	41.1 (16.6 to 67.2)	0.0% (-1.4 to 1.4)	-0.2% (-2.5 to 1.9)
Intimate partner violence	18.3 (8.4 to 32.5)	17.6 (9.9 to 23.7)	17.4 (11.1 to 21.6)	-0.2% (-1.5 to 1.5)	-0.1% (-1.8 to 1.8)
Sexual violence against children and bullying	12.2 (6.6 to 20.4)	12.6 (7.8 to 18.6)	12.2 (7.5 to 18.0)	0.0% (-1.4 to 1.4)	-0.2% (-2.2 to 1.7)
Sexual violence against children	14.6 (6.9 to 25.0)	14.6 (8.0 to 22.5)	14.7 (8.6 to 22.4)	0.0% (-1.6 to 1.7)	0.0% (-2.2 to 2.4)
Bullying victimisation	5.5 (2.5 to 10.5)	6.3 (3.0 to 11.9)	5.0 (2.5 to 9.2)	-0.3% (-0.7 to 0.2)	-1.9% (-2.6 to -1.0)
Unsafe sex	NA	NA	NA	NA	NA
Low physical activity	16.8 (14.0 to 19.5)	17.3 (14.5 to 20.3)	18.5 (15.6 to 21.5)	0.3% (0.1 to 0.5)	0.5% (0.2 to 0.8)
Metabolic risks	14.3 (12.5 to 16.9)	17.5 (15.9 to 19.2)	20.3 (18.3 to 22.4)	1.0% (0.6 to 1.6)	1.1% (0.3 to 2.0)
High fasting plasma glucose	14.4 (9.5 to 22.9)	15.3 (11.8 to 22.3)	17.6 (13.0 to 24.8)	0.6% (-0.9 to 2.2)	1.0% (-1.2 to 3.3)
High LDL cholesterol	44.6 (35.9 to 54.4)	43.5 (35.8 to 53.2)	44.2 (35.8 to 54.4)	0.0% (-0.8 to 0.7)	0.1% (-1.0 to 1.3)
High systolic blood pressure	27.3 (15.9 to 42.4)	28.4 (22.3 to 36.7)	30.3 (25.0 to 36.0)	0.3% (-1.0 to 1.7)	0.5% (-1.3 to 2.1)
High BMI	13.2 (11.1 to 15.6)	17.2 (15.6 to 18.7)	20.4 (18.6 to 22.5)	1.3% (0.8 to 1.9)	1.3% (0.5 to 2.2)
Low bone mineral density	22.7 (17.3 to 29.3)	21.6 (16.3 to 28.1)	21.1 (16.0 to 27.7)	-0.2% (-0.3 to -0.2)	-0.2% (-0.3 to 0.0)
Kidney dysfunction	2.9 (1.9 to 4.9)	2.9 (1.9 to 4.8)	2.9 (2.0 to 4.9)	0.0% (-0.1 to 0.1)	0.1% (0.1 to 0.2)

Data in parentheses are 95% uncertainty intervals. NA is given to indicate risk factors for which SEVs are not calculated because a direct PAF approach is used—ie, PAFs are calculated directly from the disease rather than generated with the standard set of analytical processes. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. NA=not applicable. PAF=population attributable fraction. SEV=summary exposure value.

Table 2: Global age-standardised SEVs in 1990, 2010, and 2023, and annualised rate of change over 1990–2023 and 2010–23, by GBD risk factor

Age-standardised DALY rates for CMNN diseases decreased between 2010 and 2023 in all SDI quintiles, ranging from a decrease of 34.9% (31.6–38.0) in the low SDI quintile to a decrease of 13.0% (7.2–17.8) in the high SDI quintile. Age-specific DALY rates for CMNN diseases were higher in females than in males in age groups younger than 45 years, and markedly higher among males than females in age groups 45 years and older (figure 4).

Age-standardised DALY rates for injuries in males in 2023 ranged from 4271.2 (95% UI 3792.2–4896.0) per 100 000 in the high SDI quintile to 6401.8 (5445.7–7262.9) per 100 000 in the low SDI quintile. In females, age-standardised DALY rates ranged from 2042.6 (1759.3–2331.2) per 100 000 in the middle SDI quintile to 3381.1 (2789.3–3977.4) per 100 000 in the low SDI quintile (GBD 2023 Results Tool and GBD Compare).

Age-standardised DALY rates for injuries decreased between 2010 and 2023 in all SDI quintiles, ranging from a decrease of 13.5% (10.2–16.1) in the high SDI quintile to a decrease of 20.2% (15.7–23.6) in the high-middle SDI quintile. Across all SDI quintiles, DALY rates for injuries emerged 0–6 days after birth, declined between the age groups of 7–27 days after birth and 5–9 years, and increased with age thereafter. For age 15 years and older, DALY rates for injuries in males remained relatively stable with increasing age, except after about the age of 70 years, when it increased; for females, rates increased steadily with age after 40 years (figure 4).

Drivers of changes in DALYs by location are further illustrated in figure 5, which shows the ten leading level 3 causes of DALYs in 2023 and their annualised rate of change (ARC) between 2010 and 2023 by region, super-region, and SDI quintile. In the low SDI quintile, six of the ten leading level 3 causes of DALYs were CMNN diseases, led by neonatal disorders (92.6 million [95% UI 85.7–100] DALYs), lower respiratory infections (48.1 million [40.2–58.0]), and malaria (41.9 million [17.5–77.3]; GBD 2023 Results Tool). As SDI increased, more NCDs emerged in the top ten leading causes of DALYs (figure 5). In the high SDI quintile, nine of the ten leading level 3 causes of DALYs were NCDs, with the top three causes in total DALYs being ischaemic heart disease (71.0 million [65.7–74.8] DALYs), stroke (49.7 million [45.2–53.2]), and falls (33.1 million [25.6–43.2]). The largest changes in age-standardised DALY rates for ischaemic heart disease between 2010 and 2023 ranged from a non-significant increase of 7.7% (–13.7 to 30.3) in low SDI locations to a decrease of 25.5% (22.9 to 28.1) in high SDI locations (GBD 2023 Results Tool).

The leading level 3 causes of age-standardised DALY rates by location in 2023 are shown in appendix 3 (figure S1). Ischaemic heart disease was the leading cause of age-standardised DALY rates in 73 (35.8%) of 204 countries and territories. COVID-19 was not a leading cause of global DALYs in 2023. In sub-Saharan Africa, neonatal disorders, HIV/AIDS, malaria, and lower respiratory infections were the leading level 3 causes of burden in 27 countries in western and eastern sub-Saharan Africa, with HIV/AIDS leading in all continental countries in central sub-Saharan Africa, bar DR Congo and the Central African Republic. Ischaemic heart disease was the leading cause of burden in ten countries and territories in north Africa and the Middle East, five countries and territories in western Europe, and six countries and territories in central Asia. Stroke was the most burdensome cause in most locations in east Asia (appendix 3 figure S1).

Trends in exposure to risk factors, 2010–23

At level 1 of the risk factor hierarchy (appendix 2 table S15), age-standardised SEVs grew between 2010 and 2023 only for metabolic risks, with an increasing

mean ARC of 1.1% (95% UI 0.3–2.0; table 2). Conversely, there were small but significant decreases in SEVs for environmental and occupational risks and for behavioural risks, with ARC decreases of 0.8% (0.5–1.1) and 0.4% (0.2–0.7), respectively. Among specific level 2 risk factors, exposure increased significantly between 2010 and 2023 only for high BMI (ARC 1.3% [0.5–2.2]), kidney dysfunction (0.1% [0.1–0.2]), drug use (1.9% [0.5–2.6]), and low physical activity (0.5% [0.2–0.8]). Level 2 risk factors that showed significant declines in

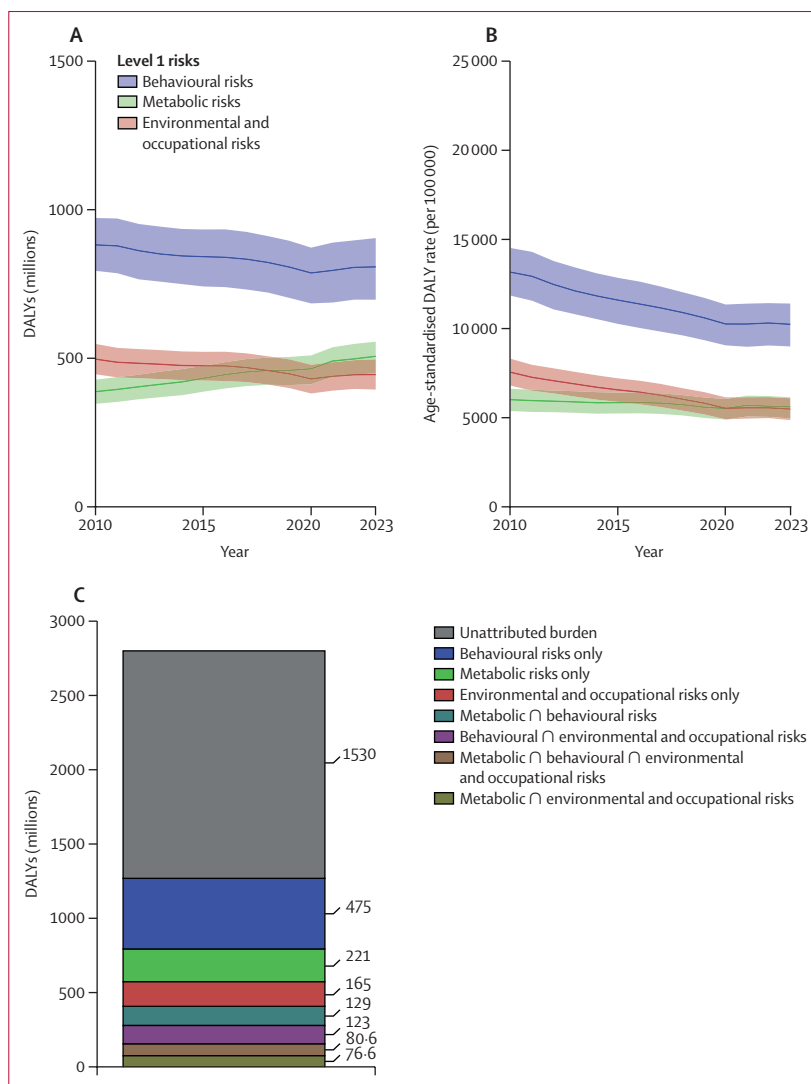


Figure 6: Global DALYs attributable to GBD level 1 risk factors

(A) Global DALY counts attributable to level 1 risks, 2010–23. (B) Age-standardised DALY rates attributable to level 1 risks, 2010–23. (C) Global total DALY counts unattributed or attributable to level 1 risk factors, 2023. Mean estimates by level 1 risk factor in panels A and B are represented by coloured lines; the shading indicates 95% uncertainty intervals. For panel C, ∩ refers to a burden that is attributed to two or all three level 1 risk factors (ie, the intersecting set of DALYs that belong to both or all three risk factors). Mean estimates in panels A and B are aggregated to include all DALYs attributable exclusively to the specific level 1 risk factor plus those attributable to the intersection of that risk and one or both of the other level 1 risk factors (ie, for a single year, the DALY counts combined across the three lines sum to more than the total number of attributable DALYs for that year). In GBD 2023, 45.6% of total global DALYs were attributable to risk factors (appendix 3 table S13). DALY=disability-adjusted life-year. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

SEVs between 2010 and 2023 included unsafe water, sanitation, and handwashing, with a decreasing ARC of 1.4% (0.3–2.6), air pollution (decrease of 1.4% [1.2–1.7]), and tobacco use (decrease of 1.1% [0.5–1.6]). Results at more disaggregated levels of the risk factor hierarchy reveal that SEVs for some components of air pollution decreased, with household air pollution from solid fuels declining at an ARC of 3.2% (2.5–3.7), while exposure to ambient particulate matter and ambient ozone pollution increased, rising by 1.2% (0.9–1.5) and 1.3% (1.1–1.4), respectively. Age-standardised SEVs and percentage change over time by risk factor and sex are provided in appendix 3 (table S15).

Risk-attributable DALYs by age, sex, and location

For level 1 risks, attributable global disease burden measured in DALY counts was highest in 2023 for

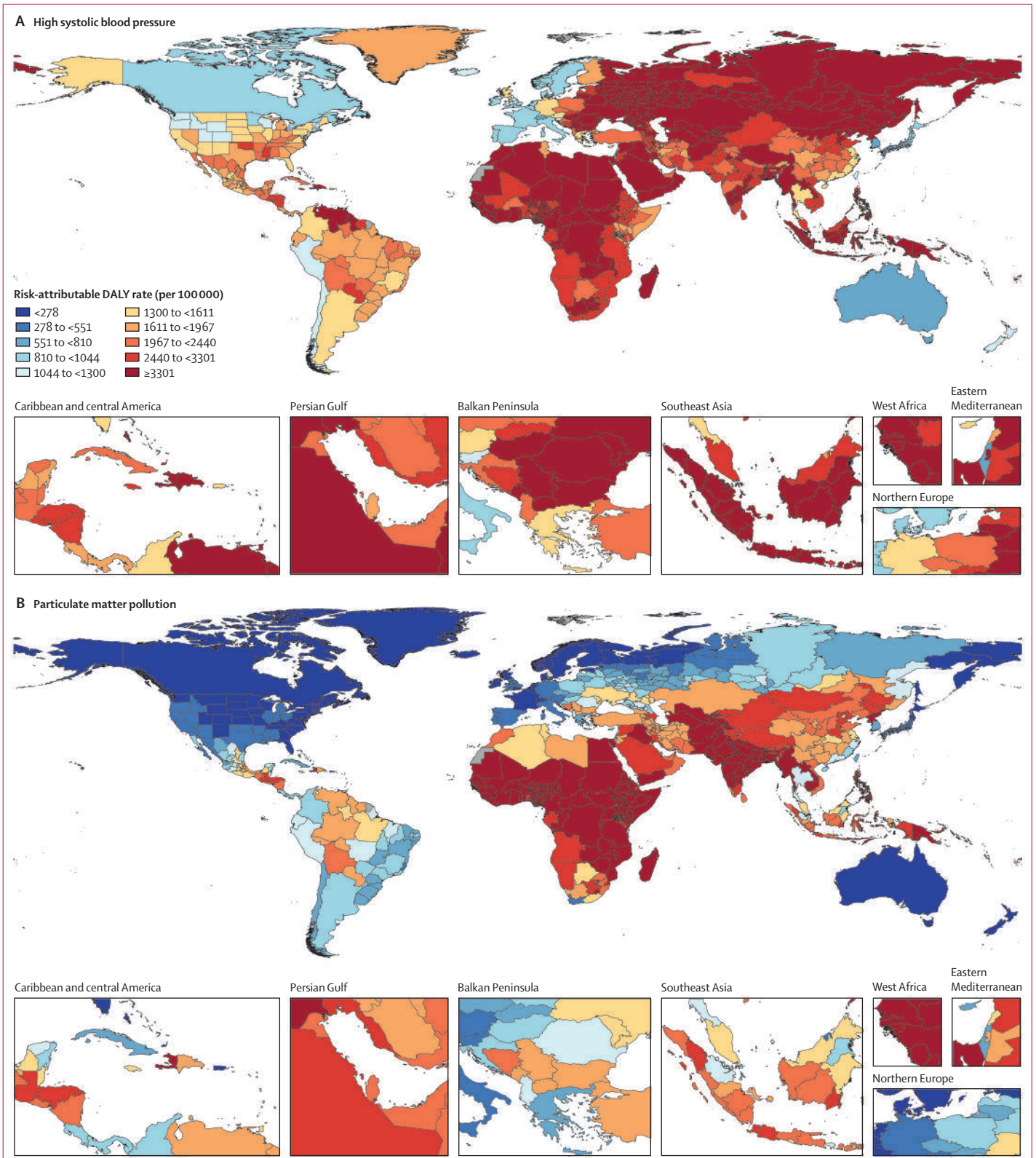
behavioural risk factors (808 million [95% UI 697–905] attributable DALYs or 28.9% [25.1–32.0] of 2.80 billion total DALYs in 2023), followed by metabolic risks (507 million [449–556] or 18.1% [16.6–19.7]) and then environmental and occupational risks (445 million [395–496] or 16.0% [14.1–18.0]; figure 6). In aggregate, 1.27 billion (1.18–1.38) global DALYs (45.5% [43.4–47.8] of 2.80 billion total DALYs in 2023) were attributable to all 88 GBD 2023 risk factors combined (appendix 3 table S13). Further disaggregation of risk-attributable burden estimates showed that when ranked by percentage of total DALYs, high SBP was the leading level 3 risk globally in 2023 (8.4% [6.9–10.0] of total DALYs; figure 7; see appendix 3 table S13 for DALYs by outcome). Particulate matter pollution (encompassing both ambient and household air pollution) was the second leading risk (8.2% [6.7–9.7] of total DALYs),

Leading risks, 2010	Percentage of total DALYs, 2010	Leading risks, 2023	95% UI for ranking	Percentage of total DALYs, 2023	Percentage change in DALYs, 2010–23	Percentage change in age-standardised DALY rate, 2010–23
1 Particulate matter pollution	9.3% (7.8 to 10.9)	1 High systolic blood pressure	1 to 2	8.4% (6.9 to 10.0)	21.8% (10.3 to 35.4)	-14.7% (-22.5 to -5.4)
2 Low birthweight and short gestation	7.3% (6.8 to 7.9)	2 Particulate matter pollution	1 to 2	8.2% (6.7 to 9.7)	-7.1% (-12.3 to -0.8)	-24.9% (-28.6 to -20.9)
3 High systolic blood pressure	7.3% (6.0 to 8.5)	3 Smoking	3 to 6	5.8% (4.8 to 7.1)	3.8% (-7.1 to 15.9)	-25.1% (-33.0 to -16.4)
4 Child growth failure	6.0% (4.1 to 7.5)	4 High fasting plasma glucose	3 to 5	5.8% (5.2 to 6.5)	49.1% (37.0 to 62.3)	6.2% (-2.7 to 15.6)
5 Smoking	5.9% (4.9 to 7.1)	5 Low birthweight and short gestation	3 to 6	5.2% (4.7 to 5.7)	-24.5% (-28.8 to -20.3)	-19.4% (-24.1 to -14.8)
6 High fasting plasma glucose	4.1% (3.7 to 4.7)	6 High BMI	3 to 10	4.9% (2.5 to 7.0)	51.1% (37.4 to 65.1)	10.5% (0.1 to 20.9)
7 High BMI	3.4% (1.7 to 5.1)	7 Kidney dysfunction	6 to 10	3.3% (2.8 to 3.8)	30.3% (20.8 to 38.9)	-6.4% (-13.2 to -0.4)
8 High LDL cholesterol	2.9% (1.8 to 4.0)	8 High LDL cholesterol	6 to 11	3.2% (2.1 to 4.5)	18.7% (6.0 to 32.7)	-14.2% (-23.7 to -3.7)
9 Unsafe water source	2.9% (1.5 to 3.9)	9 Child growth failure	6 to 13	3.0% (1.8 to 3.9)	-46.7% (-54.9 to -39.5)	-44.9% (-53.5 to -37.3)
10 Kidney dysfunction	2.7% (2.3 to 3.0)	10 Lead exposure	8 to 12	2.6% (1.9 to 3.3)	20.9% (11.9 to 29.1)	-14.6% (-20.7 to -8.5)
11 Unsafe sex	2.3% (2.1 to 2.6)	11 High alcohol use	10 to 15	2.0% (1.7 to 2.5)	-2.4% (-7.5 to 3.4)	-22.4% (-26.8 to -18.2)
12 Unsafe sanitation	2.3% (1.8 to 3.0)	12 Unsafe sex	11 to 16	1.8% (1.6 to 2.1)	-17.1% (-24.8 to -10.1)	-30.3% (-36.7 to -24.3)
13 Lead exposure	2.3% (1.7 to 2.9)	13 Diet low in fruits	10 to 24	1.7% (0.6 to 2.7)	22.0% (4.3 to 46.4)	-10.3% (-23.4 to 6.9)
14 High alcohol use	2.2% (1.9 to 2.7)	14 Second-hand smoke	11 to 19	1.6% (1.3 to 2.0)	2.0% (-8.9 to 13.8)	-22.6% (-31.1 to -13.7)
15 Occupational injuries	1.8% (1.6 to 2.0)	15 Occupational injuries	14 to 19	1.5% (1.3 to 1.7)	-13.6% (-23.0 to -4.2)	-24.6% (-32.8 to -16.2)
16 Second-hand smoke	1.7% (1.3 to 2.1)	16 Iron deficiency	11 to 22	1.5% (1.0 to 2.1)	-0.7% (-22.1 to 26.1)	-11.2% (-29.9 to 12.6)
17 Iron deficiency	1.6% (1.1 to 2.2)	17 Unsafe water source	12 to 28	1.4% (0.7 to 2.0)	-47.2% (-60.5 to -30.2)	-50.5% (-63.1 to -33.3)
18 No access to handwashing facility	1.6% (-0.3 to 3.3)	18 Diet high in sodium	8 to 41	1.4% (0.2 to 3.3)	17.0% (-32.3 to 76.2)	-17.4% (-52.0 to 25.5)
19 Diet low in fruits	1.5% (0.5 to 2.3)	19 Sexual violence against children	13 to 31	1.1% (0.6 to 1.9)	14.7% (-16.7 to 54.4)	-2.7% (-29.2 to 30.7)
20 Diet high in sodium	1.2% (0.2 to 2.9)	20 Diet low in wholegrains	14 to 30	1.1% (0.5 to 1.8)	21.7% (-9.1 to 61.4)	-11.4% (-33.6 to 17.5)
21 Sexual violence against children	1.1% (0.6 to 1.7)	21 Drug use	17 to 26	1.1% (0.9 to 1.2)	28.2% (21.5 to 36.1)	8.4% (2.6 to 15.3)
22 Diet low in wholegrains	1.0% (0.4 to 1.6)	22 Unsafe sanitation	17 to 27	1.1% (0.8 to 1.4)	-51.8% (-62.8 to -36.0)	-54.4% (-65.3 to -38.7)
23 Drug use	0.9% (0.8 to 1.0)	23 Low bone mineral density	20 to 30	0.9% (0.7 to 1.0)	31.7% (26.4 to 37.7)	-6.3% (-9.9 to -2.1)
24 Low temperature	0.8% (0.7 to 1.0)	24 No access to handwashing facility	12 to 53	0.8% (-0.3 to 1.9)	-43.3% (-70.3 to -23.1)	-45.2% (-72.0 to -25.6)
25 High temperature	0.8% (0.6 to 1.0)	25 Diet low in vegetables	19 to 31	0.8% (0.4 to 1.3)	23.9% (-0.5 to 52.6)	-10.0% (-27.8 to 10.6)
28 Diet low in vegetables	0.7% (0.4 to 1.1)	26 Low temperature	21 to 30	0.8% (0.7 to 1.0)	4.5% (-3.2 to 13.8)	-28.5% (-33.3 to -23.6)
29 Low bone mineral density	0.7% (0.6 to 0.8)	29 High temperature	24 to 35	0.6% (0.5 to 0.8)	-17.3% (-31.7 to -1.5)	-31.0% (-42.4 to -19.0)

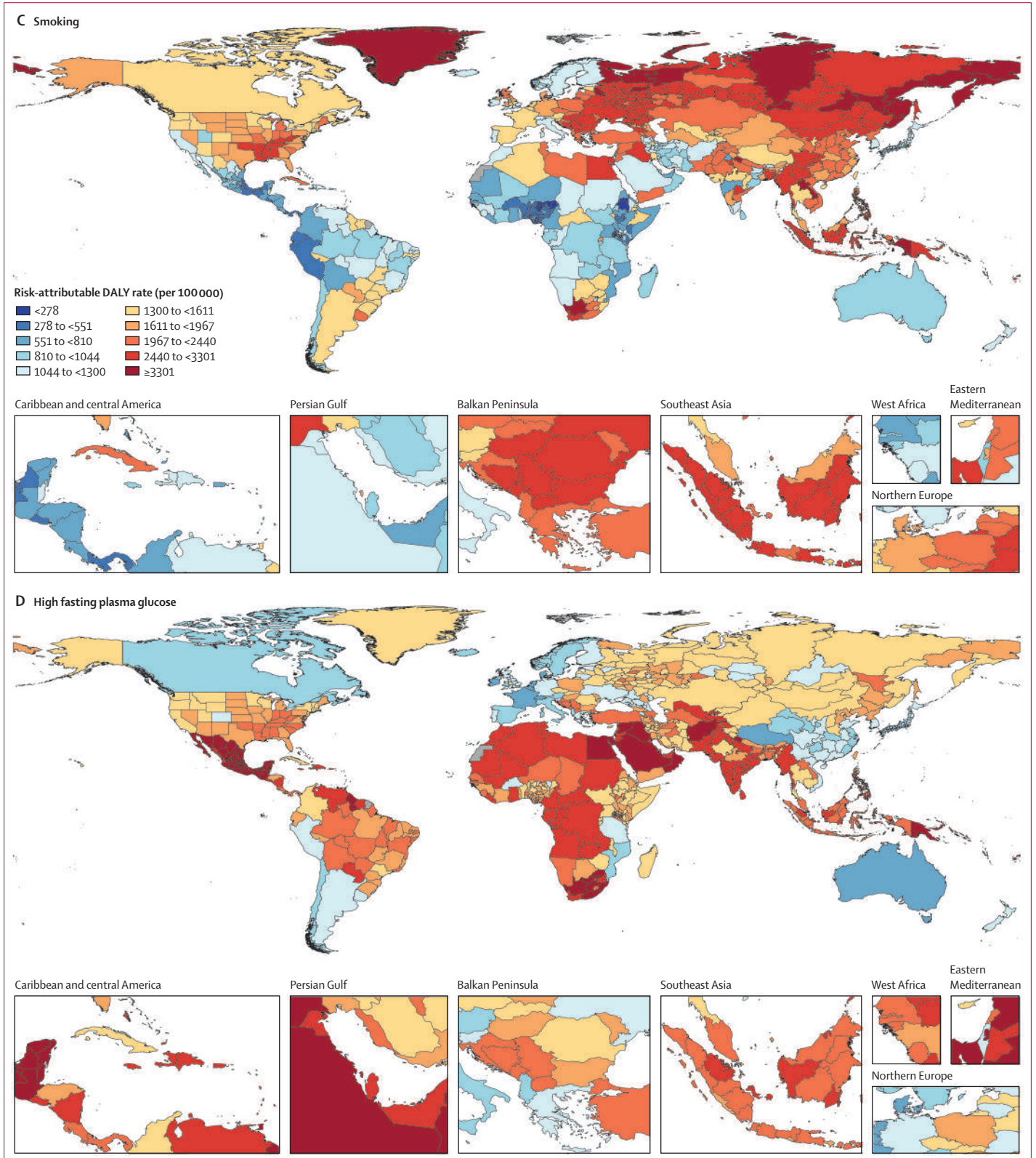
Environmental and occupational risks Behavioural risks Metabolic risks

Figure 7: Leading 25 GBD level 3 risk factors by attributable DALYs as a percentage of total DALY counts (2010 and 2023), and percentage change in attributable DALY counts and age-standardised DALY rates from 2010 to 2023

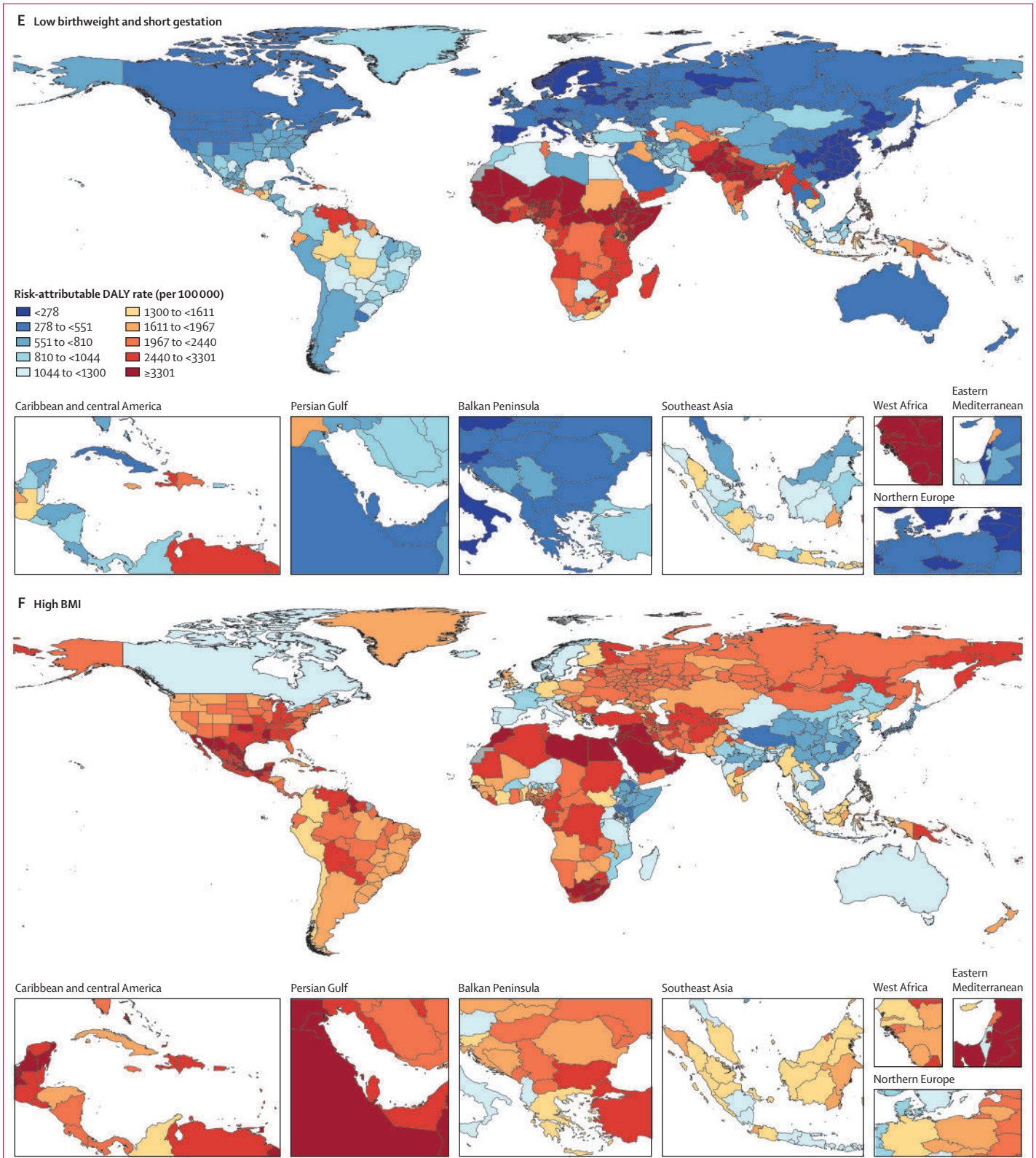
Each column displays the top 25 risks in descending order for the specified year. Risk factors are connected by lines between time periods; solid lines represent an increase or lateral shift in ranking, and dashed lines represent a decrease in rank. Faded colours indicate that the cause is not within the top 25 causes of DALYs for that year. Data in parentheses are 95% UIs. DALY=disability-adjusted life-year. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. UI=uncertainty interval.



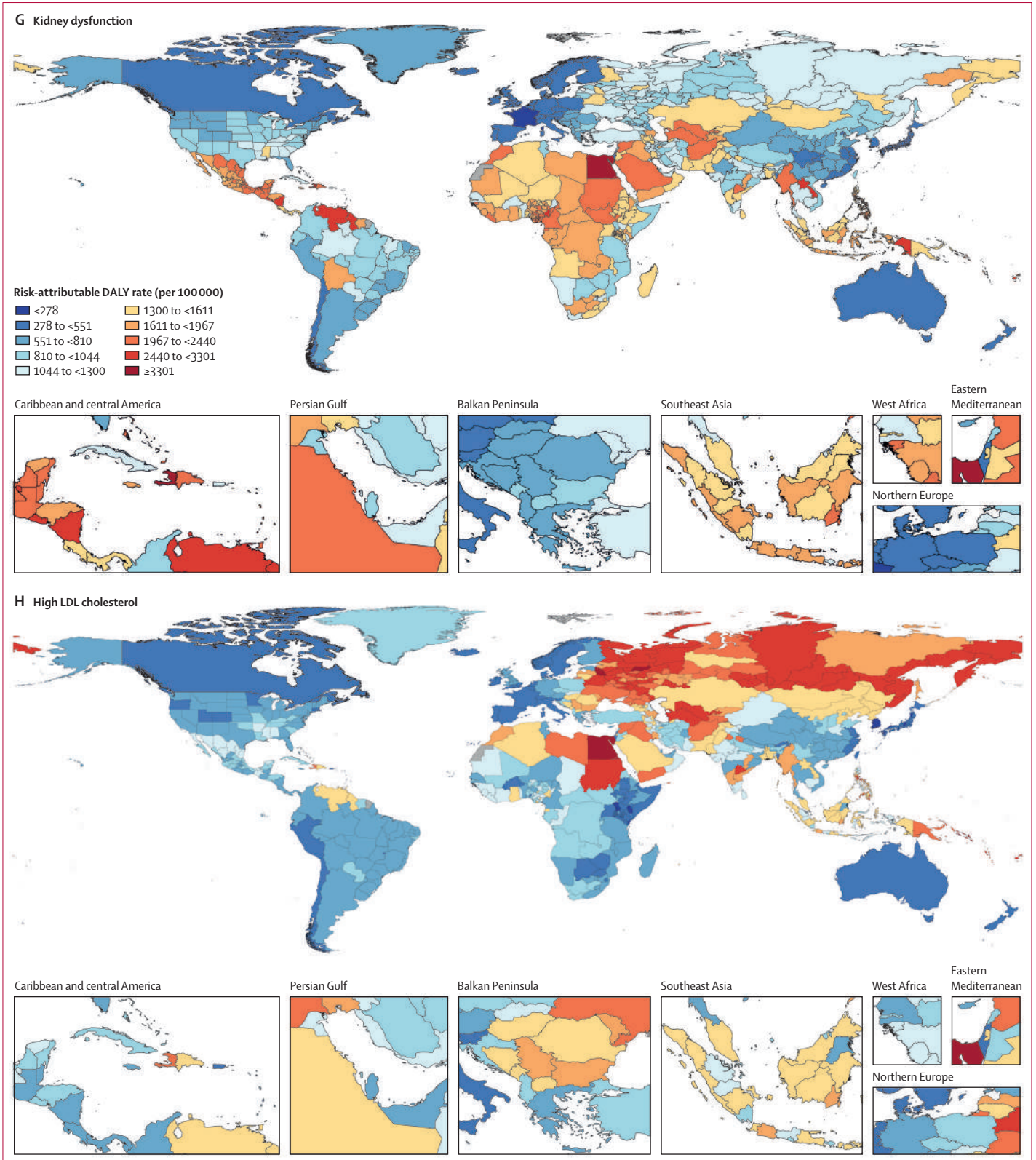
(Figure 8 continues on next page)



(Figure 8 continues on next page)



(Figure 8 continues on next page)



(Figure 8 continues on next page)

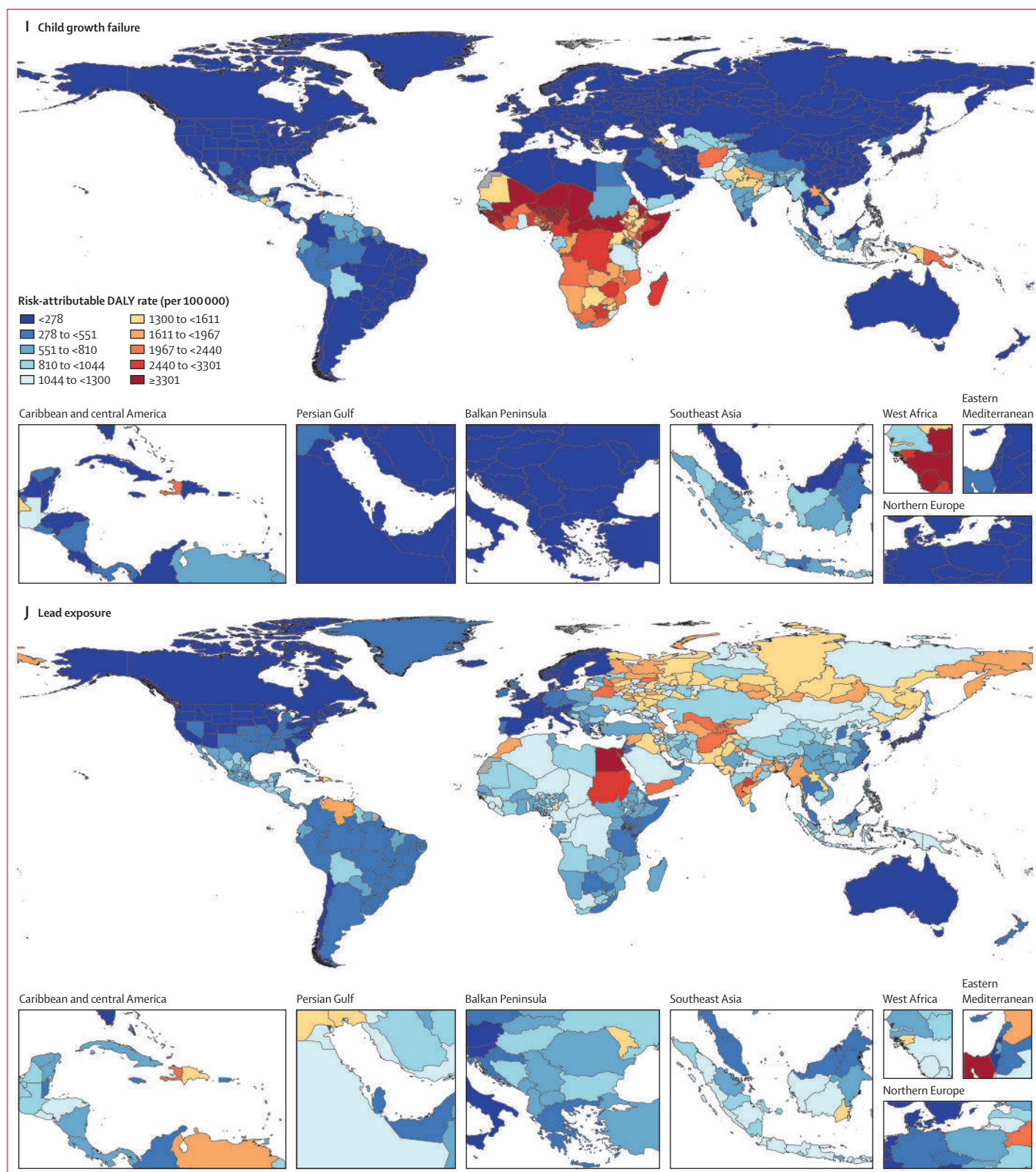


Figure 8: Age-standardised DALY rate attributable to the ten leading GBD level 3 risk factors, ranked by percentage of total DALY counts, by location, 2023. High systolic blood pressure (A), particulate matter pollution (B), smoking (C), high fasting plasma glucose (D), low birthweight and short gestation (E), high BMI (F), high LDL cholesterol (G), kidney dysfunction (H) child growth failure (I), and lead exposure (J). Dotted lines indicate disputed territories. DALY=disability-adjusted life-year. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

smoking ranked third (5.8% [4.8–7.1]), high FPG ranked fourth 5.8% [5.2–6.5]), and low birthweight and short gestation ranked fifth (5.2% [4.7–5.7]). Of the 25 leading level 3 risk factors in 2023, more than half (13) were behavioural risks.

The contribution of level 3 risk factors to global DALYs in 2023 varied by age (appendix 3 figure S2A–E) and sex (appendix 3 figure S2F–G). Among children younger than 5 years, risks related to child and maternal malnutrition, particulate matter pollution, and unsafe water, sanitation, and handwashing were leading level 3 risk factors, with no metabolic risks among the top ten. For children and adolescents aged 5–14 years, iron deficiency was the leading risk, followed by others related to unsafe water, sanitation, and handwashing, and child and maternal malnutrition. For the age group of 15–49 years, the top two risks were unsafe sex and occupational injuries. Metabolic risk factors gained prominence in this group, with high BMI and high SBP the third-ranked and fourth-ranked risks, followed by high alcohol use. For individuals aged 50–69 years, high SBP and smoking were the top risks, with metabolic risks such as high FPG, high BMI, high LDL cholesterol, and kidney dysfunction also prominent. A similar pattern was seen for individuals aged 70 years and older. The top ten risks for all-age females and males were similar, although smoking was the leading risk for males, but the 12th-ranked risk for females. Additionally, high alcohol use was the ninth-ranked risk factor among males, but for females was not among the top 25 risks. By contrast, unsafe sex and iron deficiency were the ninth-ranked and 11th-ranked risks, respectively, for females, but ranked 19th and 23rd for males.

The 2023 disease burden attributable to risk factors varied considerably by geography, as illustrated by the global distribution of age-standardised risk-attributable DALY rates for all GBD risk factors combined (appendix 3 figure S3) and maps of rates attributable to the ten leading global level 3 risks (figure 8; ranked according to percentage of total DALY counts). Age-standardised attributable DALY rates for high SBP, the leading level 3 risk factor in 2023, were highest in the super-regions of north Africa and the Middle East and central Europe, eastern Europe, and central Asia (figure 8A). At a regional level, high SBP was the leading contributor to burden in central Asia (highest in Tajikistan, at 7298.3 [95% UI 5930.8–8496.6] age-standardised DALYs per 100000), Oceania (highest in Nauru, at 12800.7 [10101.2–15840.3] age-standardised DALYs per 100000), north Africa and the Middle East (highest in Egypt, at 8241.6 [6389.3–10311.6] age-standardised DALYs per 100000), eastern Europe (highest in Belarus, at 5604.4 [4514.0–6479.7] age-standardised DALYs per 100000), southeast Asia (highest in Myanmar, at 6429.9 [4736.2–8134.3] age-standardised DALYs per 100000), central sub-Saharan Africa (highest in the Central African Republic, at 4557.5 [3212.2–6066.3] age-standardised DALYs per 100000), and western

sub-Saharan Africa (highest in Guinea-Bissau, at 5541.2 [4302.6–6899.5] age-standardised DALYs per 100000; figure 9; appendix 3 table S13). High SBP was the leading contributor to age-standardised burden in the middle, high-middle, and high SDI quintiles and the second-ranked contributor in the low and low-middle SDI groups (figure 9).

Attributable age-standardised 2023 DALY rates per 100000 for the second leading risk, particulate matter pollution, were highest at the super-region level in south Asia, sub-Saharan Africa, and north Africa and the Middle East (figure 8B), and at the regional level in Oceania (highest in the Solomon Islands, at 10226.8 [95% UI 8375.4–12034.4]), south Asia (highest in Bangladesh, at 6095.0 [5340.3–6971.4]), and central, eastern, and western sub-Saharan Africa (highest in the Central African Republic, at 7933.3 [6052.0–9660.4], South Sudan, at 6524.5 [5025.2–7984.6], and Chad, at 7342.7 [5849.1–8652.9], respectively; figure 9; appendix 3 table S13). Particulate matter pollution was the leading level 3 risk factor in the low and low-middle SDI groups and the second leading risk factor in middle and high-middle SDI groups (figure 9). Smoking, the third leading level 3 contributor to global burden (as measured by percentage of total DALY counts), exhibited the highest age-standardised DALYs per 100000 in central Europe, eastern Europe, and central Asia; southeast Asia, east Asia, and Oceania; north Africa and the Middle East; and south Asia super-regions (figure 8C). At a regional level, smoking was the leading risk in high-income Asia Pacific and western Europe (highest in Brunei, at 1581.3 [1123.5–2185.0] age-standardised DALYs per 100000, and in Monaco, at 2204.1 [1637.0–2880.9] age-standardised DALYs per 100000, respectively; figure 9; appendix 3 table S13). Smoking was the third leading risk in the middle SDI group (figure 9).

Global maps of 2023 age-standardised risk-attributable burden for the fourth to the tenth leading level 3 risk factors—high FPG, low birthweight and short gestation, high BMI, kidney dysfunction, high LDL cholesterol, child growth failure, and lead exposure—are shown in figure 8D–J. Of these risks, high FPG was the leading risk factor at a regional level in central Latin America, and high BMI was the top risk in Australasia, southern Latin America, Andean Latin America, and tropical Latin America (figure 9). Notably, in only two of 21 GBD regions were the leading risk factors not reflected in the top ten level 3 risks globally; these were high-income North America (and correspondingly the high SDI quintile), where drug use was the leading risk, and southern sub-Saharan Africa, where unsafe sex was the top risk (figure 9).

See appendix 3 for detailed estimates related to the attributable burden, including relative risks (table S17) and PAFs (tables S13, S14, S16) used to calculate attributable burden, and attributable burden measured

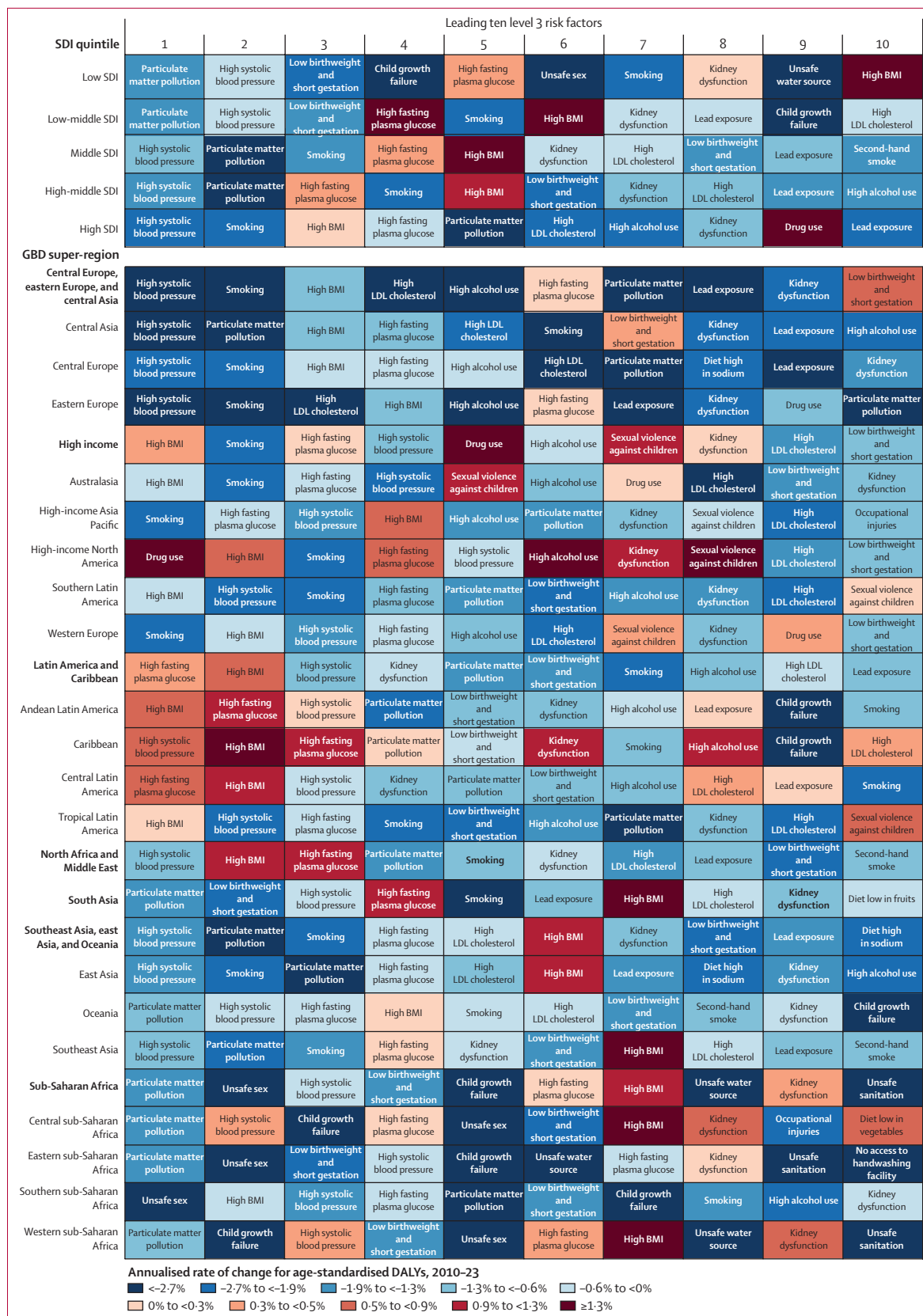


Figure 9: Leading ten GBD level 3 risk factors for 2023 attributable age-standardised DALY rates by SDI quintile, GBD region and super-region, and annualised rate of change between 2010 and 2023

For each region and super-region (in bold) and SDI quintile, level 3 risk factors are ranked by attributable age-standardised DALY rates from left (first) to right (tenth). DALY=disability-adjusted life-year. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. SDI=Socio-demographic Index.

in DALYs (table S13) and attributable deaths (table S14) presented for each risk factor and outcome, across geography and time.

Trends in risk-attributable DALYs, 2010–23

Over the period 2010–23, all-age global DALY counts attributable to behavioural risks declined by 8.4% (95% UI 4.5–13.2), and those attributable to environmental and occupational risks declined by 10.4% (5.3–15.0). Conversely, global counts attributable to metabolic risks increased by 30.7% (24.8–37.3; figure 6; appendix 3 table S13). This seeming contradiction is due largely to the greater impact of metabolic risk factors on increasingly ageing populations, as evidenced by the decrease of 6.7% (2.0–11.0) seen in age-standardised global DALY rates attributable to metabolic risks over the same period. Notably, however, this decline in age-standardised DALY rates for metabolic risk factors was less pronounced than it was for behavioural risks (decline of 22.2% [19.2–25.4]) and environmental and occupational risks (decline of 27.3% [23.4–31.1]; figure 6, appendix 3 table S13). The smaller decline in age-standardised burden attributable to metabolic risks between 2010 and 2023 was due in part to a significant global increase in rates of burden attributable to high BMI, which rose by 10.5% (0.1 to 20.9), and a

non-significant increase in high FPG, which rose by 6.2% (–2.7 to 15.6; figure 7). These increases stand in contrast to declining global age-standardised DALY rates over the same period for all other leading 25 level 3 risk factors except drug use, which rose by 8.4% (2.6–15.3; figure 7). The greatest decreases among the 22 other leading level 3 risk factors were for risks associated with unsafe water, sanitation, and handwashing (declines of 54.4% [38.7–65.3] for unsafe sanitation, 50.5% [33.3–63.1] for unsafe water source, and 45.2% [25.6–72.0] for no access to handwashing facility). Other notable declines in age-standardised DALY rates were seen for child growth failure (decrease of 44.9% [37.3–53.5]), unsafe sex (decrease of 30.3% [24.3–36.7]), smoking (decrease of 25.1% [16.4–33.0]), occupational injuries (decrease of 24.6% [16.2–32.8]), and particulate matter pollution (decrease of 24.9% [20.9–28.6]; figure 7; appendix 3 table S13).

Trends in risk-attributable DALYs by SDI and location, 2010–23

Time trends in risk-attributable burden between 2010 and 2023 varied by both SDI level and location, as reflected in ARCs in age-standardised DALY rates attributable to overarching level 1 risk factors (figure 10). For behavioural risk factors, attributable burden generally

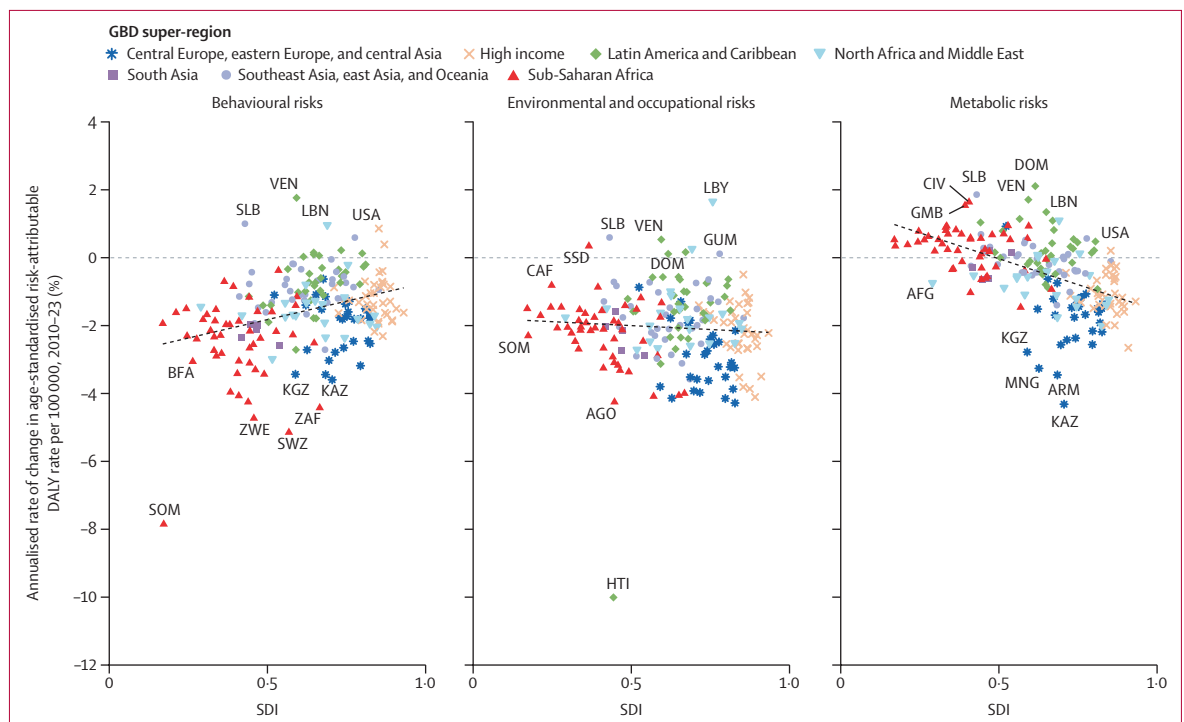


Figure 10: Annualised rate of change in age-standardised risk-attributable DALY rates by GBD level 1 risk, SDI quintile, and country or territory, 2010–23
 The black dashed lines depict the linear regression line. Country and territory points are categorised by GBD super-region. Selected countries and territories are labelled by International Organization for Standardization 3 codes. AFG=Afghanistan. AGO=Angola. ARM=Armenia. BFA=Burkina Faso. CAF=Central African Republic. CAN=Canada. CIV=Côte D’Ivoire. DOM=Dominican Republic. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study. GMB=The Gambia. GUM=Guam. HTI=Haiti. KAZ=Kazakhstan. KGZ=Kyrgyzstan. LBN=Lebanon. LBY=Libya. MNG=Mongolia. NER=Niger. SDI=Socio-demographic Index. SLB=Solomon Islands. SOM=Somalia. SSD=South Sudan. SWZ=Eswatini. VEN=Venezuela. ZAF=South Africa. ZWE=Zimbabwe.

declined over this period at a slower rate in higher than in lower SDI countries and territories. ARCs were negative in most countries, indicating a decline over time in burden attributable to behavioural risks; however, this burden increased over time in some countries, including Venezuela, the Solomon Islands, Lebanon, and the USA, where age-standardised DALYs attributable to behavioural risks rose by 25.9% (95% UI 15.1–36.1), 13.9% (3.8–25.5), 13.4% (2.9–23.0), and 11.9% (7.6–16.1), respectively (appendix 3 table S13). The rise in behavioural risk-attributable burden in the USA—the only country other than Canada in the high-income super-region that showed such an increase—was driven largely by a 124.2% (96.1 to 157.0) increase in age-standardised burden attributable to drug use, in addition to an increase in attributable burden for intimate partner violence (54.7% [5.8 to 99.2]) and non-significant rise in sexual violence against children (33.5% [–8.4 to 59.3]; appendix 3 table S13). In contrast to the overall pattern for behavioural risks, burden attributable to metabolic risks generally declined at a faster rate with increasing SDI. Approximately half as many countries and territories had positive ARCs (75)—indicating increasing burden attributable to metabolic risks—as negative ARCs (129), with age-standardised DALYs increasing in countries such as the Dominican Republic (31.2% [22.1–42.0]), the Solomon Islands (27.1% [13.6–43.2]), Venezuela (24.6% [18.8–31.8]), Côte d'Ivoire (23.5% [8.2–42.3]), and The Gambia (21.9% [6.7–40.7]; appendix 3 table S13). For environmental and occupational risks, there was minimal association between SDI and rate of change in attributable burden, and ARCs were generally negative.

Disaggregating to a more detailed level of the risk factor hierarchy, figure 9 presents ARCs between 2010 and 2023 for age-standardised DALYs attributable to the ten leading level 3 risk factors, stratified by SDI and GBD region. For countries in low and low-middle SDI quintiles, the greatest ARC declines over time were for child growth failure (in addition to unsafe sex and unsafe water source in the low SDI quintile), whereas the greatest increases were for metabolic risks: high BMI and high FPG. Middle, high-middle, and high SDI quintiles saw the greatest declines in burden attributable to particulate matter pollution, with decreasing burden attributable to smoking also common across these groups. As in the lower SDI regions, the greatest increases in attributable burden in middle and high-middle SDI quintiles were for high BMI and high FPG. In the high SDI quintile, the highest annualised rates of increase were for drug use, along with considerably lower rates of increase for high BMI.

With respect to the three leading 2023 level 3 risk factors globally—high SBP, particulate matter pollution, and smoking—annual rates of age-standardised burden attributable to high SBP declined between 2010 and 2023 in 17 of 21 GBD regions, with the highest rates of

decrease in eastern Europe and central Asia (figure 9). Conversely, burden attributable to high SBP increased in the Caribbean and, to a lesser extent, in central and western sub-Saharan Africa. Of the regions in which particulate matter pollution was one of the ten leading risk factors, age-standardised DALYs attributable to particulate matter pollution decreased in nine regions, with the highest rates of decline in eastern Europe, east Asia, and central Europe. Notably, burden attributable to particulate matter pollution rose slightly in Australasia and the Caribbean. Smoking showed attributable burden decreases over time in all regions, with the highest rates of decline in central Asia, eastern Europe, tropical Latin America, and south Asia. Time trends in attributable burden for the third-ranking to the tenth-ranking level 3 risk factors, by region and by SDI, can also be seen in figure 9. Detailed estimates of change over time in attributable DALYs and deaths for each risk factor and outcome—by GBD super-region, region, and country—are available in appendix 3 (table S13).

Discussion

The findings from GBD 2023 highlight the continuing epidemiological transition, with substantial reductions in CMNN disease burden contrasted by a rising burden of NCDs and metabolic risk factors, largely driven by ageing and population growth. Between 2010 and 2023, global age-standardised DALY rates decreased by nearly 13%, despite total DALY counts rising by about 6%. The reduction in CMNN diseases—particularly diarrhoeal diseases, HIV/AIDS, tuberculosis, and malaria, with approximate decreases in age-standardised DALY rates of 49%, 43%, 42%, and 21%, respectively—represents a major global health achievement up to 2023, yet neonatal disorders and lower respiratory infections remain leading causes of burden. NCDs now account for nearly two-thirds of global DALYs, with ischaemic heart disease, stroke, diabetes, and chronic respiratory diseases among the top contributors. Our analysis estimated that about 46% of total 2023 DALYs were attributable to the modifiable risk factors included in GBD 2023, particularly high SBP, particulate matter pollution, and smoking. Notably, age-standardised DALY rates attributable to high BMI, high FPG, and drug use increased, underscoring emerging global health challenges. Although substantial gains in health have been made, these results emphasise the need for risk-factor mitigation and targeted interventions to address the ever-rising burden of NCDs and sustain progress towards reducing the burden of CMNN diseases. Without advances in prevention, early diagnosis, and chronic disease management of NCDs, gains in longevity risk being offset by a rising burden of non-fatal diseases. This underscores the need for health systems and policy makers to prioritise healthy ageing, focusing not only on reducing mortality rates, but also on improving preventive care and disease management.

Moreover, recent budgetary cuts to development assistance are re-ordering the global health system, posing a real and immediate threat to sustaining health gains.^{31,32} The evolving situation demands not only targeted policy responses, but also rigorous, objective, ongoing monitoring.

A hallmark of GBD is the continued emphasis on data-driven estimation and ongoing collection and curation of health data. For this cycle of GBD, we added more than 34 000 new inputs of data for disease and injury burden estimation and about 16 000 new inputs for risk factor analysis. These additions represent surveys newly identified through active data seeking; collaborator feedback; expanded use of already-identified surveys and new phases of existing surveys, such as Multiple Indicator Cluster Surveys, available for the first time in this cycle; updates and revisions to reporting time series; and new systematic reviews to identify the latest data reported in the literature. Data updates not only focus on the new estimate years of 2022 and 2023, but also revisit the past, providing additional datapoints on causes and locations where past surveys are newly accessible, or filling in previous gaps in our database. Although differences remain among locations in the total amount of data accessible, we have successfully accessed data inputs from each of 204 countries and territories, including 660 subnational locations, from every year estimated, and for each cause and risk factor. Data inputs by cause and risk factor are detailed in the GBD 2023 Sources Tool, which allows users to explore the full array of data inputs by metric, by disease, injury, or risk, and by location.

We have seen the epidemiological transition continue despite a global financial crisis and the COVID-19 pandemic. Sociodemographic factors such as poverty, education, employment, and social inequalities continue to shape health outcomes by influencing access to health services, nutritional quality, and the ability to engage in preventive health behaviours. These determinants are particularly relevant with respect to the CMNN diseases, for which—despite progress in reducing mortality from infectious diseases and maternal and neonatal conditions—the burden remains disproportionately high in low and middle SDI countries due to persistent disparities in health-care access, vaccination coverage, and nutrition. This pattern can be seen at large geographical scales, as in the Sahel, the semi-arid expanse that includes countries within the GBD regions of central and western sub-Saharan Africa, and Eritrea. Malnutrition, both under-nutrition and the rising prevalence of obesity, represents a double burden of disease, demanding integrated strategies that address food security, health system strengthening, and social policies that promote health equity.

Addressing the global burden of disease requires focused action on key risk factors, particularly overweight and obesity, which have become major drivers of poor

health outcomes worldwide. Although obesity rates vary across countries,³³ they are rising in nearly all regions,^{34,35} contributing to increased prevalence of diabetes³⁶ and chronic kidney disease.³⁷ Effective solutions must extend beyond individual choices to encompass structural determinants, including food availability and affordability, urban design, and public messaging on the health risks of high BMI. Despite no success in reversing obesity trends at the population level, governments and global health organisations must prioritise comprehensive strategies that promote healthier diets and increased physical activity, beginning with early-life interventions. Ischaemic heart disease, the leading cause of DALYs for both males and females globally, is another high-burden disease that requires a redoubling of efforts. As new approaches and innovative strategies for defining and treating coronary artery disease continue to evolve,³⁸ health policy efforts must prioritise equitable access to prevention, detection, emergency services, and treatment, particularly in under-served and lower-resourced settings. Equitable access to evidence-based treatments should also be part of a broader effort to reduce weight-related disease burden and mortality. For example, a recent study showed that statin therapy was prescribed to less than 10% of eligible individuals for primary prevention of cardiovascular disease in many low-income and middle-income countries.³⁹ Novel therapies, such as GLP-1 receptor agonists, which have demonstrated effectiveness in managing obesity, type 2 diabetes, and cardiovascular risk, remain largely inaccessible outside high-income countries.⁴⁰ There is an urgent need to expand access to established essential medicines, while also improving clinical studies and population-level research for novel treatments globally.^{41,42} Beyond obesity, tackling other major modifiable metabolic and behavioural risk factors—including high SBP, tobacco use, and substance use—is crucial. Although tobacco use has declined in high-income regions, it remains alarmingly high in others. Designed to align with the WHO Framework Convention on Tobacco Control, MPOWER measures⁴³ provide a framework for enacting tobacco control, yet full implementation is needed to accelerate progress. Managing high blood pressure effectively requires widespread access to high-quality primary care, an area in which many health systems still fall short.

Despite substantial declines in exposure due to removal from motor vehicle fuels, lead exposure—recognised since the Roman Empire as a health risk factor^{44,45}—persists as an important contributor to cardiovascular disease burden, especially in central and eastern Europe and central Asia. Although these effects largely reflect accumulated bone lead concentrations driven by past exposure before removal of leaded gasoline, lead remains a ubiquitous environmental contaminant. Efforts to reduce exposure from paint in older houses, contaminated soil, drinking water, battery recycling,

electronic waste, spices, cookware, and other consumer products, combined with surveillance to identify highly exposed populations, should be prioritised. Additionally, evidence continues to accumulate for the scope of NCDs affected by exposure to particulate matter air pollution (PM_{2.5}), a risk factor for the eight leading causes of death globally, including dementia⁴⁶ and type 2 diabetes,⁴⁷ which have rapidly increasing mortality rates.¹⁶ Even low levels of PM_{2.5} have been associated with increased dementia risk,⁴⁸ and more than a sixth of the global burden of type 2 diabetes was attributable to PM_{2.5} in 2023 (GBD 2023 Results Tool). Although the burden associated with one PM_{2.5} risk factor, household air pollution, has declined dramatically except in sub-Saharan Africa,⁴⁹ ambient PM_{2.5} remains the leading global environmental risk factor. It is essential that policy makers align national standards with WHO guidelines and, crucially, develop implementation approaches to reduce exposures and consequent effects on health.⁵⁰ The increasing evidence for the involvement of PM_{2.5} in major diseases suggests an opportunity for future research to help identify individuals at high risk and to inform potential prevention options.

GBD 2023 also highlights the staggering increase in the burden of mental disorders globally, the underlying causes, and even temporal trend, of which remain widely debated.⁵¹ There is convincing evidence that the COVID-19 pandemic resulted in secondary deterioration of mental health, leading to an increase in the prevalence of depressive and anxiety disorders.⁵² Notably, the largest increases in these disorders were estimated to have occurred following the onset of the COVID-19 pandemic. However, there is also convincing evidence that the prevalence of these disorders has been increasing steadily over the past two decades, especially for some locations within the high-income super-region.⁷ There are several competing and complementary theories for this increase, including increases in social media use, cyberbullying, child maltreatment, climate despair, and rising costs of living and income inequality,^{51,53} with expanded mental health awareness and increased reporting further highlighting the problem. Meta-analyses suggest significant associations between social media use and symptoms of depression and anxiety, but further research is needed to explore the causal direction.⁵⁴ However, the widespread use and influence of social media in many parts of the world might make it difficult to detect its effects at the individual level. Population-level studies are required to determine the relationship between social media use and mental disorders, as well as to design suitable interventions. For example, in Australia, the federal government recently passed a law effectively banning children younger than 16 years from accessing certain forms of social media. This presents a unique opportunity for researchers to further examine the effects of public health policy on social media and its

effects on youth mental health. Focused efforts are needed to better understand these drivers and inform policies that can effectively address the growing mental health crisis.

GBD 2023 presents strong evidence for exposure to sexual abuse and intimate partner violence as additional preventable contributors to several mental disorders, notably major depressive disorder and anxiety disorders, as well as a large set of other conditions ranging from maternal disorders to asthma, as well as homicide and suicide (appendix 3 table S13).²⁷ The highest rates of DALYs attributable to intimate partner violence and sexual violence against children were seen in sub-Saharan Africa, but high rates were also seen in high-income regions, demonstrating that the detrimental effects of sexual and intimate partner violence span across societies, regardless of socioeconomic status. Among reproductive-aged females, intimate partner violence ranked in the top five health risks, with an attributable DALY rate similar to that of iron deficiency, while the global DALY rate attributable to sexual violence against children was similar to that of unsafe sanitation (GBD Compare; appendix 3 table S13). Bullying victimisation also merits discussion as a modifiable risk factor, ranking sixth among the behavioural risk factors in attributable DALYs among young people aged 10–24 years, with highest rates observed in the north Africa and the Middle East and high-income super-regions (GBD Compare). Our estimates highlight specific health outcomes associated with exposure to violence—particularly gender-based violence—and quantify the health burden it engenders, adding further detail to the growing body of data illuminating the high prevalence of gender-based violence.^{55,56} Together, these data are a call to action. Compared with other conditions with a similar magnitude of burden, efforts to prevent exposure to violence, as well as address the needs of survivors, have historically been under-prioritised. It is essential to better quantify and understand intimate partner violence and sexual violence against children, especially because both are often hidden and under-reported.

Overall, progress in CMNN diseases has been astounding over the period of study; despite profound setbacks in the form of the COVID-19 pandemic, this progress remains one of the shining achievements of global health. These gains are not unidirectional and are sustained through an imperfect constellation of national and international efforts in prevention, treatment, and cure. In an environment of reduced funds to combat the major sources of communicable disease burden,⁵⁷ it is possible that we will see reversals in some of these trends. As we face these challenges and their effects, we believe that there has never been a time in which global health measurement is so important.

There are several limitations to the overall GBD enterprise that provide opportunities to refine and

improve the quality and accuracy of the results. The iterative nature of GBD reflects the incorporation of new data sources, methodological improvements, and ongoing efforts to stabilise data and analytical processes. Despite these efforts, challenges persist due to variability in the availability and quality of input data. Inconsistent quality, flawed methodologies, and gaps in the collection of primary data make it difficult to accurately quantify the burden of disease without ongoing and thorough assessments of data quality. Additionally, lags in the availability of data for more recent years further contribute to these challenges. For example, because surveys were delayed due to COVID-19, just 19 STEPS surveys conducted since 2020 have been released to date, only five of which have the individual-level record data necessary to analyse some causes and risk factors. By contrast, the 4-year period before 2020 had more than 41 STEPS surveys. In time, more data will become available for this period, with additional details enriching summary reports, but the typical delays we see in the release of surveys and other datasets were compounded by COVID-19 physical distancing restrictions. To the extent possible, the GBD analytical framework—using a modelled statistical approach to synthesise all evidence available—is designed to account for issues of sparse or missing data and uncertainty arising from a multitude of sources, such as stochastic variation in input data, demographic adjustments, and bias due to input study characteristics. Input bias can be particularly impactful with respect to sex and age metadata related to summary statistics, as reporting of outcomes stratified by age and sex is often not available, requiring processing using age-splitting and sex-splitting algorithms to produce the more granular estimates presented in GBD. However, limitations associated with the quality and methods of primary data collection remain a recurring obstacle and highlight the need to strengthen data collection systems. Fully accounting for the range of uncertainties inherent in burden and risk factor estimation processes remains an ongoing challenge, and uncertainty and statistical variation cannot be eliminated.

There are also limitations specific to GBD disease burden measures. Time-varying differences in disease detection or reporting can bias estimates of prevalence or incidence, making it challenging to accurately quantify changing morbidity over time. Although we use crosswalking and MR-BRT adjustment tools to account for varying case definitions and data collection methods, and have further introduced an advanced DisMod-AT tool that will allow us to more accurately model temporal trends, we acknowledge that YLD trends over time might reflect both true morbidity and detection artifacts. More detailed and improved diagnostic data are therefore essential to more accurately capture changes in morbidity. Temporal trends in causes might also be attenuated due to limitations in the ability of DisMod-MR 2.1 to accurately estimate trends when data

are sparse. For most causes that require the prevalence by severity to estimate YLDs, the estimated severity distribution is largely sourced from a small number of survey series conducted in Australia and the USA because of the scarcity of comprehensive data available in other countries. Without more data on severity across geography, there is a potential for bias in YLD estimation—particularly in settings in which access to care, diagnostic practices, and treatment availability differ considerably. However, work to address this concern is currently underway for some causes.^{58,59} The quality and accuracy of comorbidity corrections, which are essential to ensure that estimated YLDs are unique to each cause and additive across causes, also require continuous improvement. For GBD 2023, we assumed independent comorbidity—ie, the chance of having a comorbid cause is equal to its prevalence. Assuming independent comorbidity can lead to underestimation of comorbidity, especially for causes such as mental disorders, which have substantial dependent comorbidity, and in turn might overestimate YLDs for some causes. However, in the context of sparse data on joint prevalence and functional health loss from comorbid states across all causes in GBD, the independence assumption is necessary to make estimation possible. Fortunately, simulation testing within epidemiological datasets has suggested accounting for dependent comorbidity has a minimal impact on the overall YLD counts (appendix 1 section 2.10). Limitations related to our estimation of YLLs are discussed in a parallel GBD 2023 publication.¹⁶

With respect to our risk factor analyses, it is unlikely that our present estimates capture all existing relationships between risk factors and health outcomes and all risk-attributable burden, although with every iteration of GBD we add new relationships and update evidence. Not only are additional risk factors and risk-outcome pairs considered in every round of GBD, so too are mediation relationships. With respect to mediation, we adjusted relative risk estimates for mediation based on the assumption that joint risks are multiplicative, but some combinations of risks might be super-multiplicative or sub-multiplicative. This issue might be particularly relevant to analyses of dietary risk factors that yield protective effects, such as fruit or wholegrain intake, or other coincident exposures, such as PM_{2.5} and high temperatures. More research is needed to better understand mediation effects to fully account for them to more accurately estimate attributable burden for inter-related risk factors; refining our mediation methods remains a continuing priority. With respect to TMRELS, we generally set them to equal to zero for those harmful risks where zero exposure is theoretically achievable or used the data to empirically derive non-zero levels reflecting minimum risk (or used clinical guidance where data are sparse or biological thresholds are well defined), with monotonically increasing risk functions. For protective risks, we generally set TMRELS at the

85th percentile of exposure in the available data to avoid extrapolating the risk function outside the data-rich range of the available literature, which could lead to exaggerated estimates of attributable burden and implausible levels of consumption. Although evidence suggests that these TMREs yield accurate estimates of relative risk,²³ further refinements might be needed.

In the present iteration of GBD, our burden-of-proof flexible meta-regression framework more accurately describes the true shape of the risk–outcome relationship rather than imposing log-linearity, systematically trims data outliers, tests and adjusts for bias in the input data, and formally quantifies and incorporates between-study heterogeneity unexplained by individual study design features into a measure of evidence strength that combines effect size and uncertainty accounting for this between-study heterogeneity. This analytical framework, however, has not yet been applied to all risk–outcome pairs because the work remains ongoing. Moreover, because the covariate selection and adjustment methods used to control for bias are data driven and rely on the high-level information that is available about input studies to meta-analyses (eg, which studies were gold standard *vs* not), they are unable to provide a more nuanced understanding of the impact of deviations from the gold standard, beyond testing and adjusting for systematic bias. A final limitation of the present risk analysis is that our assumption that the risk–outcome relationships assessed were constant across location and time (with the exception of relative risk functions involving temperature, which we varied according to annual mean temperature, and the relationship between high BMI and breast cancer, which has been shown to vary between Asian and non-Asian populations⁶⁰) is unlikely to hold true for all cases. Burden-of-proof methods provide an analytical framework to identify variation in risk–outcome relationships by location or other population characteristics, but ultimately to do so will require additional primary studies systematically evaluating differences between population subgroups. We continue to evaluate the available evidence and will incorporate more location-specific or subgroup relative risk estimates as they are identified.

GBD evolves to ensure its scientific findings remain relevant, useful, and timely. With a strong commitment to exploring new scientific horizons and opening new opportunities for research, our goal is to update and publish the next iteration of GBD (GBD 2025) as soon as results are available. In addition to quantifying additional risk–outcome pairs and evaluating potential new metabolic, behavioural, and environmental risk factors, we aim to quantify the attributable burden of low educational attainment in GBD 2025, an effort we acknowledge will be challenging as the effects of education on disease burden are also mediated through numerous other risk factors. We hope to be able to expand to additional social determinants of health in

future iterations of GBD. In addition to expanding the scope of GBD, efforts to continually improve the available estimates include incorporating additional health conditions and geographical areas, procuring and assimilating new data, improving methods to correct data discrepancies, and better representing uncertainty in our findings. Additionally, we are transitioning to DisMod-AT, an improved version of DisMod-MR, for most health outcomes. DisMod-AT is anticipated to improve the precision of age and time trends in our prevalence estimates, particularly by integrating the effects of population shocks. We will continue to test and validate DisMod-AT and will remain focused on ensuring harmonisation and consistency in estimates generated using this tool. For GBD 2025, we plan to integrate severity distributions according to levels of health-care access for several conditions. We also plan to account for changes to disease detection and diagnosis across time and location in future GBD iterations. Regarding adjustments to clinical data, future research could be enhanced by integrating alternative causal frameworks and using more granular data on health system usage. Last, there are efforts to improve the methods that account for comorbidities.

This GBD 2023 synthesis of estimates of disease and injury burden and risk-attributable burden provides policy makers, researchers, and public health practitioners with crucial insights to inform global health strategies. It shows a growing and ageing world where progress against CMNN diseases has been remarkable across all SDI levels and where continued progress against NCDs has been modest and outpaced by demographic changes. With focused efforts on prevention, risk mitigation, and more robust health systems, substantial strides can be made towards improving population health and achieving long-term sustainable development targets, as we move ever closer to consensus goals for health and wellbeing impact by 2030. The challenges remain considerable, however, with the potential for reversal of progress on CMNN diseases resulting from new and substantial reduction in funding for global health alongside rises in metabolic disease and risk factors.

GBD 2023 Disease and Injury and Risk Factor Collaborators

Simon I Hay*, Kanyin Liane Ong*, Damian F Santomauro*, Bhoomadevi A, Mohammad Amin Aalipour, Hasan Aalruz, Hazim S Ababneh, Ukachukwu O Abaraogu, Biruk Beletew Abate, Cristiana Abbafati, Nasir Abbas, Mitra Abbasifard, Mohsen Abbasi-Kangevari, Samar Abd ElHafeez, Ashraf Nabel Abdalla, Mohammed Altigani Abdalla, Emad M Abdallah, Barkhad Aden Abdeeq, Nadin M I Abdel Razeq, Ahmed Abdelrahman Abdelgalil, Reda Abdel-Hameed, Michael Abdelmasseh, Mahmoud Abdelnabi, Wael M Abdel-Rahman, Sherief Abd-Elsalam, Sepideh Abdi, Mohammad Abdollahi, Meriem Abdoun, Arman Abdous, Jeza Muhamad Abdul Aziz, Deldar Morad Abdulah, Rizwan Suliankatchi Abdulkader, Adam Abdullahi, Auwal Abdullahi, Toufik Abdul-Rahman, Kulmira Abdykerimova, Habtamu Abebe Getahun, Aidin Abedi, Armita Abedi, Asrat Agalu Abejew, Roberto Ariel Abeldaño Zuñiga, E S Abhilash, Shehab Uddin Al Abid, Syed Hani Abidi, Alemwork Abie,

- Olugbenga Olusola Abiodun, Olumide Abiodun, Richard Gyan Aboagye, Shady Abohashem, Hassan Abolhassani, 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, Sawsan Abuhammad, Ahmad Y Abuhelwa, Hana J Abukhadajah, Niveen ME Abu-Rmeileh, Salahdein Aburuz, Dina Abushanab, Raghu Ram Achar, Anirudh Balakrishna Acharya, Apurba Acharya, Ilana N Ackerman, Juan Manuel Acuna, Ousman Adal, Lisa C Adams, Lawan Hassan Adamu, Mesafint Molla Adane, Zenaw Debasu Addisu, Isaac Yeboah Addo, Oluwafemi Atanda Adeagbo, Tajudeen Adesanmi Adebisi, Isaac Akinkunmi Adedeji, David Adedia, Kamoru Ademola Adedokun, Rufus Adesoji Adedoyin, Oluwatobi E Adegbile, Oyelola A Adegbeye, Nurudeen A Adegoke, Olumide Thomas Adeleke, Isaac Ayodeji Adesina, Miracle Ayomikun Adesina, Habeeb Omoponle Adewuyi, Temitayo Esther Adeyeyeoluwa, Olorunsola Israel Adeyomoye, Kishor Adhikari, Ripon Kumar Adhikary, Usha Adiga, Mohd Adnan, Qorinah Estiningtyas Sakilah Adnani, Prince Owusu Adoma, Leticia Akua Adzighbi, David Adzrago, Giuseppina Affinito, Ahmed M Affi, Aanuoluwapo Adeyimika Afolabi, Rotimi Felix Afolabi, Saira Afzal, Gizachew Beykaso Agafari, Suneth Buddhika Agampodi, Temesgen Anjulo Ageru, Navidha Aggarwal, Mahdi Aghaalikhani, Sepehr Aghajanian, Seyed Mohammad Kazem Aghamir, César Agostinis Sobrinho, Anurag Agrawal, Williams Agyemang-Duah, Mahsa Ahadi, Bright Opoku Ahinkorah, Aqeel Ahmad, Danish Ahmad, Faisal Ahmad, Khahir Ahmad, Khurshid Ahmad, Muayyad M Ahmad, Noah Ahmad, Rabbiya Ahmad, Sajjad Ahmad, Tauseef Ahmad, Waqas Ahmad, Negar Sadat Ahmadi, Amir Mahmoud Ahmadzade, Mohades Ahmadzade, Akeem Olayiwola Ahmed, Anisuddin Ahmed, Ayman Ahmed, Gasha Salih Ahmed, Haroon Ahmed, Jumaid Ahmed, Luai A Ahmed, Mehrunnisha Sharif Ahmed, Meqdad Saleh Ahmed, Muktar Beshir Ahmed, Mushood Ahmed, Oli Ahmed, Shabbir Ahmed, Sindew Mahmud Ahmed, Gulzhanat Aimagambetova, Ahmed AJ Jabbar, Dolapo Emmanuel Ajala, Marjan Ajami, Azeezat Oluwafunmilayo Ajose, Hossein Akbarialiabad, Saeid Akbarifard, Oluwasefunmi Akeju, Roland Eghoghosoa Akhigbe, Olufemi Ambrose Akinkuotu, Karolina Akinosoglou, Mohammed Ahmed Akkaif, Sreelatha Akkala, Wole Akosile, Hammad Akram, Ashley E Akrami, Ralph Kwame Akyea, Alaa Al Amiry, Salah Al Awaidey, Syed Mahfuz Al Hasan, Omar Al Omari, Mohammad Al Qadire, Omar Al Ta'ani, Wasan A M Al Tai, Yazan Al Thaher, Omar Ali Mohammed Al Zaabi, Mohammad Ahmmad Mahmoud Al Zoubi, Mousa Ali Al-Abbadi, Yazan Al-Ajlouni, Tariq A Alalwan, Ziyad Al-Aly, Khurshid Alam, Manjurul Alam, Mohammad Khurshid Alam, Mostafa Alam, Rasmieh Mustafa Al-Amer, Abebaw Alamrew, Amani Alansari, Turki M Alanzi, Fahmi Y Al-Ashwal, Rahmeh Al-Asmar, Seyed Mohammad Amin Alavi, Mohammed Albashtawy, Astefanos Al-Dalakta, Khalifah A Aldawsari, Wafia A Aldhaleei, Mohammed S Aldossary, Robert W Aldridge, Raouf Alebshehy, Shereen M Aleidi, Bezawit Abeje Alemayehu, Tekletsadik Tekleslassie Alemayehu, Fentahun Alemnew, Melaku Birhanu Alemu, Ayman Al-Eyadhy, Ali M Alfalki, Fahad D Algahtani, Abdelazeem M Algammal, Mohammed Ridha Algethami, Adel Ali Saeed Al-Gheethi, Khairat Al-Habbal, Khalid F Alhabib, Nma Bida Alhaji, Samar Al-Hajj, Fadwa Naji Alhalaiaqa, Mohammed Khaled Al-Hanawi, Aminu Alhassan Ibrahim, Ashraf Alhumaidi, Fahad A Alhumaydhi, Dari Alhuwail, Abid Ali, Haroon Muhammad Ali, Irfan Ali, Maratab Ali, Mohammad Daud Ali, Mohammed Usman Ali, Rafat Ali, Shahid Ali, Syed Shujait Ali, Syed Yusuf Ali, Waad Ali, Akram Al-Ibraheem, Gianfranco Alicandro, Montaha Al-Iede, Sheikh Mohammad Alif, Morteza Alipour, Samah W Al-Jabi, Mohammad A Aljasir, Mohamad Aljofan, Adel Al-Jumaily, Syed Mohamed Aljunid, Ahmad Alkhatib, Mayson H Alkhatib, Mustafa Alkhawam, Atefeh Allahbakhshian, Khaled S Allemailem, Mohammed Z Allouh, Wesam Taher Almagharbeh, Wael Almahmeed, Sabah Al-Marwani, Nihad A Almasri, Joseph Uy Almazan, Hesham M Al-Mekhlafi, Omar Almidani, Amr Almobayed, Khaldoon Aied Alnawafleh, Hasan Yaser Alniss, Margaret Beaula Alocious Sukumar, Mahmoud A Alomari, Mohammad R Alost, Jaber S Alqahtani, Saleh A Alqahtani, Mohammad R Alqudimat, Ahmad Rajeh Al-Qudimat, Ahmad Alrawashdeh, Intima Alrimawi, Sahel Majed Alrousan, Salman Khalifah Al-Sabah, Mohammed A Alsabri, Najim Z Alshahrani, Mansour Abdullah Alshehri, Zaid Altaany, Awais Altarf, Alaa B Al-Tammemi, Jaffar A Al-Tawfiq, Malik A Althobiani, Khalid A Altirkawi, Javier Alvarez-Galvez, Vera L Alves Carneiro, Nelson Alvis-Guzman, Nelson J Alvis-Zakzuk, Hassan Alwafi, Mohammad Al-Wardat, Yaser Mohammed Al-Worafi, Hany Aly, Mohammad Sharif Ibrahim Alyahya, Amal AlZahmi, Hosam Alzahrani, Kareem H Alzoubi, Md Akib Al-Zubayer, Uchenna Anderson Amaechi, Ekiyor Joseph Amafah, Joy Amafah, Masoud Aman Mohammadi, Reza Amani-Beni, Adeladza Kofi Amegah, Faten Amer, Bardia Amidi, Amr Amin, Tarek Tawfik Amin, Alireza Amindarolzari, Saeed Amini, Ehsan Amini-Salehi, Nafiu Aminu, Majid Aminzare, Sohrab Amiri, Joanne O Amlag, Dickson A Amugsi, Jimoh Amzat, Filippou Anagnostakis, Roshan A Ananda, Robert Anuceanu, Deanna Anderlini, David B Anderson, Jason A Anderson, Sofia Androudi, Susan C Anenberg, Song Peng Ang, Colin Angus, Nguyen Hoang Anh, Samuel Egyakwa Ankomah, Kabilan Annadurai, Amir Anoushiravani, Iman Ansari, Sumbul Ansari, Umair Ansari, Rahel Mulatie Anteneh, Josep M Antó, Catherine M Antony, Ernoiz Antriyandarti, Boluwatife Stephen Anuoluwa, Saleha Anwar, Sumadi Lukman Anwar, Razique Anwer, Shahnaz Anwer, Anayochukwu Edward Anyasodor, Geminn Louis Carace Apostol, Juan Pablo Arab, Hossein Arabi, Jalal Arabloo, Mosab Arafat, Aleksandr Y Aravkin, Demelash Arede, Jorge Arias de la Torre, Hany Ariffin, Benedetta Armocida, Johan Årnlöv, Jesu Arockiaraj, Mahwish Arooj, Anton A Artamonov, Kurnia Dwi Artanti, Raphael Taiwo Aruleba, Deepavalli Arumuganainar, Nurila Aryntayeve, Mahsa Asadi Anar, Muhammad Asaduzzaman, Syed Mohammed Basheeruddin Asdaq, Shewatatek Melaku Asefa, Mulu Tiruneh Asemu, Saeed Asgary, Mohammad Asghari-Jafarabadi, Charlie Ashbaugh, Syed Amir Ashraf, Tahira Ashraf, Mitra Ashrafi, Milad Ashrafzadeh, Bernard Kwadwo Yeboah Asiamah-Asare, Muhammad Shahzad Aslam, Saeed Aslani, Yuni Asri, Batyrbek Assembekov, Thomas Astell-Burt, Mahshid Ataei, Mirbahador Athari, Seyyed Shamsadin Athari, Maha Moh'd Wahbi Atout, Sachin R Atre, Alok Atreya, Julie Alaere Atta, Zeenah A Atwan, Zaura Maratovna Aumoldaeva, Marcel Ausloos, Abolfazl Avan, Núbia Carelli Pereira Avelar, Sana Javaid Avan, Babafela B Awosile, Adedapo Wasiu Awotidebe, Lemessa Assefa A Ayana, Seyyed HamidReza Ayatizadeh, Olatunde O Ayinde, Yusuf Oloruntoyin Ayipo, Seyed Mohammad Ayyoubzadeh, Davood Azadi, Sina Azadnajafabad, Alireza Azarboo, Ali Azargoonjahromi, Masood Azhar, Farya Azimi, Mohd Yusmaide Aziz, Sadat Abdulla Aziz, Amin Azizan, Ahmed Y Azzam, Domenico Azzolino, Zaharaddeen Shuaibu Babandi, Rasha Babiker, Giridhara Rathnaiah Babu, Israel Tadesse Bacha, Muhammad Badar, Ashish D Badiye, Alaa Aboelnour Badran, Youngoh Bae, Arvind Bagga, Soroush Baghdadi, Nasser Bagheri, Sara Bagheri, Elahe Baghizadeh, Fereshteh Baghizadeh, Sana Baghizadeh, Khlood K Baghlaf, Najmeh Bahmanzari, Mohammad Amin Bahrami, Razieh Bahreini, Ruhai Bai, Atif Amin Baig, Vali Baigi, Shankar M Bakkannavar, Abdulaziz T Bako, Senthilkumar Balakrishnan, Wondu Feyisa Balcha, Maher Balkis, Jose Balmori-de-la-Miyar, Mohammadreza Balooch Hasankhani, Ovidiu Constantin Baltatu, Shatha Bamashmous, Maciej Banach, Morteza Banakar, Palash Chandra Banik, Rajon Banik, Shirin Barati, Noel C Barengo, Suzanne Lyn Barker-Collo, Hiba Jawdat Barqawi, Ismael A Barreras Beltran, Amadou Barrow, Sandra Barteit, Lingkan Barua, MD Abu Bashar, Zarrin Basharat, Shahid Bashir, Guido Basile, Pritish Baskaran, Rehana Basri, Quique Bassat, Mohammad-Mahdi Bastan, Sanjay Basu, Saurav Basu, Kavita Batra, Bernhard T Baune, Mahdis Bayat, Mohammad Amin Bayat Tork, Mulat Tirfie Bayih, Feyisa Shasho Bayisa, Nebiyou Simegne Bayleyegn, Thomas Beaney, Neeraj Bedi, Narasimha M Beeraka, Priyamadhaba Behera, Jina Behjati, Babak Behnam, Amir Hossein Behnoush, Bezawit K Bekele, Asnake Gashaw Belayneh, Melesse Belayneh, Abel Cherkos Belete, Gokce Belge Bilgin, Michael Belingheri, Muhammad Bashir Bello, Olorunjuwon Omolaja Bello, Luis Belo, Apostolos Beloukas,

Salaheddine Bendak, Riyad Bendardaf, Corina Benjet, Derrick A Bennett, Isabela M Bensenor, Samiun Nazrin Bente Kamal Tune, Habib Benzian, Zombor Berezvai, Maria Bergami, Alemshet Yirga Berhie, Abiye Assefa Berihun, Amiel Nazer C Bermudez, Eduardo Bernabe, Robert S Bernstein, Paulo J G Bettencourt, Ajeet Singh Bhadoria, Akshaya Srikanth Bhagavathula, Neeraj Bhala, Jeetendra Bhandari, Kayleigh Bhangdia, Ravi Bharadwaj, Sonu Bhaskar, Ajay Nagesh Bhat, Anup Bhat, Vivek Bhat, Priyadarshini Bhattacharjee, Shuvarthi Bhattacharjee, Gurjit Kaur Bhatti, Jasvinder Singh Bhatti, Manpreet Singh Bhatti, Rajbir Bhatti, Soumitra S Bhuyan, Sibhatu Kassa Biadgilign, Raluca Bievel-Radulescu, Can Bilgin, Cem Bilgin, Saeed Biroudian, Catherine Bisignano, Atanu Biswas, Bijit Biswas, Raaj Kishore Biswas, Ahmad Naoras Bitar, Molalegne Bitew, Bruno Bizzozero-Peroni, Espen Bjertness, Fiona M Blyth, Trupti Bodhare, Virginia Bodolica, Mahmut Bodur, Lucimere Bohn, Rachael Bokota, Obasanjo Afolabi Bolarinwa, Srinivasa Rao Bolla, Paria Bolourinejad, Aime Bonny, Sri Harsha Boppana, Berrak Bora Basara, Sanaz Bordbar, Hamed Borhani, Alejandro Botero Carvajal, Souad Bouaoud, Soufiane Boufous, Rupert R A Bourne, Christopher Boxe, Marija M Bozic, Jyoti Brahmaiah, Dejana Braithwaite, Nicholas J K Breitborde, Hermann Brenner, Edmond D Brewer, Gabrielle Britton, Julie Brown, Annie J Browne, Traolach Brugha, Claudia Buchweitz, Raffaele Bugiardini, Linh Phuong Bui, Norma B Bulamu, Tsion Samuel Bunare, Danilo Buonsenso, Asmat Burhan, Katrin Burkart, Richard A Burns, Felix Busch, Reinhard Busse, Yasser Bustanji, Zahid A Butt, Channa Buxbaum, Sanjay C J, Jack Cagney, Tianji Cai, Rose Cairns, Mehtap Çakmak Barsbay, Daniela Calina, Luis Alberto Cámara, Luciana Aparecida Campos, Ismael Campos-Nonato, Fan Cao, Yuchen Cao, Angelo Capodici, Rosario Cárdenas, Sinclair Carr, Giulia Carreras, Juan Jesus Carrero, Austin Carter, Andrea Carugno, Andre F Carvalho, Ana Paula Carvalho-e-Silva, Joao Mauricio Castaldelli-Maia, Carlos A Castañeda-Orjuela, Giulio Castelpetra, Alberico L Catapano, Maria Sofia Cattaruzza, Arthur Caye, Christopher R Cederroth, Luca Cegolon, Francieli Cembranel, Muthia Cenderadewi, Kelly M Cercy, Ester Cerin, Sonia Cerrai, Muge Cevik, Madhu Chakkere Shivamadhu, Chiranjib Chakraborty, Promit Ananyo Chakraborty, Sandip Chakraborty, Joht Singh Chandan, Rama Mohan Chandika, Miyuru Chandradasa, Eeshwar K Chandrasekar, Jung-Chen Chang, Vijay Kumar Chattu, Victoria Chatzimavridou-Grigoriadou, Lam Duc Chau, Sirshendu Chaudhuri, Akhlanand Chaurasia, Galmesa Bekana Chemedda, An-Tian Chen, Catherine S Chen, Guangjin Chen, Hana Chen, Haowei Chen, Hui Chen, Junhao Chen, Meng Xuan Chen, Shanquan Chen, Simiao Chen, Xiang Chen, Yifan Chen, Haojin Cheng, Ka Ching Cheung, Nicholas WS Chew, Gerald Chi, Ju-Huei Chien, Odgerel Chimed-Ochir, Patrick R Ching, Jesus Lorenzo Chirinos-Caceres, Clara G Chisari, William C S Cho, Bryan Chong, Yuen Yu Chong, Hou In Chou, Enayet Karim Chowdhury, Mohiuddin Ahsanul Kabir Chowdhury, Hanne Christensen, Steffan Witttrup McPhee Christensen, Dinh-Toi Chu, Isaac Sunday Chukwu, Eric Chung, Erin Chung, Sheng-Chia Chung, Sunghyun Chung, Muhammad Chutiyaami, Arrigo Francesco Giuseppe Cicero, Liliana G Ciobanu, Rebecca M Cogen, Aaron J Cohen, Alyssa Columbus, Joao Conde, Stephen E Congly, Nathalie Conrad, Sara Conti, Mariana Oliveira Corda, Alexandru Corlateanu, Samuele Cortese, Paolo Angelo Cortesi, Claudia Cosma, Ewerton Cousin, Emma Johnson Cowart, Michael H Criqui, Andrew Crist, Jessica A Cruz, Natalia Cruz-Martins, Xiaolin Cui, Garland T Culbreth, Nour Dababo, Ali Dabbagh, Omid Dadras, Tukur Dahiru, Xiaochen Dai, Zhaoli Dai, Mayank Dalakoti, Koustuv Dalal, Gloria Dalla Costa, Giovanni Damiani, Emanuele D'Amico, Yohannes Tefera Damtew, Roy Arokiam Arokiam Daniel, Lucio D'Anna, Pojsakorn Danpanichkul, Samuel Demissie Darcho, Latefa Ali Dardas, Bahar Darouei, Reza Darvishi Cheshmeh Soltani, Anna Dastiridou, Gail Davey, Claudio Alberto Dávila-Cervantes, Nicole Davis Weaver, Dimash Davletov, Kairat Davletov, Elham Davoudi, Fernando Pio De la Hoz, Katie De Luca, Nicole K DeCleene, Edward Christopher Dee, Orla Deegan, Sindhura Deekonda, Amanda Deen, Louisa Degenhardt, Paria Dehesh, Lee Deitesfeld, Tadesse Asmamaw Dejenie, Pouria Delbari, Mohammad Delsoz, Dessalegn Demeke, Andreas K Demetriades, Desalegn Getnet Demsie, Edgar Denova-Gutiérrez, Tádios Niguss Derese, Ismail Dergaa, Hunegnaw Almwaw Derseh, Emina Dervišević, Abraham Aregay Desta, Vinoth Gnana Chellaiyan Devanbu, Pradeep Kumar Devarakonda, Syed Masudur Rahman Dewan, Arkadeep Dhali, Kuldeep Dhama, Rajinder K Dhamija, Amol S Dhane, Narender K Dhanía, Mandira Lamichhane Dhimal, Meghnath Dhimal, Sameer Dhingra, Bibha Dhungel, Marcello Di Pumpo, Diana Dias da Silva, Daniel Diaz, Luis Antonio Diaz, Kimia Didehvar, Lauren K Dillard, Adriana Dima, Xueting Ding, Temesgien Ergetie Dinkayehu, Huyen Phuc Do, Thao Huynh Phuong Do, Klara Georgieva Dokova, Christiane Dolecek, Regina-Mae Villanueva Dominguez, Francesco Dondi, Mario D'Oria, Fariba Dorostkar, Ojas Prakashbhai Doshi, Paulo Magno Martins Dourado, Robert Kokou Dowou, Menayit Tamrat Dresse, Tim Robert Driscoll, Ashel Chelsea Dsouza, Viola Savy Dsouza, Jiang Du, John Dube, Emeka W Dumbili, Samuel C Dumith, Jennifer Dunne, Andre Rodrigues Duraes, Senbagam Duraisamy, Oyewole Christopher Durojaiye, Ashit Kumar Dutta, Arkadiusz Marian Dziedzic, Abdel Rahman E'mar, Osamudiamen Ebobon, Ejemai Eboeime, Lamiaa Labieb Mahmoud Ebraheim, Alireza Ebrahimi, Mohammad Hossein Ebrahimi, Sara Ebrahimi, Abdelaziz Ed-Dra, Ekaette Godwin Edelduok, Kristina Edvardsson, Ferry Efendi, Behrad Eftekhari, Foolad Eghbali, Fatemeh Ehsani, Ashkan Eighaei Sedeh, Terje Andreas Eikemo, Ebrahim Eini, Michael Ekholuenetale, Temitope Cyrus Ekundayo, Rabie Adel El Arab, Abdelfatteh EL Omri, Maysaa El Sayed Zaki, Mohamed Ahmed Eladl, Reza Elahi, Said El-Ashker, Rana Elbeshbeishy, Noha Mousaad Elemam, Hamad Metwally Tawfik ElGohary, Muhammed Elhadi, Mohamed Elhoumed, Waseem El-Huneidi, Sherif Elkannishy, Omar Abdelsadek Abdou Elmeligy, Rami Elmorsi, Adel B Elmoselhi, Mohamed Hassan Elnaem, Gihan ELNahas, Mohammed Elshaer, Ibrahim Elsohaby, Abdelgawad Salah Abdelgawad Eltahawy, Tadele Emagneneh, Theophilus I Emeto, Victor Oghenekparobo Emojevwe, Destaw Endeshaw, Misganu Endriyas, Holly E Erskine, Christopher Imokhuede Esezobor, Derese Eshetu, Habitu Birhan Eshetu, Gilbert Eshun, Sharareh Eskandarieh, Majid Eslami, Rafaela Cavalheiro do Espirito Santo, Francesco Esposito, Kara Estep, Crystal Amiel M Estrada, Fahima Nasrin Eva, Elochukwu Ezenwankwo, Adewale Oluwaseun Fadaka, Heidar Fadavian, Adeniyi Francis Fagbamigbe, Ayesha Fahim, Ildar Ravisovich Fakhradiyev, Aliasghar Fakhri-Demeshghieh, Qiping Fan, Mohammad Farahmand, Emerito Jose Aquino Faraon, Mohammad Fareed, Zaki Farhana, Carla Sofia e Sá Farinha, MoezAllIslam Ezzat Mahmoud Faris, Andre Faro, Syed Muhammad Yousaf Farooq, Umar Farooque, Hossein Farrokhpour, Fatemeh Farshad, Farima Farsi, Md Omar Faruk, Folorunso Oludayo Fasina, Modupe Margaret Fasina, Emmanuel Toluwani Fasusi, Ali Fatehizadeh, Davood Fathi, Zareen Fatima, Mehdi Fazlzadeh, Li Fei, Valery L Feigin, Alireza Feizkhal, Ginenus Fekadu, Berhanu Elfu Feleke, Dechao Feng, Kaixin Feng, Xiaoqi Feng, Talukdar Raian Ferdous, Seyed-Mohammad Fereshtehnejad, Rodrigo Fernandez-Jimenez, Pietro Ferrara, Alize J Ferrari, André Ferreira, Nuno Ferreira, Natan Feter, Alexander Finnemore, Claudio Fiorilla, Florian Fischer, Ida Fitriana, Luisa S Flor, Federica Fogacci, Morenike Oluwatoyin Folley, Marco Fonzo, Lisa M Force, Arianna Fornari, Carla Fornari, Ingeborg Forthun, Daniela Fortuna, Matteo Foschi, Maryam Fotouhi, Kayode Raphael Fowobaje, Julius Visnel Foyet F, Richard Charles Franklin, Alberto Freitas, Jiming Fu, Nancy Fullman, Blima Fux, Sridevi G, Peter Andras Gaal, Dominic Dormenyo Gadeka, Márió Gajdács, Yaseen Galali, Silvano Gallus, Dhanraj Ganapathy, Shivaprakash Gangachannaiah, Mohd Ashraf Ganie, Dingwei Gao, Xiang Gao, Bashiru Garba, Fernando Barroga Garcia, Vanessa Garcia, Miguel Garcia-Argibay, David Garcia-Azorin, William M Gardner, Jacopo Garlasco, Zisis Gatziofias, Prem Gautam, Rupesh K Gautam, Federica Gazzelloni, Feven Sahle Gebre, Miglas Welay Gebregergis, Haftay Gebremedhin Gebreslassie, Stefano Gelibter,

Nsikakabasi Samuel George, Ali Gerami Matin, Genanew K Getahun, Kalab Yigermal Gete, Delaram J Ghadimi, Keyghobad Ghadiri, Fataneh Ghadirian, Amir Ghaffari Jolfayi, Seyyed-Hadi Ghamari, Arin Ghamkhar, Ali Ghandili, Moein Ghasemi, Mohammad-Reza Ghasemi, Shakiba Ghasemi Assl, Haniyeh Ghasrsaz, Ramy Mohamed Ghazy, Sailaja Ghimire, Nermin Ghith, Nasim Gholizadeh, Elena Ghotbi, Alessandro Gialluisi, Konstantinos Giannakis, Ruth Margaret Gibson, Artyom Urievich Gil, Gabriela Fernanda Gil, Syed Abdullah Gilani, Nora M Gilbertson, Tiffany K Gill, Themba G Ginindza, Bikash Ranjan Giri, Alem Abera Girmay, Alessandro Girombelli, Elena V Gnedovskaya, Laszlo Göbölös, Kimiya Gohari, Mahaveer Golechha, Pouya Goleij, Ali Golestani, Davide Golinelli, Melika Golmohammadi, Wenping Gong, Sameer Vali Gopalani, Yitayal Ayalew Goshu, Alessandra C Goulart, Aman Goyal, Ayman Grada, Simon Matthew Graham, Vittorio Grieco, Michal Grivna, Ashna Grover, Habtamu Alganah Gwadie, Shi-Yang Guan, Zhongyang Guan, Giovanni Guarducci, Mohammed Ibrahim Mohialdeen Gubari, Avirup Guha, Damitha Asanga Gunawardane, Xingzhi Guo, Zhaoyu Guo, Zheng Guo, Zhifeng Guo, Anish Kumar Gupta, Himanshu Gupta, Ishita Gupta, Lalit Gupta, Rajat Das Gupta, Rajeev Gupta, Sapna Gupta, Veer Bala Gupta, Vijai Kumar Gupta, Vipin Gupta, Vivek Kumar Gupta, Yonas Deressa Guracho, Lami Gurmessa, Reyna Alma Gutiérrez, Robert Steven Gutiérrez-Murillo, Parishma Guttoo, Jose Guzman-Esquivel, Adrina Habibzadeh, Abrham Tesfaye Habteyes, Awoke Derbie Habteyohannes, Tesfahun Simon Hadaro, Najah R Hadi, Zahra Hadian, Abdul Hafiz, Faraidoon Haghdooz, Arian Haghtalab, Hailey Hagins, Demewoz Haile, Haimanot Ewnetu Hailu, Pritam Halder, Aram Halimi, Sebastian Haller, Kosar Hikmat Hama Aziz, Islam M Hamad, Randah R Hamadeh, Nadia M Hamdy, Sajid Hameed, Erin B Hamilton, Ahmad Hammoud, Mohammad Hamza, Umar Sabiu Hamza, Hannah Han, Didem Han Yekdeş, Asif Hanif, Nasrin Hanifi, Graeme J Hankey, Fahad Hanna, Ashanul Haque, Md Aminul Haque, Md Nuruzzaman Haque, Harapan Harapan, Hilda L Harb, Kassandra L Harding, Arief Hargono, Andy Martahan Andreas Hariandja, Josep Maria Haro, Ashley Ann Harris, Eka Mishbahatul Marah Has, Ahmed I Hasaballah, Faizul Hasan, Md Kamrul Hasan, Hamidreza Hasani, Ali Hasanpour-Dehkordi, Arezou Hashem Zadeh, Mohammad Hashem Hashempur, Nada Tawfig Hashim, Ammarah Hasnain, Amr Hassan, Ibrahim Nagmeldin Hassan, Ikrama Hassan, Nageeb Hassan, Mahgol Sadat Hassan Zadeh Tabatabaei, Shokoufeh Hassani, Mohammed Bheser Hassen, Lasanthi Wathsala Hathagoda, Rasmus J Havmoeller, Angie Hawat, Khezhar Hayat, Youssef Hbid, Jiawei He, Jue He, Jeffrey J Hebert, Mohammad Heidari, Mehdi Hemmati, Claire A Henson, Molly E Herbert, Claudiu Herteliu, Austin Heuer, Sumudu Avanthi Hewage, Mojtaba Heydari, Zahra Heydarifard, Kamal Hezam, Yuta Hiraike, Ramesh Holla, Julia Hon, Alamgir Hossain, Lubna Hossain, Md Belal Hossain, Md Mahbub Hossain, Md Sabbir Hossain, Mohammad Bellal Hossain, Hassan Hosseinzadeh, Mehdi Hosseinzadeh, Mihaela Hostiu, Sorin Hostiu, Jada Averianna Houser, Mila Nu Nu Htay, Chengxi Hu, Yifei Hu, Junjie Huang, Weijun Huang, Yefei Huang, Mega Hasanul Huda, Atanesia Indriyani Human, Kyle Matthew Humphrey, Kiavash Hushmandi, Andreas Katterem Husøy, Javid Hussain, M Azhar Hussain, Salman Hussain, Dursa Hussein, Nawfal R Hussein, Mohamed Ibrahim Husseiny, Hong-Han Huynh, Bing-Fang Hwang, Luigi Francesco Iannone, Ahmed Ibrahim, Khalid S Ibrahim, Ramzi Ibrahim, Reem Ibrahim, Anel Ibrayeva, Francisco Javier Idalosoaga, Pulwasha Maria Iftikhar, Audrey L Ihler, Nayu Ikeda, Adalia Ikiroma, Jibrán Ikram, Olayinka Stephen Ilesanmi, Irena M Ilic, Milena D Ilic, Muhammad Hamza Ilyas, Mohammad Tarique Imam, Masoud Imani, Mustapha Immurana, Lucius Chidiebere Imoh, Leebek Raja Inbaraj, Arit Inok, Mujahid Iqbal, Lalu Muhammad Irham, Mustafa Alhaji Isa, Dr Md Shahinul Islam, Md Rabiul Islam, Md Shariful Islam, Farhad Islami, Faisal Ismail, Nahlah Elkudssiah Ismail, Yerlan Ismoldayev, Hiroyasu Iso, Gaetano Isola, Mosimah Charles Ituka, Masao Iwagami, Chinwe Juliana Iwu-Jaja, Ihoghosa Osamuyi Iyamu, Mahalaxmi Iyer, Veena J Iyer, Vinothini J, Jalil Jaafari, Louis Jacob, Kathryn H Jacobsen, Ali Jadidi, Farhad Jadidi-Niaragh, Morteza Jafarinia, Shabbar Jaffar, Haitham Jahrami, Ammar Abdulrahman Jairoun, Vikash Jaiswal, Mihajlo Jakovljevic, Ali Jalilijan, Reza Jalilzadeh Yengejeh, Mohamed Jalloh, Armaan Jamal, Qazi Mohammad Sajid Jamal, Jazlan Jamaluddin, Jerin James, Tyler G James, Hasan Jamil, Safayet Jamil, Roland Dominic G Jamora, Masoud Jamshidi, Shaghayegh JamshidiRastabi, Rajiv Janardhanan, Esmael Jarrahi, Syed Sarmad Javid, Anita Javanmardi, Javad Javidnia, Talha Jawaid, Qassim Jawell Odah Abed, Ruwan Duminda Jayasinghe, Yovanthi Anurangi Jayasinghe, Achala Upenra Jayatileke, Kimia Jazi, Felix K Jebasingh, Sun Ha Jee, Jayakumar Jeganathan, Tadesse Hailu Jember, Belayneh Hamdela Jena, Diptismita Jena, Seongsong Jeong, Mahsa Jessri, Bijay Mukesh Jeswani, Vivekanand Jha, Zixiang Ji, Min Jiang, Weiqiu Jin, Wenyi Jin, Catherine O Johnson, Emily Katherine Johnson, Mohammad Jost, Jost B Jonas, Tamas Joo, Abu Jor, Abel Joseph, Alex Joseph, Nitin Joseph, Charity Ehimwenma Joshua, Farahnaz Joukar, George Joy, Jacek Jerzy Jozwiak, Mikl Jürisson, Malik E Juweid, Madhanraj K, Billingsley Kaambwa, Zubair Kabir, Dier H Hussein Kadir, Ethan M Kahn, Ashish Kumar Kakkar, Leila R Kalanekesh, Khalil Kalavani, Feroze Kaliyadan, Aidana Kaliyakparova, Sanjay Kalra, Md Moustafa Kamal, Mehnaz Kamal, Sivesh Kathir Kamarajah, Rajesh Kamath, Saltanat Kamenova, Arun Kamireddy, Ramat T Kamorudeen, Oleksandr Kamyshnyi, Haidong Kan, Mona Kanaan, Saddam Fuad Kanaan, Jiseung Kang, Samuel Berchi Kankam, Kehinde Kazeem Kanmudi, Sujitha Kannan, Suthanthira Kannan S, Rami S Kantar, Neeti Kapoor, Sujita Kumar Kar, Paschalis Karakasis, Reema A Karasneh, Hanie Karimi, Arman Karimi Behnagh, Samad Karkhah, Mohmed Isaqali Karobari, Tomasz M Karpiński, Manoj Kumar Kashyap, Abdene Weya Kaso, Hengameh Kasraei, Nigusie Assefa Kassaw, Adarsh Katamreddy, Patrick DMC Katoto, Joonas H Kauppila, Gbenga A Kayode, Nastaran Kazemi Rad, Mohammad-Hossein Keivanlou, Peter Njenga Keiyoro, Chukwudi Keke, John H Kempen, Salima Kerai, Vikash Ranjan Keshri, Kamyab Keshtkar, Emmanuelle Kesse-Guyot, Reza Khademi, Yousef Saleh Khader, Inn Kynn Khaing, Himanshu Khajuria, Sidra Khalid, Sumaira Khalid-Ariturk, Hazim O Khalifa, Anas Husam Khalifeh, Anees Ahmed Khalil, Mariam Khalil, Anita Khalili, Pantea Khalili, Ghazaleh Khalili-Tanha, Mohamed Khalis, Faham Khamesipour, Abdul Arif Khan, Ajmal Khan, Asaduzzaman Khan, Faiz Ullah Khan, Maseer Khan, Md Abdullah Saeed Khan, Mohammad Idreesh Khan, Mohammad Jobair Khan, Muhammad Hamza Khan, Muhammad Mueed Khan, Muhammad Umair Khan, Muhammad Umer Khan, Nusrat Khan, Ruby Khan, Salman Ali Khan, Serab Khan, Sumaiya Khan, Yusuf Saleem Khan, Zahid Khan, Srijana Khanal, Vishnu Khanal, Shaghayegh Khanmohammadi, Sameer Uttamaro Khasbage, Zenith Hashim, Khaled Khatib, Haitham Khatatbeh, Moawiah Mohammad Khatatbeh, Kavin Khatri, Harnid Reza Khayat Kashani, Afshin Khazaei, Peyman Kheirandish Zarandi, Sunil Kumar Khokhar, Mohammad Saeid Khonji, Najmaddin Salih Husen Khoshnaw, Atulya Aman Khosla, Farbod Khosravi, Mahmood Khosrowjerdi, P Ratan Khuman, Helda Khosun, Zemene Demelash Kifle, Hye Jun Kim, Jinho Kim, Min Seo Kim, Sungrool Kim, Ruth W Kimokoti, Yohannes Kinfu, Mary Kirk, Adnan Kisa, Sezer Kisa, Katarzyna Kissimova-Skarbek, Mika Kivimäki, Jessica Klusty, Abdul Basith KM, Shivakumar KM, Ann Kristin Skringdo Knudsen, Nazarii Kobylak, Jonathan M Kocarnik, Sonali Kochhar, Michail Kokkorakis, Ali-Asghar Kolahi, Diana Gladys Koliueghu Tcheumeni, Farzad Kompani, Aida Kondybayeva, Anastasios Georgios Panagiotis Kostas, Isaac Koomson, Gerbrand Koren, Tapos Kormoker, Oleksii Korzh, Karel Kostev, Konstantinos Kotsis, Archana Koul, Parvaiz A Koul, Sindhura Lakshmi Koulmane Laxminarayana, Irene Akwo Kretchy, James-Paul Kretchy, Kewal Krishan, Chong-Han Kua, Ananya Kuanar, Barthelemy Kuete Defo, Raja Amir Hassan Kuchay, Burcu Kucuk Bicer, Mohammed Kuddus, Ilari Kuitunen, Omar Kujan, Anit Kujur, Mukhtar Kulimbet, Vishnutheertha Kulkarni, Shweta Kulshreshtha, Dewesh Kumar, Dhasarathi Kumar, Jogender Kumar, Manasi Kumar,

Nitesh Kumar, Nithin Kumar, Rakesh Kumar, Sanjay Kirshan Kumar, Tushar Kumar, Vijay Kumar, Subramanian Kumaran, Jibin Kunjavara, Setor K Kunutsor, Almagul Kurmanova, Om P Kurmi, Maria Dyah Kurniasari, Krishna Prasad Kurpad, Pramod Kumar Kushawaha, Asep Kusnaldi, Christina Yeni Kustanti, Dian Kusuma, Tezer Kutluk, Assylkhan Kuttybayev, Michael Agyemang Kwarteng, Wai Hang Patrick Kwong, Evans F Kyei, Grace Kwakyewaa Kyei, Ville Kytö, Hmwwe Hmwwe Kyu, Pallavi L C, Adriano La Vecchia, Carlo La Vecchia, Muhammad Awal Ladan, Lucie Laflamme, Chandrakant Lahariya, Daphne Teck Ching Lai, Anita Lakhani, Dharmesh Kumar Lal, Ratilal Laloo, Tea Lallukka, Judit Lám, Iván Landires, Berthold Langguth, Ariane Laplante-Lévesque, Savita Lasrado, Kamaluddin Latief, Kenney Ki Lee Lau, Basira Kankia Lawal, Bilkiisu Kankia Lawal, Saheed Akinmayowa Lawal, Aliyu Lawan, Harriet L S Lawford, Hilary R Lawlor, Dai Quang Le, Duc Huy Le, Huu-Hoai Le, Long Khanh Dao Le, Minh Huu Nhat Le, Nhi Huu Hanh Le, Thao Thi Thu Le, Trang Diep Thanh Le, Caterina Ledda, Hye Ah Lee, Seung Won Lee, Wei-Chen Lee, Yo Han Lee, James Leigh, Vasileios Leivaditis, Matthew J Lennon, Matilde Leonardi, Elyvanna Leong, Janni Leung, Chengcheng Li, Haobo Li, Hui Li, Jianan Li, Jiaying Li, Jie Li, Jinbo Li, Ming-Chieh Li, Peng li, Shaojie Li, Wang-Zhong Li, Wei Li, Wei Li, Weilong Li, Wenjie Li, Xunliang Li, Yichong Li, Yongze Li, Zhengrui Li, Zhihui Li, Yanxue Lian, Xue-Zhen Liang, Stephen S Lim, Jialing Lin, Queran Lin, Ro-Ting Lin, Ya Lin, Daniel Lindholm, Christine Linehan, Yüeweï Ling, Gang Liu, Haipeng Liu, Jue Liu, Xianliang Liu, Xiaofeng Liu, Xuefeng Liu, Yubo Liu, Yunfei Liu, Erand Llanaj, Michael J Loftus, Valerie Lohner, José Francisco López-Gil, Platon D Lopukhov, Stefan Lorkowski, Masoud Lotfizadeh, Shanjie Luan, Jailos Lubinda, Taraneh Lucas, Giancarlo Lucchetti, Alessandra Lugo, Raimundas Lunevicius, Peng Luo, Jay B Lusk, Angelina M Lutambi, Ricardo Lutzky Saute, Miltiadis D Lytras, Ellina Lytyvak, Hawraz Ibrahim M Amin, Kevin Sheng-Kai Ma, Zheng Feei Ma, Mahmoud Mabrok, Isis E Machado, Firoozeh Madadi, Seyed Ataollah Madinejad, Christian Madsen, Aurea Marilia Madureira-Carvalho, Mohammed Magdy Abd El Razek, Azzam A Maghazachi, D R Mahadeshwara Prasad, Sasikumar Mahalingam, Mehرداد Mahalleh, Nozad Hussein Mahmood, Alireza Mahmoudi, Farhad Mahmoudi, My Tra Mai, Rituparna Maiti, Azeem Majeed, Konstantinos Christos C Makris, Mohammad-Reza Malekpour, Reza Malekzadeh, Hardeep Singh Malhotra, Ahmad Azam Malik, Fariyah Malik, Tabarak Malik, Deborah Carvalho Malta, Abdullah A Mamun, Mustapha Mangdow, Lokesb Manjani, Yosef Manla, Kamaruddeen Mannethodi, Farheen Mansoor, Marjan Mansourian, Mohammad Ali Mansournia, Ana M Mantilla Herrera, Lorenzo Giovanni Mantovani, Changkun Mao, Tahir Maqbool, Sajid Maqsood, Hamid Reza Marateb, Joemer C Maravilla, Konstantinos Margetis, Mirko Marino, Adilson Marques, Randall V Martin, Gabriel Martinez, Bernardo Alfonso Martinez-Guerra, Ramon Martinez-Piedra, Daniela Martini, Francisco Rogerlândio Martins-Melo, Miquel Martorell, Winfried März, Roy Rillera Marzo, Sammer Marzouk, Stefano Masi, Clara N Matei, Yasith Mathangasinghe, Stephanie Mathieson, Alexander G Mathioudakis, Manu Raj Mathur, Medha Mathur, Fernanda Penido Matozinhos, Rita Mattiello, Khurshid A Mattoo, Richard James Maude, Pallab K Maulik, Miranda L May, Mahsa Mayeli, Maryam Mazaheri, Antonio Mazzotti, Chioma Ngozichukwu Pauline Mbachui, Ikechukwu Innocent Mbachui, Martin McKee, Susan A McLaughlin, Steven M McPhail, Enkeleint A Mechili, Rishi P Mediatta, Jitendra Meena, Elahe Meftah, Medhin Mehari, Asim Mehmood, Man Mohan Mehndiratta, Entezar Mehrabi Nasab, Kala M Mehta, Vini Mehta, Subhash Mehto, Toni Meier, Tesfahun Mekene Meto, Hadush Negash Meles, Endalkachew Belayneh Melese, Satish Melwani, Aishe Memetova, Walter Mendoza, Godfred Antony Menezes, Ritesh G Menezes, Berihun Agegn Mengistie, Emiru Ayalew Mengistie, Sultan Ayoub Meo, Michelangelo Mercogliano, Atte Meretoja, Tuomo J Meretoja, Tomislav Mestrovic, Chamila Dinushi Kukulege Mettananda, Sachith Mettananda, Mohamed M M Metwally, Louise Mewton, Aduate Mhlanga, Andrea Michelerio, Ana Carolina Micheletti Gomide Nogueira de Sá, Hiwot Soboksa Mideksa, Paul Anthony Miller, Ted R Miller, Giuseppe Minervini, Wai-kit Ming, GK Mini, Mojgan Mirghafourvand, Erkin M Mirrakhimov, Seyed Ali Mirshahvalad, Mizan Kiros Mirutse, Yousef Mirzaei, Archana Mishra, Kumar Guru Mishra, Vinaytosh Mishra, Arup Kumar Misra, Philip B Mitchell, Prasanna Mithra, Sayan Mitra, Manasi Murthy Murthy Mittinty, Malihe Moazeni, Mohammadreza Mobayen, Madeline E Moberg, Shivani Modi, Ashraf Mohamadkhani, Jama Mohamed, Mona Gamal Mohamed, Nouh Saad Mohamed, Khabab Abbasher Hussien Mohamed Ahmed, Taj Mohammad, Sakineh Mohammad-Alizadeh-Charandabi, Abdolreza Mohammadi, Mohammad Reza Mohammadi, Seyed Omid Mohammadi, Abdollah Mohammadian-Hafshejani, Ibrahim Mohammadzadeh, Ramin Mohammadzadeh, Ammas Siraj Mohammed, Hussein Mohammed, Omer Mohammed, Shafiu Mohammed, Suleiman Mohammed, Yahaya Mohammed, Syam Mohan, Yugal Kishore Mohanta, Mohammad Mohseni, Amin Mokari-Yamchi, Ali H Mokdad, Alexandr Mokhirev, Peyman Mokhtarzadehazar, Sabrina Molinaro, Amirabbas Mollaei, Shaher Momani, Lorenzo Monasta, Amirabbas Monazzami, Himel Mondal, Stefania Mondello, Ahmed Al Montasir, Catrin E Moore, Yousef Moradi, Maziar Moradi-Lakeh, Paula Moraga, Lidia Morawska, Rafael Silveira Moreira, Brooks W Morgan, Negar Morovatdar, Mahdis Morovvati, Mahmoud M Morsy, Jakub Morze, Reza Mosaddeghi Heris, Jonathan F Mosser, Nogol Motamedgorji, Vincent Mougïn, Simin Mouodi, Asma Mousavi, Seyed Zohre Mousavi, Amin Mousavi Khaneghah, Seyed Mohamad Sadegh Mousavi Kiasary, Mohamed Awad Abdalaziz Mousnad, Amanda Movo, Hagar Lotfy Mowafy, Kimia Mozahheb Yousefi, Matias Mrejen, Ahmed Mshergbi, Rabia Mubarak, Sumaira Mubarik, Shiv K Mudgal, Syed Aun Muhammad, Muhammad Solihuddin Muhtar, Sukhes Mukherjee, Sumoni Mukherjee, Amartya Mukhopadhyay, Satinath Mukhopadhyay, M A Mukhtadir, Sileshi Mulata, Francesk Mulita, Getaneh Baye Mulu, Chalie Mulugeta, Mulyadi Mulyadi, Muneeb Ahmad Muneer, Malaisamy Muniyandi, Kavita Munjal, Yanjinkham Munkhsaikhan, Javier Muñoz Laguna, Anjana Munshi, Pradeep Manohar Muragundi, Michio Murakami, Yahye Hassan Muse, Ali Mushtaq, Ghulam Mustafa, Sherzad Ibrahim Mustafa, Mubarak Taiwo Mustapha, Sathish Muthu, Saravanan Muthupandian, Claude Mambo Muvunyi, Muhammad Muzaffar, Woojae Myung, Amin Nabavi, Fatemehzahra Naddafi, Ahamarshan Jayaraman Nagarajan, Shankar Prasad Nagaraju, Mohsen Naghavi, Pirouz Naghavi, Ganesh R Naik, Gurudatta Naik, Hiten Naik, Firzan Nainu, Sanjeev Nair, Soroush Najdaghi, Nouredin Nakhostin Ansari, Paul Nam, Vinay Nangia, Jobert Richie Nansseu, Ibrahim A Naqid, Shumaila Nargus, Delaram Narimani Davani, Yvonne Nartey, Bruno Ramos Nascimento, Gustavo G Nascimento, Abdallah Y Naser, Mohammad Naser, Abdulqadir J Nashwan, Hamide Nasiri, Mahmoud Nassar, Zuhair S Natto, Javaid Nauman, Zakira Naureen, Samidi Nirasha Kumari Navaratna, Anum Nawaz, M Omar Nawaz, Biswa Prakash Nayak, Shalini Ganesh Nayak, Javad Nazari, G Takop Nchanji, Rawlance Ndejjo, Anthony Wainaina Ndungu, Amanuel Tebabal Nega, Abigia Ashenafi Negash, Ionut Negoï, Ruxandra Irina Negoï, Alina Gabriela Negru, Jalil Nejati, Chakib Nejari, Samata Nepal, Olivia D Nesbit, Henok Biresaw Netsere, Charles Richard James Newton, Marie Ng, Georges Nguefack-Tsague, Josephine W Ngunjiri, Anh Thy H Nguyen, Cuong Tat Nguyen, Huong Lan Thi Nguyen, Huong-Dung Thi Nguyen, Nghia Phu Nguyen, Phat Tuan Nguyen, The Phuong Nguyen, Trang Nguyen, Tu Anh Nguyen, Van Thanh Nguyen, Ambe Marius Ngwa, Robina Khan Niazi, Jing Nie, Luciano Nieddu, Yeshambel T Nigatu, Ali Nikoobar, Dina Nur Anggraini Ningrum, Vikram Niranjana, Abebe Melis Nisro, Jan Rene Nkeck, Princess Afia Nkrumah-Boateng, Chukwudi A Nnaji, Efaq Ali Noman, Shuhei Nomura, Syed Toukir Ahmed Noor, Mohammadamin Noorafrooz, Pardis Noormohammadpour, Mamoona Noreen, Masoud Noroozi, Jean Jacques Noubiap, Taylor Noyes, Valentine C Nriagu, Chisom Adaobi Nri-Ezedi, Jean Claude Nshimiyimana, Fred Nugen, Atoma Negera Nugusa, Mengistu H Nunemo, Aqsha Nur, Dieta Nurrika,

Sylvester Dodzi Nyadanu, Felix Kwasi Nyande, Chimezie Igwegbe Nzopotam, Ogochukwu Janet Nzopotam, Bogdan Oancea, George Obaido, Erin M O'Connell, Adashi Margaret Odama, Ramez M Odat, Fabio Massimo Oddi, Ismail A Odetokun, Oluwakemi Ololade Odukoya, Joseph Kojo Oduro, Michael Safo Oduro, Onome Bright Oghenetega, Oluwaseun Adeolu Ogundijo, Abiola Ogunkoya, James Odhiambo Oguta, Doori Oh, Sarah Oh, Edel T O'Hagan, Hassan Okati-Aliabad, Sylvester Reuben Okeke, Deborah Oluwatosin Okeke-Obayemi, Akinkunmi Paul Okekunle, Olalekan John Okesanya, Onyedika A Okoli, Osaretin Christabel Okonji, John Olayemi Okunlola, Oluyemi Adewole Okunlola, Oluwaseyi Isaiah Olabisi, Andrew T Olagunju, Oladotun Victor Olalusi, Matthew Idowu Olatubi, Arão Belitardo Oliveira, Gláucia Maria Moraes Oliveira, Abdulkhakeem Abayomi Olorukooba, Erik J Olson, Oluseye Olalekan Oludoye, Ronald Olum, Bolajoko Olubukunola Olusanya, Jacob Olusegun Olusanya, Oluwafemi G Oluwole, Folorunsho Bright Omake, Hany A Omar, Goran Latif Omer, Qi Chwen Ong, Sandersan Onie, Obinna E Onwujekwe, Franklyn Opara, Marcel Opitz, Michal Ordak, Verner N Orish, Raffaele Ornello, Atakan Orselcik, Alberto Ortiz, Esteban Ortiz-Prado, Augustus Osborne, Eric Osei, Samuel M Ostroff, John W Ostrominski, Uchechukwu Levi Osuagwu, Olayinka Osuolale, Godfred Otchere, Elham H Othman, Mostafa Monier Othman, Adrian Otoiu, Oche Joseph Otokpa, Abdu Oumer, Jerry John Ouner, Amel Ouyahia, Guoqing Ouyang, Mayowa O Owolabi, Irene Amoakoh Owusu, Kolapo Oyebola, Tope Oyelade, Oyetunde T Oyeyemi, Ilker Ozsahin, Mahesh P A, Kevin Pacheco-Barrios, Inderbir Padda, Alicia Padron-Monedero, Jagadish Rao Padubidri, Anton Pak, Pramod Kumar Pal, Tamás Palicz, Raffaele Palladino, Raul Felipe Palma-Alvarez, Tejasri Paluvai, Feng Pan, Hai-Feng Pan, Parsa Panahi, Sujogya Kumar Panda, Songhomitra Panda-Jonas, Deepshikha Pande Katare, Ke Pang, Helena Ullyartha Pangaribuan, Georgios D Panos, Leonidas D Panos, Ioannis Pantazopoulos, Giovanni Paolino, Mario Virgilio Papa, Ilias Papadimopoulos, Paraskevi Papadopoulou, Utsav Parekh, Peyvand Parhizkar Roudsari, Amrita Parida, Chulwoo Park, Eun-Ke Park, Seoyeon Park, Arpit Parmar, Swapnil Parve, Ava Pashaei, Roberto Passera, Bhumi Hemal Patel, Hemal M Patel, Mitesh Patel, Neel Navinkumar Patel, Satyananda Patel, Ashlesh Patil, Shankargouda Patil, Dimitrios Patoulias, Apurba Patra, Mohammad Hridoy Patwary, Hilary Paul, Shrikant Pawar, Shubhadarshini Pawar, Hamidreza Pazoki Toroudi, Amy E Peden, Paolo Pedersini, Jarmila Pekarcikova, Vincent Christian Filipino Pepito, Prince Peprah, João Perdigão, Gavin Pereira, Maria Odete Pereira, Pablo Perez-Lopez, Norberto Perico, Simone Perna, Konrad Pesudovs, Pavlo Petakh, Olumuyiwa James Peter, Fanny Emily Petermann-Rocha, Hoang Nhat Pham, Nhat Truong Pham, Tung Thanh Pham, Anil K Philip, Michael R Phillips, Zayar Phyoo, Brandon V Pickering, David M Pigott, Julian David Pillay, Luane Pinheiro Pinheiro Rocha, Zahra Zahid Piracha, Michael A Piradov, Edoardo Pirera, Enrico Pisoni, Dietrich Plass, Evgenii Plotnikov, Indrashis Podder, Dimitri Poddighe, Roman V Polibin, Peter Pollner, Ramesh Poluru, Arjun Pon Avudaiappan, Constance Dimity Pond, Ville T Ponkilainen, Ion Popa, Svetlana Popova, Djordje S Popovic, Maarten J Postma, Sajjad Pourasghary, Reza Pourbabaki, Farzad Pourghazi, Mohsen Poursadeqiyani, Naeimeh Pourtaheri, Attur Ravindra Prabhu, Sergio I Prada, Jalandhar Pradhan, Pranil Man Singh Pradhan, Rifky Octavia Pradipta, Peralam Yegneswaran Prakash, Chandra P Prasad, Akila Prashant, Elton Junio Sady Prates, Tina Priscilla, Natalie Pritchett, Harsh Priya, Hery Purnobasuki, Bharathi M Purohit, Jagadeesh Puvvula, Nameer Hashim Qasim, Xiang Qi, Zhipeng Qi, Jia-Yong Qiu, Zahiruddin Syed Quazi, Shahazad Niwazi Qurashi, Deepthi R, Navid Rabiee, Basuki Rachmat, Raghu Anekal Radhakrishnan, Venkatraman Radhakrishnan, Maja R Radojčić, Hadi Raeesi Shahraki, Ibrar Rafique, Pankaja Raghav, Pracheth Raghuvver, Leila Rahbarnia, Fakher Rahim, Hawbash Mohammed-Amin Rahim, Sajjad Rahimi, Afarin Rahimi-Movaghar, Vafa Rahimi-Movaghar, Fryad Majeed Rahman, Mahbubur Rahman, Mahfuzur Rahman, Md Mosfequr Rahman, Mohammad Hifz Ur Rahman, Mohammad Meshbahur Rahman, Mosiur Rahman, Saeed Rahmani, Masoud Rahmati, Ghasem Rahmatpour Rokni, Hakim Rahmoune, Pramila Rai, Diego Raimondo, Ivano Raimondo, Sunil Kumar Raina, Jeffrey Pradeep Raj, Adarsh Raja, Sandesh Raja, Sathish Rajaa, Erta Rajabi, Shahryar Rajai Firouzabadi, Gunaseelan Rajendran, Judah Rajendran, Vinoth Rajendran, Shaman Rajindrajith, Mohammad Amin Rajizadeh, Prashant Rajput, Mahmoud Mohammed Ramadan, Majed Ramadan, Kadar Ramadhan, Chitra Ramasamy, Shakthi Kumaran Ramasamy, Sheena Ramazanu, Zahra Ramezani, Marzieh Ramezani Farani, Pramod W Ramteke, Juwel Rana, Shailendra Singh Rana, Chhabi Lal Ranabhat, Nemanja Rancic, Smitha Rani, Fatemeh Ranjbar Noei, Chyitra R Rao, Kumuda Rao, Mithun Rao, Sowmya J Rao, Davide Rasella, Vahid Rashedi, Mohammad-Mahdi Rashidi, Mohammad Aziz Rasouli, Ashkan Rasouli-Saravani, Prateek Rastogi, Azad Rasul, Devarajan Rathish, Abdur Rauf, Santosh Kumar Rauniyar, Ilari Rautalin, Ramin Ravangard, Dhvani Ravi, David Laith Rawaf, Salman Rawaf, Reza Rawassizadeh, Ramu Rawat, Ayita Ray, Mohammad Rayati, Iman Razeghian, Bahman Razi, Christian Razo, Filippo Recenti, Murali Mohan Rama Krishna Reddy, Elrashdy Redwan, Sanika Rege, Wajiha Rehman, Lennart Reifels, Giuseppe Remuzzi, Longbing Ren, Andre M N Renzaho, Serge Resnikoff, Luis Felipe Reyes, Mina Rezaei, Nazila Rezaei, Negar Rezaei, Nima Rezaei, Mohsen Rezaeian, Taeho Gregory Rhee, Mavra A Riaz, Antonio Luiz P Ribeiro, Jennifer Rickard, Moattar Raza Rizvi, Hannah Elizabeth Robinson-Oden, Hermanno Alexandre Lima Rocha, João Rocha Rocha-Gomes, Mónica Rodrigues, Leonardo Roeber, Peter Rohloff, Ifitakhur Rohmah, Susanne Röhr, David Rojas-Rueda, Megan L Rolfzen, Debby Syahrur Romadlon, Michele Romoli, Marina Romozzi, Luca Ronfani, Jennifer Jacqueline Rosauer, Amirhossein Roshanshad, Morteza Rostamian, Gregory A Roth, Kunle Rotimi, Himanshu Sekhar Rout, Hanieh Rouzbahani, Reza Rouzbahani, Shiva Rouzbahani, Bedanta Roy, Nitai Roy, Parimal Roy, Poulami Roy, Priyanka Roy, Sharmistha Roy, Shubhanjali Roy, Susovan Roy Chowdhury, Parameswari Royapuram Parthasarathy, Enrico Rubagotti, Guilherme de Andrade Ruela, Susan Fred Rumisha, Michele Russo, Godfrey Mutashambara Rwegerera, Manjula S, Chandan S N, Aly M A Saad, Adnan Saad Eddin, Zahra Saadatian, Maha Mohamed Saber-Ayad, Cameron John Sabet, Siamak Sabour, Kabir P Sadarangani, Seyed Kiarash Sadat Rafiei, Basema Ahmad Saddik, Bashdar Abuzed Sadee, Tarannom Sadegh, Ehsan Sadeghi, Erfan Sadeghi, Fatemeh Sadeghi-Ghyassi, Mohd Saeed, Umar Saeed, Maryam Saeeidi, Mehdi Safari, Sare Safi, Sher Zaman Safi, Rajesh Sagar, Mastooreh Sagharichi, Dominic Sagoe, Nondo Saha, Fatemeh Saheb Sharif-Askari, Narjes Saheb Sharif-Askari, Amirhossein Sahebkar, Pragyan Monalisa Sahoo, Kirti Sundar Sahu, Muhammad Soaib Said, Zahra Saif, S Mohammad Sajadi, Md Refat Uz Zaman Sajib, Mirza Rizwan Sajid, Morteza Saki, Nasir Salam, Payman Salamati, Luciane B Salaroli, Mohamed A Saleh, Leili Salehi, Mahdi Salehi, Marwa Rashad Saleem, Mohammed Z Y Saleem, Dauda Salihu, Sohrab Salimi, Malik Sallam, Giovanni A Salum, Sundeep Santosh Salvi, Hossein Samadi Kafil, Jayami Eshana Samaranyake, Waqas Sami, Yoseph Leonardo Samodra, Vijaya Paul Samuel, Abdallah M Samy, Sandeep G Sangle, Elaheh Sanjari, Sathish Sankar, Francesco Sanmarchi, Francesca Sanna, Lucas H C C Santos, Milena M Santric-Milicevic, Bruno Piassi Sao Jose, Krishna Prasad Sapkota, Sivan Yegnanarayana Iyer Saraswathy, Jacob Owusu Sarfo, Yaser Sarikhani, Hemen Sarma, Mohammad Sarmadi, Gargi Sachin Sarode, Sachin C Sarode, Satish Saroshe, Michele Sassano, Brijesh Sathian, Mukesh Kumar Sathya Narayanan, Paul A Saunders, Mehrdad Savabi Far, Monika Sawhney, Sangeeta Gopal Saxena, Ganesh Kumar Saya, Abu Sayeed, Mete Saylan, Christophe Schinckus, Ione Jayce Ceola Schneider, Rachel D Schneider, Art Schuermans, Austin E Schumacher, Ghil Schwarz, David C Schwebel, Falk Schwendicke, Catherine Schwinger, Amin Sedigh, Saravanan Sekaran, Mario Šekerija, Muthamizh Selvamani, Vimalraj Selvaraj, Yuliya Semenova, Mohammad H Semreen, Fikadu Waltengus Sendeku, Yigit Can Senol, Subramanian Senthilkumar, Sadaf G Sepanlou, Andreea Claudia Serban, Edson Serván-Mori, Yashendra Sethi,

Christian Sewor, Seyed Mohammad Seyed Alshohadaei, Allen Seylani, Matthew Seymour, Jamileh Shadid, Nilay S Shah, Sweni Shah, Shazlin Shaharudin, Muhammad Shahbaz, Samiah Shahid, Syed Ahsan Shahid, Wajeelah Shahid, Endrit Shahini, Fatemeh Shahrahmani, Hamid R Shamsavari, Moyad Jamal Shahwan, Masood Ali Shaikh, Alireza Shakeri, Ali Shakerimoghaddam, Ali S Shalash, Sunder Sham, Muhammad Aaqib Shamim, Farzane Shams, Mehran Shams-Beyranvand, Mohammad Ali Shamshirgaran, Anas Shamsi, Alfia Shamsutdinova, Dan Shan, Abhishek Shankar, Mohammed Shannawaz, Xian Shao, Amin Sharifan, Javad Sharifi Rad, Avimanu Sharma, Bhoopesh Kumar Sharma, Bunty Sharma, Kamal Sharma, Manoj Sharma, Sourabh Sharma, Ujjwal Sharma, Vishal Sharma, Rajesh P Shastry, Shamee Shastry, Armin Shavandi, Ramzi Shawahna, Maryam Shayan, Babangida Shehu Bappah, Ali Sheidaei, Suchitra M Shenoy, Samendra P Sherchan, Suraj S Shetty, Fang Shi, Lin-Hong Shi, Mosa Shibani, Belayneh Fentahun Shibesh, Kenji Shibuya, Desalegn Shiferaw, Md Monir Hossain Shimul, Jae Il Shin, Min-Jeong Shin, Rahman Shiri, Reza Shirkoohi, Aminu Shittu, Abdul-karim Olayinka Shitu, Ivy Shiue, Velizar Shivarov, Nathan A Shlobin, Shayan Shojaei, Zahra Shokati Eshkiki, Azad Shokri, Sinegugu Nosipho Shongwe, Sina Shool, Seyed Afshin Shorofi, Gambhir Shrestha, Sunil Shrestha, Kerem Shuval, Nicole Remaliah Samantha Sibuyi, Emmanuel Edwar Siddig, Mohammad Sidiq, Martin Siegel, Diego Augusto Santos Silva, Gustavo Correia Basto da Silva, João Pedro Silva, Juan Carlos Silva, Luís Manuel Lopes Rodrigues Silva, Noah Joseph Bernard Silva de Leonardi, Padam Prasad Simkhada, Abhinav Singh, Akanksha Singh, Ambrish Singh, Baljinder Singh, Bhim Pratap Singh, Harmanjit Singh, Harpreet Singh, Jasbir Singh, Jasvinder A Singh, Kalpana Singh, Lucky Singh, Narinder Pal Singh, Paramdeep Singh, Poornima Suryanath Singh, Prashant Kumar Singh, Puneetpal Singh, Rakesh K Singh, Samer Singh, Satwinder Singh, Surendra Singh, Mukesh Kumar Sinha, Ratnesh Sinha, Robert Sinto, Sarah Brooke Sirota, Søren T Skou, David A Sleet, Erica Leigh N Slepak, Farrukh Sobia, MdSalman Sohel, Somaye Sohrabi, Balamrit Singh Sokhal, Ranjan Solanki, Solikhah Solikhah, Sameh S M Soliman, Weiyei Song, Younseong Song, Aayushi Sood, Prashant Sood, Soroush Soraneh, Reed J D Sorensen, Joan B Soriano, Michele Sorrentino, Fernando Sousa, Marco Aurelio Sousa, Ceren Soyulu, Michael Spartalhis, Sandra Spearman, Manraj Singh Sra, Chandrashekar T Sreeramreddy, Bahadar S Srichawla, Suresh Kumar Srinivasamurthy, Shyamkumar Sriram, Lauryn K Stafford, Jeffrey D Stanaway, Antonina V Starodubova, Simona Cătălina Ștefan, Caroline Stein, Dan J Stein, Caitlyn Steiner, Timothy J Steiner, Jaimie D Steinmetz, Paschalis Steiropoulos, Aleksandar Stevanović, Leo Stockfelt, Lars Jacob Stovner, Kurt Straif, Peter Stubbs, Yu Su, Omer Subasi, Narayan Subedi, Claudia Kimie Suemoto, Alisha Suhag, Liang Sui, Thitiporn Sukaew, Surajo Kamilu Sulaiman, Auwal Garba Suleiman, Muritala Suleiman Odidi, Muhammad Suleman, Desy Sulistiyorini, Mark J M Sullman, Anusha Sultan Meo, Haitong Zhe Sun, Jing Sun, Mao-ling Sun, Xiaodong Sun, Zhong Sun, Zhuanlan Sun, Suraj Sundaragiri, Thanigaivel Sundaram, Johan Sundström, David Sunkersing, Sumam Sunny, Vinay Suresh, Chandan Kumar Swain, Vivianne M Swart, Dayinta Annisa Syaiful, Lukasz Szarpak, Mindy D Szeto, Sree Sudha T Y, Payam Tabae Damavandi, Rafael Tabarés-Seisdedos, Seyed-Amir Tabatabaeizadeh, Shima Tabatabai, Celine Tabche, Ramin Tabibi, Mohammad Tabish, Jyothi Tadakamadla, Santosh Kumar Tadakamadla, Buhari Abdullahi Tafida, Farzad Taghizadeh-Hesary, Yasaman Taheri Abkenar, Moslem Taheri Soodejani, Amir Taherkhani, Jaben Taiba, Shima Tajabadi, Iman M Talaat, Stella Talic, Byomkesh Talukder, Mircea Tampa, Jacques Lukenze Tamuzi, Jianye Tan, Ker-Kan Tan, Shynar Tanabayeva, Haosu Tang, Ekamol Tantisattamo, Ingan Ukur Tarigan, Mengistie Kassahun Tariku, Saba Tariq, Md Tariqujjaman, Nathan Y Tat, Razieh Tavakoli Oliiae, Rahele Tavakoly, Seyed Mohammad Tavangar, Mebrahtu G Tedla, Amare Teshome Tefera, Mojtaba Teimoori, Mohamad-Hani Temsah, Corey Teply, Masayuki Teramoto, Amensisa Hailu Tesfaye, Azimeraw Arega Tesfu, Jay Tewari, Alireza Teymouri, Omar Thaher, Pugazhenthan Thangaraju, Kavumpurathu Raman Thankappan, Rekha Thapar, Ismael Tharwat, Samar Tharwat, Hadiza Theyra-Enias, Mehakpreet Kaur Thind, Arun James Thirunavukarasu, Muthu Thiruvengadam, Rekha Thiruvengadam, Arulmani Thiyagarajan, Nihal Thomas, Geethika P Thota, Wei Tian, Jansje Henny Vera Ticoalu, Tenaw Yimer Tiruye, Madi Tleshev, Musliu Adetola Tolani, Sojit Tomo, Marcello Tonelli, Roman Topor-Madry, Ali Torkashvand, Mathilde Touvier, Marcos Roberto Tovani-Palone, Khaled Trabelsi, Eugenio Traini, Mai Thi Ngoc Tran, Nghia Minh Tran, Ngoc Ha Tran, Quynh Thuy Huong Tran, Tam Quoc Minh Tran, Thang Huu Tran, Nguyen Tran Minh Duc, Domenico Trico, Indang Trihandini, Samuel Joseph Tromans, Quynh Xuan Nguyen Truong, Thien Tan Tri Tai Truyen, Aristidis Tsatsakis, Gary Tse, Evangelia Eirini Tsermpini, Lorraine Tudor Car, Mike Tuffour Amirikah, Munkhtuya Tumurkhuu, Zhouting Tuo, Sok Cin Tye, Aniefiok John Udoakang, Atta Ullah, Himayat Ullah, Irfan Ullah, Saeed Ullah, Muhammad Umair, Krishna Kishore Umapathi, Lawan Umar, Muhammad Umar, Muhammad Umar, Shehu Salihu Umar, Andrew Underwood-Nakamura, Dinesh Upadhyay, Era Upadhyay, Dipan Uppal, Daniele Urso, Jibrin Sammani Usman, Kelechi Julian Uzor, Dilber Uzun Ozsahin, Hande Uzunçubuk, Pratyusha Vadagam, Sara Vahdati, Asokan Govindaraj Vaithinathan, Omid Vakili, Alireza Vakilian, Pascual R Valdez, Mario Valenti, Gelareh Valizadeh, Jef Van den Eynde, Giloume Van Der Walt, Aaron van Donkelaar, Javad Varasteh, Ravi Prasad Varma, Priya Vart, Tommi Juhani Vasankari, Sampara Vasishta, Srivatsa Surya Vasudevan, Prabhakar Veginadu, Ashleigh S Vella, Balachandar Vellingiri, Narayanawamy Venketasubramanian, Baskar Venkidasamy, Megan Verma, Poonam Verma, Massimiliano Veroux, Georgios-Ioannis Verras, Dominique Vervoort, Simone Vidale, Simone Villa, Jorge Hugo Villafañe, David Villarreal-Zegarra, Francesco S Violante, Sharath Chaitanya Vipparthy, Rachel Visontay, Luciano Magalhães Vitorino, Vasily Vlassov, Martin Vojtek, Stein Emil Vollset, Avina Vongpradith, Mehdi Vosoughi, Elpida Vounzoulaki, Hai Nam Vu, Linh Vu, Yasir Waheed, Mugi Wahidin, Megha Walia, Agnes Wamuyu Wamai, Jin-Yi Wan, Cong Wang, Fang Wang, Lei Wang, Liang Wang, Ruixuan Wang, Shaopan Wang, Shu Wang, Wei Wang, Xing Wang, Xuequan Wang, Yanzhong Wang, Yichen Wang, Yuan-Pang Wang, Zhihua Wang, Tanveer A Wani, Mary Njeri Wanjau, Ahmed Bilal Waqar, Muhammad Waqas, Paul Ward, Toyiba Hiyaru Wassie, Kosala Gayan Weerakoon, Ishanka Weerasekara, Fei-Long Wei, Xueying Wei, Robert G Weintraub, Daniel J Weiss, Eli J Weiss, Yi Feng Wen, Andrea Werdecker, Ronny Westerman, Joanna L Whisnant, Harvey A Whiteford, Taweewat Wiangkham, Yohanes Cakrapradipta Wibowo, Anggi Lukman Wicaksana, Dakshitha Praneeth Wickramasinghe, Nuwan Darshana Wickramasinghe, Samuel Wiebe, Angga Wilandika, Peter Willeit, Shadrach Wilson, Andrew Awuah Wireko, Gemechu Kumera Wirtu, Charles Shey Wiysonge, Abay Tadesse Woday, Marcin W Wojewodzic, Axel Walter Wolf, Tewodros Eshete Wonde, Yohannes Chemere Wondmeneh, Daniel Tarekegn Worede, Minichil Chanie Worku, Nigus Kassie Worku, Ai-Min Wu, Chenkai Wu, Felicia Wu, James Fan Wu, Jiayuan Wu, Jinyi Wu, Shi-Nan Wu, Zenghong Wu, Yihun Miskir Wubie, Yanjie Xia, Zhihija Xia, Guangqin Xiao, Hong Xiao, Na Xiao, Wanqing Xie, Hongquan Xing, Site Xu, Suowen Xu, Wanqing Xu, Xiang Xu, Xiaoyue Xu, Mukesh Kumar Yadav, Vikas Yadav, Mahnaz Yadollahi, Sajad Yaghoubi, Saba Yahoo (Syed), Galal Yahya, Kazumasa Yamagishi, Guangan Yan, Haibo Yang, Weiguang Yang, Xinxin Yang, Yuichiro Yano, Haiqiang Yao, Laiang Yao, Amir Yarahmadi, Haya Yasin, Mohamed A Yassin, Yuichi Yasufuku, Sanni Yaya, Pengpeng Ye, Meghdad Yeganeh, Ali Cem Yekdeş, Mohammad Hossein YektaKooshali, Kuanysh A Yergaliyev, Renjulal Yesodharan, Subah Abderehim Yesuf, Saber Yezli, Siyan Yi, Muluken Yigezu, Zeamanuel Anteneh Yigzaw, Dehui Yin, Yulai Yin, Paul Yip, Maled Berihun Yismaw, Yazachew Engida Yismaw, Dong Keon Yon, Naohiro Yonemoto, Mostafa Z Younis, Abdilahi Yousuf, Chuanhua Yu, Jian Yu, Yong Yu, Faith H Yuh, Ghazala Yunus, Umar Yunusa, Aminu Abba Yusuf, Monal Yuwanati, Siddhesh Zadey, Vesna Zadnik, Mubashir Zafar,

Manijeh Zaghampour, Emilia Zainal Abidin, Fathiah Zakham, Nazar Zaki, Giulia Zamagni, Burhan Abdullah Zaman, Sojib Bin Zaman, Abu Sarwar Zamani, Nelson Zamora, Aurora Zanghi, Heather J Zar, Kourosh Zarea, Mohammed Zawiah, Mohammed G M Zeariya, Abay Mulu Zenebe, Sebastian Zensen, Eyael M Zeru, Tiansong Zhan, Yongle Zhan, Beijian Zhang, Casper J P Zhang, Haijun Zhang, Jingya Zhang, Liqun Zhang, Meixin Zhang, Xiaoyi Zhang, Yunqian Zhang, Zhiqiang Zhang, Jianhui Zhao, Sheng Zhao, Zhongyi Zhao, Jinxin Zheng, Ming-Hua Zheng, Peng Zheng, Claire Chenwen Zhong, Jiayan Zhou, Juexiao Zhou, Maigeng Zhou, Bin Zhu, Zhengyang Zhu, Abzal Zhumagaliuly, Magdalena Zielińska, Liu Zihao, Ghazal Zoghi, Mohamed Ali Zoromba, Zhiyong Zou, Rafat Mohammad Zrieq, Liesl J Zuhlke, Lilik Zuhriyah, Alimuddin Zumla, Ahed H Zyouid, Sa'ed H Zyouid, Shaheer H Zyouid, Michael Brauer†, Theo Vos†, Christopher J L Murray†, and Emmanuela Gakidou†. *Joint first authors †Joint senior authors

Affiliations

See Online for appendix 4 For collaborator affiliations see appendix 4 (pp 14–74).

Contributors

Please see appendix 4 (pp 74–99) 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 author (S I Hay) and senior authors (K L Ong, D F Santomauro, M Brauer, T Vos, C J L Murray, and E Gakidou) had full access to the data in the study and final responsibility for the decision to submit for publication.

Declaration of interests

D Abramov reports payment or honoraria for speakers bureaus from Bayer and AstraZeneca; participation on an Advisory Board with BridgeBio; receipt of equipment, materials, drugs, medical writing, gifts, or other services from Bayer in the form of medical writing assistance; all outside the submitted work. D Adzrago reports support for the present manuscript from the Intramural Research Program of the National Institutes of Health (NIH), and support for attending meetings and/or travel from the Intramural Research Program of the National Institutes of Health (NIH) outside the submitted work. The contributions of the NIH author(s) were made as part of their official duties as NIH federal employees, are in compliance with agency policy requirements, and are considered Works of the United States Government. However, the findings and conclusions presented in this paper are those of the author(s) and do not necessarily reflect the views of the NIH or the US Department of Health and Human Services. S Afzal reports support for the present manuscript from Institute of Public Health Lahore for study material, manuscripts, medical writings and library resources; grants or contracts from the Dean Institute of Public Health Lahore; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from the Dean Institute of Public Health Lahore; support for attending meetings and/or travel from the Dean Institute of Public Health Lahore; participation on a Data Safety Monitoring Board or Advisory Board with Pakistan National Bioethics Committee as a Member, Institutional Review Board of Fatima Jinnah Medical University as a Member, Ethical Review Board and Data Monitoring Board Institute of Public Health Lahore Pakistan as a Member, Clinical Research Organization King Edward Medical University, Annals of King Edward Medical University Advisory Board as a Member; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Pakistan Higher Education Commission Research Committee as a Member, Pakistan Medical and Dental Commission Research and Journals Committee as a Member, Pakistan National Bioethics Committee as a Member, Pakistan Society of Internal Medicine as a Member, Pakistan Association of Medical Editors as a Member, Medical Microbiology and Infectious Diseases Society as a Member, Leads

International as a Fellow, Faculty of Public Health UK as a Fellow, College of Physicians and Surgeons Pakistan as a Fellow; receipt of equipment, materials, drugs, medical writing, gifts or other services from Bergen University Norway; other financial or non-financial interests with Dean Institute of Public Health Birdwood Lahore; all outside the submitted work. C Agostinis Sobrinho reports grants or contracts from Fundação para a Ciência e Tecnologia (FCT) via grant CEECINST/00093/2021/CP2815/CT0001, outside the submitted work. A Amin reports the following patents pending: US20200253891A1; Method of Liver Cancer Treatment with Safranal-Based Formulations, US20200254049A1; Combination Therapy for Cancer, US20200253890A1; Suppression and Inhibition of CDC25B with Safranal-Based Formulations; all outside the submitted work. R Anuceanu reports consulting fees from AbbVie and Merck Romania; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from AbbVie, Laropharm, Reckitt, Merck Romania, and MagnaPharm; support for attending meetings and/or travel from Merck Romania and Reckitt; all outside the submitted work. J Ärnlov reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from AstraZeneca, Boehringer Ingelheim, and Novartis; participation on a Data Safety Monitoring Board or Advisory Board with AstraZeneca, Boehringer Ingelheim, and Astella; all outside the submitted work. M S Aslam reports grants or contracts from Xiamen University Malaysia Research Fund (XMUMRF) for Grant No.: XMUMRF/2025-C15/ITCM/0006 Project title: Therapeutic and Toxicity Evaluation of Selected Medicinal Herbs for NAFLD: Exploring the Inter-Organellar Contact Sites Modulation Theory Role: Co-Investigator Dates: Jan 2025 - Dec 2027 (ongoing) and for Grant No.: 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) – both internal XMUMRF research grants administered by Xiamen University Malaysia; funds disbursed to institutional research account only; no salary, honoraria, or personal payments to author; all outside the submitted work. O C Baltatu reports support for the present manuscript from the National Council for Scientific and Technological Development Fellowship (CNPq, 304224/2022-7), the Anima Institute (AI) Research Professor Fellowship, and Alfaisal University; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with VividiWise Analytics as Managing Partner and São José dos Campos Tech Park - CITE as Biotech Advisory Board Member; all outside the submitted work. S Barteit reports grants or contracts from the Carl-Zeiss Foundation and the German Research Foundation (DFG); stock or stock options in CHEERS company, a for-profit company focusing on climate change and health evaluation and response systems; all outside the submitted work. A Beloukas reports grants or contracts from Gilead for a Research Grant and Sponsorship to the University of West Attica, and from GSK/ViiV for a 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, medical writing, gifts or other services from Cepheid in the form of FOC reagents for a research project; all outside the submitted work. P J G Bettencourt reports the following patents planned, issued or pending: WO2020229805A1, BR112021022592A2, EP3965809A1, OA1202100511, US2023173050A1, EP4265271A2, EP4275700A2, EP4265271A3, EP4275700A3; all outside the submitted work. A S Bhagavathula reports support for attending meetings and/or travel from the North Dakota State University, American College of Epidemiology, and University of Virginia; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Board of Directors, American College of Epidemiology; Institute for Health Metrics and Evaluation as GBD Lead Collaborator; all 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 roles in other board, society, committee or advocacy group, paid or unpaid, with Rotary District 9675, Sydney, Australia as District Chair, Diversity, Equity, Inclusion & Belonging, with Global Health & Migration Hub Community, Global Health Hub Germany, Berlin, Germany as Chair, Founding Member and Manager, with 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 an Editorial Board Member; all outside the submitted work. A Biswas reports consulting fees from LUPIN Pharmaceuticals Ltd., INTAS Pharmaceuticals Ltd., Alkem Laboratories Ltd., and Torrent Pharmaceuticals Ltd.; all outside the submitted work. F M Blyth reports support for attending meetings and/or travel from International Association for the Study of Pain (IASP) as IASP Councilor; all outside the submitted work. R Cairns reports grants or contracts from Reckitt for an untied educational grant to study poisoning; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Pharmacy Guild of Australia and Reckitt; all outside the submitted work. A Caye reports consulting fees from Knight Therapeutics and EMS Pharmaceuticals; all outside the submitted work. H Christensen reports support for the present manuscript from Velux Foundation, Br Hartman Fonden, Lundbeck Foundation, Novo Foundation, Tvaersfonden; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Bayer A/S; participation on a Data Safety Monitoring Board or Advisory Board with Atricure (LEEAPS trial Data Safety Monitoring Board); leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Action Plan for Stroke in Europe as Past Chair; all outside the submitted work. J Conde reports grants or contracts from OncoNanoAI: Artificial intelligence to discover the next generation of personalized nanoparticles for triple-negative breast cancer therapy (2025-2027) FCT Grant LISBOA2030-FEDER-00862500- 14998; patents planned, issued or pending; TRPV2 Antagonists. US Application No. US11273152B2, Surfactant-based cellulose hydrogel methods and uses thereof, PCT/IB2025/051694, 17/02/2025, Self-immolative micelle, methods and uses thereof, EP25165757, 24/03/2025; all outside the submitted work. S E Congly reports grants or contracts paid to their institution from AstraZeneca, Merck, Ipsen, Bausch Health, Oncoustics, Boehringer Ingelheim, and Gilead Sciences Canada; consulting fees paid to them from GSK and Boehringer Ingelheim; participation on a Data Safety Monitoring Board or Advisory Board with Boehringer Ingelheim, Gilead Sciences Canada, and AstraZeneca; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Canadian Association for the Study of the Liver as a Member of the Board of Directors and Alberta Society of Gastroenterology as Vice President; all outside the submitted work. N Conrad reports grants or contracts paid to their institution from the Wellcome Trust Career Development Award (grant number 318034/Z/24/Z), Research Foundation Flanders (grant number 12ZU922N), and KU Leuven (internal funding); all outside the submitted work. S Cortese reports grants or contracts from the National Institute for Health and Care Research (NIHR) and the European Research Agency; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from the Association for Child and Adolescent Mental Health (ACAMH), the British Association of Psychopharmacology (BAP), Medice; support for attending meetings and/or travel from the Association for Child and Adolescent Mental Health (ACAMH), the British Association of Psychopharmacology (BAP), Medice; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with the European ADHD Guideline Group (EAGG); all outside the submitted work. E C Dee reports support for the present manuscript from the US National Institutes of Health (NIH)/ National Cancer Institute (NCI) and the Prostate Cancer Foundation through the Prostate Cancer Foundation Young Investigator Award and through the Cancer Center Support Grant from the US NCI (P30 CA008748). A K Demetriades reports leadership or non-fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with EANS (European Association of Neurosurgical Societies) as a Board Member, AO SPIN as a Steering Committee Member for Knowledge Forum Degenerative, Global Neuro

Foundation as a Board Member, AO Spine Foundation as a Steering Committee Member, Knowledge Forum Degenerative; all outside the submitted work. X Ding reports grants or contracts from the American Heart Association for a 2-year predoctoral fellowship (DOI: 10.58275/AHA.25PRE1373497.pc.gr.227106), quarterly payments made to their institution, outside the submitted work. L L M Ebraheim reports support for the present manuscript from the Gates Foundation (OPP1152504); royalties or licenses from the Institute for Health Metrics and Evaluation, outside the submitted work. A Faro reports support for the present manuscript from Brazilian National Council for Scientific and Technological Development (CNPq, Brazil), CNPq-funded researcher (PQ). L M Force reports support for the present manuscript from Gates Foundation, St. Jude Children's Research Hospital; grants or contracts from St. Baldrick's Foundation, Conquer Cancer Foundation, NIH Loan Repayment Program; leadership or fiduciary roles in other board, society, committee or advocacy group, unpaid, with Lancet Oncology International Advisory Board; all outside the submitted work. R C Franklin reports support for attending meetings and/or travel from Australasian College of Tropical Medicine (ACTM) - Annual Conference 2022-2024 ; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Australasian College of Tropical Medicine as President, Kidsafe Australia as President, Royal Life Saving Society Australia as a Board Member, and Auschem Training as a Board Member; all outside the submitted work. N Fullman reports grants or contracts from the Gates Foundation since March 2024 for work around childhood vaccination and drivers of non-vaccination in select countries; other financial or non-financial interests with Gates Ventures from June 2020 to June 2025, for work around childhood vaccination and vaccine delivery in low- and middle-income countries, and from Gates Foundation (July 2025 to present); all outside the submitted work. N M M Ghith reports 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. Z Guan reports grants or contracts from Dementia Centre of Excellence and Curtin enAble Institute, Curtin University, outside the submitted work. A Guha reports grants or contracts from American Heart Association and US Department of Defense; leadership or fiduciary roles in other board, society, committee, or advocacy groups, paid or unpaid, with ZERO Prostate Cancer Health Equity Committee; all outside the submitted work. A A Harris reports grants support from Gates Foundation and Gavi, outside the submitted work. A Hassan reports consulting fees from Novartis, Sanofi Genzyme, Biologix, Astra Zeneca, Pfizer, Merz, Roche, Merck, Hikma Pharma, Janssen, Inspire Pharma, Future Pharma, and Elixir Pharma; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Novartis, Allergan, AbbVie, Merck, Biologix, Viatrix, Pfizer, Eli Lilly, Janssen, Roche, Sanofi Genzyme, Bayer, Astrazeneca, Hikma Pharma, Al Andalus, Chemipharm, Lundbeck, Elixir, EvaPharma, Inspire Pharma, Future Pharma and Habib Scientific Office, and Everpharma; support for attending meetings and/or travel from Novartis, Allergan, Merz, Pfizer, Merck, Biologix, Roche, Sanofi Genzyme, Bayer, Hikma Pharma, Chemipharm, Al Andalus and Clavita Pharm; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with MENA Headache Society as Vice President, Multiple Sclerosis Chapter of the Egyptian Society of Neurology as a Board Member, Headache Chapter of the Egyptian Society of Neurology as a Board Member, The International Headache Society (IHS) as a Member of the committee of education, the membership committee, and regional committee; all outside the submitted work. C Herteliu reports grants or contracts for the 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, for a grant of the European Commission Horizon 4P-CAN (Personalised Cancer Primary Prevention Research through Citizen Participation and Digitally Enabled Social Innovation), for 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 no.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, and for 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 no.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; all outside the submitted work. A K Husøy reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Teva Pharmaceuticals for a 45-minute lecture for nurses hosted by Teva in January 2025; leadership or fiduciary roles in other board, society, committee or advocacy group, unpaid, with Lifting The Burden (LTB), a UK-registered non-governmental organization, as Director and Trustee, and with The Journal of Headache and Pain (TJHP) as Editorial Board Member; all outside the submitted work. I M Ilic reports support for the present manuscript from Ministry of Science, Technological Development and Innovation of the Republic of Serbia, no. 451-03-137/2025-03/200110. M D Ilic reports support for the present manuscript from Ministry of Science, Technological Development and Innovation of the Republic of Serbia, no. 451-03-47/2023-01/200111. N E Ismail reports leadership or fiduciary roles in other board, society, committee, or advocacy group, unpaid, with Malaysian Academy of Pharmacy, Malaysia as the Bursar and Council Member and Malaysian Pharmacists Society Education Chapter Committee as a Committee Member; all outside the submitted work. I O Iyamu reports grants or contracts from Canadian Institutes for Health Research (CIHR) Health Systems Impact Fellowship (Funding Reference No. IF8-196153), Michael Smith Health Research BC Trainee Award (Award number - HSIF-2024-04465), and CIHR Canadian HIV Trials Network (CTN+) post-doctoral 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 other board, society, committee or advocacy group, paid or unpaid, with Public Health Association of British Columbia as Vice President; all outside the submitted work. V Jha reports consulting fees/honoraria paid to the George Institute from Bayer, Astra Zeneca, Boehringer Ingelheim, Baxter, Vera, Visterra, Otsuka, Novartis, Astra Zeneca, Timberlyne, Biogen, Chinook, and Alpine; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events paid to the George Institute from Vera; all outside the submitted work. T Joo reports support for the present manuscript from EU4Health Programme 2021 - 2027 under Grant Agreement 101126953 (The Joint Action on CARDiovascular diseases and DIabetes – JACARDI. The views and opinions expressed are those of the author(s) only and do not necessarily reflect those of the European Union or the European Health and Digital Executive Agency (HaDEA). Neither the European Union nor the granting authority can be held responsible for them), and from 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. J J Jozwiak reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Novartis, Adamed, Amgen, Boehringer Ingelheim, Servier, Novo Nordisk; all outside the submitted work. M K Kashyap reports grants or contracts from Indian Council of Medical Research (ICMR), New Delhi - Grant # 5/13/55/2020/NCD-III; patents planned, issued or pending: 202311003940 (Indian Patent-Pending), 202311058515 (Indian Patent-Pending); all outside the submitted work. J H Kempen reports salary support via institution for the present manuscript from Sight for Souls and Mass Eye and Ear Global Surgery Program; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Sight for Souls (a US 501c3 charity) as Board President; all outside the submitted work. M Kivimäki reports grants or contracts paid to their university from the Wellcome Trust (221854/Z/20/Z), Medical Research Council (MR/Y014154/1), and Research Council of Finland (350426), outside the submitted work. J M Kocarnik reports support for the present manuscript from Institute for Health Metrics and Evaluation as an employee, the Gates Foundation for funding to his institution, and American Lebanese Syrian Associated Charities for funding to his institution. A G Konstas reports grants or contracts from Thea Pharmaceuticals, Omni Vision, Vianex, Santen, Intermed; 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, Esteve Pharmaceuticals, Bayer; support for attending meetings and/or travel from Vianex, Thea Pharmaceuticals, Intermed, Santen; all outside the submitted work. K Krishan reports non-financial support 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 (330527), paid to their institution. 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 other board, society, committee or advocacy group, paid or unpaid, with Journal of the American Heart Association as Technical Editor; all 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 in AstraZeneca during time of employment (>2.5 years ago); other financial or non-financial interests with AstraZeneca as a former employee (>2.5 years ago); all outside the submitted work. H Liu reports other financial or non-financial interests as a mentor of the National Medical Research Association (NMRA, UK), a member of British Society for Cardiovascular Research (BSCR, UK), and a member of Cardiovascular Analytics Group (CVAG, HKSAR of China); all are non-profit academic associations; all outside the submitted work. J Liu reports support for the present manuscript from the National Natural Science Foundation (72474005) and Beijing Natural Science Foundation (L222027); royalties or licenses from the National Natural Science Foundation (72474005) and Beijing Natural Science Foundation (L222027); all outside the submitted work. V Lohner reports support for the present manuscript from Marga and Walter Boll Foundation, Kerpen, Germany. S Lorkowski reports grants or contracts paid to their institution from dsm-firmenich (formerly DSM Nutritional Products); consulting fees from Danone, Novartis Pharma, and Swedish Orphan Biovitrum (SOBI); payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from AMARIN Germany, Amedes Holding, AMGEN, Berlin-Chemie, Boehringer Ingelheim Pharma, Daiichi Sankyo Deutschland, Danone, Hubert Burda Media Holding, Janssen-Cilag, Lilly Deutschland, Novartis Pharma, Novo Nordisk Pharma, Roche Pharma, Sanofi-Aventis, Swedish Orphan Biovitrum (SOBI), SYNLAB Holding Deutschland; support for attending meetings and/or travel from AMGEN; participation on a Data Safety Monitoring Board or Advisory Board with AMGEN, Daiichi Sankyo Deutschland, Novartis Pharma, Sanofi-Aventis; all outside the submitted work. K S-K Ma reports grants or contracts from the International Team for Implantology, outside the submitted work. H R Marateb reports grants or contracts from Universitat Politècnica de Catalunya Barcelona Tech – UPC, outside the submitted work. S Masi reports grants or contracts from Servier via personal contracts for consulting activities, lectures, presentations, manuscript writing and educational events, Tuscany Region via grants for research projects in the field of arterial hypertension and management of SARS-CoV2 infection, and Italian Ministry of University and Research via grants for research projects in the field of heart failure; consulting fees from Servier; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Servier; support for attending meetings and/or travel from Servier; participation on a Data Safety Monitoring Board or Advisory Board with Servier; all outside the submitted work. R J Maude reports support for the present manuscript from Wellcome Trust. This research was supported in part by Wellcome Trust [Grant number 220211] as it provides core funding for Mahidol Oxford Tropical Medicine Research and contributes to his salary. He is required by Wellcome to acknowledge this grant in all publications. S A Meo reports grants or contracts from Ongoing Research Funding Program (ORF-2025-47), King Saud University, Riyadh, Saudi Arabia, outside the submitted work. T R Miller reports grants or contracts from

AB InBev Foundation, National Institute of Mental Health (USA), Santa Clara County Public Health Department (California); payment for expert testimony from lawyers representing state & local plaintiffs in opioid litigation; all outside the submitted work. L 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. C E Moore reports participation on a Data Safety Monitoring Board or Advisory Board with Gwen Knight as Advisory Board member for her MRC grant on AMR, no payment made, with Leonid Chindelevitch as Advisory Board member for his UKRI grant on AMR, no payment made, with Wendy Thompson as Deputy Chair on the advisory board for the Tackling antimicrobial resistance across dentistry in Sub-Saharan Africa, travel claimed for meeting, and with Regional AMR Data Analysis for Advocacy, Response, and Policy (RADAAR) as Member of the Technical Advisory Group (TAG) of the IVI-led and Fleming Fund resourced project RADAAR Phase-2, no payment made; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Microbiology Society as Co-chair for the Impact and Influence committee and co-lead for the Knocking Out AMR project, travel claimed for meetings; all outside the submitted work. R d S Moreira reports grants or contracts from CNPq (National Council for Scientific and Technological Development) for the CNPq Research Productivity Scholarship (scholarship registration number 316607/2021-5), outside the submitted work. J F Mosser reports support for the present manuscript from the Gates Foundation via grant funding; grants or contracts from Gavi; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Providence Health & Services; support for attending meetings and/or travel from the Gates Foundation; all outside the submitted work. S Nomura reports support for the present manuscript from Ministry of Education, Culture, Sports, Science and Technology of Japan (24H00663) and Precursory Research for Embryonic Science and Technology from the Japan Science and Technology Agency (JPMJPR22R8). B Oancea reports support for the present manuscript from Ministry of Research, Innovation and Digitalization through the Core Program of the National Research, Development and Innovation Plan 2022- 2027, project no. PN 23-02-0101-Contract No. 7N/2023; PNRR/2022/C9/MCID/18 project 760096. S Onie reports support for the present manuscript from National Health and Medical Research Council, Australia; consulting fees from World Health Organization for the amount of USD\$9,000 from November 2023 to date; support for attending meetings and/or travel from Suicide Prevention Australia for travel and attendance fees for annual conference and International Association for Suicide Prevention for conference attendance fees; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with International Association for Suicide Prevention as Vice President and Indonesian Association for Suicide Prevention as President; stock or stock options in WellSpring Indonesia, a local mental health clinic in Indonesia (not majority shareholder); all outside the submitted work. R Ornelo reports consulting fees from Teva; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Novartis, Eli Lilly, Teva, AbbVie, Bayer, Pfizer, Lundbeck, Organon; support for attending meetings and/or travel from Teva and Novartis; participation on an Advisory Board with Eli Lilly and AbbVie; receipt of equipment, materials, drugs, medical writing, gifts or other services from Novartis; all outside the submitted work. A Ortiz reports grants or contracts from Sanofi paid to their institution The Fundación Jiménez Díaz Health Research Institute (IIS-FJD UAM) and as Director of the Catedra Astrazeneca-UAM of chronic kidney disease and electrolytes paid to their institution Universidad Autónoma de Madrid (UAM); consulting fees from Astellas, Astrazeneca, Bioporto, 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, Bioporto, Boehringer Ingelheim, Fresenius Medical Care, GSK, Bayer, Sanofi-Genzyme, Sobi, Menarini, Lilly, Chiesi, Otsuka, Novo-Nordisk, Sysmex and Vifor Fresenius Medical Care Renal Pharma and Spafarma; support for attending meetings and/or travel from Astellas, Astrazeneca, Fresenius Medical Care, Boehringer- Ingelheim, Sanofi-Genzyme,

Chiesi, Sobi, and Bayer; 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; leadership or fiduciary roles in other board, society, committee or advocacy group, unpaid, with Council ERA. SOMANE; all outside the submitted work. P K Pal reports grants or contracts paid to their institution from Indian Council of Medical Research (ICMR), Department of Science & Technology (DST)-Science and Engineering Research Board, Department of Biotechnology (DBT), DST-Cognitive Science Research Initiative, Wellcome Trust UK-India Alliance DBT, PACE scheme of BIRAC, Michael J. Fox Foundation, SKAN (Scientific Knowledge for Ageing and Neurological ailments)-Research Trust; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from the International Parkinson and Movement Disorder Society, and Movement Disorder Societies of Korea, Taiwan and Bangladesh, Japanese Society of Neurology, Teva Pharmaceutical Industries and Elsevier Inc (payment of one-thirds of the honorarium to their institute); support for attending meetings and/or travel from the National Institute of Mental Health and Neurosciences (NIMHANS), International Parkinson and Movement Disorder Society, and Movement Disorder Societies of Korea, Taiwan and Bangladesh, Japanese Society of Neurology and Asian Oceanian Congress of Neurology; leadership or fiduciary roles in other board, society, committee or advocacy group with Indian Academy of Neurology as Past President, Asian and Oceanian subsection of International Parkinson and Movement Disorder Society (MDS-AOS) as Past Secretary, Annals of Movement Disorders as Past Editor-in-Chief, the Parkinson Society of Karnataka as President, Infection Related Movement Disorders Study Group of MDS as Chair, Rare Movement Disorders Study Group of International Parkinson and Movement Disorder Society (IPMDS) as a Member, Education Committee of IAPRD as a Member, Rating Scales Education and Training Program Committee of IPMDS as a Member, Neurophysiology Study Group of IPMDS as a Member, Movement Disorders in Asia Study Group as a Member, Post-Stroke Movement Disorders as a Member, Ataxia Study Group of IPMDS as a Member, Ataxia Global Initiative as a Member, Movement Disorders Society of India as President, and the Education Committee of International Parkinson and Movement Disorder Society (IPMDS) as Chair—all unpaid posts except Annual Leadership stipend for 2023–2025, of which one-thirds to be paid to their institute; all outside the submitted work. R F Palma-Alvarez reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Angelini, Casen Recordati, Lundbeck, Neuraxpharm, Rubió, Servier, and Takeda; support for attending meetings and/or travel from Angelini, Italfarmaco, Advanz Pharma, Takeda, and Lundbeck; all outside the submitted work. S K Panda reports support for the present manuscript from Siksha 'O' Anusandhan (Deemed to be University) via a salary; grants or contracts from File no. 17-59/2023-24/CCRH/Tech./Coll./ICMR- Diabetes/960) as co-investigator; all outside the submitted work. G D Panos reports support for attending meetings and/or travel (expenses covered without receiving direct payment) from Bayer Greece and Roche Hellas; all outside the submitted work. R Passera reports participation on a Data Safety Monitoring Board or Advisory Board with 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), unpaid; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with the EBMT Statistical Committee, European Society for Blood and Marrow Transplantation, Paris (France) as a member, and the IRB/IEC Comitato Etico AO SS. Antonio e Biagio Alessandria-ASL AL-VC (Italy) as a past Member (2020–2023); all outside the submitted work. A E Peden reports support for the present manuscript from the [Australian] National Health and Medical Research Council (Grant Number: APP2009306). V C F Pepito reports grants or contracts from Sanofi Consumer Healthcare to conduct studies on self-care in the Philippines, and Zuellig Family Foundation for writing manuscripts on health systems strengthening; all outside the submitted work. M A Piradov reports leadership or fiduciary roles in other board, society, committee, or advocacy group, paid or unpaid, with the Journal Annals

of Clinical and Experimental Neurology as Editor-in-Chief, outside the submitted work. C D Pond reports grants or contracts paid to their university from Medical Research Futures Fund Australian Government (11 grants) and Department of Health and Ageing (1 grant); consulting fees from HNECC Primary Health Network for consulting on vertical integration project, Melbourne University for consulting on biomarkers project, Brain Health Collective for consulting on dementia, and Royal Australian College of General Practitioners for chairing research committee and related activities; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Dementia Training Australia and Melbourne University; support for attending meetings and/or travel from Royal Australian College of General Practitioners for travel related to role as chair of the Research Committee; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Research Foundation Board, RACGP as a Member; all outside the submitted work. S Rege reports leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Medication Adherence and Persistence (MAP) Special Interest Group (SIG) as Operational Lead, Editorial Board of Pharmacoepidemiology section within Frontiers in Pharmacology as Review Editor, PLOS ONE Editorial Board as Academic Editor, and Pain Management as Editorial Board Member; all 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. Y L Samodra reports grants or contracts from NSTC – Institute of Epidemiology and Preventive Medicine, NTU, Taiwan for a post-doctoral fellow contract; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Benang Merah Research Center, Indonesia as Co-Founder; other financial or non-financial interests with Jago Beasiswa (jidebeasiswa.com) as a scholarship mentor; all outside the submitted work. V Sharma reports other financial or non-financial interests with DFSS (MHA)'s research project (DFSS28(1)2019/EMR/6) at Institute of Forensic Science & Criminology, Panjab University, Chandigarh, India, outside the submitted work. J I Shin reports other financial or non-financial interests with Lee Youn Jae fellowship (JIS), outside the submitted work. V Shivarov reports patents planned, issued or pending with the Bulgarian Patent Office; other financial or non-financial interests with ICON plc in the form of a salary; all outside the submitted work. D D Silva reports grants or contracts from E2S|P.Porto, Porto, Portugal for contract as Adjunct Professor and CISA@LAQV|REQUIMTE for financial support as Integrated Researcher; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Faculty of Medicine of University of Porto, Portugal and Faculty of Pharmacy of University of Porto, Portugal; support for attending meetings and/or travel from E2S|P.Porto, Porto, Portugal and Erasmus+ Mobility; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with the Portuguese Association of Forensic Sciences (APCF) as Directory Board Member; all outside the submitted work. J P Silva reports support for the present manuscript from Portuguese Foundation for Science and Technology for payment of a salary (contract with reference 2021.01789.CEECIND/CP1662/CT0014). L M L R Silva reports grants or contracts from SPRINT, Sport Physical Activity and Health Research e Innovation Center, Polytechnic of Guarda, 6300-559 6 Guarda, Portugal; and collaborate with RISE - UBI, Health Sciences Research Centre, University of Beira Interior, 6201-506 Covilhã, Portugal; all outside the submitted work. J A 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, FocusForward, Navigant Consulting, Spherix, MediQ, Jupiter Life Science, UBM LLC, Trio Health, Medscape, WebMD, 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 OMERACT, an international

organization that develops measures for clinical trials and receives arm's length funding from 12 pharmaceutical companies, as past steering committee member to attend their meeting every 2 years; participation on a Data Safety Monitoring Board or Advisory Board with FDA Arthritis Advisory Committee (unpaid); leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid as a past steering committee member of the OMERACT; 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; all outside the submitted work. S T Skou reports grants or contracts from European Union's Horizon 2020 research innovation program (payment to the hospital, grant agreement No 945377) and Region Zealand (payment to the hospital, program grant from Region Zealand (Exercise First)); royalties or licenses from Munksgaard for book chapters and TrustMe-Ed for online lecture; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Nestlé Health Science for presentation at webinar on osteoarthritis; other financial or non-financial interests as co-founder of GLA:D, a not-for profit initiative hosted at University of Southern Denmark aimed at implementing clinical guidelines for osteoarthritis in clinical practice; all outside the submitted work. J D Stanaway reports support for the present manuscript from Gates Foundation via grants to institution; grants or contracts paid to institution from Open Philanthropy and Novo Nordisk Foundation, outside the submitted work. D J Stein reports consultancy honoraria from Discovery Vitality, Kanna, L'Oreal, Lundbeck, Orion, Servier, Seaport Therapeutics, Takeda, and Wellcome, outside the submitted work. J Sundström reports direct or indirect stock ownership in companies (Anagram kommunikation AB, Sence Research AB, Symptoms Europe AB, MinForskning AB) providing services to companies and authorities in the health sector including Amgen, AstraZeneca, Bayer, Boehringer, Eli Lilly, Gilead, GSK, Göteborg University, Itrim, Ipsen, Janssen, Karolinska Institutet, LIF, Linköping University, Novo Nordisk, Parexel, Pfizer, Region Stockholm, Region Uppsala, Sanofi, STRAMA, Takeda, TLV, Uppsala University, Vifor Pharma, WeMind; all outside the submitted work. R Tabarés-Seisdedos reports grants or contracts from Valencian Regional Government's Ministry of Education (PROMETEO/CIPROM/2022/58) and the Spanish Ministry of Science, Innovation and Universities (PID2021-129090B-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; all outside the submitted work. J H V Ticoalu reports leadership or fiduciary roles in other board, society, committee, or advocacy group, paid or unpaid, with Benang Merah Research Center, Indonesia as Co-Founder; all outside the submitted work. D Trico reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from AstraZeneca, Eli Lilly, and Novo Nordisk; patents planned, issued or pending with AstraZeneca; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with EASD Early Career Academy and EASD Committee on Clinical Affairs; receipt of equipment, materials, drugs, medical writing, gifts or other services from Abbott and PharmaNutra; all outside the submitted work. S J Tromans reports grants or contracts paid to University of Leicester, their institution, as part of the 2023/4 Adult Psychiatric Morbidity Survey team, collecting epidemiological data on community-based adults living in England (a contracted study from NHS Digital, via the Department of Health and Social Care. Contributions on chapters of the 2023/4 Adult Psychiatric Morbidity Survey report), as 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 autistic people, as lead on a study from the National Institute for Health and Care Research related to reviewing a national training programme for health and social care professionals relating to learning disability and autism, and as co-applicant on study funded by the National Institute for Health and Care Research related to Identification, recording, and reasonable

adjustments for people with a learning disability and autistic people in NHS electronic clinical record systems; support for attending meetings and/or travel from the Royal College of Psychiatrists for conference events due to their academic secretary role in the faculty of the Psychiatry of Intellectual Disability, and as event organizer and/or speaker; 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 Disability*, *Advances in Autism*, *BMC Psychiatry*, and *BJPsych Open*, and as Editor of *Psychiatry of Intellectual Disability Across Cultures* (Oxford University Press) for which they received royalties; outside the submitted work. E Upadhyay reports patents planned, issued or pending for A system and method of reusable filters for anti-pollution mask (Published); a system and method for electricity generation through crop stubble by using microbial fuel cells (Published); A system for disposed personal protection equipment (PPE) into biofuel through pyrolysis and method (Published); A novel herbal pharmaceutical aid for formulation of gel and method thereof (Published); Herbal drug formulation for treating lung tissue degenerated by particulate matter exposure (Published); a method to transform cow dung into the wall paint by using natural materials and composition thereof (Filed); Biodegradable packaging composition and method of preparation thereof (Filed); Eco-friendly bio-shoe polish from banana and turmeric (Filed); Honey-based polyherbal syrup composition to treat air pollution-induced inflammation and preparation method thereof (Filed); Process for preparing a caffeine free, antioxidant and nutrient rich beverage (Filed); leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Meteorological Society, Jaipur (India) as Executive Council Member, Indian Chapter and DSTPURSE Program as Member Secretary; all outside the submitted work. E Vouzoulaki reports grants or contracts from a National Institute for Health and Care Research (NIHR)(UK) Development and Skills Enhancement (DSE) Award until July 2026, outside the submitted work. P Willeit reports consulting fees from Novartis Pharmaceuticals, outside the submitted work. Y Yasufuku reports grants or contracts from Shionogi & Co., Ltd., paid from the joint research fund provided by this pharmaceutical company to The University of Osaka, outside the submitted work. S Zadey reports writing honoraria from Think Global Health and Hindu; leadership or fiduciary roles in other board, society, committee or advocacy group, paid or unpaid, with Association for Socially Applicable Research as Board Member, *Lancet* Citizens' Commission on Reimagining India's Health System as Fellow, G4 Alliance Asia Working Group as Chair, Blood DESERT Coalition as Fellow, and Nivarana as Advisory Board Member; all outside the submitted work. J Zhao reports support for the present manuscript from Fundamental Research Funds for the Central Universities (2024BSSXM20). M Zielińska reports other financial or non-financial interests with Alexion, AstraZeneca Rare Disease as an employee, outside the submitted work. L J Zühlke reports grants or contracts from the Division of Research Capacity Development, Foreign Commonwealth and Development Office, UK, National Research Foundation of South Africa, South African Medical Research Council, (grant number Mid-Career Scientist Program, MR/S005242/1), and as Member of RHD Vaccine Advisory Committee of the LeDucq Foundation, outside the submitted work.

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>.

Acknowledgements

Research reported in this publication was supported by the Gates Foundation (OPP1152504); Queensland Department of Health, Australia; UK Department of Health and Social Care; the Norwegian Institute of Public Health; St Jude Children's Research Hospital; the New Zealand Ministry of Health; and Bloomberg Philanthropies. The content is solely the responsibility of the authors and does not necessarily represent the official views of the funders. This study has been realized using the data collected by the Swiss Household Panel (SHP), which is based at the

Swiss Centre of Expertise in the Social Sciences FORS. The project is financed by the Swiss National Science Foundation. The HRS (Health and Retirement Study) is sponsored by the National Institute on Aging (grant number NIA U01AG009740) and is conducted by the University of Michigan. The data reported here have been supplied by the United States Renal Data System (USRDS). The interpretation and reporting of these data are the responsibility of the author(s) and in no way should be seen as an official policy or interpretation of the US government. Contains information licensed under the Open Government License Canada. <https://open.canada.ca/en/open-government-licence-canada> This paper uses data from SHARE Waves 1, 2, 3 (SHARELIFE), 4, 5 and 6 (DOIs: 10.6103/SHARE.w1.611,10.6103/SHARE.w2.611, 10.6103/SHARE.w3.611, 10.6103/SHARE.w4.611, 10.6103/SHARE.w5.611, 10.6103/SHARE.w6.611), see Börsch-Supan et al. (2013) for methodological details. The SHARE data collection has been primarily funded by the European Commission through FP5 (QLK6-CT-2001-00360), FP6 (SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARELIFE: CIT4-CT-2006-028812) and FP7 (SHARE-PREP: N 211909, SHARE-LEAP: N 227822, SHARE M4: N 261982). Additional funding from the German Ministry of Education and Research, the Max Planck Society for the Advancement of Science, the US National Institute on Aging (U01_AG09740-13S2, P01_AG005842, P01_AG08291, P30_AG12815, R21_AG025169, Y1-AG-4553-01, IAG_BSR06-11, OGHA_04-064, HHSN271201300071C) and from various national funding sources is gratefully acknowledged (see www.share-project.org). Dataset provided by ECDC based on data provided by WHO and Ministries of Health from the affected countries. This research is based on survey results from Carnegie Mellon University's Delphi Group. This research is based on survey results from the University of Maryland. Adapted from Statistics Canada, Canada Community Health Survey 2015-2016. This does not constitute an endorsement by Statistics Canada of this product. Contains information from Singapore Renal Registry Annual Report 2021 accessed on February 22, 2023 from National Registry of Diseases Office (NRDO), Ministry of Health (Singapore) which is made available under the terms of the Singapore Open Data License version 1.0 <https://www.moh.gov.sg/terms-of-use-of-website> This study has been approved according to the governance code of Nivel Primary Care Database, under number NZR-00323.016. The use of electronic health records for research purposes is allowed under certain conditions. When these conditions are fulfilled, neither obtaining informed consent from patients nor approval by a medical ethics committee is obligatory for this type of observational studies containing no directly identifiable data (arr. 24 GDPR implementation Act ja arr. 9.2 sub j GDPR). The Palestinian Central Bureau of Statistics granted the researchers access to relevant data in accordance with license no. 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. VACS data are owned by the Government of Kenya and made available by the Centers for Disease Control and Prevention through a Data Use Agreement. VACS data are owned by the Government of the Republic of Moldova and made available by the Centers for Disease Control and Prevention through a Data Use Agreement. VACS data are owned by the Government of Colombia and made available by the Centers for Disease Control and Prevention through a Data Use Agreement. VACS data are owned by the Government of Namibia and made available by the Centers for Disease Control and Prevention through a Data Use Agreement. VACS data are owned by the Government of Mozambique and made available by the Centers for Disease Control and Prevention through a Data Use Agreement. The Government Delegation against Gender Violence is a source of the primary data (<https://violenciagenero.igualdad.gob.es/>), and the degree of accuracy or reliability of the information derived by the authors themselves is their sole responsibility. We acknowledge the National Institute of Health AARP Diet and Health Study, the American Cancer Society Cancer Prevention Study-II Nutrition Cohort, the Women's Health Initiative, the Nurses' Health Study, and the Health Professionals Follow-up Study for providing these relative risks and confidence intervals. This analysis is based on the Canadian Heart Health Database 1986-92, which contains anonymized data collected in a

coordinated series of Heart Health Surveys carried out in the ten Provinces of Canada between 1986 and 1992. The database was constructed by the Conference of Principal Investigators of Provincial Heart Health Programs from survey questions and clinical measures which were common to all surveys. All computations on these microdata were prepared by IHME and the responsibility for the use and interpretation of these data is entirely that of the author(s). 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. This analysis is based on Statistics Canada Microdata file International Adult Literacy Skills Survey (Canada), 2003; International Adult Literacy Survey, 1994–1998; Adult Literacy and Life Skills Survey, 2003 which contains anonymized data collected in the 2003 Bermuda Adult Literacy and Life Skills Survey. All computations on these microdata were prepared by IHME and the responsibility for the use and interpretation of these data is entirely that of the authors. This paper uses data from the American Samoa 2004 STEPS survey, implemented by Department of Health (American Samoa) and Monash University (Australia) with the support of the World Health Organization. Collection of these data was made possible by the US Agency for International Development (USAID) under the terms of cooperative agreement GPO-A-00-08-000_D3-00. The opinions expressed are those of the authors and do not necessarily reflect the views of USAID or the United States government. This paper uses data from the Botswana 2007 and 2014 STEPS surveys, implemented by Ministry of Health (Botswana) with the support of the World Health Organization. This paper uses data from the Cameroon 2003 STEPS survey, implemented by Health of Populations in Transition (HoPit) Research Group (Cameroon) and Ministry of Public Health (Cameroon) with the support of the World Health Organization. This paper uses data from the Zambia - Lusaka 2008 STEPS survey, implemented by Ministry of Health (Zambia) with the support of the World Health Organization. This paper uses data from the Uruguay 2006 and 2013-2014 STEPS surveys, implemented by Ministry of Health (Uruguay) with the support of the World Health Organization. This paper uses data from the Tokelau 2005 STEPS survey, implemented by Tokelau Department of Health, Fiji School of Medicine with the support of the World Health Organization. This paper uses data from the Chad - Ville de N'Djamena 2008 STEPS survey, implemented by Ministry of Public Health (Chad) with the support of the World Health Organization. This paper uses data from the Seychelles 2004 STEPS survey, implemented by Ministry of Health (Seychelles) with the support of the World Health Organization. This paper uses data from the Sierra Leone 2009 STEPS survey, implemented by Ministry of Health and Sanitation (Sierra Leone) with the support of the World Health Organization. This paper uses data from the Nauru 2004 and 2015-2016 STEPS surveys, implemented by Ministry of Health (Nauru) with the support of the World Health Organization. This paper uses data from the Niger 2007 STEPS survey, implemented by Ministry of Health (Niger) with the support of the World Health Organization. This paper uses data from the Malawi 2009 and 2017 STEPS surveys, implemented by Ministry of Health (Malawi) with the support of the World Health Organization. This paper uses data from the Mauritania - Nouakchott 2006 STEPS survey, implemented by Ministry of Health (Mauritania) with the support of the World Health Organization. This paper uses data from the Mozambique 2005 STEPS survey, implemented by Ministry of Health (Mozambique) with the support of the World Health Organization. This paper uses data from the Mongolia 2005, 2009, and 2013 STEPS surveys, implemented by Ministry of Health (Mongolia) with the support of the World Health Organization. This paper uses data from the Madagascar - Antananarivo and Toliara 2005 STEPS survey, implemented by Ministry of Health and Family Planning (Madagascar) with the support of the World Health Organization. This paper uses data from the Laos - Viangchan 2008 STEPS survey, implemented by Ministry of Health (Laos) with the support of the World Health Organization. This paper uses data from the Kuwait 2006 and 2014 STEPS surveys, implemented by Ministry of Health (Kuwait) with the support of the World Health Organization. This paper uses data from the Kiribati 2004-2006 and 2016 STEPS surveys, implemented by Ministry of Health and Medical Services

(Kiribati) with the support of the World Health Organization. This paper uses data from the Gabon - Estuaire 2009 STEPS survey, implemented by Ministry of Health and Public Hygiene (Gabon) with the support of the World Health Organization. This paper uses data from the Micronesia - Pohnpei 2002 STEPS survey, implemented by Centre for Physical Activity and Health, University of Sydney (Australia), Department of Health and Social Affairs (Micronesia), Fiji School of Medicine, Micronesia Human Resources Development Center, Pohnpei State Department of Health Services with the support of the World Health Organization. This paper uses data from the Fiji 2002 STEPS survey, implemented by Fiji School of Medicine, Menzies Center for Population Health Research, University of Tasmania (Australia), Ministry of Health (Fiji) with the support of the World Health Organization. This paper uses data from the Eritrea 2004 and 2010 STEPS surveys, implemented by Ministry of Health (Eritrea) with the support of the World Health Organization. This paper uses data from the Algeria - Setif and Mostaganem 2003 STEPS survey, implemented by Ministry of Health, Population and Hospital Reform (Algeria) with the support of the World Health Organization. This paper uses data from the Congo - Brazzaville 2004 STEPS survey, implemented by Ministry of Health and Population (Congo) with the support of the World Health Organization. This paper uses data from the Democratic Republic of the Congo - Kinshasa 2005 STEPS survey, implemented by the Ministry of Public Health (Congo, DR) with the support of the World Health Organization. This paper uses data from the Cote D'Ivoire - Lagunes 2005 STEPS survey, implemented by Ministry of Health and Public Hygiene (Cote D'Ivoire) with the support of the World Health Organization. This paper uses data from the Bhutan - Thimphu 2007 STEPS survey, implemented by Ministry of Health (Bhutan) with the support of the World Health Organization. This paper uses data from the Benin - Littoral 2007 STEPS survey, implemented by Ministry of Health (Benin) with the support of the World Health Organization. This paper uses data from the Benin 2008 and 2015 STEPS surveys, implemented by Ministry of Health (Benin) with the support of the World Health Organization. This analysis is based on Statistics Canada Microdata file, product 62M0004XCB, which contains anonymized data collected in the Survey of Household Spending for the year 2009. All computations on these microdata were prepared by IHME and the responsibility for the use and interpretation of these data is entirely that of the author(s). Data for this research was provided by MEASURE Evaluation, funded by the United States Agency for International Development (USAID). Views expressed do not necessarily reflect those of USAID, the US government, or MEASURE Evaluation. This study is based on data from Eurostat, Malta European Health Interview Survey 2008 and 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This paper uses data from the Qatar 2012 STEPS survey, implemented by Supreme Council of Health (Qatar) with the support of the World Health Organization. This paper uses data from the Libya 2009 STEPS survey, implemented by Secretariat of Health and Environment (Libya) with the support of the World Health Organization. This paper uses data from the Palestine 2010-2011 STEPS survey, implemented by Ministry of Health (Palestine) with the support of the World Health Organization. This paper contains information licensed under the Open Government License Canada. <https://open.canada.ca/en/open-government-licence-canada>. This paper uses data from the Bangladesh 2009-2010 STEPS survey, implemented by Ministry of Health and Family Welfare (Bangladesh), Bangladesh Society of Medicine with the support of the World Health Organization. This paper uses data from the Micronesia - Chuuk 2006 STEPS survey, implemented by Department of Health and Social Affairs (Micronesia), Chuuk Department of Health Services (Micronesia) with the support of the World Health Organization. This paper uses data from the Cambodia 2010 STEPS survey, implemented by Ministry of Health (Cambodia) with the support of the World Health Organization. This paper uses data from the Solomon Islands 2005-2006 STEPS survey, implemented by Ministry of Health and Medical Services (Solomon Islands) with the support of the World Health Organization. This paper uses data from the Togo 2010-2011 STEPS survey, implemented by Ministry of Health (Togo) with the support of the World Health Organization. This paper uses data from the Ethiopia - Addis Ababa 2006 STEPS survey, implemented by

School of Public Health, Addis Ababa University (Ethiopia) with the support of the World Health Organization. This paper uses data from the Fiji 2011 STEPS survey, implemented by Ministry of Health (Fiji) with the support of the World Health Organization. This paper uses data from the Lesotho 2012 STEPS survey, implemented by Ministry of Health and Social Welfare (Lesotho) with the support of the World Health Organization. This paper uses data from the Barbados 2007 STEPS survey, implemented by Ministry of Health (Barbados) with the support of the World Health Organization. This paper uses data from the Cape Verde 2007 STEPS survey, implemented by Ministry of Health, National Statistics Office with the support of the World Health Organization. This paper uses data from the Central African Republic - Bangui 2010 STEPS survey, implemented by Ministry of Health and Population (Central African Republic) with the support of the World Health Organization. This paper uses data from the Comoros 2011 STEPS survey, implemented by Ministry of Health (Comoros) with the support of the World Health Organization. This paper uses data from the Gambia 2010 STEPS survey, implemented by Ministry of Health and Social Welfare (Gambia) with the support of the World Health Organization. This paper uses data from the Guinea 2009 STEPS survey, implemented by Ministry of Public Health and Hygiene (Guinea) with the support of the World Health Organization. This paper uses data from the Liberia 2011 STEPS survey, implemented by Ministry of Health and Social Welfare (Liberia) with the support of the World Health Organization. This paper uses data from the Maldives 2011 STEPS survey, implemented by Health Protection Agency (Maldives) with the support of the World Health Organization. This paper uses data from the Mali 2007 STEPS survey, implemented by Ministry of Health (Mali) with the support of the World Health Organization. This paper uses data from the Marshall Islands 2002 STEPS survey, implemented by Ministry of Health (Marshall Islands) with the support of the World Health Organization. This paper uses data from the Micronesia - Pohnpei 2008 STEPS survey, implemented by FSM Department of Health and Social Affairs, Pohnpei State Department of Health Services with the support of the World Health Organization. This paper uses data from the Sao Tome and Principe 2008 and 2019 STEPS surveys, implemented by Ministry of Health (Sao Tome and Principe) with the support of the World Health Organization. This paper uses data from the Sri Lanka 2006, 2014-2015, and 2019 STEPS surveys, implemented by Ministry of Health (Sri Lanka) with the support of the World Health Organization. This paper uses data from the Swaziland 2007 and 2014 STEPS surveys, implemented by Ministry of Health (Swaziland) with the support of the World Health Organization. This paper uses data from the Tanzania 2012 STEPS survey, implemented by National Institute for Medical Research (Tanzania) with the support of the World Health Organization. This paper uses data from the Tonga 2004, 2011-2012, and 2017 STEPS surveys, implemented by Ministry of Health (Tonga) with the support of the World Health Organization. This paper uses data from the Vanuatu 2005 and 2011 STEPS surveys, implemented by Ministry of Health (Vanuatu) with the support of the World Health Organization. This paper uses data from the Virgin Islands, British 2009 STEPS survey, implemented by Ministry of Health and Social Development (British Virgin Islands) with the support of the World Health Organization. This paper uses data from the French Polynesia 2010 STEPS survey, implemented by Ministry of Health (French Polynesia) with the support of the World Health Organization. This research used data from the National Health Survey 2003. The author is grateful to the Ministry of Health, Survey copyright owner, allowing him to have the database. All results of the study are those of the author and in no way committed to the Ministry. This study is based on data from Eurostat, Slovenia European Health Interview Survey 2007-2008 and 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This paper uses data from the Cook Islands 2003-2004 and 2013-2015 STEPS surveys, implemented by Ministry of Health (Cook Islands) with the support of the World Health Organization. This paper uses data from the Tanzania - Zanzibar 2011 STEPS survey, implemented by Ministry of Health (Zanzibar) with the support of the World Health Organization. This research used data from the National Health Survey 2009-2010. The author is grateful to the Ministry of Health, Survey copyright owner, allowing him to have the database. All results of the study are those of the author and in no way

committed to the Ministry. This research uses data from Add Health, a program project designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris, and funded by a grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 17 other agencies. Special acknowledgment is due to Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Persons interested in obtaining data files from Add Health should contact Add Health, Carolina Population Center, 123 W. Franklin Street, Chapel Hill, NC 27516-2524 (addhealth@unc.edu). No direct support was received from grant P01-HD31921 for this analysis. This study is based on data from Eurostat, Slovakia European Health Interview Survey 2009 and 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This paper uses data from the Rwanda 2012-2013 STEPS survey, implemented by Ministry of Health (Rwanda) with the support of the World Health Organization. HBSC is an international study carried out in collaboration with WHO/EURO. The International Coordinator of the 1997/98, 2001/02, 2005/06 and 2009/10 surveys was Prof. Candace Currie and the Data Bank Manager for the 1997/98 survey was Prof. Bente Wold, whereas for the following survey Prof. Oddrun Samdal was the Databank Manager. A list of principal investigators in each country can be found at <http://www.hbsc.org>. This paper uses data from the WHO Study on global AGEing and adult health (SAGE). This study is based on data from Eurostat, Latvia European Health Interview Survey 2008 and 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Romania European Health Interview Survey 2008 and 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This paper uses data from the Moldova 2013 and 2021 STEPS surveys, implemented by Ministry of Health (Moldova) with the support of the World Health Organization. This paper uses data from the Cayman Islands 2012 STEPS survey, implemented by Ministry of Health, Environment, Youth, Sports and Culture (Cayman Islands) with the support of the World Health Organization. This paper uses data from the Grenada 2010-2011 STEPS survey, implemented by Ministry of Health (Grenada) with the support of the World Health Organization. This paper uses data from the Nepal 2012-2013 STEPS survey, implemented by the Nepal Health Research Council with the support of the World Health Organization. This publication uses data provided by Statistics Botswana. This paper uses data from the Namibia 2005 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. Researchers interested in using TILDA data may access the data for free from the following sites: Irish Social Science Data Archive (ISSDA) at University College Dublin <http://www.ucd.ie/issda/data/tilda/>; Interuniversity Consortium for Political and Social Research (ICPSR) at the University of Michigan <http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/34315> Data for this research were accessed via the Irish Social Science Data Archive - www.ucd.ie/issda. The original creators bear no responsibility for analysis or interpretation of them. This analysis is based on the Statistics Canada Canadian Community Health Survey Microdata File which contains anonymized data collected in the 2013-2014 Canadian Community Health Survey. All computations, use and interpretation of these data are entirely that of IHME. This paper uses data from the Kenya 2015 STEPS survey, implemented by Kenya National Bureau of Statistics, Ministry of Health (Kenya) with the support of the World Health Organization. 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 National Institute on Ageing / National Institute of Health (R21AG032572, R03AG043052, and R01 AG030153). The data used in this paper come from the 2009-10 Ghana Socioeconomic Panel Study Survey which is a nationally representative survey of over 5000 households in Ghana. The survey is a joint effort undertaken by the Institute of Statistical, Social and Economic Research (ISSER) at the University of Ghana, and the Economic Growth Centre (EGC) at Yale University. It was funded by the Economic Growth Center. At the same time, ISSER and the EGC are not responsible for the estimations reported by the analyst(s). This paper uses data from the Bhutan 2014 and 2019 STEPS surveys, implemented by Ministry of Health (Bhutan) with the support of the World Health Organization. This paper

uses data from the Uganda 2014 STEPS survey, implemented by Ministry of Health (Uganda) with the support of the World Health Organization. This paper uses data from the Timor-Leste 2014 STEPS survey, implemented by Ministry of Health (Timor-Leste) with the support of the World Health Organization. The CRELES project (Costa Rican Longevity and Healthy Aging Study) is a longitudinal study by the University of Costa Rica's Centro Centroamericano de Población and Instituto de Investigaciones en Salud, in collaboration with the University of California at Berkeley. The original pre-1945 cohort was funded by the Wellcome Trust (grant 072406), and the 1945-1955 Retirement Cohort was funded by the US National Institute on Aging (grant R01AG031716). The study Principal Investigators are Luis Rosero-Bixby and William H. Dow, and co-Principal Investigators Xinia Fernández and Gilbert Brenes. This paper uses data from the Ghana - Greater Accra Region 2006 STEPS survey, implemented by Ghana Health Service with the support of the World Health Organization. This paper uses data from the Myanmar 2014 STEPS survey, implemented by Ministry of Health (Myanmar) with the support of the World Health Organization. HBSC is an international study carried out in collaboration with WHO/EURO. The International Coordinator of the 2013/2014 surveys was Prof. Candace Currie and the Data Bank Manager was Prof. Oddrun Samdal. A list of principal investigator in each country can be found at <http://www.hbcs.org>. The Canada Health Measures Survey 2016–2017 contains information licensed under the Open Government License Canada. This research used information from the Health Surveys for epidemiological surveillance of the Undersecretary of Public Health. The author thanks the Ministry of Health of Chile, having allowed them to have access to the database. All the results obtained from the study or research are the responsibility of the author and in no way compromise that institution. In this paper use is made of data of the DNB Household Survey administered by Centerdata (Tilburg University, The Netherlands). Those who carried out the original collection and analysis of the Jamaica Survey of Living Conditions bear no responsibility for their further analysis or interpretation. This paper uses data from China Family Panel Studies (CFPS), funded by 985 Program of Peking University and carried out by the Institute of Social Science Survey of Peking University. This paper uses data from the Vietnam 2009 and 2015 STEPS surveys, implemented by Ministry of Health (Vietnam) with the support of the World Health Organization. This paper uses data from the Pakistan 2013–2014 STEPS survey, implemented by Ministry of National Health Services, Regulation and Coordination, Pakistan Health Research Council with the support of the World Health Organization. This paper uses data from WHO's Study on Global Ageing and Adult Health (SAGE). SAGE is supported by the US National Institute on Aging through Interagency Agreements OGH A 04034785; YA1323-08-CN-0020; Y1-AG-1005-0) and through research grants R01-AG034479 and R21-AG034263. Adapted from Statistics Canada, Canada Tobacco, Alcohol and Drugs Survey 2015. This does not constitute an endorsement by Statistics Canada of this product. This study is based in part on data from Eurostat, European Union Labor Force Survey, 1992–2016. The responsibility for all conclusions drawn from the data lies entirely with the authors. This study is based on data from Eurostat, Belgium Health Interview Survey 2008 and 2009. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Cyprus Health Interview Survey 2008–2009. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Czech Republic European Health Interview Survey 2006–2009 and 2013–2015. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Estonia European Health Interview Survey 2006-2007 and 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Greece European Health Interview Survey 2009 and 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based in part on data from Eurostat, Poland European Health Interview Survey 2009. The responsibility for all conclusions drawn from the data lies entirely with the authors. This study is based in part on data from Eurostat, Spain European Health Interview Survey 2009-2010. The responsibility for all conclusions drawn

from the data lies entirely with the authors. This study is based in part on data from Eurostat, France European Health Interview Survey 2008. The responsibility for all conclusions drawn from the data lies entirely with the authors. The responsibility for analysis and processing is that of the authors and not ISTAT. This paper uses data from the Lebanon 2016–2017 STEPS survey, implemented by Ministry of Public Health (Lebanon) with the support of the World Health Organization. This paper uses data from the Zambia 2017 STEPS survey, implemented by Ministry of Health (Zambia) with the support of the World Health Organization. This paper uses data from the Armenia 2016 STEPS survey, implemented by Ministry of Health (Armenia), National Institute of Health with the support of the World Health Organization. This paper uses data from the Belarus 2016-2017 STEPS survey, implemented by Republican Scientific and Practical Center of Medical Technologies, Informatization, Management and Economics of Public Health (Belarus) with the support of the World Health Organization. This paper uses data from the Iraq 2015 STEPS survey, implemented by Ministry of Health (Iraq) with the support of the World Health Organization. This paper uses data from the Brunei 2015–2016 STEPS survey, implemented by Ministry of Health (Brunei) with the support of the World Health Organization. This paper uses data from the Samoa 2002 and 2013 STEPS surveys, implemented by Ministry of Health (Samoa) with the support of the World Health Organization. The data are from China Family Panel Studies (CFPS), funded by 985 Program of Peking University and carried out by the Institute of Social Science Survey of Peking University. This paper uses data from the Algeria 2016–2017 STEPS survey, implemented by Ministry of Health (Algeria) with the support of the World Health Organization. This paper uses data from the Azerbaijan 2017 STEPS survey, implemented by Ministry of Health (Azerbaijan) with the support of the World Health Organization. This paper uses data from the Kyrgyzstan 2013 STEPS survey, implemented by Ministry of Health (Kyrgyzstan) with the support of the World Health Organization. This paper uses data from the Laos 2013 STEPS survey, implemented by Ministry of Health (Laos) with the support of the World Health Organization. This paper uses data from the Micronesia- Kosrae 2009 STEPS survey, implemented by FSM Department of Health and Social Affairs with the support of the World Health Organization. This paper uses data from the Micronesia - Yap 2009 STEPS survey, implemented by Ministry of Health and Social Affairs (Micronesia) with the support of the World Health Organization. This paper uses data from the Palau 2011–2013 and 2016 STEPS surveys, implemented by Ministry of Health (Palau) with the support of the World Health Organization. This paper uses data from the Tajikistan 2016 STEPS survey, implemented by Ministry of Health (Tajikistan) with the support of the World Health Organization. This paper uses data from the Tokelau 2014 STEPS survey, implemented by the Department of Health with the support of the World Health Organization. This paper uses data from the Sudan 2016 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This paper uses data from the Morocco 2017 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This paper uses data from the Georgia 2016 STEPS survey, implemented by the National Center for Disease Control and Public Health with the support of the World Health Organization. This paper uses data from the Guyana 2016 STEPS survey, implemented by the Ministry of Public Health with the support of the World Health Organization. The MHAS (Mexican Health and Aging Study) is partly sponsored by the National Institutes of Health/National Institute on Aging (grant number NIH R01AG018016) and the INEGI in Mexico. Data files and documentation are public use and available at www.MHASweb.org. The Irish Longitudinal study on Ageing (TILDA) Wave 4, 2016 was accessed via the Irish Social Science Data Archive - www.ucd.ie/issda. The harmonized dataset was downloaded from the GDD website [Global Dietary Database. The Estonian National Dietary Survey 2014. <https://www.globaldietarydatabase.org/management/microdata-surveys/657>, August 28, 2020]. The harmonization of the dataset was performed by the data owner [The Estonian National Dietary Survey 2014 (RTU2014), 2014, National Institute for Health Development], and the overall process was overseen by EFSA [European Food Safety Authority. EFSA Comprehensive European Food Consumption Database. [46](http://www.efsa.europa.eu/en/food-</p>
</div>
<div data-bbox=)

consumption/comprehensive-database] and GDD. This paper uses data from the Bahamas 2011-2012 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This paper uses data from the Central African Republic - Bangui and Ombella M'Poko 2017 STEPS survey, implemented by the Ministry of Health and Population with the support of the World Health Organization. This paper uses data from the Micronesia - Chuuk STEPS 2016 survey, implemented by the Federated States of Micronesia Department of Health and Social Affairs, Department of Health Services of the State of Chuuk, FSM with the support of the World Health Organization. This paper uses data from the Tuvalu 2015 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This paper uses data from the Solomon Islands 2015 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This paper uses data from the Mali - Kati, Ouéléssébougou, Koulikoro, Ségou and Bamako District 2013 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This paper uses data from the Marshall Islands 2017-2018 STEPS survey, implemented by the Ministry of Health and Human Services with the support of the World Health Organization. This research is based on data from the National Health Interview Survey of the National Center for Health Statistics. The analyses, interpretations, and conclusions of this paper are the author's own. The NCHS is responsible only for the initial data. This paper uses data from the Nepal 2019 STEPS survey, implemented by Nepal Health Research Council, Ministry of Health and Population with the support of the World Health Organization. This paper uses data from the Bangladesh 2018 STEPS survey, implemented by the National Institute of Preventive and Social Medicine with the support of the World Health Organization. The harmonized dataset was downloaded from the GDD website [Global Dietary Database. Nutrition and Nutritional Status of Children under 5 years in Bulgaria (NUTRICHILD) 2007. <https://www.globaldietarydatabase.org/management/microdata-surveys/649>, Accessed August 28, 2020]. The harmonization of the dataset was jointly performed by the data owner [Nutrition and Nutritional Status of Children under 5 years in Bulgaria (NUTRICHILD), 2007] and EFSA [European Food Safety Authority. EFSA Comprehensive European Food Consumption Database. <http://www.efsa.europa.eu/en/food-consumption/comprehensive-database>], and the overall process was overseen by EFSA and GDD. The harmonized dataset was downloaded from the GDD website [Global Dietary Database. Canadian Community Health Survey - Nutrition (CCHS-Nutrition), 2015. <https://www.globaldietarydatabase.org/management/microdata-surveys/650>, Accessed August 28, 2020]. The harmonization of the original dataset was performed by GDD. The data was adapted from Statistics Canada, Canadian Community Health Survey: Public Use Microdata File, 2015/2016 [Statistics Canada. Canadian Community Health Survey - Nutrition (CCHS-Nutrition), 2015.]; this does not constitute an endorsement by Statistics Canada of this product. The data is used under the terms of the Statistics Canada Open License [Statistics Canada. Statistics Canada Open License. <https://www.statcan.gc.ca/eng/reference/licence>]. The harmonized dataset was downloaded from the GDD website [Global Dietary Database. Compilation of existing individual food consumption data collected within the most recent national dietary surveys in Europe (SK-MON) 2008. <https://www.globaldietarydatabase.org/management/microdata-surveys/652> September 21, 2020]. The harmonization of the dataset was jointly performed by the data owner [National nutrition survey in Slovakia (NDS), 2008, Food Research Institute and Public Health Authority] and EFSA [European Food Safety Authority. EFSA Comprehensive European Food Consumption Database. <http://www.efsa.europa.eu/en/food-consumption/comprehensive-database>], and the overall process was overseen by EFSA. The harmonized dataset was downloaded from the GDD website [Global Dietary Database. National dietary survey in adults in Sweden, Riksmaten adults 2010-2011. <https://www.globaldietarydatabase.org/management/microdata-surveys/174>, Accessed September 23, 2020]. The harmonization of the dataset was performed by the data owner [National dietary survey in adults in Sweden, Riksmaten adults 2010-11, Swedish Food Agency], and the overall process was overseen by EFSA [European Food Safety Authority. EFSA Comprehensive European Food Consumption Database. [\[www.efsa.europa.eu/en/food-consumption/comprehensive-database\]\(http://www.efsa.europa.eu/en/food-consumption/comprehensive-database\)\] and GDD. The harmonized dataset was downloaded from the GDD website \[Global Dietary Database. DIETA-PILOT Survey Adults, Children 2012. <https://www.globaldietarydatabase.org/management/microdata-surveys/661>, Accessed 10/7/20\]. The harmonization of the dataset was performed by the data owner \[DIETA-PILOT Survey, 2012, Dunarea de Jos University of Galați, Romania\], and the overall process was overseen by EFSA \[European Food Safety Authority. EFSA Comprehensive European Food Consumption Database. <http://www.efsa.europa.eu/en/food-consumption/comprehensive-database>\] and GDD. This paper uses data from the Afghanistan 2018 STEPS survey, implemented by Ministry of Public Health with the support of the World Health Organization. This paper uses data from the Ecuador 2018 STEPS survey, implemented by Ministry of Public Health with the support of the World Health Organization. This paper uses data from the Generations and Gender Programme \(\[www.ggp-i.org\]\(http://www.ggp-i.org\)\). The Generations and Gender Programme has received funding from the European Commission, its Consortium Board Members and National Funding Bodies which are gratefully acknowledged. The harmonized dataset was downloaded from the GDD website \[Global Dietary Database. National Survey of Food Intake and Nutritional Status \(NSFIN\) 2004. <https://www.globaldietarydatabase.org/management/microdata-surveys/648>, Accessed August 28, 2020\]. The harmonization of the dataset was jointly performed by the data owner \[National Survey of Food Intake and Nutritional Status \(NSFIN\), National Nutrition Monitoring in Bulgaria, 2004\] and EFSA \[European Food Safety Authority. EFSA Comprehensive European Food Consumption Database. <http://www.efsa.europa.eu/en/food-consumption/comprehensive-database>\], and the overall process was overseen by EFSA and GDD. The harmonized dataset was downloaded from the GDD website \[Global Dietary Database. Mabat Youth - First Israeli National Health and Nutrition Survey in 7th-12th grade students 2003-2004. <https://www.globaldietarydatabase.org/management/microdata-surveys/180>, Accessed September 17, 2020\]. The harmonization of the dataset was jointly performed by the data owner \[MABAT Youth First Israeli National Health and Nutrition Survey in 7th-12th grade students 2003-2004, Israel Center for Disease Control, Ministry of Health, State of Israel\] and GDD, and the overall process was overseen by GDD. VACS data are owned by the Government of Côte d'Ivoire and made available by the Centers for Disease Control and Prevention through a Data Use Agreement. This paper uses data from the Mongolia 2019 STEPS survey, implemented by the Ministry of Health, Public Health Institute with the support of the World Health Organization. This paper uses data from the Jordan 2019 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This paper uses data from the Turkmenistan 2018 STEPS survey, implemented by the Ministry of Health and Medical Industry with the support of the World Health Organization. This study is based on data from Eurostat, Austria European Health Interview Survey 2006-2007 and 2013-2015. The responsibility for all conclusions drawn from the data lies entirely with the author\(s\). This study is based on data from Eurostat, Belgium European Health Interview Survey 2013 and 2013-2015. The responsibility for all conclusions drawn from the data lies entirely with the author\(s\). This study is based on data from Eurostat, Cyprus European Health Interview Survey 2013-2015. The responsibility for all conclusions drawn from the data lies entirely with the author\(s\). This study is based on data from Eurostat, Germany European Health Interview Survey 2015. The responsibility for all conclusions drawn from the data lies entirely with the author\(s\). This study is based on data from Eurostat, Denmark European Health Interview Survey 2015. The responsibility for all conclusions drawn from the data lies entirely with the author\(s\). This study is based on data from Eurostat, Spain European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author\(s\). This study is based on data from Eurostat, Finland European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author\(s\). This study is based on data from Eurostat, France European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author\(s\). This study is based on data from Eurostat, Hungary European Health Interview Survey 2008 and 2014.](http://</p>
</div>
<div data-bbox=)

The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Croatia European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Ireland European Health Interview Survey 2015. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Iceland European Health Interview Survey 2015. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Italy European Health Interview Survey 2015. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Lithuania European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Netherlands European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Norway European Health Interview Survey 2015. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Poland European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Portugal European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Sweden European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, European Union Statistics on Income and Living Conditions, Cross-sectional Data Collection 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, and 2020. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, European Union Statistics on Income and Living Conditions, Longitudinal Data Collection 2005, 2006, and 2007. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This paper uses data from the Ukraine 2019 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This study is based on data from Eurostat, United Kingdom European Health Interview Survey 2013. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This study is based on data from Eurostat, Luxembourg European Health Interview Survey 2014. The responsibility for all conclusions drawn from the data lies entirely with the author(s). This research uses data from the study on "Understanding the Lives of Adolescents and Young Adults (UDAYA) in Bihar and Uttar Pradesh" which was collected by the Population Council. Data collection funded by Bill & Melinda Gates Foundation and the David and Lucile Packard Foundation. Data for the Seychelles Heart Study IV was provided by the Global Dietary Database and Tufts University in association with the Ministry of Health and University of Lausanne. HBSC is an international study carried out in collaboration with WHO/EURO. The International Coordinator of the 2017/2018 surveys was Prof. Jo Inchley and the Data Bank Manager was Prof. Oddrun Samdal. A list of principal investigators in each country can be found at <http://www.hbsc.org>. This paper uses data from the Global School-Based Student Health Survey (GSHS). GSHS is supported by the World Health Organization and the US Centers for Disease Control and Prevention. This paper uses data from the Bolivia 2019 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This paper uses data from the Cabo Verde 2020 STEPS survey, implemented by the Ministry of Health, National Institute of Statistics with the support of the World Health Organization. This paper uses data from the WHO Well-being of Older People Study (WOPS) a Study on Global AGEing and Adult Health (SAGE) sub-study. Research reported in this publication was supported by the National Institute on Aging of the National Institutes of Health under Award Number R01AG044917. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. This paper uses data from the Saint Lucia 2019 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. This paper

uses data from the Viet Nam 2021 STEPS survey, implemented by the Ministry of Health with the support of the World Health Organization. Parts of this material are based on data and information provided by the Canadian Institute for Health Information. However, the analyses, conclusions, opinions and statements expressed herein are those of the author and not those of the Canadian Institute for Health information. The views and opinions of the authors expressed herein do not necessarily state or reflect those of ECDC. The accuracy of the authors' statistical analysis and the findings they report are not the responsibility of ECDC. ECDC is not responsible for the conclusions or opinions drawn from the data provided. ECDC is not responsible for the correctness of the data and for data management, data merging and data collation after provision of the data. ECDC shall not be held liable for improper or incorrect use of the data. This manuscript is based on data collected and shared by the International Vaccine Institute (IVI) from an original study it conducted with support from the Bill and Melinda Gates Foundation (BMGF).

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

References

- Murray CJL. The Global Burden of Disease Study at 30 years. *Nat Med* 2022; **28**: 2019–26.
- WHO. World health statistics 2025: monitoring health for the SDGs, Sustainable Development Goals. 2025. <https://iris.who.int/bitstream/handle/10665/381418/9789240110496-eng.pdf> (accessed June 30, 2025).
- Murray CJL, Vos T, Lozano R, et al. Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* 2012; **380**: 2197–223.
- GBD 2015 DALYs and HALE Collaborators. Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet* 2016; **388**: 1603–58.
- GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2018; **392**: 1789–858.
- GBD 2019 Diseases and Injuries Collaborators. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet* 2020; **396**: 1204–22.
- GBD 2021 Diseases and Injuries Collaborators. Global incidence, prevalence, years lived with disability (YLDs), disability-adjusted life-years (DALYs), and healthy life expectancy (HALE) for 371 diseases and injuries 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**: 2133–61.
- Lim SS, Vos T, Flaxman AD, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* 2012; **380**: 2224–60.
- GBD 2015 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet* 2016; **388**: 1659–724.
- GBD 2016 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet* 2017; **390**: 1345–422.
- GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2018; **392**: 1923–94.

- 12 GBD 2019 Risk Factors Collaborators. Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet* 2020; **396**: 1223–49.
- 13 GBD 2021 Risk Factors Collaborators. Global burden and strength of evidence for 88 risk factors in 204 countries and 811 subnational locations, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *Lancet* 2024; **403**: 2162–203.
- 14 Zheng P, Afshin A, Biryukov S, et al. The Burden of Proof studies: assessing the evidence of risk. *Nat Med* 2022; **28**: 2038–44.
- 15 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.
- 16 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).
- 17 Institute for Health Metrics and Evaluation. Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) Protocol. 2024; published online June 4. <https://www.healthdata.org/sites/default/files/2024-06/GBD%20Protocol%20060424.pdf>.
- 18 GBD 2019 Healthcare Access and Quality Collaborators. Assessing performance of the Healthcare Access and Quality Index, overall and by select age groups, for 204 countries and territories, 1990–2019: a systematic analysis from the Global Burden of Disease Study 2019. *Lancet Glob Health* 2022; **10**: e1715–43.
- 19 Sullivan DF. A single index of mortality and morbidity. *HSMHA Health Rep* 1971; **86**: 347–54.
- 20 Murray CJ, Ezzati M, Lopez AD, Rodgers A, Vander Hoorn S. Comparative quantification of health risks conceptual framework and methodological issues. *Popul Health Metr* 2003; **1**: 1.
- 21 Murray CJ, Lopez AD. Global mortality, disability, and the contribution of risk factors: Global Burden of Disease Study. *Lancet* 1997; **349**: 1436–42.
- 22 Dai X, Gil GF, Reitsma MB, et al. Health effects associated with smoking: a Burden of Proof study. *Nat Med* 2022; **28**: 2045–55.
- 23 Lescinsky H, Afshin A, Ashbaugh C, et al. Health effects associated with consumption of unprocessed red meat: a Burden of Proof study. *Nat Med* 2022; **28**: 2075–82.
- 24 Razo C, Welgan CA, Johnson CO, et al. Effects of elevated systolic blood pressure on ischemic heart disease: a Burden of Proof study. *Nat Med* 2022; **28**: 2056–65.
- 25 Stanaway JD, Afshin A, Ashbaugh C, et al. Health effects associated with vegetable consumption: a Burden of Proof study. *Nat Med* 2022; **28**: 2066–74.
- 26 Flor LS, Anderson JA, Ahmad N, et al. Health effects associated with exposure to secondhand smoke: a Burden of Proof study. *Nat Med* 2024; **30**: 149–67.
- 27 Spencer CN, Khalil M, Herbert M, et al. Health effects associated with exposure to intimate partner violence against women and childhood sexual abuse: a burden of proof study. *Nat Med* 2023; **29**: 3243–58.
- 28 Stevens GA, Alkema L, Black RE, et al. Guidelines for Accurate and Transparent Health Estimates Reporting: the GATHER statement. *Lancet* 2016; **388**: e19–23.
- 29 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.
- 30 GBD 2023 Demographics Collaborators. 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. *Lancet* 2025; published online Oct 12. [https://doi.org/10.1016/S0140-6736\(25\)01330-3](https://doi.org/10.1016/S0140-6736(25)01330-3).
- 31 Apeagyei AE, Bisignano C, Elliott H, et al. Tracking development assistance for health, 1990–2030: historical trends, recent cuts, and outlook. *Lancet* 2025; **406**: 337–48.
- 32 Institute for Health Metrics and Evaluation (IHME). Financing Global Health 2025: cuts in aid and future outlook. Seattle, WA: IHME, 2025.
- 33 GBD 2021 US Obesity Forecasting Collaborators. National-level and state-level prevalence of overweight and obesity among children, adolescents, and adults in the USA, 1990–2021, and forecasts up to 2050. *Lancet* 2024; **404**: 2278–98.
- 34 GBD 2021 Adult BMI Collaborators. Global, regional, and national prevalence of adult overweight and obesity, 1990–2021, with forecasts to 2050: a forecasting study for the Global Burden of Disease Study 2021. *Lancet*; **405**: 813–38.
- 35 GBD 2021 Adolescent BMI Collaborators. Global, regional, and national prevalence of child and adolescent overweight and obesity, 1990–2021, with forecasts to 2050: a forecasting study for the Global Burden of Disease Study 2021. *Lancet* 2025; **405**: 785–812.
- 36 Ong KL, Stafford LK, McLaughlin SA, et al, and the GBD 2021 Diabetes Collaborators. Global, regional, and national burden of diabetes from 1990 to 2021, with projections of prevalence to 2050: a systematic analysis for the Global Burden of Disease Study 2021. *Lancet* 2023; **402**: 203–34.
- 37 GBD 2023 Kidney Failure with Replacement Therapy Collaborators. Global, regional, and national prevalence of kidney failure with replacement therapy and associated aetiologies, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023. *Lancet Glob Health* 2025; **13**: e1378–95.
- 38 Zaman S, Wasfy JH, Kapil V, et al. The *Lancet* Commission on rethinking coronary artery disease: moving from ischaemia to atheroma. *Lancet* 2025; **405**: 1264–312.
- 39 Marcus ME, Manne-Goehler J, Theilmann M, et al. Use of statins for the prevention of cardiovascular disease in 41 low-income and middle-income countries: a cross-sectional study of nationally representative, individual-level data. *Lancet Glob Health* 2022; **10**: e369–79.
- 40 Roser P, Bajaj SS, Stanford FC. International lack of equity in modern obesity therapy: the critical need for change in health policy. *Int J Obes* 2022; **46**: 1571–72.
- 41 Lincoff AM, Brown-Frandsen K, Colhoun HM, et al. Semaglutide and cardiovascular outcomes in obesity without diabetes. *N Engl J Med* 2023; **389**: 2221–32.
- 42 Jastreboff AM, Aronne LJ, Ahmad NN, et al. Tirzepatide once weekly for the treatment of obesity. *N Engl J Med* 2022; **387**: 205–16.
- 43 WHO. MPOWER. <https://www.who.int/initiatives/mpower> (accessed March 6, 2025).
- 44 Murphy T. Pliny the Elder's Natural History: the empire in the encyclopedia. March 11, 2004. <https://doi.org/10.1093/acprof:oso/9780199262885.001.0001> (accessed June 14, 2025).
- 45 McConnell JR, Chellman NJ, Plach A, et al. Pan-European atmospheric lead pollution, enhanced blood lead levels, and cognitive decline from Roman-era mining and smelting. *Proc Natl Acad Sci USA* 2025; **122**: e2419630121.
- 46 Huang X, Steinmetz J, Marsh EK, et al. A systematic review with a Burden of Proof meta-analysis of health effects of long-term ambient fine particulate matter (PM_{2.5}) exposure on dementia. *Nat Aging* 2025; **5**: 897–908.
- 47 GBD 2019 Diabetes and Air Pollution Collaborators. Estimates, trends, and drivers of the global burden of type 2 diabetes attributable to PM_{2.5} air pollution, 1990–2019: an analysis of data from the Global Burden of Disease Study 2019. *Lancet Planet Health* 2022; **6**: e586–600.
- 48 Semmens EO, Leary CS, Fitzpatrick AL, et al. Air pollution and dementia in older adults in the Ginkgo Evaluation of Memory Study. *Alzheimers Dement* 2023; **19**: 549–59.
- 49 GBD 2021 HAP Collaborators. Global, regional, and national burden of household air pollution, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *Lancet* 2025; **405**: 1167–81.
- 50 WHO. Seventy-eighth World Health Assembly—daily update: 26 May 2025. <https://www.who.int/news/item/26-05-2025-seventy-eighth-world-health-assembly---daily-update--26-may-2025> (accessed July 2, 2025).
- 51 Blake JA, Sourander A, Kato A, Scott JG. Will restricting the age of access to social media reduce mental illness in Australian youth? *Aust N Z J Psychiatry* 2025; **59**: 202–08.
- 52 Santomauro DF, Mantilla Herrera AM, Shadid J, et al, and the COVID-19 Mental Disorders Collaborators. Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *Lancet* 2021; **398**: 1700–12.

- 53 Haidt J. The anxious generation: how the great rewiring of childhood is causing an epidemic of mental illness. Penguin Press, 2024.
- 54 Fassi L, Thomas K, Parry DA, Leyland-Craggs A, Ford TJ, Orben A. Social media use and internalizing symptoms in clinical and community adolescent samples: a systematic review and meta-analysis. *JAMA Pediatr* 2024; **178**: 814–22.
- 55 Women UN. Facts and figures: ending violence against women. Nov 25, 2024. <https://www.unwomen.org/en/articles/facts-and-figures/facts-and-figures-ending-violence-against-women> (accessed Aug 9, 2025).
- 56 Sardinha L, Maheu-Giroux M, Stöckl H, Meyer SR, García-Moreno C. Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018. *Lancet* 2022; **399**: 803–13.
- 57 The Lancet. The demise of USAID: time to rethink foreign aid? *Lancet* 2025; **405**: 951.
- 58 Wu Y, Wulf Hanson S, Culbreth G, et al. Assessing the impact of health-care access on the severity of low back pain by country: a case study within the GBD framework. *Lancet Rheumatol* 2024; **6**: e598–606.
- 59 Santomauro DF, Purcell C, Whiteford HA, Ferrari AJ, Vos T. Grading disorder severity and averted burden by access to treatment within the GBD framework: a case study with anxiety disorders. *Lancet Psychiatry* 2023; **10**: 272–81.
- 60 Yap Y-S, Lu Y-S, Tamura K, et al. Insights into breast cancer in the East vs the West: a review. *JAMA Oncol* 2019; **5**: 1489–96.

THE LANCET

Supplementary appendix 4

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: GBD 2023 Disease and Injury and Risk Factor Collaborators. Burden of 375 diseases and injuries, risk-attributable burden of 88 risk factors, and healthy life expectancy in 204 countries and territories, including 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\(25\)01637-X](https://doi.org/10.1016/S0140-6736(25)01637-X).

Appendix 4: Authorship appendix to “Burden of 375 diseases and injuries, risk-attributable burden of 88 risk factors, and healthy life expectancy in 204 countries and territories, including 660 subnational locations, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023”

This appendix provides further authorship detail for “Burden of 375 diseases and injuries, risk-attributable burden of 88 risk factors, and healthy life expectancy in 204 countries and territories, including 660 subnational locations, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023”

Table of Contents

GBD 2023 Disease and Injury and Risk Factor Collaborators	2
Affiliations	14
Authors’ Contributions.....	74
Managing the overall research enterprise.....	74
Writing the first draft of the manuscript	74
Primary responsibility for applying analytical methods to produce estimates	74
Primary responsibility for seeking, cataloguing, extracting, or cleaning data; designing or coding figures and tables.....	74
Providing data or critical feedback on data sources.....	74
Developing methods or computational machinery	80
Providing critical feedback on methods or results	80
Drafting the work or revising it critically for important intellectual content	91
Managing the estimation or publications process.....	99

GBD 2023 Disease and Injury and Risk Factor Collaborators

Simon I Hay*, Kanyin Liane Ong*, Damian F Santomauro*, Bhoomadevi A, Mohammad Amin Aalipour, Hasan Aalruz, Hazim S Ababneh, Ukachukwu O Abaraogu, Biruk Beletew Abate, Cristiana Abbafati, Nasir Abbas, Mitra Abbasifard, Mohsen Abbasi-Kangevari, Samar Abd ElHafeez, Ashraf Nabel Abdalla, Mohammed Altigani Abdalla, Emad M Abdallah, Barkhad Aden Abdeeq, Nadin M I Abdel Razeq, Ahmed Abdelrahman Abdelgalil, Reda Abdel-Hameed, Michael Abdelmasseh, Mahmoud Abdelnabi, Wael M Abdel-Rahman, Sherief Abd-Elsalam, Sepideh Abdi, Mohammad Abdollahi, Meriem Abdoun, Arman Abdous, Jeza Muhamad Abdul Aziz, Deldar Morad Abdulah, Rizwan Suliankatchi Abdulkader, Adam Abdullahi, Auwal Abdullahi, Toufik Abdul-Rahman, Kulmira Abdykerimova, Habtamu Abebe Getahun, Aidin Abedi, Armita Abedi, Asrat Agalu Abejew, Roberto Ariel Abeldaño Zuñiga, E S Abhilash, Shehab Uddin Al Abid, Syed Hani Abidi, Alemwork Abie, Olugbenga Olusola Abiodun, Olumide Abiodun, Richard Gyan Aboagye, Shady Abohashem, Hassan Abolhassani, 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, Sawsan Abuhammad, Ahmad Y Abuhelwa, Hana J Abukhadijah, Niveen ME Abu-Rmeileh, Salahdein Aburuz, Dina Abushanab, Raghu Ram Achar, Anirudh Balakrishna Acharya, Apurba Acharya, Ilana N Ackerman, Juan Manuel Acuna, Ousman Adal, Lisa C Adams, Lawan Hassan Adamu, Mesafint Molla Adane, Zenaw Debasu Addisu, Isaac Yeboah Addo, Oluwafemi Atanda Adeagbo, Tajudeen Adesanmi Adebisi, Isaac Akinkunmi Adedeji, David Adedia, Kamoru Ademola Adedokun, Rufus Adesoji Adedoyin, Oluwatobi E Adegbile, Oyelola A Adegboye, Nurudeen A Adegoke, Olumide Thomas Adeleke, Isaac Ayodeji Adesina, Miracle Ayomikun Adesina, Habeeb Omoponle Adewuyi, Temitayo Esther Adeyeoluwa, Olorunsola Israel Adeyomoye, Kishor Adhikari, Ripon Kumar Adhikary, Usha Adiga, Mohd Adnan, Qorinah Estiningtyas Sakilah Adnani, Prince Owusu Adoma, Leticia Akua Adzighbli, David Adzrago, Giuseppina Affinito, Ahmed M Afifi, Aanuoluwapo Adeyimika Afolabi, Rotimi Felix Afolabi, Saira Afzal, Gizachew Beykaso Agafari, Suneth Buddhika Agampodi, Temesgen Anjulo Ageru, Navidha Aggarwal, Mahdi Aghaalikhani, Sepehr Aghajanian, Seyed Mohammad Kazem Aghamir, César Agostinis Sobrinho, Anurag Agrawal, Williams Agyemang-Duah, Mahsa Ahadi, Bright Opoku Ahinkorah, Aqeel Ahmad, Danish Ahmad, Faisal Ahmad, Khabir Ahmad, Khurshid Ahmad, Muayyad M Ahmad, Noah Ahmad, Rabbiya Ahmad, Sajjad Ahmad, Tauseef Ahmad, Waqas Ahmad, Negar Sadat Ahmadi, Amir Mahmoud Ahmadzade, Mohadese Ahmadzade, Akeem Olayiwola Ahmed, Anisuddin Ahmed, Ayman Ahmed, Gasha Salih Ahmed, Haroon Ahmed, Junaid Ahmed, Luai A Ahmed, Mehrunnisha Sharif Ahmed, Meqdad Saleh Ahmed, Muktar Beshir Ahmed, Mushood Ahmed, Oli Ahmed, Shabbir Ahmed, Sindew Mahmud Ahmed, Gulzhanat Aimagambetova, Ahmed AJ Jabbar, Dolapo Emmanuel Ajala, Marjan Ajami, Azeezat Oluwafunmilayo Ajose, Hossein Akbarialiabad, Saeid Akbarifard, Oluwasefunmi Akeju, Roland Eghoghosoa Akhigbe, Olufemi Ambrose Akinkuotu, Karolina Akinosoglou, Mohammed Ahmed Akkaif, Sreelatha Akkala, Wole Akosile, Hammad Akram, Ashley E Akrami, Ralph Kwame Akyea, Alaa Al Amiry, Salah Al Awaidy, Syed Mahfuz Al Hasan, Omar Al Omari, Mohammad Al Qadire, Omar Al Ta'ani, Wasan A M Al Taie, Yazan Al Thaher, Omar Ali Mohammed Al Zaabi, Mohammad Ahmmad Mahmoud Al Zoubi, Mousa Ali Al-Abbadi, Yazan Al-Ajlouni, Tariq A Alalwan, Ziyad Al-Aly, Khurshid Alam, Manjurul Alam, Mohammad Khursheed Alam, Mostafa Alam, Rasmieh Mustafa Al-Amer, Abebaw Alamrew, Amani Alansari, Turki M Alanzi, Fahmi Y Al-Ashwal, Rahmeh Al-Asmar, Seyed Mohammad Amin Alavi, Mohammed Albashtawy, Astefanos Al-Dalakta, Khalifah A Aldawsari, Wafa A Aldhaleei, Mohammed S Aldossary, Robert W Aldridge, Raouf Alebshehy, Shereen M Aleidi, Bezawit Abeje Alemayehu, Tekletsadik Tekleslassie Alemayehu, Fentahun Alemnew, Melaku Birhanu Alemu, Ayman Al-Eyadhy, Ali M Alfalki, Fahad D

Algahtani, Abdelazeem M Algammal, Mohammed Ridha Algethami, Adel Ali Saeed Al-Gheethi, Khairat Al-Habbal, Khalid F Alhabib, Nma Bida Alhaji, Samar Al-Hajj, Fadwa Naji Alhalaiqa, Mohammed Khaled Al-Hanawi, Aminu Alhassan Ibrahim, Ashraf Alhumaidi, Fahad A Alhumaydhi, Dari Alhuwail, Abid Ali, Haroon Muhammad Ali, Irfan Ali, Maratab Ali, Mohammad Daud Ali, Mohammed Usman Ali, Rafat Ali, Shahid Ali, Syed Shujait Ali, Syed Yusuf Ali, Waad Ali, Akram Al-Ibraheem, Gianfranco Alicandro, Montaha Al-Iede, Sheikh Mohammad Alif, Morteza Alipour, Samah W Al-Jabi, Mohammad A Aljasir, Mohamad Aljofan, Adel Al-Jumaily, Syed Mohamed Aljunid, Ahmad Alkhatib, Mayson H Alkhatib, Mustafa Alkhawam, Atefeh Allahbakhshian, Khaled S Allemailem, Mohammed Z Allouh, Wesam Taher Almagharbeh, Wael Almahmeed, Sabah Al-Marwani, Nihad A Almasri, Joseph Uy Almazan, Hesham M Al-Mekhlafi, Omar Almidani, Amr Almobayed, Khaldoon Aied Alnawafleh, Hasan Yaser Alniss, Margret Beaula Alocious Sukumar, Mahmoud A Alomari, Mohammad R Alosta, Jaber S Alqahtani, Saleh A Alqahtani, Mohammad R Alqudimat, Ahmad Rajeh Al-Qudimat, Ahmad Alrawashdeh, Intima Alrimawi, Sahel Majed Alrousan, Salman Khalifah Al-Sabah, Mohammed A Alsabri, Najim Z Alshahrani, Mansour Abdullah Alshehri, Zaid Altaany, Awais Altaf, Alaa B Al-Tammemi, Jaffar A Al-Tawfiq, Malik A Althobiani, Khalid A Altirkawi, Javier Alvarez-Galvez, Vera L Alves Carneiro, Nelson Alvis-Guzman, Nelson J Alvis-Zakzuk, Hassan Alwafi, Mohammad Al-Wardat, Yaser Mohammed Al-Worafi, Hany Aly, Mohammad Sharif Ibrahim Alyahya, Amal AlZahmi, Hosam Alzahrani, Karem H Alzoubi, Md Akib Al-Zubayer, Uchenna Anderson Amaechi, Ekiyor Joseph Amafah, Joy Amafah, Masoud Aman Mohammadi, Reza Amani-Beni, Adeladza Kofi Amegah, Faten Amer, Bardia Amidi, Amr Amin, Tarek Tawfik Amin, Alireza Amindarolzarbi, Saeed Amini, Ehsan Amini-Salehi, Nafiu Aminu, Majid Aminzare, Sohrab Amiri, Joanne O Amlag, Dickson A Amugsi, Jimoh Amzat, Filippas Anagnostakis, Roshan A Ananda, Robert Ancuceanu, Deanna Anderlini, David B Anderson, Jason A Anderson, Sofia Androudi, Susan C Anenberg, Song Peng Ang, Colin Angus, Nguyen Hoang Anh, Samuel Egyakwa Ankomah, Kabilan Annadurai, Amir Anoushiravani, Iman Ansari, Sumbul Ansari, Umair Ansari, Rahel Mulatie Anteneh, Josep M Antó, Catherine M Antony, Ernoiz Antriyandarti, Boluwatife Stephen 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, Aleksandr Y Aravkin, Demelash Areda, Jorge Arias de la Torre, Hany Ariffin, Benedetta Armocida, Johan Ärnlov, Jesu Arockiaraj, Mahwish Arooj, Anton A Artamonov, Kurnia Dwi Artanti, Raphael Taiwo Aruleba, Deepavalli Arumuganainar, Nurila Aryntayeva, Mahsa Asadi Anar, Muhammad Asaduzzaman, Syed Mohammed Basheeruddin Asdaq, Shewatatek Melaku Asefa, Mulu Tiruneh Asemu, Saeed Asgary, Mohammad Asghari-Jafarabadi, Charlie Ashbaugh, Syed Amir Ashraf, Tahira Ashraf, Mitra Ashrafi, Milad Ashrafizadeh, Bernard Kwadwo Yeboah Asiamah-Asare, Muhammad Shahzad Aslam, Saeed Aslani, Yuni Asri, Batyrbek Assembekov, Thomas Astell-Burt, Mahshid Ataei, Mirbahador Athari, Seyyed Shamsadin Athari, Maha Moh'd Wahbi Atout, Sachin R Atre, Alok Atreya, Julie Alaere Atta, Zeenah A Atwan, Zaure Maratovna Aumoldaeva, Marcel Ausloos, Abolfazl Avan, Núbia Carelli Pereira Avelar, Sana Javaid Awan, Babafela B Awosile, Adedapo Wasiu Awotidebe, Lemessa Assefa A Ayana, Seyyed HamidReza Ayatizadeh, Olatunde O Ayinde, Yusuf Oloruntoyin Ayipo, Seyed Mohammad Ayyoubzadeh, Davood Azadi, Sina Azadnajafabad, Alireza Azarboo, Ali Azargoonjahromi, Masood Azhar, Farya Azimi, Mohd Yusmaidie Aziz, Sadat Abdulla Aziz, Amin Azizan, Ahmed Y Azzam, Domenico Azzolino, Zaharaddeen Shuaibu Babandi, Rasha Babiker, Giridhara Rathnaiah Babu, Israel Tadesse Bacha, Muhammad Badar, Ashish D Badiye, Alaa Aboelnour Badran, Youngoh Bae, Arvind Bagga, Soroush Baghdadi, Nasser Bagheri, Sara Bagheri, Elahe Baghizadeh, Fereshteh Baghizadeh, Sana Baghizadeh, Khlood K Baghlaif, Najmeh Bahmanziari, Mohammad Amin Bahrami, Razieh Bahreini, Ruhai Bai, Atif Amin Baig, Vali Baigi, Shankar M Bakkannavar, Abdulaziz T Bako, Senthilkumar

Balakrishnan, Wondu Feyisa Balcha, Maher Balkis, Jose Balmori-de-la-Miyar, Mohammadreza Balooch Hasankhani, Ovidiu Constantin Baltatu, Shatha Bamashmous, Maciej Banach, Morteza Banakar, Palash Chandra Banik, Rajon Banik, Shirin Barati, Noel C Barengo, Suzanne Lyn Barker-Collo, Hiba Jawdat Barqawi, Ismael A Barreras Beltran, Amadou Barrow, Sandra Barteit, Lingkan Barua, MD Abu Bashar, Zarrin Basharat, Shahid Bashir, Guido Basile, Pritish Baskaran, Rehana Basri, Quique Bassat, Mohammad-Mahdi Bastan, Sanjay Basu, Saurav Basu, Kavita Batra, Bernhard T Baune, Mahdis Bayat, Mohammad Amin Bayat Tork, Mulat Tirfie Bayih, Feyisa Shasho Bayisa, Nebiyu Simegnew Bayleyegn, Thomas Beaney, Neeraj Bedi, Narasimha M Beeraka, Priyamadhaba Behera, Jina Behjati, Babak Behnam, Amir Hossein Behnoush, Bezawit K Bekele, Asnake Gashaw Belayneh, Melesse Belayneh, Abel Cherkos Belete, Gokce Belge Bilgin, Michael Belingheri, Muhammad Bashir Bello, Olorunjuwon Omolaja Bello, Luis Belo, Apostolos Beloukas, Salaheddine Bendak, Riyadh Bendardaf, Corina Benjet, Derrick A Bennett, Isabela M Bensenor, Samiun Nazrin Bente Kamal Tune, Habib Benzian, Zombor Berezvai, Maria Bergami, Alemshet Yirga Berhie, Abiye Assefa Berihun, Amiel Nazer C Bermudez, Eduardo Bernabe, Robert S Bernstein, Paulo J G Bettencourt, Ajeet Singh Bhadoria, Akshaya Srikanth Bhagavathula, Neeraj Bhala, Jeetendra Bhandari, Kayleigh Bhangdia, Ravi Bharadwaj, Sonu Bhaskar, Ajay Nagesh Bhat, Anup Bhat, Vivek Bhat, Priyadarshini Bhattacharjee, Shuvarthi Bhattacharjee, Gurjit Kaur Bhatti, Jasvinder Singh Bhatti, Manpreet Singh Bhatti, Rajbir Bhatti, Soumitra S Bhuyan, Sibhatu Kassa Biadgilign, Raluca Bievel-Radulescu, Can Bilgin, Cem Bilgin, Saeed Biroudian, Catherine Bisignano, Atanu Biswas, Bijit Biswas, Raaj Kishore Biswas, Ahmad Naoras Bitar, Molalegne Bitew, Bruno Bizzozero-Peroni, Espen Bjertness, Fiona M Blyth, Trupti Bodhare, Virginia Bodolica, Mahmut Bodur, Lucimere Bohn, Rachael Bokota, Obasanjo Afolabi Bolarinwa, Srinivasa Rao Bolla, Paria Bolourinejad, Aime Bonny, Sri Harsha Boppana, Berrak Bora Basara, Sanaz Bordbar, Hamed Borhany, Alejandro Botero Carvajal, Souad Bouaoud, Soufiane Boufous, Rupert R A Bourne, Christopher Boxe, Marija M Bozic, Jyoti Brahmaiah, Dejana Braithwaite, Nicholas J K Breitborde, Hermann Brenner, Edmond D Brewer, Gabrielle Britton, Julie Brown, Annie J Browne, Traolach Brugha, Claudia Buchweitz, Raffaele Bugiardini, Linh Phuong Bui, Norma B Bulamu, Tsion Samuel Bunare, Danilo Buonsenso, Asmat Burhan, Katrin Burkart, Richard A Burns, Felix Busch, Reinhard Busse, Yasser Bustanji, Zahid A Butt, Channa Buxbaum, Sanjay C J, Jack Cagney, Tianji Cai, Rose Cairns, Mehtap Çakmak Barsbay, Daniela Calina, Luis Alberto Cámera, Luciana Aparecida Campos, Ismael Campos-Nonato, Fan Cao, Yuchen Cao, Angelo Capodici, Rosario Cárdenas, Sinclair Carr, Giulia Carreras, Juan Jesus Carrero, Austin Carter, Andrea Carugno, Andre F Carvalho, Ana Paula Carvalho-e-Silva, Joao Mauricio Castaldelli-Maia, Carlos A Castañeda-Orjuela, Giulio Castelpietra, Alberico L Catapano, Maria Sofia Cattaruzza, Arthur Caye, Christopher R Cederroth, Luca Cegolon, Francieli Cembranel, Muthia Cenderadewi, Kelly M Cercy, Ester Cerin, Sonia Cerrai, Muge Cevik, Madhu Chakkere Shivamadh, Chiranjib Chakraborty, Promit Ananyo Chakraborty, Sandip Chakraborty, Joht Singh Chandan, Rama Mohan Chandika, Miyuru Chandradasa, Eeshwar K Chandrasekar, Jung-Chen Chang, Vijay Kumar Chattu, Victoria Chatzimavridou-Grigoriadou, Lam Duc Chau, Sirshendu Chaudhuri, Akhilanand Chaurasia, Galmesa Bekana Chemed, An-Tian Chen, Catherine S Chen, Guangjin Chen, Hana Chen, Haowei Chen, Hui Chen, Junhao Chen, Meng Xuan Chen, Shanquan Chen, Simiao Chen, Xiang Chen, Yifan Chen, Haojin Cheng, Ka Ching Cheung, Nicholas WS Chew, Gerald Chi, Ju-Huei Chien, Odgerel Chimed-Ochir, Patrick R Ching, Jesus Lorenzo Chirinos-Caceres, Clara G Chisari, William C S Cho, Bryan Chong, Yuen Yu Chong, Hou In Chou, Enayet Karim Chowdhury, Mohiuddin Ahsanul Kabir Chowdhury, Hanne Christensen, Steffan Wittrup McPhee Christensen, Dinh-Toi Chu, Isaac Sunday Chukwu, Eric Chung, Erin Chung, Sheng-Chia Chung, Sunghyun Chung, Muhammad Chutiyami, Arrigo Francesco Giuseppe Cicero, Liliana G Ciobanu, Rebecca M Cogen, Aaron J Cohen, Alyssa Columbus, Joao Conde, Stephen E Congly, Nathalie

Conrad, Sara Conti, Mariana Oliveira Corda, Alexandru Corlateanu, Samuele Cortese, Paolo Angelo Cortesi, Claudia Cosma, Ewerton Cousin, Emma Johnson Cowart, Michael H Criqui, Andrew Crist, Jessica A Cruz, Natalia Cruz-Martins, Xiaolin Cui, Garland T Culbreth, Nour Dababo, Ali Dabbagh, Omid Dadras, Tukur Dahiru, Xiaochen Dai, Zhaoli Dai, Mayank Dalakoti, Koustuv Dalal, Gloria Dalla Costa, Giovanni Damiani, Emanuele D'Amico, Yohannes Tefera Damtew, Roy Arokiam Arokiam Daniel, Lucio D'Anna, Pojsakorn Danpanichkul, Samuel Demissie Darcho, Latefa Ali Dardas, Bahar Darouei, Reza Darvishi Cheshmeh Soltani, Anna Dastiridou, Gail Davey, Claudio Alberto Dávila-Cervantes, Nicole Davis Weaver, Dimash Davletov, Kairat Davletov, Elham Davoudi, Fernando Pio De la Hoz, Katie de Luca, Nicole K DeCleene, Edward Christopher Dee, Orla Deegan, Sindhura Deekonda, Amanda Deen, Louisa Degenhardt, Paria Dehesh, Lee Deitesfeld, Tadesse Asmamaw Dejenie, Pouria Delbari, Mohammad Delsoz, Dessalegn Demeke, Andreas K Demetriades, Desalegn Getnet Demsie, Edgar Denova-Gutiérrez, Tadios Niguss Derese, Ismail Dergaa, Hunegnaw Almaw Derseh, Emina Dervišević, Abraham Aregay Desta, Vinoth Gnana Chellaiyan Devanbu, Pradeep Kumar Devarakonda, Syed Masudur Rahman Dewan, Arkadeep Dhali, Kuldeep Dhama, Rajinder K Dhamija, Amol S Dhane, Narender K Dhanial, Mandira Lamichhane Dhimal, Meghnath Dhimal, Sameer Dhingra, Bibha Dhungel, Marcello Di Pumpo, Diana Dias da Silva, Daniel Diaz, Luis Antonio Diaz, Kimia Didehvar, Lauren K Dillard, Adriana Dima, Xueting Ding, Temesgien Ergetie Dinkayehu, Huyen Phuc Do, Thao Huynh Phuong Do, Klara Georgieva Dokova, Christiane Dolecek, Regina-Mae Villanueva Dominguez, Francesco Dondi, Mario D'Oria, Fariba Dorostkar, Ojas Prakashbhai Doshi, Paulo Magno Martins Dourado, Robert Kokou Dowou, Menayit Tamrat Dresse, Tim Robert Driscoll, Ashel Chelsea Dsouza, Viola Savy Dsouza, Jiang Du, John Dube, Emeka W Dumbili, Samuel C Dumith, Jennifer Dunne, Andre Rodrigues Duraes, Senbagam Duraisamy, Oyewole Christopher Durojaiye, Ashit Kumar Dutta, Arkadiusz Marian Dziedzic, Abdel Rahman E'mar, Osamudiamen Ebohon, Ejemai Eboreime, Lamiaa Labieb Mahmoud Ebraheim, Alireza Ebrahimi, Mohammad Hossein Ebrahimi, Sara Ebrahimi, Abdelaziz Ed-Dra, Ekaette Godwin Edelduok, Kristina Edvardsson, Ferry Efendi, Behrad Eftekhari, Foolad Eghbali, Fatemeh Ehsani, Ashkan Eighaei Sedeh, Terje Andreas Eikemo, Ebrahim Eini, Michael Ekholuenetale, Temitope Cyrus Ekundayo, Rabie Adel El Arab, Abdelfatteh EL Omri, Maysaa El Sayed Zaki, Mohamed Ahmed Eladl, Reza Elahi, Said El-Ashker, Rana Elbeshbeishy, Noha Mousaad Elemam, Ghada Metwally Tawfik ElGohary, Muhammed Elhadi, Mohamed Elhoumed, Waseem El-Huneidi, Sherif Elkannishy, Omar Abdelsadek Abdou Elmeligy, Rami Elmorsi, Adel B Elmoselhi, Mohamed Hassan Elnaem, Gihan ELNahas, Mohammed Elshaer, Ibrahim Elsohaby, Abdelgawad Salah Abdelgawad Eltahawy, Tadele Emagneneh, Theophilus I Emeto, Victor Oghenekparobo Emojevwe, Destaw Endeshaw, Misganu Endriyas, Holly E Erskine, Christopher Imokhuede Esezobor, Derese Eshetu, Habitu Birhan Eshetu, Gilbert Eshun, Sharareh Eskandarieh, Majid Eslami, Rafaela Cavaleiro do Espírito Santo, Francesco Esposito, Kara Estep, Crystal Amiel M Estrada, Fahima Nasrin Eva, Elochukwu Ezenwankwo, Adewale Oluwaseun Fadaka, Heidar Fadavian, Adeniyi Francis Fagbamigbe, Ayesha Fahim, Ildar Ravisovich Fakhradiyev, Aliasghar Fakhri-Demeshghieh, Qiping Fan, Mohammad Farahmand, Emerito Jose Aquino Faraon, Mohammad Fareed, Zaki Farhana, Carla Sofia e Sá Farinha, MoezAllIslam Ezzat Mahmoud Faris, Andre Faro, Syed Muhammad Yousaf Farooq, Umar Farooque, Hossein Farrokhpour, Fatemeh Farshad, Farima Farsi, Md Omar Faruk, Folorunso Oludayo Fasina, Modupe Margaret Fasina, Emmanuel Toluwani Fasusi, Ali Fatehizadeh, Davood Fathi, Zareen Fatima, Mehdi Fazlzadeh, Li Fei, Valery L Feigin, Alireza Feizkhah, Ginenus Fekadu, Berhanu Elfu Feleke, Dechao Feng, Kaixin Feng, Xiaoqi Feng, Talukdar Raian Ferdous, Seyed-Mohammad Fereshtehnejad, Rodrigo Fernandez-Jimenez, Pietro Ferrara, Alize J Ferrari, André Ferreira, Nuno Ferreira, Natan Feter, Alexander Finnemore, Claudio Fiorilla, Florian Fischer, Ida Fitriana, Luisa S Flor, Federica Fogacci,

Morenike Oluwatoyin Folayan, Marco Fonzo, Lisa M Force, Arianna Fornari, Carla Fornari, Ingeborg Forthun, Daniela Fortuna, Matteo Foschi, Maryam Fotouhi, Kayode Raphael Fowobaje, Juluis Visnel Foyet F, Richard Charles Franklin, Alberto Freitas, Jinming Fu, Nancy Fullman, Blima Fux, Sridevi G, Peter Andras Gaal, Dominic Dormenyo Gadeka, Márió Gajdács, Yaseen Galali, Silvano Gallus, Dhanraj Ganapathy, Shivaprakash Gangachannaiah, Mohd Ashraf Ganie, Dingwei Gao, Xiang Gao, Bashiru Garba, Fernando Barroga Garcia, Vanessa Garcia, Miguel Garcia-Argibay, David Garcia-Azorin, William M Gardner, Jacopo Garlasco, Zisis Gatzioufas, Prem Gautam, Rupesh K Gautam, Federica Gazzelloni, Feven Sahle Gebre, Miglas Welay Gebregergis, Haftay Gebremedhin Gebreslassie, Stefano Gelibter, Nsikakabasi Samuel George, Ali Gerami Matin, Genanew K Getahun, Kalab Yigermal Gete, Delaram J Ghadimi, Keyghobad Ghadiri, Fataneh Ghadirian, Amir Ghaffari Jolfayi, Seyyed-Hadi Ghamari, Arin Ghamkhar, Ali Ghandili, Moein Ghasemi, Mohammad-Reza Ghasemi, Shakiba Ghasemi Assl, Haniyeh Ghasrsaz, Ramy Mohamed Ghazy, Sailaja Ghimire, Nermin Ghith, Nasim Gholizadeh, Elena Ghotbi, Alessandro Gialluisi, Konstantinos Giannakis, Ruth Margaret Gibson, Artyom Urievich Gil, Gabriela Fernanda Gil, Syed Abdullah Gilani, Nora M Gilbertson, Tiffany K Gill, Themba G Ginindza, Bikash Ranjan Giri, Alem Abera Girmay, Alessandro Girombelli, Elena V Gnedovskaya, Laszlo Göbölös, Kimiya Gohari, Mahaveer Golechha, Pouya Goleij, Ali Golestani, Davide Golinelli, Melika Golmohammadi, Wenping Gong, Sameer Vali Gopalani, Yitayal Ayalew Goshu, Alessandra C Goulart, Aman Goyal, Ayman Grada, Simon Matthew Graham, Vittorio Grieco, Michal Grivna, Ashna Grover, Habtamu Algameh Guadie, Shi-Yang Guan, Zhongyang Guan, Giovanni Guarducci, Mohammed Ibrahim Mohialdeen Gubari, Avirup Guha, Damitha Asanga Gunawardane, Xingzhi Guo, Zhaoyu Guo, Zheng Guo, Zhifeng Guo, Anish Kumar Gupta, Himanshu Gupta, Ishita Gupta, Lalit Gupta, Rajat Das Gupta, Rajeev Gupta, Sapna Gupta, Veer Bala Gupta, Vijai Kumar Gupta, Vipin Gupta, Vivek Kumar Gupta, Yonas Deressa Guracho, Lami Gurmessa, Reyna Alma Gutiérrez, Roberth Steven Gutiérrez-Murillo, Parishma Guttoo, Jose Guzman-Esquivel, Adrina Habibzadeh, Abrham Tesfaye Habteyes, Awoke Derby Habteyohannes, Tesfahun Simon Hadaro, Najah R Hadi, Zahra Hadian, Abdul Hafiz, Faraidoon Haghdoost, Arian Haghtalab, Hailey Hagins, Demewoz Haile, Haimanot Ewnetu Hailu, Pritam Halder, Aram Halimi, Sebastian Haller, Kosar Hikmat Hama Aziz, Islam M Hamad, Randah R Hamadeh, Nadia M Hamdy, Sajid Hameed, Erin B Hamilton, Ahmad Hammoud, Mohammad Hamza, Umar Sabiu Hamza, Hannah Han, Didem Han Yekdeş, Asif Hanif, Nasrin Hanifi, Graeme J Hankey, Fahad Hanna, Ashanul Haque, Md Aminul Haque, Md Nuruzzaman Haque, Harapan Harapan, Hilda L Harb, Cassandra L Harding, Arief Hargono, Andy Martahan Andreas Hariandja, Josep Maria Haro, Ashley Ann Harris, Eka Mishbahatul Marah Has, Ahmed I Hasaballah, Faizul Hasan, Md Kamrul Hasan, Hamidreza Hasani, Ali Hasanpour- Dehkordi, Arezou Hashem Zadeh, Mohammad Hashem Hashempur, Nada Tawfig Hashim, Ammarah Hasnain, Amr Hassan, Ibrahim Nagmeldin Hassan, Ikrama Hassan, Nageeb Hassan, Mahgol Sadat Hassan Zadeh Tabatabaei, Shokoufeh Hassani, Mohammed Bheser Hassen, Lasanthi Wathsala Hathagoda, Rasmus J Havmoeller, Angie Hawat, Khezar Hayat, Youssef Hbid, Jiawei He, Jue He, Jeffrey J Hebert, Mohammad Heidari, Mehdi Hemmati, Claire A Henson, Molly E Herbert, Claudiu Herteliu, Austin Heuer, Sumudu Avanthi Hewage, Mojtaba Heydari, Zahra Heydarifard, Kamal Hezam, Yuta Hiraike, Ramesh Holla, Julia Hon, Alamgir Hossain, Lubna Hossain, Md Belal Hossain, Md Mahbub Hossain, Md Sabbir Hossain, Mohammad Bellal Hossain, Hassan Hosseinzadeh, Mehdi Hosseinzadeh, Mihaela Hostiuc, Sorin Hostiuc, Jada Averiana Houser, Mila Nu Nu Htay, Chengxi Hu, Yifei Hu, Junjie Huang, Weijun Huang, Yefei Huang, Mega Hasanul Huda, Atanesia Indriyani Human, Kyle Matthew Humphrey, Kiavash Hushmandi, Andreas Kattem Husøy, Javid Hussain, M Azhar Hussain, Salman Hussain, Dursa Hussein, Nawfal R Hussein, Mohamed Ibrahim Hussein, Hong-Han Huynh, Bing-Fang Hwang, Luigi Francesco Iannone, Ahmed Ibrahim, Khalid S Ibrahim, Ramzi

Ibrahim, Reem Ibrahim, Anel Ibrayeva, Francisco Javier Idalsoaga, Pulwasha Maria Iftikhar, Audrey L Ihler, Nayu Ikeda, Adalia Ikiroma, Jibran Ikram, Olayinka Stephen Ilesanmi, Irena M Ilic, Milena D Ilic, Muhammad Hamza Ilyas, Mohammad Tarique Imam, Masoud Imani, Mustapha Immurana, Lucius Chidiebere Imoh, Leeberk Raja Inbaraj, Arit Inok, Mujahid Iqbal, Lalu Muhammad Irham, Mustafa Alhaji Isa, Dr Md Shahinul Islam, Md Rabiul Islam, Md Shariful Islam, Farhad Islami, Faisal Ismail, Nahlah Elkudssiah Ismail, Yerlan Ismoldayev, Hiroyasu Iso, Gaetano Isola, Mosimah Charles Ituka, Masao Iwagami, Chinwe Juliana Iwu-Jaja, Ihoghosa Osamuyi Iyamu, Mahalaxmi Iyer, Veena J Iyer, Vinothini J, Jalil Jaafari, Louis Jacob, Kathryn H Jacobsen, Ali Jadidi, Farhad Jadidi-Niaragh, Morteza Jafarinia, Shabbar Jaffar, Haitham Jahrami, Ammar Abdulrahman Jairoun, Vikash Jaiswal, Mihajlo Jakovljevic, Ali Jaliliyan, Reza Jalilzadeh Yengejeh, Mohamed Jalloh, Armaan Jamal, Qazi Mohammad Sajid Jamal, Jazlan Jamaluddin, Jerin James, Tyler G James, Hasan Jamil, Safayet Jamil, Roland Dominic G Jamora, Masoud Jamshidi, Shaghayegh JamshidiRastabi, Rajiv Janardhanan, Esmaeil Jarrahi, Syed Sarmad Javaid, Anita Javanmardi, Javad Javidnia, Talha Jawaid, Qassim Jawell Odah Abed, Ruwan Duminda Jayasinghe, Yovanthi Anurangi Jayasinghe, Achala Upendra Jayatilleke, Kimia Jazi, Felix K Jebasingh, Sun Ha Jee, Jayakumar Jeganathan, Tadesse Hailu Jember, Belayneh Hamdela Jena, Diptismita Jena, Seongsong Jeong, Mahsa Jessri, Bijay Mukesh Jeswani, Vivekanand Jha, Zixiang Ji, Min Jiang, Weiqiu Jin, Wenyi Jin, Catherine O Johnson, Emily Katherine Johnson, Mohammad Jokar, Jost B Jonas, Tamas Joo, Abu Jor, Abel Joseph, Alex Joseph, Nitin Joseph, Charity Ehimwenma Joshua, Farahnaz Joukar, George Joy, Jacek Jerzy Jozwiak, Mikk Jürisson, Malik E Juweid, Madhanraj K, Billingsley Kaambwa, Zubair Kabir, Dler H Hussein Kadir, Ethan M Kahn, Ashish Kumar Kakkar, Leila R Kalankesh, Khalil Kalavani, Feroze Kaliyadan, Aidana Kaliyakparova, Sanjay Kalra, Md Moustafa Kamal, Mehnaz Kamal, Sivesh Kathir Kamarajah, Rajesh Kamath, Saltanat Kamenova, Arun Kamireddy, Ramat T Kamorudeen, Oleksandr Kamyshnyi, Haidong Kan, Mona Kanaan, Saddam Fuad Kanaan, Jiseung Kang, Samuel Berchi Kankam, Kehinde Kazeem Kanmodi, Sujitha Kannan, Suthanthira Kannan S, Rami S Kantar, Neeti Kapoor, Sujita Kumar Kar, Paschalis Karakasis, Reema A Karasneh, Hanie Karimi, Arman Karimi Behnagh, Samad Karkhah, Dr Mohmed Isaqali Karobari, Tomasz M Karpiński, Manoj Kumar Kashyap, Abdene Weya Kaso, Hengameh Kasraei, Nigussie Assefa Kassaw, Adarsh Katamreddy, Patrick DMC Katoto, Joonas H Kauppila, Gbenga A Kayode, Nastaran Kazemi Rad, Mohammad-Hossein Keivanlou, Peter Njenga Keiyoro, Chukwudi Keke, John H Kempen, Salima Kerai, Vikash Ranjan Keshri, Kamyab Keshtkar, Emmanuelle Kesse-Guyot, Reza Khademi, Yousef Saleh Khader, Inn Kynn Khaing, Himanshu Khajuria, Sidra Khalid, Sumaira Khalid-Ariturk, Hazim O Khalifa, Anas Husam Khalifeh, Anees Ahmed Khalil, Mariam Khalil, Anita Khalili, Pantea Khalili, Ghazaleh Khalili-Tanha, Mohamed Khalis, Faham Khamesipour, Abdul Arif Khan, Ajmal Khan, Asaduzzaman Khan, Faiz Ullah Khan, Maseer Khan, Md Abdullah Saeed Khan, Mohammad Idreesh Khan, Mohammad Jobair Khan, Muhammad Hamza Khan, Muhammad Mueed Khan, Muhammad Umair Khan, Muhammad Umer Khan, Nusrat Khan, Ruby Khan, Salman Ali Khan, Serab Khan, Sumaiya Khan, Yusuf Saleem Khan, Zahid Khan, Srijana Khanal, Vishnu Khanal, Shaghayegh Khanmohammadi, Sameer Uttamaro Khasbage, Zenith Khashim, Khaled Khatab, Haitham Khatatbeh, Moawiah Mohammad Khatatbeh, Kavin Khatri, Hamid Reza Khayat Kashani, Afshin Khazaei, Peyman Kheirandish Zarandi, Sunil Kumar Khokhar, Mohammad Saeid Khonji, Najmaddin Salih Husen Khoshnaw, Atulya Aman Khosla, Farbod Khosravi, Mahmood Khosrowjerdi, P Ratan Khuman, Helda Khusun, Zemene Demelash Kifle, Hye Jun Kim, Jinho Kim, Min Seo Kim, Sungroul Kim, Ruth W Kimokoti, Yohannes Kinfu, Mary Kirk, Adnan Kisa, Sezer Kisa, Katarzyna Kissimova-Skarbek, Mika Kivimäki, Jessica Klusty, Abdul Basith KM, Shivakumar KM, Ann Kristin Skrindo Knudsen, Nazarii Kobylak, Jonathan M Kocarnik, Sonali Kochhar, Michail Kokkorakis, Ali-Asghar Kolahi, Diana Gladys Kolioghu Tcheumeni, Farzad Kompani, Aida

Kondybayeva, Anastasios Georgios Panagiotis Konstas, Isaac Koomson, Gerbrand Koren, Tapos Kormoker, Oleksii Korzh, Karel Kostev, Konstantinos Kotsis, Archana Koul, Parvaiz A Koul, Sindhura Lakshmi Koulmane Laxminarayana, Irene Akwo Kretchy, James-Paul Kretchy, Kewal Krishan, Chong-Han Kua, Ananya Kuanar, Barthelemy Kuate Defo, Raja Amir Hassan Kuchay, Burcu Kucuk Bicer, Mohammed Kuddus, Ilari Kuitunen, Omar Kujan, Anit Kujur, Mukhtar Kulimbet, Vishnutheertha Kulkarni, Shweta Kulshreshtha, Dewesh Kumar, Dhasarathi Kumar, Jogender Kumar, Manasi Kumar, Nitesh Kumar, Nithin Kumar, Rakesh Kumar, Sanjay Kirshan Kumar, Tushar Kumar, Vijay Kumar, Subramanian Kumaran, Jibin Kunjavara, Setor K Kunutsor, Almagul Kurmanova, Om P Kurmi, Maria Dyah Kurniasari, Krishna Prasad Kurpad, Pramod Kumar Kushawaha, Asep Kusnali, Christina Yeni Kustanti, Dian Kusuma, Tezer Kutluk, Assylkhan Kuttybayev, Michael Agyemang Kwarteng, Wai Hang Patrick Kwong, Evans F Kyei, Grace Kwakyewaa Kyei, Ville Kytö, Hmwe Hmwe Kyu, Pallavi L C, Adriano La Vecchia, Carlo La Vecchia, Muhammad Awwal Ladan, Lucie Laflamme, Chandrakant Lahariya, Daphne Teck Ching Lai, Anita Lakhani, Dharmesh Kumar Lal, Ratilal Laloo, Tea Lallukka, Judit Lám, Iván Landires, Berthold Langguth, Ariane Laplante-Lévesque, Savita Lasrado, Kamaluddin Latief, Kenney Ki Lee Lau, Basira Kankia Lawal, Bilkisu Kankia Lawal, Saheed Akinmayowa Lawal, Aliyu Lawan, Harriet L S Lawford, Hilary R Lawlor, Dai Quang Le, Duc Huy Le, Huu-Hoai Le, Long Khanh Dao Le, Minh Huu Nhat Le, Nhi Huu Hanh Le, Thao Thi Thu Le, Trang Diep Thanh Le, Caterina Ledda, Hye Ah Lee, Seung Won Lee, Wei-Chen Lee, Yo Han Lee, James Leigh, Vasileios Leivaditis, Matthew J Lennon, Matilde Leonardi, Elvynna Leong, Janni Leung, Chengcheng Li, Haobo Li, Hui Li, Jianan Li, Jiaying Li, Jie Li, Jinbo Li, Ming-Chieh Li, Peng li, Shaojie Li, Wang-Zhong Li, Wei Li‡, Wei Li\$, Weilong Li, Wenjie Li, Xunliang Li, Yichong Li, Yongze Li, Zhengrui Li, Zhihui Li, Yanxue Lian, Xue-Zhen Liang, Stephen S Lim, Jialing Lin, Queran Lin, Ro-Ting Lin, Ya Lin, Daniel Lindholm, Christine Linehan, Yuewei Ling, Gang Liu, Haipeng Liu, Jue Liu, Xianliang Liu, Xiaofeng Liu, Xuefeng Liu, Yubo Liu, Yunfei Liu, Erand Llanaj, Michael J Loftus, Valerie Lohner, José Francisco López-Gil, Platon D Lopukhov, Stefan Lorkowski, Masoud Lotfizadeh, Shanjie Luan, Jailos Lubinda, Taraneh Lucas, Giancarlo Lucchetti, Alessandra Lugo, Raimundas Lunevicius, Peng Luo, Jay B Lusk, Angelina M Lutambi, Ricardo Lutzky Saute, Miltiadis D Lytras, Ellina Lytvyak, Hawraz Ibrahim M Amin, Kevin Sheng-Kai Ma, Zheng Feei Ma, Mahmoud Mabrok, Isis E Machado, Firoozeh Madadi, Seyed Ataollah Madinezad, Christian Madsen, Aurea Marilia Madureira-Carvalho, Mohammed Magdy Abd El Razek, Azzam A Maghazachi, D R Mahadeshwara Prasad, Sasikumar Mahalingam, Mehrdad Mahalleh, Nozad Hussein Mahmood, Alireza Mahmoudi, Farhad Mahmoudi, My Tra Mai, Rituparna Maiti, Azeem Majeed, Konstantinos Christos C Makris, Mohammad-Reza Malekpour, Reza Malekzadeh, Hardeep Singh Malhotra, Ahmad Azam Malik, Fariyah Malik, Tabarak Malik, Deborah Carvalho Malta, Abdullah A Mamun, Mustapha Mangdow, Lokesh Manjani, Yosef Manla, Kamaruddeen Mannethodi, Farheen Mansoor, Marjan Mansourian, Mohammad Ali Mansournia, Ana M Mantilla Herrera, Lorenzo Giovanni Mantovani, Changkun Mao, Tahir Maqbool, Sajid Maqsood, Hamid Reza Marateb, Joemer C Maravilla, Konstantinos Margetis, Mirko Marino, Adilson Marques, Randall V Martin, Gabriel Martinez, Bernardo Alfonso Martinez-Guerra, Ramon Martinez-Piedra, Daniela Martini, Francisco Rogerlândio Martins-Melo, Miquel Martorell, Winfried März, Roy Rillera Marzo, Sammer Marzouk, Stefano Masi, Clara N Matei, Yasith Mathangasinghe, Stephanie Mathieson, Alexander G Mathioudakis, Manu Raj Mathur, Medha Mathur, Fernanda Penido Matozinhos, Rita Mattiello, Khurshid A Mattoo, Richard James Maude, Pallab K Maulik, Miranda L May, Mahsa Mayeli, Maryam Mazaheri, Antonio Mazzotti, Chioma Ngozichukwu Pauline Mbachu, Ikechukwu Innocent Mbachu, Martin McKee, Susan A McLaughlin, Steven M McPhail, Enkeleint A Mechili, Rishi P Mediratta, Jitendra Meena, Elahe Meftah, Medhin Mehari, Asim Mehmood, Man Mohan Mehndiratta, Entezar Mehrabi Nasab, Kala M Mehta, Vini Mehta, Subhash Mehto, Toni

Meier, Tesfahun Mekene Meto, Hadush Negash Meles, Endalkachew Belayneh Melese, Satish Melwani, Aishe Memetova, Walter Mendoza, Godfred Antony Menezes, Ritesh G Menezes, Berihun Agegn Mengistie, Emiru Ayalew Mengistie, Sultan Ayoub Meo, Michelangelo Mercogliano, Atte Meretoja, Tuomo J Meretoja, Tomislav Mestrovic, Chamila Dinushi Kukulege Mettananda, Sachith Mettananda, Mohamed M M Metwally, Louise Mewton, Adquate Mhlanga, Andrea Michelerio, Ana Carolina Micheletti Gomide Nogueira de Sá, Hiwot Soboksa Mideksa, Paul Anthony Miller, Ted R Miller, Giuseppe Minervini, Wai-kit Ming, GK Mini, Mojgan Mirghafourvand, Erkin M Mirrakhimov, Seyed Ali Mirshahvalad, Mizan Kiros Mirutse, Yousef Mirzaei, Archana Mishra, Kumar Guru Mishra, Vinaytosh Mishra, Arup Kumar Misra, Philip B Mitchell, Prasanna Mithra, Sayan Mitra, Manasi Murthy Murthy Mittinty, Malihe Moazeni, Mohammadreza Mobayen, Madeline E Moberg, Shivani Modi, Ashraf Mohamadkhani, Jama Mohamed, Mona Gamal Mohamed, Nouh Saad Mohamed, Khabab Abbasher Hussien Mohamed Ahmed, Taj Mohammad, Sakineh Mohammad-Alizadeh-Charandabi, Abdolreza Mohammadi, Mohammad Reza Mohammadi, Seyed Omid Mohammadi, Abdollah Mohammadian-Hafshejani, Ibrahim Mohammadzadeh, Ramin Mohammadzadeh, Ammas Siraj Mohammed, Hussen Mohammed, Omer Mohammed, Shafiu Mohammed, Suleiman Mohammed, Yahaya Mohammed, Syam Mohan, Yugal Kishore Mohanta, Mohammad Mohseni, Amin Mokari-Yamchi, Ali H Mokdad, Alexandr Mokhirev, Peyman Mokhtarzadehazar, Sabrina Molinaro, Amirabbas Mollaei, Shaher Momani, Lorenzo Monasta, Amirabbas Monazzami, Himel Mondal, Stefania Mondello, Ahmed Al Montasir, Catrin E Moore, Yousef Moradi, Maziar Moradi-Lakeh, Paula Moraga, Lidia Morawska, Rafael Silveira Moreira, Brooks W Morgan, Negar Morovatdar, Mahdis Morovvati, Mahmoud M Morsy, Jakub Morze, Reza Mosaddeghi Heris, Jonathan F Mosser, Nogol Motamedgorji, Vincent Mougine, Simin Mouodi, Asma Mousavi, Seyede Zohre Mousavi, Amin Mousavi Khaneghah, Seyed Mohamad Sadegh Mousavi Kiasary, Mohamed Awad Abdalaziz Mousnad, Amanda Movo, Hagar Lotfy Mowafy, Kimia Mozahheb Yousefi, Matías Mrejen, Ahmed Msherghi, Rabia Mubarak, Sumaira Mubarik, Shiv K Mudgal, Syed Aun Muhammad, Muhammad Solihuddin Muhtar, Sukhes Mukherjee, Sumoni Mukherjee, Amartya Mukhopadhyay, Satinath Mukhopadhyay, M A Muktadir, Sileshi Mulatu, Francesk Mulita, Getaneh Baye Mulu, Chalie Mulugeta, Mulyadi Mulyadi, Muneeb Ahmad Muneer, Malaisamy Muniyandi, Kavita Munjal, Yanjinkham Munkhsaikhan, Javier Muñoz Laguna, Anjana Munshi, Pradeep Manohar Muragundi, Michio Murakami, Yahye Hassan Muse, Ali Mushtaq, Ghulam Mustafa, Sherzad Ibrahim Mustafa, Mubarak Taiwo Mustapha, Sathish Muthu, Saravanan Muthupandian, Claude Mambo Muvunyi, Muhammad Muzaffar, Woojae Myung, Amin Nabavi, Fatemehzahra Naddafi, Ahamarshan Jayaraman Nagarajan, Shankar Prasad Nagaraju, Mohsen Naghavi, Pirouz Naghavi, Ganesh R Naik, Gurudatta Naik, Hiten Naik, Firzan Nainu, Sanjeev Nair, Soroush Najdaghi, Nouredin Nakhostin Ansari, Paul Nam, Vinay Nangia, Jobert Richie Nansseu, Ibrahim A Naqid, Shumaila Nargus, Delaram Narimani Davani, Yvonne Nartey, Bruno Ramos Nascimento, Gustavo G Nascimento, Abdallah Y Naser, Mohammad Naser, Abdulqadir J Nashwan, Hamide Nasiri, Mahmoud Nassar, Zuhair S Natto, Javid Nauman, Zakira Naureen, Samidi Nirasha Kumari Navaratna, Anum Nawaz, M Omar Nawaz, Biswa Prakash Nayak, Shalini Ganesh Nayak, Javad Nazari, G Takop Nchanji, Rawlance Ndejjo, Anthony Wainaina Ndungu, Amanuel Tebabal Nega, Abigia Ashenafi Negash, Ionut Negoii, Ruxandra Irina Negoii, Alina Gabriela Negru, Jalil Nejati, Chakib Nejjari, Samata Nepal, Olivia D Nesbit, Henok Biresaw Netsere, Charles Richard James Newton, Marie Ng, Georges Nguéfac-Tsague, Josephine W Ngunjiri, Anh Thy H Nguyen, Cuong Tat Nguyen, Huong Lan Thi Nguyen, Huong-Dung Thi Nguyen, Nghia Phu Nguyen, Phat Tuan Nguyen, The Phuong Nguyen, Trang Nguyen, Tu Anh Nguyen, Van Thanh Nguyen, Ambe Marius Ngwa, Robina Khan Niazi, Jing Nie, Luciano Nieddu, Yeshambel T Nigatu, Ali Nikoobar, Dina Nur

Anggraini Ningrum, Vikram Niranjana, Abebe Melis Nisro, Jan Rene Nkeck, Princess Afia Nkrumah-Boateng, Chukwudi A Nnaji, Efaq Ali Noman, Shuhei Nomura, Syed Toukir Ahmed Noor, Mohammadamin Noorafrooz, Pardis Noormohammadpour, Mamoona Noreen, Masoud Noroozi, Jean Jacques Noubiap, Taylor Noyes, Valentine C Nriagu, Chisom Adaobi Nri-Ezedi, Jean Claude Nshimiyimana, Fred Nugen, Atoma Negera Nugusa, Mengistu H Nunemo, Aqsha Nur, Dieta Nurrika, Sylvester Dodzi Nyadanu, Felix Kwasi Nyande, Chimezie Igwegbe Nzopotam, Ogochukwu Janet Nzopotam, Bogdan Oancea, George Obaido, Erin M O'Connell, Adashi Margaret Odama, Ramez M Odat, Fabio Massimo Oddi, Ismail A Odetokun, Oluwakemi Lolade Odukoya, Joseph Kojo Oduro, Michael Safo Oduro, Onome Bright Oghenetega, Oluwaseun Adeolu Ogundijo, Abiola Ogunkoya, James Odhiambo Oguta, Doori Oh, Sarah Oh, Edel T O'Hagan, Hassan Okati-Aliabad, Sylvester Reuben Okeke, Deborah Oluwatosin Okeke-Obayemi, Akinkunmi Paul Okekunle, Olalekan John Okesanya, Onyedika A Okoli, Osaretin Christabel Okonji, John Olayemi Okunlola, Oluyemi Adewole Okunlola, Oluwaseyi Isaiah Olabisi, Andrew T Olagunju, Oladotun Victor Olalusi, Matthew Idowu Olatubi, Arão Belitardo Oliveira, Gláucia Maria Moraes Oliveira, Abdulhakeem Abayomi Olorukooba, Erik J Olson, Oluseye Olalekan Oludoye, Ronald Olum, Bolajoko Olubukunola Olusanya, Jacob Olusegun Olusanya, Oluwafemi G Oluwole, Folorunsho Bright Oimage, Hany A Omar, Goran Latif Omer, Qi Chwen Ong, Sandersan Onie, Obinna E Onwujekwe, Franklyn Opara, Marcel Opitz, Michal Ordak, Verner N Orish, Raffaele Ornello, Atakan Orscelik, Alberto Ortiz, Esteban Ortiz-Prado, Augustus Osborne, Eric Osei, Samuel M Ostroff, John W Ostrominski, Uchechukwu Levi Osuagwu, Olayinka Osuolale, Godfred Otchere, Elham H Othman, Mostafa Monier Othman, Adrian Otoiu, Oche Joseph Otorkpa, Abdu Oumer, Jerry John Ouner, Amel Ouyahia, Guoqing Ouyang, Mayowa O Owolabi, Irene Amoakoh Owusu, Kolapo Oyebola, Tope Oyelade, Oyetunde T Oyeyemi, Ilker Ozsahin, Mahesh P A, Kevin Pacheco-Barrios, Inderbir Padda, Alicia Padron-Monedero, Jagadish Rao Padubidri, Anton Pak, Pramod Kumar Pal, Tamás Palicz, Raffaele Palladino, Raul Felipe Palma-Alvarez, Tejasri Paluvai, Feng Pan, Hai-Feng Pan, Parsa Panahi, Sujogya Kumar Panda, Songhomitra Panda-Jonas, Deepshikha Pande Katara, Ke Pang, Helena Ulliyartha Pangaribuan, Georgios D Panos, Leonidas D Panos, Ioannis Pantazopoulos, Giovanni Paolino, Mario Virgilio Papa, Ilias Papadimopoulos, Paraskevi Papadopoulou, Utsav Parekh, Peyvand Parhizkar Roudsari, Amrita Parida, Chulwoo Park, Eun-Kee Park, Seoyeon Park, Arpit Parmar, Swapnil Parve, Ava Pashaei, Roberto Passera, Bhumi Hemal Patel, Hemal M Patel, Mitesh Patel, Neel Navinkumar Patel, Satyananda Patel, Ashlesh Patil, Shankargouda Patil, Dimitrios Patoulas, Apurba Patra, Mohammad Hridoy Patwary, Hilary Paul, Shrikant Pawar, Shubhadarshini Pawar, Hamidreza Pazoki Toroudi, Amy E Peden, Paolo Pedersini, Jarmila Pekarcikova, Veincent Christian Filipino Pepito, Prince Peprah, João Perdigão, Gavin Pereira, Maria Odete Pereira, Pablo Perez-Lopez, Norberto Perico, Simone Perna, Konrad Pesudovs, Pavlo Petakh, Olumuyiwa James Peter, Fanny Emily Petermann-Rocha, Hoang Nhat Pham, Nhat Truong Pham, Tung Thanh Pham, Anil K Philip, Michael R Phillips, Zayar Phyo, Brandon V Pickering, David M Pigott, Julian David Pillay, Luane Pinheiro Pinheiro Rocha, Zahra Zahid Piracha, Michael A Piradov, Edoardo Pirera, Enrico Pisoni, Dietrich Plass, Evgenii Plotnikov, Indrashis Podder, Dimitri Poddighe, Roman V Polibin, Peter Pollner, Ramesh Poluru, Arjun Pon Avudaiappan, Constance Dimity Pond, Ville T Ponkilainen, Ion Popa, Svetlana Popova, Djordje S Popovic, Maarten J Postma, Sajjad Pourasghary, Reza Pourbabaki, Farzad Pourghazi, Mohsen Poursadeqiyani, Naeimeh Pourtaheri, Attur Ravindra Prabhu, Sergio I Prada, Jalandhar Pradhan, Pranil Man Singh Pradhan, Rifky Octavia Pradipta, Peralam Yegneswaran Prakash, Chandra P Prasad, Akila Prashant, Elton Junio Sady Prates, Tina Priscilla, Natalie Pritchett, Harsh Priya, Hery Purnobasuki, Bharathi M Purohit, Jagadeesh Puvvula, Nameer Hashim Qasim, Xiang Qi, Zhipeng Qi, Jia-Yong Qiu, Zahiruddin Syed Quazi, Shahzad Niwazi Qurashi, Deepthi R,

Navid Rabiee, Basuki Rachmat, Raghu Anekal Radhakrishnan, Venkatraman Radhakrishnan, Maja R Radojčić, Hadi Raeisi Shahraki, Ibrar Rafique, Pankaja Raghav, Pracheth Raghuv eer, Leila Rahbarnia, Fakher Rahim, Hawbash Mohammed-Amin Rahim, Sajjad Rahimi, Afarin Rahimi-Movaghar, Vafa Rahimi-Movaghar, Fryad Majeed Rahman, Mahbubur Rahman, Mahfuzur Rahman, Md Mosfequr Rahman, Mohammad Hifz Ur Rahman, Mohammad Meshbahur Rahman, Mosiur Rahman, Saeed Rahmani, Masoud Rahmati, Ghasem Rahmatpour Rokni, Hakim Rahmoune, Pramila Rai, Diego Raimondo, Ivano Raimondo, Sunil Kumar Raina, Jeffrey Pradeep Raj, Adarsh Raja, Sandesh Raja, Sathish Rajaa, Erta Rajabi, Shahryar Rajai Firouzabadi, Gunaseelan Rajendran, Judah Rajendran, Vinoth Rajendran, Shaman Rajindrajith, Mohammad Amin Rajizadeh, Prashant Rajput, Mahmoud Mohammed Ramadan, Majed Ramadan, Kadar Ramadhan, Chitra Ramasamy, Shakthi Kumaran Ramasamy, Sheena Ramazanu, Zahra Ramezani, Marzieh Ramezani Farani, Pramod W Ramteke, Juwel Rana, Shailendra Singh Rana, Chhabi Lal Ranabhat, Nemanja Rancic, Smitha Rani, Fatemeh Ranjbar Noei, Chythra R Rao, Kumuda Rao, Mithun Rao, Sowmya J Rao, Davide Rasella, Vahid Rashedi, Mohammad-Mahdi Rashidi, Mohammad Aziz Rasouli, Ashkan Rasouli-Saravani, Prateek Rastogi, Azad Rasul, Devarajan Rathish, Abdur Rauf, Santosh Kumar Rauniyar, Ilari Rautalin, Ramin Ravangard, Dhvani Ravi, David Laith Rawaf, Salman Rawaf, Reza Rawassizadeh, Ramu Rawat, Ayita Ray, Mohammad Rayati, Iman Razeghian, Bahman Razi, Christian Razo, Filippo Recenti, Murali Mohan Rama Krishna Reddy, Elrashdy Redwan, Sanika Rege, Wajiha Rehman, Lennart Reifels, Giuseppe Remuzzi, Longbing Ren, Andre M N Renzaho, Serge Resnikoff, Luis Felipe Reyes, Mina Rezaei, Nazila Rezaei, Negar Rezaei, Nima Rezaei, Mohsen Rezaeian, Taeho Gregory Rhee, Mavra A Riaz, Antonio Luiz P Ribeiro, Jennifer Rickard, Moattar Raza Rizvi, Hannah Elizabeth Robinson-Oden, Hermano Alexandre Lima Rocha, João Rocha Rocha-Gomes, Mónica Rodrigues, Leonardo Roever, Peter Rohloff, Iftitakhur Rohmah, Susanne Röhr, David Rojas-Rueda, Megan L Rolfzen, Debby Syahru Romadlon, Michele Romoli, Marina Romozzi, Luca Ronfani, Jennifer Jacqueline Rosauer, Amirhossein Roshanshad, Morteza Rostamian, Gregory A Roth, Kunle Rotimi, Himanshu Sekhar Rout, Hanieh Rouzbahani, Reza Rouzbahani, Shiva Rouzbahani, Bedanta Roy, Nitai Roy, Parimal Roy, Poulami Roy, Priyanka Roy, Sharmistha Roy, Shubhanjali Roy, Susovan Roy Chowdhury, Parameswari Royapuram Parthasarathy, Enrico Rubagotti, Guilherme de Andrade Ruela, Susan Fred Rumisha, Michele Russo, Godfrey Mutashambara Rwegerera, Manjula S, Chandan S N, Aly M A Saad, Adnan Saad Eddin, Zahra Saadatian, Maha Mohamed Saber-Ayad, Cameron John Sabet, Siamak Sabour, Kabir P Sadarangani, Seyed Kiarash Sadat Rafiei, Basema Ahmad Saddik, Bashdar Abuzed Sadee, Tarannom Sadegh, Ehsan Sadeghi, Erfan Sadeghi, Fatemeh Sadeghi-Ghyassi, Mohd Saeed, Umar Saeed, Maryam Saeedi, Mehdi Safari, Sare Safi, Sher Zaman Safi, Rajesh Sagar, Mastooreh Sagharichi, Dominic Sagoe, Nondo Saha, Fatemeh Saheb Sharif-Askari, Narjes Saheb Sharif-Askari, Amirhossein Sahebkar, Pragyan Monalisa Sahoo, Kirti Sundar Sahu, Muhammad Soaib Said, Zahra Saif, S Mohammad Sajadi, Md Refat Uz Zaman Sajib, Mirza Rizwan Sajid, Morteza Saki, Nasir Salam, Payman Salamati, Luciane B Salaroli, Mohamed A Saleh, Leili Salehi, Mahdi Salehi, Marwa Rashad Salem, Mohammed Z Y Salem, Dauda Salihu, Sohrab Salimi, Malik Sallam, Giovanni A Salum, Sundeep Santosh Salvi, Hossein Samadi Kafil, Jayami Eshana Samaranayake, Waqas Sami, Yoseph Leonardo Samodra, Vijaya Paul Samuel, Abdallah M Samy, Sandeep G Sangle, Elaheh Sanjari, Sathish Sankar, Francesco Sanmarchi, Francesca Sanna, Lucas H C C Santos, Milena M Santric-Milicevic, Bruno Piassi Sao Jose, Krishna Prasad Sapkota, Sivan Yegnanarayana Iyer Saraswathy, Jacob Owusu Sarfo, Yaser Sarikhani, Hemen Sarma, Mohammad Sarmadi, Gargi Sachin Sarode, Sachin C Sarode, Satish Saroshe, Michele Sassano, Brijesh Sathian, Mukesh Kumar Sathya Narayanan, Paul A Saunders, Mehrdad Savabi Far, Monika Sawhney, Sangeeta Gopal Saxena, Ganesh Kumar Saya, Abu Sayeed, Mete Saylan, Christophe Schinckus, Ione Jayce Ceola Schneider, Rachel D

Schneider, Art Schuermans, Austin E Schumacher, Ghil Schwarz, David C Schwebel, Falk Schwendicke, Catherine Schwinger, Amin Sedigh, Saravanan Sekaran, Mario Šekerija, Muthamizh Selvamani, Vimalraj Selvaraj, Yuliya Semenova, Mohammad H Semreen, Fikadu Waltengus Sendeku, Yigit Can Senol, Subramanian Senthilkumaran, Sadaf G Sepanlou, Andreea Claudia Serban, Edson Serván-Mori, Yashendra Sethi, Christian Sewor, Seyed Mohammad Seyed Alshohadaei, Allen Seylani, Matthew Seymour, Jamileh Shadid, Nilay S Shah, Sweni Shah, Shazlin Shaharudin, Muhammad Shahbaz, Samiah Shahid, Syed Ahsan Shahid, Wajeehah Shahid, Endrit Shahini, Fatemeh Shahrahmani, Hamid R Shahsavari, Moyad Jamal Shahwan, Masood Ali Shaikh, Alireza Shakeri, Ali Shakerimoghaddam, Ali S Shalash, Sunder Sham, Muhammad Aaqib Shamim, Farzane Shams, Mehran Shams-Beyranvand, Mohammad Ali Shamshirgaran, Anas Shamsi, Alfiya Shamsutdinova, Dan Shan, Abhishek Shankar, Mohammed Shannawaz, Xian Shao, Amin Sharifan, Javad Sharifi Rad, Avimanu Sharma, Bhoopesh Kumar Sharma, Buntly Sharma, Kamal Sharma, Manoj Sharma, Sourabh Sharma, Ujjawal Sharma, Vishal Sharma, Rajesh P Shastry, Shamee Shastry, Armin Shavandi, Ramzi Shawahna, Maryam Shayan, Babangida Shehu Bappah, Ali Sheidaei, Suchitra M Shenoy, Samendra P Sherchan, Suraj S Shetty, Fang Shi, Lin-Hong Shi, Mosa Shibani, Belayneh Fentahun Shibesh, Kenji Shibuya, Desalegn Shiferaw, Md Monir Hossain Shimul, Jae Il Shin, Min-Jeong Shin, Rahman Shiri, Reza Shirkoohi, Aminu Shittu, Abdulkarim Olayinka Shitu, Ivy Shiue, Velizar Shivarov, Nathan A Shlobin, Shayan Shojaei, Zahra Shokati Eshkiki, Azad Shokri, Sinegugu Nosipho Shongwe, Sina Shool, Seyed Afshin Shorofi, Gambhir Shrestha, Sunil Shrestha, Kerem Shuval, Nicole Remaliah Samantha Sibuyi, Emmanuel Edwar Siddig, Mohammad Sidiq, Martin Siegel, Diego Augusto Santos Silva, Gustavo Correia Basto da Silva, João Pedro Silva, Juan Carlos Silva, Luís Manuel Lopes Rodrigues Silva, Noah Joseph Bernard Silva de Leonardi, Padam Prasad Simkhada, Abhinav Singh, Akanksha Singh, Ambrish Singh, Baljinder Singh, Bhim Pratap Singh, Harmanjit Singh, Harpreet Singh, Jasbir Singh, Jasvinder A Singh, Kalpana Singh, Lucky Singh, Narinder Pal Singh, Paramdeep Singh, Poornima Suryanath Singh, Prashant Kumar Singh, Puneetpal Singh, Rakesh K Singh, Samer Singh, Satwinder Singh, Surendra Singh, Mukesh Kumar Sinha, Ratnesh Sinha, Robert Sinto, Sarah Brooke Sirota, Søren T Skou, David A Sleet, Erica Leigh N Slepak, Farrukh Sobia, MdSalman Sohel, Somaye Sohrabi, Balamrit Singh Sokhal, Ranjan Solanki, Solikhah Solikhah, Sameh S M Soliman, Weiyi Song, Younseong Song, Aayushi Sood, Prashant Sood, Soroush Soraneh, Reed J D Sorensen, Joan B Soriano, Michele Sorrentino, Fernando Sousa, Marco Aurelio Sousa, Ceren Soyulu, Michael Spartalis, Sandra Spearman, Manraj Singh Sra, Chandrashekhar T Sreeramareddy, Bahadar S Srichawla, Suresh Kumar Srinivasamurthy, Shyamkumar Sriram, Lauryn K Stafford, Jeffrey D Stanaway, Antonina V Starodubova, Simona Cătălina Ștefan, Caroline Stein, Dan J Stein, Caitlyn Steiner, Timothy J Steiner, Jaimie D Steinmetz, Paschalis Steiropoulos, Aleksandar Stevanović, Leo Stockfelt, Lars Jacob Stovner, Kurt Straif, Peter Stubbs, Yu Su, Omer Subasi, Narayan Subedi, Claudia Kimie Suemoto, Alisha Suhag, Liang Sui, Thitiporn Sukaew, Surajo Kamilu Sulaiman, Auwal Garba Suleiman, Muritala Suleiman Odidi, Muhammad Suleman, Desy Sulistiyorini, Mark J M Sullman, Anusha Sultan Meo, Haitong Zhe Sun, Jing Sun, Mao-ling Sun, Xiaodong Sun, Zhong Sun, Zhuanlan Sun, Suraj Sundaragiri, Thanigaivel Sundaram, Johan Sundström, David Sunkersing, Sumam Sunny, Vinay Suresh, Chandan Kumar Swain, Vivianne M Swart, Dayinta Annisa Syaiful, Lukasz Szarpak, Mindy D Szeto, Sree Sudha T Y, Payam Tabae Damavandi, Rafael Tabarés-Seisdedos, Seyed-Amir Tabatabaeizadeh, Shima Tabatabai, Celine Tabche, Ramin Tabibi, Mohammad Tabish, Jyothi Tadakamadla, Santosh Kumar Tadakamadla, Buhari Abdullahi Tafida, Farzad Taghizadeh-Hesary, Yasaman Taheri Abkenar, Moslem Taheri Soodejani, Amir Taherkhani, Jabeen Taiba, Shima Tajabadi, Iman M Talaat, Stella Talic, Byomkesh Talukder, Mircea Tampa, Jacques Lukenze Tamuzi, Jianye Tan, Ker-Kan Tan, Shynar Tanabayeva, Haosu Tang, Ekamol Tantisattamo, Ingan Ukur

Tarigan, Mengistie Kassahun Tariku, Saba Tariq, Md Tariqujjaman, Nathan Y Tat, Razieh Tavakoli Oliaaee, Rahele Tavakoly, Seyed Mohammad Tavangar, Mebrahtu G Tedla, Amare Teshome Tefera, Mojtaba Teimoori, Mohamad-Hani Temsah, Corey Teply, Masayuki Teramoto, Amensisa Hailu Tesfaye, Azimeraw Arega Tesfu, Jay Tewari, Alireza Teymouri, Omar Thaher, Pugazhenthan Thangaraju, Kavumpurathu Raman Thankappan, Rekha Thapar, Ismaeel Tharwat, Samar Tharwat, Hadiza Theyra-Enias, Mehakpreet Kaur Thind, Arun James Thirunavukarasu, Muthu Thiruvengadam, Rekha Thiruvengadam, Arulmani Thiyagarajan, Nihal Thomas, Geethika P Thota, Wei Tian, Jansje Henny Vera Ticoalu, Tenaw Yimer Tiruye, Madi Tleshev, Musliu Adetola Tolani, Sojit Tomo, Marcello Tonelli, Roman Topor-Madry, Ali Torkashvand, Mathilde Touvier, Marcos Roberto Tovani-Palone, Khaled Trabelsi, Eugenio Traini, Mai Thi Ngoc Tran, Nghia Minh Tran, Ngoc Ha Tran, Quynh Thuy Huong Tran, Tam Quoc Minh Tran, Thang Huu Tran, Nguyen Tran Minh Duc, Domenico Trico, Indang Trihandini, Samuel Joseph Tromans, Quynh Xuan Nguyen Truong, Thien Tan Tri Tai Truyen, Aristidis Tsatsakis, Gary Tse, Evangelia Eirini Tsermpini, Lorainne Tudor Car, Mike Tuffour Amirikah, Munkhtuya Tumurkhuu, Zhouting Tuo, Sok Cin Tye, Aniefiok John Udoakang, Atta Ullah, Himayat Ullah, Irfan Ullah, Saeed Ullah, Muhammad Umair, Krishna Kishore Umapathi, Lawan Umar, Muhammad Umar¶, Muhammad Umar**, Shehu Salihu Umar, Andrew Underwood-Nakamura, Dinesh Upadhya, Era Upadhyay, Dipan Uppal, Daniele Urso, Jibrin Sammani Usman, Kelechi Julian Uzor, Dilber Uzun Ozsahin, Hande Uzunçibuk, Pratyusha Vadagam, sara Vahdati, Asokan Govindaraj Vaithinathan, Omid Vakili, Alireza Vakilian, Pascual R Valdez, Mario Valenti, Gelareh Valizadeh, Jef Van den Eynde, Giloume Van Der Walt, Aaron van Donkelaar, Javad Varasteh, Ravi Prasad Varma, Priya Vart, Tommi Juhani Vasankari, Sampara Vasishta, Srivatsa Surya Vasudevan, Prabhakar Veginadu, Ashleigh S Vella, Balachandar Vellingiri, Narayanaswamy Venketasubramanian, Baskar Venkidasamy, Megan Verma, Poonam Verma, Massimiliano Veroux, Georgios-Ioannis Verras, Dominique Vervoort, Simone Vidale, Simone Villa, Jorge Hugo Villafañe, David Villarreal-Zegarra, Francesco S Violante, Sharath Chaitanya Vipparthy, Rachel Visontay, Luciano Magalhães Vitorino, Vasily Vlassov, Martin Vojtek, Stein Emil Vollset, Avina Vongpradith, Mehdi Vosoughi, Elpida Vounzoulaki, Hai Nam Vu, Linh Vu, Yasir Waheed, Mugi Wahidin, Megha Walia, Agnes Wamuyu Wamai, Jin-Yi Wan, Cong Wang, Fang Wang, Lei Wang, Liang Wang, Ruixuan Wang, Shaopan Wang, Shu Wang, Wei Wang, Xing Wang, Xuequan Wang, Yanzhong Wang, Yichen Wang, Yuan-Pang Wang, Zihua Wang, Tanveer A Wani, Mary Njeri Wanjau, Ahmed Bilal Waqar, Muhammad Waqas, Paul Ward, Toyiba Hiyaru Wassie, Kosala Gayan Weerakoon, Ishanka Weerasekara, Fei-Long Wei, Xueying Wei, Robert G Weintraub, Daniel J Weiss, Eli J Weiss, Yi Feng Wen, Andrea Werdecker, Ronny Westerman, Joanna L Whisnant, Harvey A Whiteford, Taweewat Wiangkham, Yohanes Cakrapradipta Wibowo, Anggi Lukman Wicaksana, Dakshitha Praneeth Wickramasinghe, Nuwan Darshana Wickramasinghe, Samuel Wiebe, Angga Wilandika, Peter Willeit, Shadrach Wilson, Andrew Awuah Wireko, Gemechu Kumera Wirtu, Charles Shey Wiysonge, Abay Tadesse Woday, Marcin W Wojewodzic, Axel Walter Wolf, Tewodros Eshete Wonde, Yohannes Chemere Wondmeneh, Daniel Tarekegn Worede, Minichil Chanie Worku, Nigus Kassie Worku, Ai-Min Wu, Chenkai Wu, Felicia Wu, James Fan Wu, Jiayuan Wu, Jinyi Wu, Shi-Nan Wu, Zenghong Wu, Yihun Miskir Wubie, Yanjie Xia, Zhijia Xia, Guangqin Xiao, Hong Xiao, Na Xiao, Wanqing Xie, Hongquan Xing, Site Xu, Suowen Xu, Wanqing Xu, Xiang Xu, Xiaoyue Xu, Mukesh Kumar Yadav, Vikas Yadav, Mahnaz Yadollahi, Sajad Yaghoubi, Saba Yahoo (Syed), Galal Yahya, Kazumasa Yamagishi, Guangcan Yan, Haibo Yang, Weiguang Yang, Xinxin Yang, Yuichiro Yano, Haiqiang Yao, Laiang Yao, Amir Yarahmadi, Haya Yasin, Mohamed A Yassin, Yuichi Yasufuku, Sanni Yaya, Pengpeng Ye, Meghdad Yeganeh, Ali Cem Yekdeş, Mohammad Hossein YektaKooshali, Kuanysh A Yergaliyev, Renjulal Yesodharan, Subah Abderehim Yesuf, Saber Yezli, Siyan Yi, Muluken Yigezu, Zemanuel Anteneh Yigzaw, Dehui Yin, Yulai Yin, Paul Yip,

Malede Berihun Yismaw, Yazachew Engida Yismaw, Dong Keon Yon, Naohiro Yonemoto, Mustafa Z Younis, Abdilahi Yousuf, Chuanhua Yu, Jian Yu, Yong Yu, Faith H Yuh, Ghazala Yunus, Umar Yunusa, Aminu Abba Yusuf, Monal Yuwanati, Siddhesh Zadey, Vesna Zadnik, Mubashir Zafar, Manijeh Zaghampour, Emilia Zainal Abidin, Fathiah Zakham, Nazar Zaki, Giulia Zamagni, Burhan Abdullah Zaman, Sojib Bin Zaman, Abu Sarwar Zamani, Nelson Zamora, Aurora Zanghì, Heather J Zar, Kourosh Zarea, Mohammed Zawiah, Mohammed G M Zeariya, Abay Mulu Zenebe, Sebastian Zensen, Eyael M Zeru, Tiansong Zhan, Yongle Zhan, Beijian Zhang, Casper J P Zhang, Haijun Zhang, Jingya Zhang, Liquan Zhang, Meixin Zhang, Xiaoyi Zhang, Yunquan Zhang, Zhiqiang Zhang, Jianhui Zhao, Sheng Zhao, Zhongyi Zhao, Jinxin Zheng, Ming-Hua Zheng, Peng Zheng, Claire Chenwen Zhong, Jiayan Zhou, Juexiao Zhou, Maigeng Zhou, Bin Zhu, Zhengyang Zhu, Abzal Zhumagaliuly, Magdalena Zielińska, Liu Zihao, Ghazal Zoghi, Mohamed Ali Zoromba, Zhiyong Zou, Rafat Mohammad Zrieq, Liesl J Zuhlke, Lilik Zuhriyah, Alimuddin Zumla, Ahed H Zyoud, Sa'ed H Zyoud, Shafer H Zyoud, Michael Brauer†, Theo Vost†, Christopher J L Murray†, and Emmanuela Gakidou†.

* Joint first authors

† Joint senior authors

Affiliations

Institute for Health Metrics and Evaluation (Prof S I Hay FMedSci, K L Ong PhD, N Ahmad BS, R W Aldridge PhD, J O Amlag MPH, J A Anderson BS, C M Antony MA, A Y Aravkin PhD, C Ashbaugh MA, I A Barreras Beltran BA, K Bhangdia MS, C Bisignano MPH, R Bokota MPH, Prof M Brauer DSc, E D Brewer BS, K Burkart PhD, C Buxbaum MPH, J Cagney MSc, A Carter MPH, K M Cercy BS, C S Chen BA, E Chung MD, R M Cogen BA, A J Cohen DSc, E Cousin PhD, E J Cowart BS, A Crist BSc, J A Cruz BS, G T Culbreth PhD, X Dai PhD, N Davis Weaver MPH, N K DeCleene BS, A Deen MPH, Prof L Degenhardt PhD, L Deitesfeld MA, R V Dominguez BS, K Estep MPA, Prof V L Feigin PhD, A J Ferrari PhD, L S Flor MPH, L M Force MD, N Fullman MPH, V Garcia BS, W M Gardner MPH, G F Gil MPH, N M Gilbertson PhD, H Hagins MSPH, D Haile PhD, E B Hamilton MPH, H Han MSc, K L Harding PhD, A A Harris MPH, J He MSc, C A Henson MPH, M E Herbert MSc, A Heuer MSc, J Hon MLS, J A Houser BA, K M Humphrey MS, A L Ihler PSM, C O Johnson PhD, E M Kahn MPH, M Kirk MPH, J Klusty MS, J M Kocarnik PhD, H H Kyu PhD, H R Lawlor BA, Prof S S Lim PhD, M L May MPH, S A McLaughlin PhD, T Mestrovic PhD, P A Miller PhD, M E Moberg MS, Prof A H Mokdad PhD, B W Morgan MSPH, J F Mosser MD, V Mouglin BA, A Movo MPH, Prof M Naghavi PhD, P Nam MS, O D Nesbit MA, M Ng PhD, A H Nguyen PhD, T Noyes MPH, E M O'Connell BA, D Oh PhD, E J Olson BS, S M Ostroff PhD, H Paul MS, B V Pickering BS, D M Pigott PhD, N Pritchett DrPH, C Razo PhD, H E Robinson-Oden MLIS, J J Rosauer BA, G A Roth MD, D F Santomauro PhD, R D Schneider MPPM, A E Schumacher PhD, M Seymour MPH, J Shadid BSc, N J B Silva de Leonardi PhD, S B Sirota MA, E N Slepak MLIS, R J D Sorensen PhD, S Spearman MS, L K Stafford MS, J D Stanaway PhD, C Stein PhD, C Steiner MPH, J D Steinmetz PhD, V M Swart MPH, C Teply MS, A Underwood-Nakamura MPH, M Verma MSc, Prof S E Vollset DrPH, A Vongpradith BA, Prof T Vos PhD, H N Vu MPS, E J Weiss BS, J L Whisnant MPH, Prof H A Whiteford PhD, S Wilson BS, F H Yuh MPA, M Zhang MS, P Zheng PhD, Prof C J L Murray DPhil, Prof E Gakidou PhD), Department of Health Metrics Sciences, School of Medicine (Prof S I Hay FMedSci, R W Aldridge PhD, A Y Aravkin PhD, K Burkart PhD, E Cousin PhD, X Dai PhD, L S Flor MPH, L M Force MD, N M Gilbertson PhD, H H Kyu PhD, Prof S S Lim PhD, Prof A H Mokdad PhD, Prof M Naghavi PhD, D M Pigott PhD, G A Roth MD, J D Stanaway PhD, C Stein PhD, Prof S E Vollset DrPH, Prof T Vos PhD, P Zheng PhD, Prof C J L Murray DPhil, Prof E Gakidou PhD), Department of Applied

Mathematics (A Y Aravkin PhD), Department of Pediatrics (E Chung MD), Department Health Metrics Science (M Hassen MSc), Department of Global Health (M Khalil BA, S Kochhar MD, R J D Sorensen PhD), Department of Radiology (F Khosravi MD), Cardiothoracic Imaging Section (F Khosravi MD), Henry M Jackson School of International Studies (S M Ostroff PhD), Division of Cardiology (G A Roth MD), University of Washington, Seattle, WA, USA; Amity Institute of Public Health (Prof B A PhD), Amity University, Uttar Pradesh, India; Shahid Beheshti University of Medical Sciences (M Aalipour MD), Non-communicable Diseases Research Center (M Abbasi-Kangevari MD), Department of Anesthesiology (Prof D Abtahi MD, S Salimi MD, S Seyed Alshohadaei MD, A Shakeri MD), Urology Department (M Ahmadzade MD), National Nutrition and Food Technology Research Institute (M Ajami PhD, Z Hadian PhD), Department of Oral and Maxillofacial Surgery (M Alam MSc), General Surgery Department (I Ansari MD), School of Medicine (M Asadi Anar MD, J Behjati MD, S Ebrahimi MD, M Golmohammadi MD, S Madinezad MD, S Rajai Firouzabadi MD, S Sadat Rafiei MD), Research Institute of Dental Sciences (Prof S Asgary MSc), School of Medical Education and Learning Technologies (S Bagheri PhD, S Sohrabi PhD), Shahid Rajii Hospital (E Baghizadeh MD), Taleghani Anesthesiologist (F Baghizadeh MD), Cancer Research Center (M Bayat MD), Internal Medicine Department (H Borhany MD), Department of Anesthesia, Critical Care and Pain Medicine (Prof A Dabbagh MD), School of Nursing and Midwifery (F Ghadirian PhD), Faculty of Medicine (A Ghaffari Jolfayi MD, M Sagharichi Dipl), Social Determinants of Health Research Center (S Ghamari MD, Prof A Kolahi MD, A Nikoobar BSc, M Rashidi MD), Department of Medical Genetics (M Ghasemi PhD), Center for Comprehensive Genetic Services (M Ghasemi PhD), Obstetrics and Gynecology Department (E Ghotbi MD), Research Center for Social Determinants of Health (A Halimi MSc), Department of Neurosurgery (H Khayat Kashani MD), Injury Prevention and Safety Promotion Research Center (T Lucas PhD), Anesthesiology Research Center (F Madadi MD), Skull Base Research Center (I Mohammadzadeh MD), Department of Audiology, School of Rehabilitation (S Mousavi PhD), Department of Immunology (A Rasouli-Saravani PhD), College of Medicine (I Razeghian MD), Department of Epidemiology (Prof S Sabour PhD), School of Public Health (S Sadat Rafiei MD), Department of Health (M Safari PhD), Ophthalmic Research Center (S Safi PhD), Ophthalmic Research Center (ORC) (M Shayan MD), Department of Medical Education (S Tabatabai PhD), Shahid Beheshti University of Medical Sciences, Tehran, Iran; Department of Nursing (H Aalruz PhD), Al Zaytoonah University of Jordan, Amman, Jordan; Department of Radiation Oncology (H S Ababneh MD), Cardiovascular Research Center (S Abohashem MPH), Department of Orthopaedic Surgery (M Ilyas MBBS), Department of Anesthesia, Critical Care and Pain Medicine (Prof J Kang PhD), Department of Radiology (X Liu PhD), Department of Orthopaedics (O Subasi PhD), Massachusetts General Hospital, Boston, MA, USA (A Eighaei Sedeh MD, M Kim MD); School of Health & Life Sciences (U O Abaraogu PhD), University of the West of Scotland, Paisley, UK; Department of Medical Rehabilitation (U O Abaraogu PhD), Department of Pharmacology and Therapeutics (Prof O E Onwujekwe PhD), University of Nigeria Nsukka, Enugu, Nigeria; Public Health (Prof B B Abate MSc), Curtin School of Population Health (M B Alemu MSc), School of Public Health (E K Chowdhury PhD), School of Population Health (J Dunne PhD, Z Guan MPH, S Nyadanu PhD, Prof G Pereira PhD, D J Weiss PhD), Curtin University, Perth, WA, Australia; Department of Legal and Economic Studies (Prof C Abbafati PhD), Department of Public Health and Infectious Diseases (M S Cattaruzza PhD), La Sapienza University, Rome, Italy; Centre for Regenerative Medicine and Health, Hong Kong Institute of Science and Innovation (N Abbas PhD), Chinese Academy of Sciences, Hong Kong, China; Department of Internal Medicine (M Abbasifard MD), Clinical Research Development Unit (M Abbasifard MD), Department of Epidemiology and Biostatistics (Prof M Rezaeian PhD), Department of Neurology (A Vakilian MD), Non-communicable Diseases

Research Center (A Vakilian MD), Rafsanjan University of Medical Sciences, Rafsanjan, Iran; Department of Epidemiology (S Abd ElHafeez DrPH), Pediatric Dentistry and Dental Public Health Department (Prof O A A Elmeligy PhD), Tropical Health Department (R M Ghazy PhD), Department of Pathology (Prof I M Talaat PhD), Alexandria University, Alexandria, Egypt; College of Pharmacy (Prof A N Abdalla PhD), Umm Al-qura University, Makkah, Saudi Arabia; Hull York Medical School (M A Abdalla PhD), University of Hull, Hull, UK; Department of Biology (Prof E M Abdallah PhD), College of Applied Medical Sciences (Prof F A Alhumaydhi PhD), Department of Medical Laboratories (M A Aljasir PhD, Prof K Allemailem PhD), Department of Health Informatics (Q Jamal PhD), Department of Basic Health Sciences (Prof M I Khan PhD), Qassim University, Buraydah, Saudi Arabia; Department of Health and Nutrition (B A Abdeeq MSc), Save the Children, Hargeisa, Somalia; School of Nursing (Prof N M I Abdel Razeq PhD), The University of Jordan, Amman, Jordan; College of Pharmacy (A Abdelgalil PhD), Pediatric Intensive Care Unit (A Al-Eyadhy MD, Prof M Temsah MD), Department of Cardiac Sciences (Prof K F Alhabib MD), Section of Adult Hematology (Prof G M T ElGohary MD), Department of Physiology (Prof S Meo PhD), University Diabetes Center (A Sultan Meo MPH), Research Chair for Evidence-Based Health Care and Knowledge Translation (Prof M Temsah MD), Department of Pharmaceutical Chemistry College of Pharmacy (Prof T A Wani PhD), King Saud University, Riyadh, Saudi Arabia; Basic Science Department (Prof R Abdel-Hameed PhD), Basic Science Department, Preparatory Year (N M Abourashed PhD), Department of Biology (Prof M Adnan PhD, Prof M Saeed PhD), Department of Public Health (Prof F D Algahtani PhD, M G M Zeariya PhD), College of Applied Medical Science (S Ashraf PhD), Department of Chemistry (A Haque PhD), College of Medicine (Y S Khan MD), Department of Biochemistry (Prof M Kuddus PhD), College of Public Health & Health Informatics (R Kumar PhD), Medical and Diagnostic Research Centre (Prof C T Sreeramareddy MD), Department of Basic Science (G Yunus PhD), Family and Community Medicine Department (M Zafar PhD), Department of Medical-Surgical Nursing (R M Zrieq PhD), University of Hail, Hail, Saudi Arabia; Chemistry Department (Prof R Abdel-Hameed PhD), Department of Zoology and Entomology (A I Hasaballah PhD, M G M Zeariya PhD), Al-Azhar University, Cairo, Egypt; Department of Surgery (M Abdelmasseh MD), College of Health Professions (S Khalid-Ariturk PhD), Marshall University, Huntington, WV, USA; Department of Cardiovascular Medicine (M Abdelnabi MBBCh, R Ibrahim MD), Mayo Clinic, Phoenix, AZ, USA; Department of Medical Laboratory Science (Prof W M Abdel-Rahman PhD), Clinical Sciences Department (Prof E Abu-Gharbieh PhD, H J Barqawi MPhil, Prof A A Maghazachi PhD, Prof M M Saber-Ayad PhD, N Saheb Sharif-Askari PhD, Prof I M Talaat PhD), Department of Nursing (Prof S Abuhammad PhD), Department Pharmacy Practice and Pharmacotherapeutics (A Y Abuhelwa PhD), Department of Restorative Dentistry (A B Acharya PhD), College of Pharmacy (S M Aleidi PhD, H Y Alniss PhD, Prof M H Semreen PhD), College of Medicine (Prof A Amin PhD, Prof M A Saleh PhD), Center of Excellence of Cancer Research (Prof R Bendaraf PhD), Department of Basic Biomedical Sciences (Prof Y Bustanji PhD), Department of Basic Medical Sciences (M A Eladi PhD, Prof W El-Huneidi PhD), Sharjah Institute for Medical Research (N M Elemam PhD), Basic Medical Sciences Department (A B Elmoselhi PhD), Research Institute of Medical & Health Sciences (A B Elmoselhi PhD, Prof M H Semreen PhD), College of Health Sciences (S V Gopalani PhD), Department of Finance and Economics (Prof M Hussain PhD), Department of Pharmacy Practice and Pharmacotherapeutics (Prof H A Omar PhD), Department of Clinical Sciences (Prof M M Ramadan PhD), Sharjah Institute of Medical Sciences (F Saheb Sharif-Askari PhD), Department of Medicinal Chemistry (S S M Soliman PhD), Research Institute for Medical and Health Sciences (Prof D Uzun Ozsahin PhD), University of Sharjah, Sharjah, United Arab Emirates (K A Altirkawi MD); Department of Tropical Medicine and Infectious Diseases (S Abd-Elsalam PhD), Tanta University, Tanta, Egypt; Stanford Cancer Institute (S Abdi MD), Department of Medicine (R M Gibson

PhD), Department of Gastroenterology and Hepatology (A Joseph MD), Management Science and Engineering (Y Ling MS), Division of Pediatric Hospital Medicine (R P Mediratta MD), Department of Biomedical Data Science (S Park MD), Department of Radiology (S Ramasamy MD), School of Medicine (J Zhou PhD), Stanford University, Stanford, CA, USA; The Institute of Pharmaceutical Sciences (TIPS) (Prof M Abdollahi PhD, S Hassani PhD), School of Pharmacy (Prof M Abdollahi PhD), Research Center for Immunodeficiencies (H Abolhassani PhD, Prof N Rezaei PhD), Urology Research Center (Prof S Aghamir PhD, A Mohammadi MD), School of Medicine (N S Ahmadi MD, A Azarboo MD, A Behnoush BS, H Farrokhpour MD, H Karimi MD, N Kazemi Rad MD, S Khanmohammadi MD, M Morovvati MD), Digestive Diseases Research Institute (A Anoushiravani MD, Prof R Malekzadeh MD, A Mohamadkhani PhD, S G Sepanlou MD), Department of Toxicology and Pharmacology (M Ataei PharmD), Department of Health Information Management (S Ayyoubzadeh PhD), Rheumatology Research Center (A Azizan PhD), School of Public Health (N Bahmanziari PhD, A Sheidaei PhD), Sina Trauma and Surgery Research Center (V Baigi PhD, M Hassan Zadeh Tabatabaei MD, M Jalloh MD, Prof V Rahimi-Movaghar MD, Z Ramezani MD, Prof P Salamati MD, S Shool MD), Department of Epidemiology and Biostatistics (V Baigi PhD, M Mansournia PhD, E Sanjari PhD), Dental Research Center (M Banakar PhD), Non-communicable Diseases Research Center (M Bastan MD, S Ghamari MD, M Malekpour MD, M Rashidi MD, N Rezaei MD, N Rezaei PhD), Pastor Institute (M Bayat MD), Department of Public Health (S Bordbar MD), Department of Neurosurgery (P Delbari MD), Department of Radiology (R Elahi MD, A Teymouri MD), Multiple Sclerosis Research Center (S Eskandarieh PhD), Pediatric Infectious Disease Research Center (M Farahmand PhD), Dentistry Research Institute (F Farshad DDS), Obesity and Eating Habits Research Center (F Farsi MD), Department of Environmental Health Engineering (M Fazlzadeh PhD), Neurology Department (M Ghasemi MD), Institute of Radiology and Radiological Sciences (A Hashem Zadeh MD), Iranian Tissue Bank and Research Center (K Jazi MD), Children's Medical Center (Prof F Kompani MD), Department of Ophthalmology (A Mahmoudi MD), Tehran Heart Center, Cardiovascular Diseases Research Institute (E Mehrabi Nasab MD, A Mousavi MD, S Shojaei MD), Urology Department (A Mohammadi MD), Department of Physiotherapy (Prof N Nakhostin Ansari PhD), Research Center for War-affected People (Prof N Nakhostin Ansari PhD), Family Health Research Institute (M Noorafrooz MD), Digestive Diseases Research Center (P Parhizkar Roudsari MD), Cardiac Research Center (P Parhizkar Roudsari MD), Iranian National Center for Addiction Studies (Prof A Rahimi-Movaghar MD), Department of Infectious Diseases and Tropical Medicine (E Rajabi MD), Gene Therapy Center (M Rayati MD), Endocrinology and Metabolism Research Institute (N Rezaei PhD), Epidemiology and Biostatistics (E Sanjari PhD), Department of Medical Education (A Sedigh PhD), Cancer Research Center (R Shirkoohi PhD), Cancer Biology Research Center (R Shirkoohi PhD), Student Scientific Research Center (S Shojaei MD), Department of Pathology (Prof S Tavangar MD), Tehran University of Medical Sciences, Tehran, Iran (A Azizan PhD, M Mahalleh MD, G Valizadeh PhD); Department of Medicine (Prof M Abdoun PhD), University of Setif Algeria, Sétif, Algeria; Department of Health, Sétif, Algeria (Prof M Abdoun PhD); Faculty of Veterinary Medicine (A Abdous MD), Young Researchers and Elite Club (M Jokar DVM), Islamic Azad University, Karaj, Iran; Komar University of Science and Technology, Sulaymaniyah, Iraq (J M Abdul Aziz MSc); Baxshin Hospital (J M Abdul Aziz MSc), Baxshin Research Center, Sulaymaniyah, Iraq; Community and Maternity Nursing Unit (D M Abdullah MPH), Department of Pathology and Microbiology (M S Ahmed PhD), Basic Sciences Department (B A Zaman PhD), University of Duhok, Duhok, Iraq; National Institute of Epidemiology (R Abdulkader PhD), Indian Council of Medical Research, Chennai, India; Department of Population and Global Health (A Abdullahi PhD), Department of Radiology (S Abohashem MPH), Center for Primary Care (S Basu PhD), Department of Epidemiology (S

Carr MS), Division of Cardiovascular Medicine (G Chi MD), Nutrition Department (G Dalla Costa MD), T. H. Chan School of Public Health (S B Kankam MD, M Tuffour Amirikah MD), Department of Ophthalmology (Prof J H Kempen PhD, M Shayan MD), Department of Medicine (M Kokkorakis BSc), Department of Global Health and Population (Z Li PhD), Department of Health Policy and Oral Epidemiology (Z S Natto DrPH), Department of Global Health and Social Medicine (S Onie PhD), Cardiovascular Division (J W Ostrominski MD), Department of Physical Medicine and Rehabilitation (K Pacheco-Barrios MD), T.H. Chan School of Public Health (P M S Pradhan MD), Division of Global Health Equity (P Rohloff MD), Joslin Diabetes Center (S Tye PhD), Department of Social and Behavioral Sciences (W Xu MPH), Harvard University, Boston, MA, USA; Department of Physiotherapy (A Abdullahi PhD, A W Awotidebe PhD, J S Usman PhD), Department of Anatomy (L H Adamu PhD), Department of Clinical Pharmacy and Pharmacy Practice (U Hamza MPH), Department of Nursing Science (M Ladan PhD, U Yunusa PhD), Department of Haematology (A A Yusuf MD), Bayero University Kano, Kano, Nigeria; Department of Physiotherapy (A Abdullahi PhD), Federal University Wukari, Wukari, Nigeria; Department of Research (T Abdul-Rahman MD), Toufik's World Medical Association, Antonova 10, Ukraine; Department of General Surgery and Clinical Anatomy (K Abdykerimova MD), Department of Public Health (N Aryntayeva MSPH, A Kuttybayev MSc), Atchabar Scientific Research Institute (B Assembekov PhD), Atchabarov Scientific-Research Institute of Fundamental and Applied Medicine (D Davletov MD, A Zhumagaliuly MD), Population Health Research Center (Prof K Davletov PhD), Director of the Scientific and Technological Park (I R Fakhradiyev PhD), Science and Technology Park (A Ibrayeva PhD), Department of Urology (Y Ismoldayev PhD), Department of General Medical Practice No. 2 (Prof S Kamenova DMedSc), Scientific and Educational Center for Neurology and Applied Neuroscience (A Kondybayeva PhD), Research and Publication Activity Division (M Kulimbet MSc), Science Department (A Shamsutdinova MD), Department of Medicine (S Tanabayeva PhD), Department of Prosthetic Dentistry (M Tleshev MSc), Kazakh National Medical University, Almaty, Kazakhstan; Department of Epidemiology and Biostatistics (H Abebe Getahun MSc), Department of Health Systems and Policy (M B Alemu MSc), Department of Medical Biochemistry (T A Dejenie MSc), Department of Health Promotion and Health Behavior (H Eshetu MPH), Department of Pharmacology (Z D Kifle MSc), Department of Internal Medicine (E Melese MD), School of Midwifery (B Mengistie MSc), School of Nursing (H B Netsere MSc), Department of Environmental and Occupational Health and Safety (A H Tesfaye MPH), Department of Pharmacy (M Worku MSc), University of Gondar, Gondar, Ethiopia; Department of Neurosurgery (A Abedi MD), Keck School of Medicine (A Abedi MD, M Athari MD), Department of Biological Sciences (N Feter PhD), Department of Radiology (M Fotouhi MD), University of Southern California, Los Angeles, CA, USA; Department of Emergency Medicine (A Abedi MD), Department of Food Safety and Hygiene (M Aminzare PhD), School of Medicine (M Ashrafi MD, H Nasiri MD), Department of Immunology (S Athari PhD), Department of Critical Care and Emergency Nursing (N Hanifi PhD), Zanjan University of Medical Sciences, Zanjan, Iran; School of Pharmacy (A Abejew MSc, T T Alemayehu MSc), Department of Midwifery (A Abie MSc, B A Alemayehu MSc, F Alemnew MSc, W F Balcha MSc, A T Nega MSc, F W Sendeku MSc, A A Tesfu MSc, T H Wassie MSc), Department of Emergency and Critical Care Nursing (O Adal MSc, A G Belayneh MSc, Y M Wubie MPH), College of Medicine and Health Sciences (M M Adane PhD, D G Demsie MSc, K Y Gete MD, Y Guracho PhD, T H Jember PhD, H B Netsere MSc), Department of Clinical Pharmacy (Z Addisu MSc), School of Veterinary Medicine (S M Asefa MSc), Department Nutrition and Dietetics (M T Bayih MSc), Department of Public Health (M Belayneh PhD), Department of Nursing (A Y Berhie MSc), Department of Environmental Health (T S Bunare MPH), Department of Physiology (D Demeke MSc), Department of Nutrition and Dietetics (H A Derseh MPH), Department of Psychiatry (T E

Dinkayehu MSc), Department of Adult Health Nursing (D Endeshaw MSc, E A Mengistie MSc), Department of Epidemiology and Biostatistics (B E Feleke MPH), Department of Health Informatics (H A Guadie MPH), Department of Medical Microbiology (A D Habteyohannes PhD), Department of Pediatrics and Child Health Nursing (S Mulatu MSc), Department of Health Promotion and Behavioral Science (Z A Yizgaw MPH), Department of Pharmacy (M Yismaw MSc), Department of Pharmacology (Y E Yismaw MSc), Bahir Dar University, Bahir Dar, Ethiopia; Postgraduate Department (Prof R Abeldaño Zuñiga PhD), University of Sierra Sur, Miahuatlan de Porfirio Diaz, Mexico; Yhteiskuntatieteen keskus (Centre for Social Data Science) (Prof R Abeldaño Zuñiga PhD), Department of Public Health (Prof M Kivimäki PhD, Prof T Lallukka PhD), University of Helsinki, Helsinki, Finland (T J Meretoja MD); Department of Botany (E S Abhilash PhD), Sree Narayana Guru College Chelannur, Kozhikode, India; Nuffield Department of Population Health (S Abid MSc, A O Ajose MBBS, D A Bennett PhD), Oxford Vaccine Group (O Akeju MPH), Nuffield Department of Surgical Sciences (O Almidani MSc), Oxford Centre for Global Health Research (C Dolecek PhD), Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences (S Graham PhD), Big Data Institute (Z Guo PhD), Nuffield Department of Medicine (Prof R J Maude PhD), Department of Psychiatry (Prof C R J Newton MD, V Suresh MBBS), Centre for Global Epilepsy (M Romoli MD), University of Oxford, Oxford, UK; National Heart Foundation Hospital and Research Institute, Dhaka, Bangladesh (S Abid MSc); Department of Biomedical Sciences (S Abidi PhD), Nazarbayev University School of Medicine, Astana, Kazakhstan; Department of Internal Medicine (O O Abiodun FWACP), Federal Medical Centre, Abuja, Nigeria; Department of Community Medicine (Prof O Abiodun MPH), Babcock University, Ilishan-Remo, Nigeria; Department of Family and Community Health (R G Aboagye MPH), School of Basic and Biomedical Sciences (D Adedia PhD), Department of Epidemiology and Biostatistics (L A Adzigbli BSc, R K Dowou MPhil), Institute of Health Research (M Immurana PhD), Department of Nursing (F K Nyande PhD), Department of Microbiology and Immunology (Prof V N Orish PhD), University of Health and Allied Sciences (E Osei PhD), University of Health and Allied Sciences, Ho, Ghana; School of Population Health (R G Aboagye MPH, Z Dai PhD, X Feng PhD, V Keshri PhD, A E Peden PhD, Prof B A Saddik PhD, X Xu PhD), Centre for Social Research in Health (I Y Addo PhD, S R Okeke PhD), St George and Sutherland Clinical School (H Akbarialiabad MD), Transport and Road Safety (TARS) Research Centre (S Boufous PhD), Faculty of Medicine (J Brown PhD), National Drug and Alcohol Research Centre (Prof L Degenhardt PhD), The George Institute for Global health (F Haghdooost PhD), Centre for Healthy Brain Ageing (M J Lennon PhD, L Mewton PhD, S Röhr PhD, A S Vella PhD, R Visontay BA), International Centre for Future Health Systems (J Lin PhD), School of Medicine (Prof P K Maulik PhD), Discipline of Psychiatry and Mental Health (Prof P B Mitchell MD), School of Optometry and Vision Science (Prof K Pesudovs PhD, Prof S Resnikoff MD), Centre for Healthy Brain Ageing (CHeBA) (S Röhr PhD), The George Institute for Global Health (P Ye PhD), University of New South Wales, Sydney, NSW, Australia; Department of Medical Biochemistry and Biophysics (H Abolhassani PhD), Department of Neurobiology, Care Sciences and Society (Prof J Ärnlöv PhD, B Bizzozero-Peroni PhD), Department of Medical Epidemiology and Biostatistics (Prof J J Carrero PhD), Department of Physiology and Pharmacology (C R Cederoth PhD), Department of Neurobiology, Care Sciences, and Society (S Fereshtehnejad PhD), Karolinska Institutet Campus Solna (A Javanmardi MD), Department of Molecular Medicine and Surgery (Prof J H Kaupilla MD), Department of Global Public Health (Prof L Laflamme PhD), Karolinska Institute, Stockholm, Sweden; Department of Sport, Exercise and Rehabilitation (U S Abonie PhD), Northumbria University, Newcastle, UK; Zoology Department (N M Abourashed PhD), Benha University, Benha, Egypt; Department of Physical Pharmacy and Pharmacokinetics (M Abouzid PharmD), Chair and Department of Medical Microbiology (Prof T M

Karpiński DDS), Poznan University of Medical Sciences, Poznan, Poland; Department of Cardiovascular Disease (D Abramov MD), Loma Linda University Medical Center, Loma Linda, CA, USA; Department of Pediatric Dentistry (Prof L Abreu PhD), Department of Maternal-Child Nursing and Public Health (Prof D C Malta PhD, Prof F P Matozinhos PhD, Prof A C Micheletti Gomide Nogueira de Sá MSc, E J S Prates BS), Department of Clinical Medicine (Prof B R Nascimento PhD), Clinical Hospital (Prof B R Nascimento PhD), Department of Applied Nursing (Prof M O Pereira PhD), Maternal and Child Nursing Department (L P Pinheiro Rocha MSc), Department of Internal Medicine (Prof A P Ribeiro MD), Centre of Telehealth (Prof A P Ribeiro MD), Department of Infectious Diseases and Tropical Medicine (B P Sao Jose PhD), Faculty of Dentistry (Prof G C B D Silva PhD), Federal University of Minas Gerais, Belo Horizonte, Brazil; Clinical Pharmacy and Therapeutics Department (Prof R K Abu Farha PhD), Applied Science Research Center (A B Al-Tammemi MPH), Department of Clinical Nutrition and Dietetics (Prof M E M Faris PhD), Faculty of Nursing (E H Othman PhD), Applied Science Research Centre (R M Zrieq PhD), Applied Science Private University, Amman, Jordan; Community Health Nursing Department (F H A Abuadas PhD), Preventive Dentistry Department (Prof M K Alam PhD), College of Medicine (R Basri PhD), Jouf University, Sakaka, Saudi Arabia; Graduate School of Public Health (A K Abubakar MPH, H Jamil MD), St. Luke's International University, Tokyo, Japan; Division of Population Data Science (A K Abubakar MPH), Division of Population Data Science, Institute for Cancer Control (H Jamil MD), National Cancer Center, Tokyo, Japan; Department of Pharmacology and Toxicology (B Abubakar PhD), Department of Pharmaceutics and Pharmaceutical Technology (N Aminu PhD), Department of Sociology (Prof J Amzat PhD), Department of Veterinary Microbiology (M B Bello PhD), Department of Veterinary Public Health and Preventive Medicine (B Garba PhD, A Shittu MSc), Medical Microbiology Department (Prof Y Mohammed FWACP), Usmanu Danfodiyo University, Sokoto, Sokoto, Nigeria; Clinical Science Department (Prof M O Folayan PhD), Department of Biochemistry and Nutrition (K Oyebola PhD), Nigerian Institute of Medical Research, Lagos, Nigeria (B Abubakar PhD); Department of Biopharmaceutics and Clinical Pharmacy (Prof E Abu-Gharbieh PhD), College of Pharmacy (Prof S Aburuz PhD), University of Jordan, Amman, Jordan; Maternal and Child Health Nursing (Prof S Abuhammad PhD), Jordan University of Science and Technology, Irbid, Jordan; Medical Research Center (H J Abukhadajah MPH), Department of Pharmacy (D Abushanab MSc), Department of Surgery (A Alansari MD), Surgical Research Section (A R Al-Qudimat MPH, A EL Omri PhD), Nursing & Midwifery Research Department (NMRD) (G Joy MSc, J Kunjavara PhD, A J Nashwan PhD), Corporate Nursing and Midwifery Research Department (K Mannethodi MPH), Department of Geriatric and Long Term Care (B Sathian PhD), Research Department (K Singh PhD), Hematology Section (Prof M A Yassin MD), Hamad Medical Corporation, Doha, Qatar; College of Health Sciences (Prof N M Abu-Rmeileh PhD), College of Nursing (Prof F N Alhalaiqa PhD, W Sami PhD), Rehabilitation Sciences Department (Prof N A Almasri PhD), Department of Pharmaceutical Sciences (Prof K H Alzoubi PhD), Department of Population Medicine (Prof G Babu PhD), Department of Rehabilitation Sciences (O Deegan PhD, S F Kanaan PhD), College of Medicine (Prof Y Kinfu PhD, Prof M A Yassin MD), Qatar University, Doha, Qatar; Birzeit University, Ramallah, Palestine (Prof N M Abu-Rmeileh PhD); Department of Pharmacology and Therapeutics (Prof S Aburuz PhD), Institute of Public Health (Prof L A Ahmed PhD, Prof M Grivna PhD), College of Medicine and Health Sciences (Prof M Z Allouh PhD, J Nauman PhD), Department of Veterinary Medicine (H O Khalifa PhD), Department of Food, Nutrition and Health (Prof S Maqsood PhD), Department of Computer Science and Software Engineering (Prof N Zaki PhD), United Arab Emirates University, Al Ain, United Arab Emirates; Department of Biochemistry (R Achar PhD), Jagadguru Sri Shivarathreeswara University, Mysuru, India; Department of Forensic Medicine and Toxicology (A Acharya MD), Department of General Practice and Emergency

Medicine (J Bhandari MD), Karnali Academy of Health Sciences, Jumla, Nepal; School of Public Health and Preventive Medicine (Prof I N Ackerman PhD, S M Alif PhD, Prof M Asghari-Jafarabadi PhD, P Rai PhD, S Talic PhD), Faculty of Medicine, Nursing, and Health Sciences (S Aslani PhD), Department of Epidemiology and Preventative Medicine (E K Chowdhury PhD), Department of Public Health and Preventive Medicine (H Hailu MPH), Department of Infectious Diseases (M J Loftus MBBS), Department of General Practice (S Melwani PhD), Person-Centered Research (S Shrestha PhD), School of Primary and Allied Health Care (F Sousa PhD), Monash University, Melbourne, VIC, Australia; Department of Clinical Medicine (Prof J M Acuna MD), American University of Antigua, Coolidge, Antigua and Barbuda; FIU Robert Stempel College of Public Health & Social Work (Prof J M Acuna MD), Department of Translational Medicine (N C Barengo PhD), Department of Global Health (B Talukder PhD), Florida International University, Miami, FL, USA; Department of Diagnostic and Interventional Radiology (L C Adams PhD), School of Medicine and Health (F Busch MD), Technical University of Munich, Munich, Germany; Stanford University, Palo Alto, CA, USA (L C Adams PhD); Department of Human Anatomy (L H Adamu PhD), Federal University Dutse, Dutse, Nigeria; School of Medicine (I Y Addo PhD), Translational Research Team (N A Adegoke PhD), Faculty of Medicine and Health (D B Anderson PhD, R Cairns PhD, M M Kamal MPH), Sydney Musculoskeletal Health (D B Anderson PhD, S Mathieson PhD), School of Architecture, Design, and Planning (Prof T Astell-Burt PhD), Charles Perkins Centre (R Biswas PhD), School of Public Health (Prof F M Blyth PhD, Prof T R Driscoll PhD), School of Health Science (A Carvalho-Silva PhD), School of Pharmacy and Charles Perkins Centre (Z Dai PhD), Institute for Musculoskeletal Health (M Jamshidi PhD), Asbestos and Dust Diseases Research Institute (J Leigh MD), University of Sydney (S Mathieson PhD), Central Clinical School, Faculty of Medicine and Health (S Mitra PhD), School of Chemical & Biomolecular Engineering (E A Noman PhD), Westmead Applied Research Center (E T O'Hagan PhD), Population Oral Health, Sydney Dental School (P Veginadu PhD), The Matilda Centre for Research in Mental Health and Substance Use (R Visontay BA), University of Sydney, Sydney, NSW, Australia (S R Okeke PhD); Department of Health Promotion, Education and Behavior (O A Adeagbo PhD), Department of Epidemiology and Biostatistics (A M Alfalki MPH, R Gupta MPH), University of South Carolina, Columbia, SC, USA; Department of Public Health (O A Adeagbo PhD), School of Nursing and Public Health (A W Awotidebe PhD), Discipline of Public Health Medicine (T G Ginindza PhD), Department of Public Health Medicine (S N Shongwe MPH), University of KwaZulu-Natal, Durban, South Africa; Department of Microbiology (T A Adebisi BSc), Ladoke Akintola University, Osogbo, Nigeria; NMC Healthcare (T A Adebisi BSc), Independent Consultant, Sharjah, United Arab Emirates; Department of Sociology (I A Adedeji PhD), Olabisi Onabanjo University, Ago-Iwoye, Nigeria; Department of Immunology (K A Adedokun MSc), Roswell Park Comprehensive Cancer Center, Buffalo, NY, USA; Graduate Program Division (K A Adedokun MSc), University at Buffalo, Buffalo, NY, USA; Department of Medical Rehabilitation (Prof R A Adedoyin PhD), Department of Child Dental Health (Prof M O Folayan PhD), Obafemi Awolowo University, Ile-Ife, Nigeria; Department of Pediatrics (O E Adegbile MD), East Tennessee State University, Johnson City, TN, USA; Center for Cardiovascular Risk Research (O E Adegbile MD), Center for Cardiovascular Risk Research, Johnson City, TN, USA; Menzies School of Health Research (Prof O A Adegboye PhD), Charles Darwin University, Darwin, NT, Australia; Melanoma Institute Australia (N A Adegoke PhD), The University of Sydney, Sydney, NSW, Australia; Department of Family Medicine (O T Adeleke MD), Bowen University Hospital (D E Ajala BSc), College of Health Sciences (O I Olabisi PhD), Department of Nursing Science (M I Olatubi PhD), Bowen University, Iwo, Nigeria; Department of Family Medicine (O T Adeleke MD), Bowen University Teaching Hospital, Ogbomosho, Nigeria; Department of Microbiology (I A Adesina PhD, O O Bello PhD, T C Ekundayo PhD), Department

of Pharmacology and Therapeutics (T E Adeyeoluwa PhD), Department of Physiology (O I Adeyomoye PhD, V O Emojevwe PhD), Department of Environmental and Occupational Health (B S Anuoluwa MPH), Mathematical and Computer Sciences (O A Okunlola MSc, O Peter PhD), Department of Biosciences and Biotechnology (O T Oyeyemi PhD, A J Udoakang PhD), University of Medical Sciences, Ondo, Ondo, Nigeria; Slum and Rural Health Initiative Research Academy (M A Adesina BPT), Slum and Rural Health Initiative, Ibadan, Nigeria; Department of Physiotherapy (M A Adesina BPT), Department of Educational Counselling and Developmental Psychology (H O Adewuyi PhD), Department of Veterinary Medicine (T E Adeyeoluwa PhD), Department of Epidemiology and Medical Statistics (R F Afolabi PhD, A F Fagbamigbe PhD), Department of Veterinary Public Health and Preventive Medicine (O A Ogundijo MSc), Department of Health Promotion and Education (A Ogunkoya MPH), Counselling and Human Development Studies (D O Okeke-Obayemi BSc), College of Medicine (A P Okekunle PhD, O I Olabisi PhD), Department of Medicine (O V Olalusi MD, Prof M O Owolabi DrM), University of Ibadan, Ibadan, Nigeria; Department of Educational Psychology (H O Adewuyi PhD), Department of Sociology (Prof J Amzat PhD), Department of Education Leadership and Management (J O Okunlola PhD), University of Johannesburg, Johannesburg, South Africa; Department of Community Medicine (Prof K Adhikari PhD), Tribhuvan University, Bharatpur, Nepal; Public Health Section (Prof K Adhikari PhD), Himalayan Environment and Public Health Network (HEPHN), Chitwan, Nepal; Department of Fisheries and Marine Bioscience (R K Adhikary PhD), Jashore University of Science and Technology, Jashore, Bangladesh; Research School of Population Health (R K Adhikary PhD), School of Medicine and Psychology (D Ahmad PhD), National Centre for Epidemiology and Population Health (R A Burns PhD), Australian National University, Canberra, ACT, Australia; Apollo Institute Of Medical Sciences & Research Chittoor (Prof U Adiga PhD), Apollo Hospital, Chittoor, India; Department of Public Health (Q Adnani PhD), Universitas Padjadjaran (Padjadjaran University), Bandung, Indonesia; Department of Health Administration and Education (P O Adoma PhD), University of Education Winneba, Winneba, Ghana; National Institute on Minority Health and Health Disparities (D Adzrago PhD), Department of Endocrinology, Diabetes and Metabolism (G P Thota MD), National Institutes of Health, Bethesda, MD, USA (A Grover MD); School of Public Health (D Adzrago PhD), University of Texas Health Science Center at Houston, Houston, TX, USA; Department of Public Health and Preventive Medicine (G Affinito PhD), Department of Public Health (C Fiorilla MD, R Palladino MD, M Sorrentino MD), University of Naples "Federico II", Naples, Italy; Department of Surgery (A M Afifi MD), University of Toledo, Toledo, OH, USA; Technical Services Directorate (A A Afolabi MPH), MSI Nigeria Reproductive Choices, Abuja, Nigeria; Department of Community Medicine (Prof S Afzal PhD), King Edward Memorial Hospital, Lahore, Pakistan; Department of Public Health (Prof S Afzal PhD), Public Health Institute, Lahore, Pakistan; Department of Public Health (G B Agafari PhD, M H Nunemo MPH), Department of Epidemiology (B H Jena PhD), Wachemo University, Hossana, Ethiopia; Department of New Initiatives (Prof S B Agampodi MD), International Vaccine Institute, Seoul, South Korea; College of Health Sciences and Medicine (T Ageru PhD), Wolaita Sodo University, Wolaita Sodo, Ethiopia; MM College of Pharmacy (N Aggarwal PhD), Maharishi Markandeshwar (Deemed to be University), Ambala, India; Department of Orthopedic Surgery and Sports Medicine (M Aghaalkhani MD), Boston Children's Hospital, Boston, MA, USA; Department of Neurosurgery (S Aghajanian MD), Research Center for Health, Safety and Environment (Prof L Salehi PhD), School of Medicine (M Shams-Beyranvand MSc), Alborz University of Medical Sciences, Karaj, Iran; Neuroscience Research Center (S Aghajanian MD), Health Management and Economics Research Center (J Arabloo PhD), School of Medicine (M Bastan MD, P Panahi MD), Medical Ethics Department (S Biroudian PhD), Department of Medical Laboratory Sciences (F Dorostkar PhD), Iran University of Medical Sciences (F Eghbali MD), Department of Medicine (M

Fotouhi MD), Department of Cardiology (A Ghaffari Jolfayi MD), Department of Ophthalmology (H Hasani MD), Department of Biostatistics (M Imani MSc), Department of Surgery (A Jaliliyan MD), Endocrine Research Center (A Karimi Behnagh MD), Department of Echocardiography (A Karimi Behnagh MD), Eye Research Center (H Kasraei MD), Department of Obstetrics & Gynecology (P Khalili MD), Bone and Joint Reconstruction Research Center (M Khonji MD), Gastrointestinal and Liver Diseases Research Center (Prof M Moradi-Lakeh MD), Preventive Medicine and Public Health Research Center (Prof M Moradi-Lakeh MD), Antimicrobial Resistance Research Center (K Mozahheb Yousefi MD), Hazrat-e Rasool General Hospital (K Mozahheb Yousefi MD), Physiology Research Center (H Pazoki Toroudi PhD), Department of Physiology (H Pazoki Toroudi PhD), Center for Technology and Innovation in Cardiovascular Informatics (S Shool MD), The Five Senses Health Institute (F Taghizadeh-Hesary MD), Iran University of Medical Sciences, Tehran, Iran; Health Research and Innovation Sciences Center (C Agostinis Sobrinho PhD), Health Research and Innovation Science Centre (R C D Espírito Santo PhD), Klaipeda University, Klaipeda, Lithuania; SPRINT Sport Physical Activity and Health Research & Innovation Center (C Agostinis Sobrinho PhD), Sport Physical Activity and Health Research & Innovation Center (SPRINT) (Prof L M L R Silva PhD), Polytechnic Institute of Guarda, Guarda, Portugal; Trivedi School of Biosciences (Prof A Agrawal PhD), Ashoka University, Sonipat, India; Department of Public Health Sciences (W Agyemang-Duah PhD), Queen's University, Kingston, ON, Canada; Rajaie Trauma Research Center (M Ahadi MD), Health Policy Research Center (B Amidi MD, M Banakar PhD, H Kasraei MD, Y Sarikhani PhD), Trauma Research Center (S Ayatizadeh MD, M Yadollahi MD), Department of Nursing (A Azargoonjahromi BSc), Healthcare Management Department (Prof M Bahrami PhD), Research Center for Traditional Medicine and History of Medicine (Prof M Hashempur PhD), Poostchi Ophthalmology Research Center (M Heydari PhD), Shiraz Neuroscience Research Center (M Jafarinia PhD), Health Policy Research Center (R Khademi MD), Non-communicable Disease Research Center (Prof R Malekzadeh MD), Amir Oncology Hospital (E Meftah MD), Department of Occupational Health and Safety Engineering (R Pourbabaki PhD), Department of Health Services Management (Prof R Ravangard PhD), Department of Biostatistics (E Sadeghi PhD), Basic Sciences in Infectious Diseases Research Center (R Tavakoli Oliaee PhD), Faculty of Medicine (S Vahdati MD), Shiraz University of Medical Sciences, Shiraz, Iran (S Mousavi Kiasary DVM); School of Public Health (B O Ahinkorah MPhil, G K Wirtu PhD), School of Nursing and Midwifery (M Chutiyami PhD), School of Life Sciences (G Liu PhD), Discipline of Physiotherapy (P Stubbs PhD), School of Biomedical Engineering (N Tran MD), Faculty of Health (T E Wonde MPH), University of Technology Sydney, Sydney, NSW, Australia; College of Medicine (A Ahmad PhD, Prof G Mustafa MD, M Tabish MPharm, H Ullah FCPS), Shaqra University, Shaqra, Saudi Arabia; Health Research Institute (D Ahmad PhD, Prof N Bagheri PhD), University of Canberra, Canberra, NSW, Australia; Biological Production Unit National Institute of Health Islamabad Pakistan (F Ahmad PhD), Research and Development Coordination (I Rafique PhD), National Institute of Health, Islamabad, Pakistan; World Health Organisation, Islamabad, Pakistan (F Ahmad PhD); Department of Research (Prof K Ahmad PhD), King Khaled Eye Specialist Hospital & Research Center, Riyadh, Saudi Arabia; Department of Health Informatics (K Ahmad PhD), Qassim University, Buraidha, Saudi Arabia; School of Nursing (Prof M M Ahmad PhD), The University of Jordan School of Medicine (Prof M A Al-Abbadi MD), Faculty of Medicine (R Al-Asmar BSc), School of Pharmacy (S M Aleidi PhD, Prof Y Bustanji PhD), Department of Diagnostic Radiology and Nuclear Medicine (Prof A Al-Ibraheem MD), The School of Medicine (M Al-Iede MD), Department of Radiology and Nuclear Medicine (Prof M E Juweid MD), Department of Mathematics (Prof S Momani PhD), Department of Pathology, Microbiology and Forensic Medicine (M Sallam PhD), Department of Clinical Laboratories and Forensic Medicine (M Sallam PhD), Department of

Movement Sciences and Sports Training (K Trabelsi PhD), The University of Jordan, Amman, Jordan (Prof L A Dardas PhD); Department of Clinical Pharmacy (R Ahmad PhD, M Said PhD), Advanced Medical & Dental Institute (M Aziz PhD), Universiti Sains Malaysia, Penang, Malaysia; Department of Pharmacy Practice (R Ahmad PhD), The Islamia University of Bahawalpur, Bahawalpur, Pakistan; Department of Health and Biological Sciences (S Ahmad PhD), Abasyn University, Peshawar, Pakistan; Department of Natural Sciences (S Ahmad PhD), Gilbert and Rose-Marie Chagoury School of Medicine (Prof L Roever PhD), Lebanese American University, Beirut, Lebanon; School of Public Health (T Ahmad PhD), Department of Epidemiology and Biostatistics (J Zhao MD), Zhejiang University, Hangzhou, China; Department of Community Health Sciences (T Ahmad PhD), Sohail University, Karachi, Pakistan; College of Medicine (W Ahmad PhD), University of Cincinnati, Cincinnati, OH, USA; Department of Neuroscience (A Ahmadzade MD), Faculty of Medicine (R Khademi MD, F Shahrahmani MD), Department of Medical Genetics and Molecular Medicine (G Khalili-Tanha PhD), Clinical Research Development Unit (N Morovatdar MD), Biotechnology Research Center (Prof A Sahebkar PhD), Department of Medicine (A Yarahmadi PhD), Mashhad University of Medical Sciences, Mashhad, Iran; Department of Veterinary Microbiology (A O Ahmed PhD), Department of Veterinary Public Health and Preventive Medicine (I A Odetokun PhD), University of Ilorin, Ilorin, Nigeria; Maternal and Child Health Division (MCHD) (A Ahmed MS, S Ahmed MDS, M Al-Zubayer MSc, R Banik MS, L Hossain MPH, S Noor MS, M Patwary MSc, N Saha MSc, A Sayeed MSc), Nutrition and Clinical Services Division (M Tariqujjaman MSc), International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh; Department of Women's and Children's Health (A Ahmed MS), Department of Medical Sciences (D Lindholm MD, Prof J Sundström PhD), Uppsala University, Uppsala, Sweden; Institute of Endemic Diseases (A Ahmed MSc), Department of Oral Rehabilitation (N T Hashim PhD), Faculty of Medicine (K A H Mohamed Ahmed MD), Unit of Basic Medical Sciences (E E Siddig MD), University of Khartoum, Khartoum, Sudan; Swiss Tropical and Public Health Institute (A Ahmed MSc), Department of Ophthalmology (Prof Z Gatzoufas PhD), University of Basel, Basel, Switzerland; Medical Laboratory Science Department (G S Ahmed MSc, H M Rahim MSc), University of Human Development, Sulaymaniyah, Iraq; Department of Biosciences (H Ahmed PhD), COMSATS Institute of Information Technology, Islamabad, Pakistan; Manipal College of Dental Sciences, Mangalore (Prof J Ahmed MDS), Department of General Medicine (A N Bhat MD, J Jeganathan MD), Department of Community Medicine (N Joseph MD, N Kumar MD, P Mithra MD, R Thapar MD), Kasturba Medical College (G A Menezes PhD), Department of Forensic Medicine and Toxicology (Prof J Padubidri MD, Prof P Rastogi MD), Manipal Academy of Higher Education, Mangalore, India; College of Nursing (M S Ahmed MSc), Majmaah University, Al Majmaah, Saudi Arabia; College of Medicine and Public Health (M B Ahmed PhD, B Kaambwa PhD, G R Naik PhD), Flinders Health and Medical Research Institute (N B Bulamu PhD), Health Economics Unit (B Kaambwa PhD), Department of Nursing and Health Sciences (S Shorofi PhD), Flinders University, Adelaide, SA, Australia; Faculty of Public Health (M B Ahmed PhD), Department of Health Behavior and Society (L A A Ayana MPH), Department of Surgery (N S Bayleyegn MD), Institute of Health (Prof T Malik PhD), Department of Epidemiology (D Shiferaw MPH), Jimma University, Jimma, Ethiopia; Department of Medicine (M Ahmed MBBS), Rawalpindi Medical University, Rawalpindi, Pakistan; Department of Psychology (O Ahmed MSc), University of Chittagong, Chattogram, Bangladesh; Department of Public Health Epidemiology (S M Ahmed MSc), Department of Pediatrics and Child Health Nursing (G B Mulu MSc), Debre Berhan University, Debre Berhan, Ethiopia; Menelik II Medical and Health Science College (S M Ahmed MSc), EpiMetrics, Inc., Addis Ababa, Ethiopia; School of Medicine (G Aimagambetova PhD, Y Semenova PhD, K A Yergaliyev DrPH), Department of Biomedical Sciences (M Aljofan PhD, S Bolla PhD), Department of Medicine (J U Almazan PhD), Nazarbayev

University, Astana, Kazakhstan; Clinical Academic Department of Women's Health (G Aimagambetova PhD), NU Medicine, Astana, Kazakhstan; Department of Medical Laboratory Technology (A AJ Jabbar PhD), Erbil Polytechnic University, Erbil, Iraq; Department of Water Engineering (S Akbarifard PhD), Graduate University of Advanced Technology, Kerman, Iran; Department of Physiology (R E Akhigbe PhD), Department of Medicine (A O Shitu MBBS), Ladoké Akintola University, Ogbomosho, Nigeria; School of Veterinary Medicine (O A Akinkuotu PhD, Prof B B Awosile PhD), Texas Tech University, Amarillo, TX, USA; Department of Internal Medicine (K Akinosoglou PhD), Department of Cardiothoracic Surgery (V Leivaditis PhD), University of Patras, Patras, Greece; Department of Internal Medicine and Infectious Diseases (K Akinosoglou PhD), University General Hospital of Patras, Patras, Greece; Department of Cardiology (M Akkaif PhD), School of Public Health (Prof H Kan PhD), Fudan University, Shanghai, China; Department of Management, Policy, and Community Health (S Akkala MPH), School of Public Health (M A M Al Zoubi PhD, H Theyra-Enias MD), Management Policy and Community Health (J A Atta MPH), Department of Epidemiology (L D Chau BA), MD Anderson Cancer Center Department of Plastic Surgery (R Elmorsi MD), University of Texas, Houston, TX, USA; Faculty of Health and Behavioural Sciences (W Akosile PhD), Centre for Sensorimotor Performance (D Anderlini MD), Department of Urology (Prof E Chung MD), School of Public Health (H E Erskine PhD, A J Ferrari PhD, M Islam MSc, A M Mantilla Herrera PhD, J C Maravilla PhD, P A Miller PhD, D F Santomauro PhD, J Shadid BSc, Prof H A Whiteford PhD), School of Health and Rehabilitation Sciences (A Khan PhD, M Rahman MPH), Centre for the Business and Economics of Health (I Koomson PhD, A Pak PhD), School of Dentistry (R Laloo PhD), UQ Centre for Clinical Research (H L S Lawford PhD), National Centre for Youth Substance Abuse Research (J Leung PhD), Poche Centre for Indigenous Health (Prof A A Mamun PhD), The University of Queensland, Brisbane, QLD, Australia; Department of Infection Prevention & Control (H Akram MD), Baylor Scott & White Health, Frisco, TX, USA; Chicago College of Osteopathic Medicine (A E Akrami BS), Midwestern University, Downers Grove, IL, USA; Feinberg School of Medicine (A E Akrami BS), Department of Microbiology and Immunology (O Ebohon MPH), Medical Scientist Training Program (S Marzouk MA), Department of Medicine (N S Shah MD), Department of Preventive Medicine (M Teramoto MD), Northwestern University, Chicago, IL, USA (M D Szeto MS); Centre for Academic Primary Care (R K Akyea PhD), Institute of Applied Health Research (N Bhala PhD), Division of Ophthalmology & Visual Sciences (Prof G D Panos MD), University of Nottingham, Nottingham, UK; College of Pharmacy and Health Sciences (A Al Amiry MS), Center of Medical and Bio-allied Health Sciences Research (A Al Amiry MS), Nonlinear Dynamics Research Center (NDRC) (Prof S Momani PhD), Center for Medical and Bio-Allied Health Sciences Research (Prof M J Shahwan PhD, A Shamsi PhD), College of pharmacy and Health Science (H Yasin PhD), Ajman University, Ajman, United Arab Emirates (Prof N Hassan PhD); Department of Communicable Diseases (S Al Awaidy MSc), Ministry of Health, Muscat, Oman; Middle East, Eurasia, and Africa Influenza Stakeholders Network, Muscat, Oman (S Al Awaidy MSc); Division of Public Health Sciences (S Al Hasan PhD), Department of Research and Development (Z Al-Aly MD), Department of Surgery (S Azadnajafabad MD, C Wang PhD), School of Public Health (I T Bacha MD), Department of Energy, Environmental, and Chemical Engineering (Prof R V Martin PhD, A van Donkelaar PhD), Brown School (A M Odama MPH), Department of Anesthesiology (S Roy Chowdhury PhD), John T. Milliken Department of Medicine (T Q M Tran MSc), Brown School of Public Health (Y C Wondmeneh MD), Washington University in St. Louis, St. Louis, MO, USA; Fundamentals and Administration Department (Prof O Al Omari PhD), Department of Adult Health and Critical Care (O A M Al Zaabi PhD), Department of Geography (W Ali PhD), Sultan Qaboos University, Muscat, Oman; Department of Community and Mental Health (Prof M Albashtawy PhD), Al Al-Bayt University, Mafraq, Jordan (Prof M Al Qadire PhD);

Department of Internal Medicine (O Al Ta'ani MD), Allegheny Health Network, Pittsburgh, PA, USA; Department of General Education (Prof W A M Al Taie PhD), Hamdan Bin Mohammed Smart University, Dubai, United Arab Emirates; Faculty of Pharmacy (Y Al Thaher PhD), Faculty of Nursing (M M W Atout PhD), Philadelphia University, Amman, Jordan; School of Pharmacy (Y Al Thaher PhD), School of Earth and Environmental Sciences (M Nawaz PhD), Cardiff University, Cardiff, UK; Department of Rehabilitation (Y Al-Ajlouni MD), Montefiore Medical Center, Bronx, NY, USA; Department of Epidemiology (Y Al-Ajlouni MD), Departments of Psychiatry and Epidemiology (Prof M R Phillips MD), Columbia University, New York, NY, USA (D Shan MD); Department of Biology (T A Alalwan PhD), College of Health and Sport Sciences (A G Vaithinathan MSc), University of Bahrain, Zallaq, Bahrain; Clinical Epidemiology Center (Z Al-Aly MD), US Department of Veterans Affairs (VA), St. Louis, MO, USA; Murdoch Business School (K Alam PhD), Murdoch University, Perth, WA, Australia; Department of Bioengineering (M Alam PhD), George Mason University, Fairfax, VA, USA; School of Nursing (R M Al-Amer PhD), Department of Basic Sciences (Z Altaany PhD), Department of Basic Medical Sciences (R A Karasneh PhD, Prof M M Khatatbeh PhD), Faculty of Nursing (H Khatatbeh PhD), Yarmouk University, Irbid, Jordan; School of Nursing and Midwifery (R M Al-Amer PhD), Western Sydney University, Sydney, NSW, Australia; Department of Nursing and Midwifery (A Alamrew MSc), College of Health Science (C Mulugeta MSc), Woldia University, Woldia, Ethiopia; Department of Health Information Management and Technology (Prof T M Alanzi PhD), Deanship of Preparatory Year and Supporting Studies (Prof S El-Ashker PhD), Department of Pathology (Prof R G Menezes MD), Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia; Department of Clinical Pharmacy (F Y Al-Ashwal PhD), Al-Ayen Iraqi University, Thi-Qar, Iraq; Department of Clinical Pharmacy and Pharmacy Practice (F Y Al-Ashwal PhD), University of Science and Technology, Sana'a, Yemen; Faculty of Medicine (S Alavi MD), Department of Microbiology (M Saki PhD), Alimentary Tract Research Center (Z Shokati Eshkiki PhD), Nursing Care Research Center in Chronic Diseases (Prof K Zarea PhD), Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran; Department of Internal Medicine (A Al-Dalakta MD, A Goyal MD, A Mushtaq MD), Department of Pediatrics (Prof H Aly MD, A E'mar MD), Lerner College of Medicine (M Balkis MD), Department of Cardiovascular Medicine (J Ikram MD, J Rajendran MD), Lerner Research Institute (Prof X Liu PhD), Cleveland Clinic, Cleveland, OH, USA; Division of Pediatric Cardiology (K A Aldawsari MD), University of Colorado, Aurora, CO, USA; Heart Center (K A Aldawsari MD), Liver, Digestive, and Lifestyle Health Research Section (S A Alqahtani MD), Biostatistics, Epidemiology, and Science Computing Department (S Yezli PhD), King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia; Division of Gastroenterology and Hepatology (W A Aldhaleei MD), Department of Radiology (G Belge Bilgin MD, C Bilgin MD, F Nugen PhD), Department of Physiology and Biomedical Engineering (Z Khashim PhD, F Pourghazi MD), Department of Cardiovascular Medicine (H Pham MD), Department of Endocrinology (M Salehi MD), Department of Hematology (M S Sra MD), Mayo Clinic, Rochester, MN, USA (D J Ghadimi MD); General Directorate of Research and Studies (M S Aldossary M Clin Dent), Ministry of Health, Riyadh, Saudi Arabia; Institute of Health Informatics (R W Aldridge PhD), Department of Health Informatics (S Chung PhD), Division of Surgery & Interventional Science (D Feng MD), Institute for Global Health (N Khan PhD), Department of Brain Sciences (Prof M Kivimäki PhD), Division of Medicine (T Oyelade PhD), Division of Psychiatry (L Ren PhD), Department of Population Health Sciences (D Sunkersing PhD), Center for Clinical Microbiology (Prof A Zumla PhD), University College London, London, UK; Department of Health (R Alebshehy PhD), Department for Health (H L Harb MPH), University of Bath, Bath, UK; Department of Bacteriology, Immunology, and Mycology (Prof A M Algammal PhD), Faculty of Veterinary Medicine (M Mabrok PhD), Suez Canal University, Ismailia, Egypt;

Department of Family and Community Medicine (M R Algethami MD, N Z Alshahrani MD), University of Jeddah, Jeddah, Saudi Arabia; Global Centre for Environmental Remediation (A A S Al-Gheethi PhD), University of Newcastle, Newcastle, NSW, Australia; Cooperative Research Centre for Contamination Assessment and Remediation of the Environment, Newcastle, NSW, Australia (A A S Al-Gheethi PhD); College of Medicine and Health Sciences (K Al-Habbal MD), College of Medicine and Health Sciences Academic Programs (Prof W Almahmeed MD), Department of Public Health and Epidemiology (Prof B A Saddik PhD), Khalifa University, Abu Dhabi, United Arab Emirates; Africa Center of Excellence for Mycotoxin and Food Safety, Minna, Nigeria (N B Alhaji PhD); Epidemiology and Population Health Department (Prof S Al-Hajj PhD), American University of Beirut, Beirut, Lebanon; British Columbia Injury Research Prevention Unit (Prof S Al-Hajj PhD), British Columbia Children's Hospital Research Institute, Vancouver, BC, Canada; Department of Health Services and Hospital Administration (M K Al-Hanawi PhD), Health Economics Research Group (M K Al-Hanawi PhD), Department of Respiratory Therapy (M A Althobiani PhD), Respiratory Therapy Unit (M A Althobiani PhD), Pediatric Dentistry Department (K K Baghlafl PhD), Periodontology (S Bamashmous PhD), Rabigh Faculty of Medicine (Prof A Malik PhD), Department of Dental Public Health (Z S Natto DrPH), King Abdulaziz University, Jeddah, Saudi Arabia; Faculty of Applied Health Sciences (Physiotherapy) (A Alhassan Ibrahim PhD), Department of Physiotherapy (S K Sulaiman PhD), Tishk International University, Erbil, Iraq; Faculty of Dentistry (A Alhumaidi DDS), Ibn Al-Nafis University for Medical Sciences, Sana'a, Yemen; Information Science Department (D Alhuwail PhD), Department of Surgery (S K Al-Sabah MD), Kuwait University, Kuwait, Kuwait; Health Informatics Unit and Geohealth Lab (D Alhuwail PhD), Dasman Diabetes Institute, Dasman, Kuwait; Department of Zoology (A Ali PhD), Abdul Wali Khan University Mardan, Mardan, Pakistan; Department of Biotechnology (H M Ali MS), University of Malakand, Chakdara, Pakistan; Department of Statistics and Operations Research (I Ali PhD), Aligarh Muslim University, Aligarh, India; School of Food and Agricultural Sciences (M Ali PhD), Department of Life Sciences (Prof M Umair PhD), University of Management and Technology, Lahore, Pakistan; Department of Pharmacy (M Ali PhD), Mohammed Al-Mana College for Medical Sciences, Dammam, Saudi Arabia; Department of Medical Rehabilitation (Physiotherapy) (M U Ali PhD), Department of Microbiology (M A Isa PhD), University of Maiduguri, Maiduguri, Nigeria; The Nethersole School of Nursing (M U Ali PhD, Y Chong PhD, J Li PhD), Faculty of Medicine (J Huang MD), Department of Orthopaedics and Traumatology (K Lau PhD), The Department of Medicine & Therapeutics (L Shi PhD), School of Public Health and Primary Care (L Yao MSc), Jockey Club School of Public Health and Primary Care (C Zhong PhD), The Chinese University of Hong Kong, Hong Kong, China; Department of Biosciences (R Ali PhD, N Salam PhD), Centre for Interdisciplinary Research in Basic Sciences (CIRBSc) (S Anwar PhD, S Khan MSc, T Mohammad PhD, A Shamsi PhD), Jamia Millia Islamia, New Delhi, India; Centre for Biotechnology and Microbiology (S Ali PhD), University of Swat, Charbagh, Pakistan; Center for Biotechnology and Microbiology (S S Ali PhD, M Suleman PhD), University of Swat, Swat, Pakistan; Biomedical Engineering Department (S Ali MS), Center for Clinical Global Health Education (S R Atre PhD), School of Public Health (A A Berihun MA), Department of Anesthesia and Critical Care Medicine (S Boppana MD), Department of Biostatistics (A Columbus MS), Institute of Radiology and Radiological Sciences (A Hashem Zadeh MD), Russell H. Morgan Department of Radiology and Radiological Science (A Kamireddy MD), Department of Public Health (A A Negash MD), Department of Epidemiology (R Olum MD), Department of Health Policy and Management (D Vervoort MD), Department of Psychiatry (E M Zeru MPH), Department of International Health (H Zhang PhD), Johns Hopkins University, Baltimore, MD, USA (E Melese MD); Department of Nuclear Medicine (Prof A Al-Ibraheem MD), King Hussein Cancer Center, Amman, Jordan; Department of

Pathophysiology and Transplantation (G Alicandro PhD), Università degli Studi di Milano (University of Milan), Milan, Italy; Cystic Fibrosis Center (G Alicandro PhD), Pediatric Emergency Department (A La Vecchia MD), Fondazione IRCCS Ospedale Maggiore Policlinico, Milan, Italy; Institute of Health and Wellbeing (S M Alif PhD), Federation University Australia, Melbourne, VIC, Australia; Biomedical Physics Group (M Alipour BSc), University of Hamburg, Hamburg, Germany; Department of Clinical and Community Pharmacy (Prof S W Al-Jabi PhD, Prof S H Zyoud PhD), Department of Pharmacy (F Amer PhD), Department of Physiology, Pharmacology, and Toxicology (Prof R Shawahna PhD), Department of Chemistry (Prof A H Zyoud PhD), An-Najah National University, Nablus, Palestine; School of Physics, Mathematics and Computing (Prof A Al-Jumaily PhD), Centre for Neuromuscular and Neurological Disorders (Perron Institute) (Prof G J Hankey MD), Dental School (O Kujan PhD), School of Biomedical Sciences (Prof L Wang PhD), The University of Western Australia, Perth, WA, Australia; Information and Communication Technology Research Pole (Lab-STICC) (Prof A Al-Jumaily PhD), ENSTA Bretagne, Brest, France; Department of Public Health and Community Medicine (Prof S M Aljunid PhD, Prof C T Sreeramareddy MD), International Medical University, Kuala Lumpur, Malaysia; International Centre for Casemix and Clinical Coding (Prof S M Aljunid PhD), National University of Malaysia, Bandar Tun Razak, Malaysia; College of Life Sciences (Prof A Alkhatib PhD, D Islam PhD), Birmingham City University, Birmingham, UK; Department of Biological Sciences and Chemistry (DBSC) (Prof M H Alkhatib PhD, S A Gilani PhD, Prof J Hussain PhD, Z Naureen PhD), Natural and Medical Sciences Research Center (A Khan PhD, S Shahid MPhil, A Ullah MS), School of Pharmacy (A K Philip PhD), University of Nizwa, Nizwa, Oman; Cardiovascular Division (M Alkhawam MD), University of Alabama, Birmingham, AL, USA; Tabriz University of Medical Sciences (A Allahbakhshian PhD), Department of Immunology (F Jadidi-Niaragh PhD), School of Management and Medical Informatics (L R Kalankesh PhD), Faculty of Nursing and Midwifery (Prof M Mirghafourvand PhD), Social Determinants of Health Research Center (Prof S Mohammad-Alizadeh-Charandabi PhD), Midwifery Department (Prof S Mohammad-Alizadeh-Charandabi PhD), Department of Pharmaceutics (R Mohammadzadeh PharmD), Neurosciences Research Center (NSRC) (R Mosaddeghi Heris MD), Student Research Committee (R Mosaddeghi Heris MD), Department of Geriatric Health (F Naddafi PhD), Infectious and Tropical Diseases Research Center (L Rahbarnia PhD), Iranian Research Center for Evidence-based Medicine (F Sadeghi-Ghyassi PhD), Drug Applied Research Center (H Samadi Kafil PhD), Tabriz University of Medical Sciences, Tabriz, Iran; Faculty of Medicine (Prof M Z Allouh PhD, Prof M S I Alyahya PhD, R M Odat MD), Department of Physical Therapy and Rehabilitation Sciences (Prof M A Alomari PhD), Department of Rehabilitation Sciences and Physical Therapy (Prof M A Alomari PhD), Department of Allied Medical Sciences (A Alrawashdeh PhD), Department of Rehabilitation Sciences (M Al-Wardat PhD), Department of Clinical Pharmacy (Prof K H Alzoubi PhD), Department of Public Health (Prof Y S Khader PhD), Jordan University of Science and Technology, Irbid, Jordan; Faculty of Nursing (W T Almagharbeh PhD), Nursing Faculty (K A Alnawafleh PhD), Prince Fahad bin Sultan Chair for Biomedical Research (S Muthupandian PhD), University of Tabuk, Tabuk, Saudi Arabia (S Muthupandian PhD); Department of Cardiology, Heart, Vascular, and Thoracic Institute (Prof W Almahmeed MD), Department of Urology (O Almidani MSc), Research Department (N Dababo MD), Department of Cardiac Surgery (Prof L Göbölös PhD), Cleveland Clinic Abu Dhabi, Abu Dhabi, United Arab Emirates; Independent Consultant, Amman, Jordan (S Al-Marwani MSc); Department of Parasitology (Prof H M Al-Mekhlafi PhD), Department of Paediatrics (Prof H Ariffin PhD), University of Malaya Medical Centre (Prof H Ariffin PhD), Centre for Population Health (CePH), Department of Social and Preventive Medicine, Faculty of Medicine (M Htay PhD), University of Malaya, Kuala Lumpur, Malaysia; Department of Parasitology (Prof H M Al-Mekhlafi PhD), Sana'a University, Sana'a, Yemen;

Ophthalmology Department (A Almobayed MD), Neurology Department (F Mahmoudi MD), Department of Ophthalmology (S Rouzbahani MD), University of Miami, Miami, FL, USA; School of Public Health (M Alocious Sukumar MPH), SRM Institute of Science and Technology, Chennai, India; Faculty of Nursing (M R Alostha PhD), Department of Nursing (A H Khalifeh PhD), Zarqa University, Zarqa, Jordan; Department of Respiratory Care (J S Alqahtani PhD), Prince Sultan Military College of Health Sciences, Dammam, Saudi Arabia; Division of Gastroenterology and Hepatology (S A Alqahtani MD), Weill Cornell Medicine, New York, NY, USA; American University of the Middle East, Egaila, Kuwait (M R Alqudimat PhD); Department of Nursing (I Alrimawi PhD), Department of Medicine (M Hemmati MD, C J Sabet MA), Georgetown University, Washington, DC, USA; Macro-Fiscal Policy Department (S M Alrousan PhD), Ministry of Finance, Dubai, United Arab Emirates; Jaber Al Ahmad Al Sabah Hospital (S K Al-Sabah MD), Ministry of Health, Kuwait, Kuwait; Department of Emergency Medicine (M A Alsabri MD), Sana'a University, Sanaa, Yemen; Pediatric Emergency Medicine Department (M A Alsabri MD), Department of Biochemistry (M Chakkere Shivamadhu PhD), Drexel Dornsife School of Public Health (E Ezenwankwo MPH), School of Biomedical Engineering, Science and Health Systems (M Noroozi BSc), Drexel University, Philadelphia, PA, USA; Department of Medical Rehabilitation Sciences (M A Alshehri PhD), Department of Clinical Pharmacology and Toxicology (H Alwafi PhD), Department of Microbiology and Parasitology (A Hafiz PhD), Umm Al-Qura University, Makkah, Saudi Arabia; Institute of Molecular Biology and Biotechnology (A Altaf PhD, S J Awan PhD, M Khan PhD, T Maqbool PhD, S Shahid PhD), University College of Medicine & Dentistry (Prof M Arooj PhD), University Institute of Food Science and Technology (S Bashir PhD), University Institute of Radiological Sciences and Medical Imaging Technology (Prof Z Fatima PhD), University Institute of Diet and Nutritional Sciences (A Khalil PhD), University Institute of Public Health (F Malik PhD, S Nargus PhD), Department of Technology (M Muzaffar MBA), Research Centre for Health Sciences (RCHS) (M Muzaffar MBA, S Shahid PhD, M Umar** MBA), Department of Physics (W Shahid PhD), Lahore Business School (M Umar** MBA), Faculty of Sciences (Prof A B Waqar PhD), The University of Lahore, Lahore, Pakistan (M A Riaz Mcom); Faculty of Health Sciences (A Altaf PhD), Equator University of Science and Technology, Uganda, Masaka, Uganda; Research, Policy, and Training Directorate (A B Al-Tammemi MPH), Jordan Center for Disease Control, Amman, Jordan; Department of Specialty Internal Medicine (Prof J A Al-Tawfiq MD), Johns Hopkins Aramco Healthcare, Dhahran, Saudi Arabia; Department of Medicine (Prof J A Al-Tawfiq MD), Indiana University School of Medicine, Indianapolis, IN, USA; Faculty of Health Sciences (J Alvarez-Galvez PhD), University of Cadiz, Cadiz, Spain; School of Sciences (V Alves Carneiro PhD), Life and Health Sciences Research Institute (ICVS) (Prof N Cruz-Martins PhD), University of Minho, Braga, Portugal; Research Group in Health Economics (Prof N Alvis-Guzman PhD), Universidad de Cartagena (University of Cartagena), Cartagena, Colombia; Research Group in Hospital Management and Health Policies (Prof N Alvis-Guzman PhD), Department of Economic Sciences (N J Alvis-Zakzuk MSc), Universidad de la Costa (University of the Coast), Barranquilla, Colombia; National Health Observatory (N J Alvis-Zakzuk MSc), National Institute of Health, Bogota, Colombia; Department of Medical Sciences (Prof Y M Al-Worafi PhD), Azal University for Human Development, Sana'a, Yemen; Department of Clinical Sciences (Prof Y M Al-Worafi PhD), University of Science and Technology of Fujairah, Fujairah, United Arab Emirates; Institute of Public Health (A AlZahmi PhD), United Arab Emirates University, Abu Dhabi, United Arab Emirates; Department of Physiotherapy (H Alzahrani PhD), Taif University, Taif, Saudi Arabia; Evaluation Unit (U A Amaechi BDS), Global Alliance for Vaccines and Immunisations, Geneva, Switzerland; London School of Hygiene and Tropical Medicine (E J Amafah MSc), UCL Institute for Global Health (Prof S Jaffar PhD), University of London, London, UK; Global Health Advocacy Incubator (GHAI) (J Amafah MPH), University of Central

Nicaragua, Washington, DC, USA; Food and Beverages Safety Research Center (M Aman Mohammadi PhD), School of Medicine (A Haghtalab MD, P Mokhtarzadehazar MD, S Poursaghary MD, S Soraneh MD), Maternal and Childhood Obesity Research Center (A Mokari-Yamchi PhD), Urmia University of Medical Sciences, Urmia, Iran; Isfahan Cardiovascular Research Institute, Heart Failure Research Center. (R Amani-Beni MD), Ophthalmology Department (P Bolourinejad MD), Heart Failure Research Center (B Darouei MD, S Najdaghi MD, D Narimani Davani MD), Department of Epidemiology and Biostatistics (Prof M Mansourian PhD), Environment Research Center (M Moazeni PhD), Department of Environmental Health Engineering (M Moazeni PhD), Department of Health Services Management (M Mohseni PhD), Neuroscience Research Center (S Najdaghi MD), Family and Prevention Medicine (R Rouzbahani MD), Department of Clinical Biochemistry (O Vakili PhD), Isfahan University of Medical Sciences, Isfahan, Iran; Department of Biomedical Science (Prof A K Amegah PhD), Department of Management (S E Ankomah PhD, S E Ankomah PhD), Department of Population and Health (J K Odoro PhD), Department of Health, Physical Education and Recreation (J Sarfo PhD), University of Cape Coast, Cape Coast, Ghana; Student Research Committee (B Amidi MD), Lorestan University of Medical Sciences, Khorramabad, Iran; Summer Program (Prof A Amin PhD), Biological Science Division (M Bayat Tork MD), Department of Public Health Sciences (A Jamal BS), Pritzker School of Medicine (Prof H Yao PhD), University of Chicago, Chicago, IL, USA (Prof J Wan PhD); Public Health and Community Medicine Department (Prof T T Amin MD), Department of Neurology (Prof A Hassan MD), Medical Microbiology and Immunology Department (H L Mowafy MD), Cairo University, Cairo, Egypt; Department of Radiology and Radiological Science (A Amindarolzari MD), Department of Sociology, Anthropology, and Public Health (C Park DrPH), University of Maryland, Baltimore, MD, USA; Department of Health and Management Sciences (S Amini PhD), Operating Room Department (A Sedigh PhD), Khomein University of Medical Sciences, Khomein, Iran; Gastrointestinal and Liver Diseases Research Center (E Amini-Salehi MD, F Joukar PhD, M Keivanlou MD), Gastrointestinal and Liver Disease Research Center (B Eftekhari MD), Department of Social Medicine and Epidemiology (A Feizkhah MD), Department of Environmental Health Engineering (J Jaafari PhD), Caspian Digestive Disease Research Center (F Joukar PhD), Department of Medical-Surgical Nursing (S Karkhah MSc), Department of Medicine (A Khalili MD), Burn and Regenerative Medicine Research Center (Prof M Mobayen MD), Medical Biotechnology Research Center (M YektaKooshali PhD), Guilan University of Medical Sciences, Rasht, Iran; School of Pharmacy (N Aminu PhD), Department of Internal Medicine (G M Rwegera MD), University of Botswana, Gaborone, Botswana; Spiritual Health Research Center (S Amiri PhD), Nephrology and Urology Research Center (K Hushmandi PhD), Baqiyatallah University of Medical Sciences, Tehran, Iran; Department of Health and Wellbeing (D A Amugsi PhD), African Population and Health Research Center, Nairobi, Kenya; Center for Biomedical Image Computing & Analytics (F Anagnostakis MD), Penn Medicine (S K Khokhar PhD), Population Studies Center (W Li PhD), Center for Global Health (K Ma DDS), Department of Biostatistics, Epidemiology, and Informatics (J Puvvula PhD), University of Pennsylvania, Philadelphia, PA, USA; Dipartimento di Scienze Mediche e Chirurgiche (M Bergami PhD), Department of Medical and Surgical Sciences (Prof R Bugiardini MD, Prof A F G Cicero PhD, M Sassano MD, Prof F S Violante MD), Dipartimento di Scienze Biomediche e Neuromotorie (DIBINEM) (F Esposito MD), Medical and Surgical Sciences Department (F Fogacci MDc), Department of Biomedical and Neuromotor Sciences (A Mazzotti PhD, F Sanmarchi MD), Department of Medicine and Surgery (I Papadimopoulos MD), University of Bologna, Bologna, Italy (F Anagnostakis MD); Department of General Medicine (R A Ananda MD), Eastern Health, Box Hill, VIC, Australia; Faculty of Pharmacy (Prof R Ancuceanu PhD), Department of Internal Medicine (M Hostiuic PhD), Department of Legal Medicine and Bioethics (Prof S Hostiuic PhD),

Department of Dermatology (C N Matei PhD, M Tampa PhD), Department of General Surgery (I Negoii PhD), Department of Anatomy and Embryology (R I Negoii PhD), Carol Davila University of Medicine and Pharmacy, Bucharest, Romania; Neurology Department (D Anderlini MD), Royal Brisbane and Women's Hospital, Brisbane, QLD, Australia; Department of Medicine (S Androudi PhD), Faculty of Medicine (O J Okesanya MPH), University of Thessaly, Volos, Greece; Department of Environmental and Occupational Health (S C Anenberg PhD), Milken Institute of Public Health (B K Bekele MPH), Department of Global Health (R S Bernstein MD), School of Engineering and Applied Science (A Gerami Matin PhD), George Washington University, Washington, DC, USA; Department of Internal Medicine (S Ang MD), Rutgers University, Toms River, NJ, USA; Sarver Heart Center (S Ang MD), College of medicine (M Asadi Anar MD), Department of Internal Medicine (H Pham MD), University of Arizona, Tucson, AZ, USA; School of Health and Related Research (C Angus MSc), Department of Infection and Tropical Medicine (O C Durojaiye MPH), School of Medicine and Population Health (N S George MPH), Sheffield Centre for Health and Related Research (J O Oguta MSc), University of Sheffield, Sheffield, UK; Department of General Medicine (N Anh MD), Thai Binh University of Medicine and Pharmacy in Vietnam, Thai Binh City, Vietnam; Department of Public Health (K Annadurai PhD), The Apollo University, Chittoor, India; Department of Physiotherapy (S Ansari PhD, M Sidiq PhD), Galgotias Multidisciplinary Research & Development Cell (M Sidiq PhD), Galgotias University, Greater Noida, India; Pharmacy Department, Critical Care (U Ansari PharmD), Cleveland Clinic Abu Dhabi, Abu Dhabi, United Arab Emirates; Department of Public Health (R M Anteneh MPH, M T Asemu MSc), Midwifery Department (Y A Goshu MSc), Debre Tabor University, Debre Tabor, Ethiopia; Environment and Health over the Lifecourse Programme (Prof J M Antó MD), Barcelona Institute for Global Health, Barcelona, Spain (Prof D Rasella PhD); Department of Experimental and Health Sciences (Prof J M Antó MD), Pompeu Fabra University, Barcelona, Spain; Agribusiness Study Program (E Antriyandarti DrAgrSc), Sebelas Maret University, Surakarta, Indonesia; School of Chemical and Life Sciences (SCLS) (S Anwar PhD), Jamia Hamdard, New Delhi, India; Department of Surgery (S Anwar PhD), Department of Pharmacology (I Fitriana PhD), Department of Medical Surgical Nursing (A L Wicaksana PhD), Gadjah Mada University, Yogyakarta, Indonesia; Department of Pathology (R Anwer PhD), Department of Pharmacology (T Jawaid PhD), Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia; Department of Rehabilitation Sciences (S Anwer PhD, K Cheung MSc, W P Kwong PhD, J S Usman PhD), Department of Biomedical Engineering (A Jor MSc), Hong Kong Polytechnic University, Hong Kong, China; Rural Health Research Institute (A E Anyasodor PhD, Prof J Sun PhD), Charles Sturt University, Orange, NSW, Australia; School of Medicine and Public Health (G C Apostol MD), Center for Research and Innovation (V F Pepito MSc), Ateneo De Manila University, Pasig City, Philippines; Inter-Agency Committee on Environmental Health (G C Apostol MD), Department of Health Philippines, Manila, Philippines; Division of Gastroenterology, Hepatology, and Nutrition (J Arab MD), Division of Infectious Diseases (P R Ching MD), Virginia Commonwealth University, Richmond, VA, USA; Gastroenterology Department (J Arab MD), Department of Gastroenterology (L Diaz MD), Departamento de Gastroenterologia (Department of Gastroenterology) (F J Idalsoaga MD), Pontifical Catholic University of Chile, Santiago, Chile; Geneva University Hospital (H Arabi PhD), University of Geneva, Geneva, Switzerland; College of Pharmacy (M Arafat PhD), Al Ain University, Abu Dhabi, United Arab Emirates; College of Art and Science (D Areda PhD), Ottawa University, Surprise, AZ, USA; School of Life Sciences (D Areda PhD), Arizona State University, Tempe, AZ, USA; Care in Long Term Conditions Research Division (J Arias de la Torre PhD), Institute of Psychiatry, Psychology & Neuroscience (D Urso MD), School of Life Course and Population Sciences (Prof Y Wang PhD), King's College London, London, UK; CIBER Epidemiology and Public Health (CIBERESP), Madrid,

Spain (J Arias de la Torre PhD); Department of Cardiovascular, Endocrine-Metabolic Diseases and Aging (B Armocida MD), Istituto Superiore di Sanità (ISS), Rome, Italy; School of Health and Social Studies (Prof J Ärnlov PhD), Dalarna University, Falun, Sweden; Department of Biotechnology (Prof J Arockiaraj PhD, T Sundaram PhD), SRM Medical College Hospital and Research Centre (J James MD), Division of Medical Research (R Janardhanan PhD), Sri Ramaswamy Memorial Institute of Science and Technology, Kattankulathur, India; Institute for Biomedical Problems (A A Artamonov PhD), Russian Academy of Sciences, Moscow, Russia; Division of Epidemiology (K D Artanti DrPH), Advanced Nursing Department (Prof F Efendi PhD), Department of Epidemiology Population Biostatistics and Health Promotion (A Hargono PhD), Department of Advanced Nursing (E M M Has PhD), Department of Fundamental Nursing (R Pradipta MS), Department of Biology (Prof H Purnobasuki PhD), Faculty of Public Health (D A Syaiful MGPH), Universitas Airlangga (Airlangga University), Surabaya, Indonesia; Wake Forest University, Winston Salem, NC, USA (R T Aruleba PhD); Department of Periodontics (D Arumuganainar PhD), Department of Prosthodontics (D Ganapathy PhD), Department of Oral Medicine and Periodontology (Prof R D Jayasinghe MS), Saveetha Medical College and Hospital (Prof M Karobari PhD), Saveetha Dental College and Hospitals (G Minervini PhD, M Selvamani PhD, M Tovani-Palone PhD, M Yuwanati MDS), Department of Biomaterials, Saveetha Dental College and Hospitals, SIMATS (N Rabiee PhD), Department of Biochemistry (P Royapuram Parthasarathy PhD), Center for Global Health Research (Prof A Sahebkar PhD), Department of Microbiology (S Sankar PhD), Department of Pharmacology (S Sekaran PhD), Centre for Global Health Research (R Thiruvengadam PhD), Centre for Biosciences and Biotechnology (B Venkidasamy PhD), Saveetha University, Chennai, India; Department of Clinical Disciplines (N Aryntayeva MSPH), кафедра (Z M Aumoldaeva MSc), Department of Clinical Subjects (A Kurmanova MD), Al Farabi Kazakh National University, Almaty, Kazakhstan; Department of Community Medicine and Global Health (M Asaduzzaman MPH, Prof E Bjertness PhD), University of Oslo, Oslo, Norway; Department of Pharmacy Practice (Prof S Asdaq PhD), College of Medicine (M Fareed PhD), AlMaarefa University, Riyadh, Saudi Arabia (Prof A Dutta PhD); National Agency for Strategic Research in Medical Education (NASRME) (Prof S Asgary MSc), Ministry of Health and Medical Education, Tehran, Iran; Cabrini Research (Prof M Asghari-Jafarabadi PhD), Cabrini Health, Malvern, VIC, Australia; Pioneer Journal of Biostatistics and Medical Research (PJBMR), Pakistan, Pakistan (T Ashraf PhD); Department of Radiation Oncology (M Ashrafizadeh DVM), Shandong University, Shandong, China; School of Health and Social Development (B K Y Asiamah-Asare PhD), School of Exercise and Nutrition Sciences (N Subedi PhD), Deakin University, Melbourne, VIC, Australia; School of Traditional Chinese Medicine (M Aslam PhD), Xiamen University Malaysia, Sepang, Malaysia; Nursing Department (Y Asri PhD), Faculty of Health Science (Y Asri PhD), Institute of Technology and Health Science RS dr Soepraoen, Malang, Indonesia; Birjand University of Medical Sciences, Birjand, Iran (M Ataei PharmD); Hospital and Research Centre (S R Atre PhD), Dr. D. Y. Patil Vidyapeeth Pune (Deemed to be University), Pune, India; Department of Forensic Medicine (A Atreya MD), Department of Community Medicine (S Nepal MD), Lumbini Medical College, Palpa, Nepal; College of Medicine (Prof Z A Atwan PhD), University of Basrah, Basrah, Iraq; School of Business (Prof M Ausloos PhD), Department of Health Sciences (Prof T Brugha MD, S J Tromans PhD), Diabetes Research Centre (E Vounzoulaki PhD), University of Leicester, Leicester, UK; Department of Statistics and Econometrics (Prof M Ausloos PhD, Prof C Herteliu PhD, A Otoiu PhD), Faculty of Management (A Dima PhD), Management Department (Prof I Popa PhD, Prof S Ștefan PhD), Department of Economics and Economic Policies (Prof A Serban PhD), Bucharest University of Economic Studies, Bucharest, Romania; Robarts Research Institute (A Avan MD), School of Physical Therapy (A Lawan PhD), The University of Western Ontario, London, ON, Canada; Department of Physiotherapy (N C P Avelar

DSc), Department of Physiotherapy (I J C Schneider PhD), Federal University of Santa Catarina, Araranguá, Brazil; Department of Public Health (L A A Ayana MPH), Department of Pharmacy (G Fekadu PhD), Department of Nursing (L Gurmessa MSc), Wollega University, Nekemte, Ethiopia; Psychiatry Department (O O Ayinde MD), Pharmacy Department (E T Fasusi MSc), Department of Community Medicine (O S Ilesanmi PhD), Department of Neurology (O V Olalusi MD), Department of Pharmaceutical Services (F Opara BPharm), Department of Medicine (Prof M O Owolabi DrM), University College Hospital, Ibadan, Ibadan, Nigeria; Medicinal Chemistry Unit (Y O Ayipo PhD), Kwara State University, Malete, Ilorin, Nigeria; Centre for Drug Research (Y O Ayipo PhD), Universiti Sains Malaysia, Pinang, Malaysia; Laboratory Sciences Department (D Azadi PhD), Arak University of Medical Sciences, Khomein, Iran; Miami Cardiovascular Institute (M Azhar MD), Baptist Health South Florida, Inc, Miami, FL, USA; Department of Psychiatry (F Azimi MD), Iranian Research Center on Aging (V Rashedi PhD), University of Social Welfare and Rehabilitation Sciences, Tehran, Iran; Department of Anesthesia (S A Aziz PhD), Cihan University -Sulaimaniya, Sulaymaniyah, Iraq; Department of Basic Sciences (S A Aziz PhD), College of Science (Prof K H Hama Aziz PhD, F M Rahman PhD), University of Sulaimani, Sulaymaniyah, Iraq; ASIDE Healthcare, Lewes, DE, USA (A Y Azzam MD); Faculty of Medicine (A Y Azzam MD), October 6 University, 6th of October City, Egypt; Geriatric Unit (D Azzolino PhD), Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy; Community Medicine Department (Z S Babandi MD), Department of Community Medicine (Prof T Dahiru MA, A A Olorukooba MD, A G Suleiman MPH, S S Umar FWACS), Department of Obstetrics and Gynaecology (B K Lawal MSc), Health Systems and Policy Research Unit (Prof S Mohammed PhD), Department of Surgery (M Tolani FWACS), Ahmadu Bello University, Zaria, Nigeria; Physiology department (R Babiker PhD), RAK Medical and Health Sciences University, Ras Alkhaimah, United Arab Emirates; Directorate of Quality Assurance (M Badar PhD), Gomal University, Dera Ismail Khan, Pakistan; Department of Forensic Science (A D Badiye PhD, N Kapoor PhD), Government Institute of Forensic Science Nagpur, Nagpur, India; Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, India (A D Badiye PhD); Department of Clinical Pathology (Prof A A Badran MD, Prof M Elshaer PhD), Clinical Pathology Department (Prof M El Sayed Zaki PhD), Department of Anatomy and Embryology (M A Eladl PhD), Department of Toxicology (Prof S Elkannishy PhD), Department of Cardiology (Prof M M Ramadan PhD), Faculty of Pharmacy (Prof M A Saleh PhD), Rheumatology and Immunology Unit (Prof S Tharwat MD), Faculty of Nursing (M Zoromba PhD), Mansoura University, Mansoura, Egypt; Microbiology Department (Prof A A Badran MD), Horus University Egypt, Damietta, Egypt; Department of Precision Medicine (Y Bae MD, Prof S Lee MD), Department of Integrative Biotechnology (N Pham MS), Sungkyunkwan University, Suwon, South Korea; Department of Pediatrics (Prof A Bagga DSc, J Meena DM), Centre for Community Medicine (P Halder MD), Department of Biophysics (T Mohammad PhD), Medical Oncology Lab (C P Prasad PhD), Centre for Dental Education and Research (H Priya MDS, B M Purohit MDS), Department of Psychiatry (Prof R Sagar MD), Department of Radiation Oncology (A Shankar MD), All India Institute of Medical Sciences, New Delhi, India; Department of Orthopedics (S Baghdadi MD), University of California Los Angeles, Los Angeles, CA, USA; Orthopedic Institute for Children, Los Angeles, CA, USA (S Baghdadi MD); Dental Material Research Center (S Baghizadeh DDS), Department of Biology, Science and Research Branch (P Kheirandish Zarandi PhD), Islamic Azad University, Tehran, Iran (M Zaghampour MD); College of Optometry (R Bahreini MS), Pacific University, Forest Grove, OR, USA; Clinical Research Center (Prof R Bai MD), Nanjing Children's Hospital, Nanjing, China; International Medical School (A A Baig PhD), Management and Science University, Alam, Malaysia; Department of Forensic Medicine and Toxicology (S M Bakkannavar MD), Department of Pharmacology (S Gangachannaiah MD, A Parida MD), Kasturba Medical College,

Mangalore (R Holla MD, M Rao MD), Prasanna School of Public Health (R Kamath MHA), Kasturba Medical College, Manipal (P L C MD, J P Raj DM, Prof S Shastry MD), Manipal College of Pharmaceutical Sciences (P M Muragundi PhD), Department of Nephrology (Prof S Nagaraju DM, Prof A Prabhu DM), Manipal College of Nursing (S Nayak PhD), Department of Microbiology (P Y Prakash PhD), Manipal College of Dental Sciences (Prof R A Radhakrishnan PhD), Department of Community Medicine (C R Rao MD), Department of Physiotherapy (M K Sinha PhD), Kasturba Medical College (D Upadhy PhD), Manipal Academy of Higher Education, Manipal, India (Prof V Jha MD); TIRR Memorial Hermann, Houston, TX, USA (A T Bako PhD); Division of Biological Sciences (S Balakrishnan PhD), Tamil Nadu State Council for Science and Technology, Chennai, India; Chen Senior Medical Center, Tamarac, FL, USA (M Balkis MD); Anahuac Business School (J Balmori-de-la-Miyar PhD), Universidad Anahuac Mexico, Mexico City, Mexico; Department of Epidemiology and Biostatistics (M Balooch Hasankhani PhD), Department of Biostatistics and Epidemiology (P Dehesh PhD), Physiology Research Center (M Rajizadeh PhD), Kerman University of Medical Sciences, Kerman, Iran; College of Medicine (Prof O Baltatu PhD), Alfaisal University, Riyadh, Saudi Arabia; Center of Innovation, Technology and Education (CITE) (Prof O Baltatu PhD), Anhemi Morumbi University, São José dos Campos, Brazil; Department of Hypertension (Prof M Banach PhD), Medical University of Lodz, Lodz, Poland; Polish Mothers' Memorial Hospital Research Institute, Lodz, Poland (Prof M Banach PhD); Department of Non-communicable Diseases (P C Banik MPhil, L Barua MPH), Bangladesh University of Health Sciences, Dhaka, Bangladesh; Department of Anatomy (S Barati PhD), Department of Nursing and Midwifery (M Saeedi PhD), Saveh University of Medical Sciences, Saveh, Iran; School of Psychology (Prof S L Barker-Collo PhD), University of Auckland, Auckland, New Zealand; Department of Public and Environmental Health (A Barrow MPH), University of The Gambia, Banjul, The Gambia; Department of Epidemiology (A Barrow MPH, D Braithwaite PhD), Department of Health Services Research, Management and Policy (R Wang PhD), University of Florida, Gainesville, FL, USA; Heidelberg Institute of Global Health (HIGH) (S Barteit PhD, S Chen DSc, Prof S Mohammed PhD), Department of Ophthalmology (S Panda-Jonas MD), Heidelberg University, Heidelberg, Germany; Department of Community and Family Medicine (M Bashar MD, S G MD, V J MD, V Rajendran MD), All India Institute of Medical Sciences, Gorakhpur, India; Alpha Genomics Private Limited, Islamabad, Pakistan (Z Basharat PhD); Department of General Surgery and Medical-Surgical Specialties (Prof G Basile MD, Prof G Isola PhD), Department of Medical and Surgical Sciences and Advanced Technologies "GF Ingrassia" (C G Chisari MD, Prof E D'Amico MD, V Grieco MD, Prof M Veroux PhD), Department of Clinical and Experimental Medicine (Prof C Ledda PhD), University of Catania, Catania, Italy; Department of Community Medicine (P Baskaran MD), Sri Manakula Vinayagar Medical College and Hospital, Puducherry, Puducherry, India; ISGlobal Instituto de Salud Global de Barcelona (Barcelona Institute for Global Health) (Prof Q Bassat MD), Universitat de Barcelona, Barcelona, Spain; Catalan Institution for Research and Advanced Studies (ICREA), Barcelona, Spain (Prof Q Bassat MD); School of Public Health (S Basu PhD, Y Hbid PhD, Q Ong MD), The George Institute for Global Health (T Beaney PhD, Prof S Yaya PhD), Department of Brain Sciences (L D'Anna PhD), UK Dementia Research Institute Care Research & Technology Centre (Y Hbid PhD), WHO Collaborating Centre for Public Health Education and Training (Q Lin MPH, D L Rawaf MD), Department of Primary Care and Public Health (Prof A Majeed MD, R Palladino MD, Prof S Rawaf MD, C Tabche MSc, L Tudor Car PhD), Imperial College London, London, UK; Department of Community Medicine (S Basu MD), Employees State Insurance-Post Graduate Institute of Medical Sciences and Research, Kolkata, India; Department of Medical Education (K Batra PhD), Department of Social and Behavioral Health (Prof M Sharma PhD), University of Nevada Las Vegas, Las Vegas, NV, USA; Department of Psychiatry (Prof B T Baune PhD), University of Münster,

Münster, Germany; Department of Psychiatry (Prof B T Baune PhD), Melbourne Medical School, Melbourne, VIC, Australia; Epidemiology and Biostatistics (F S Bayisa MPH), Department of Public Health (S D Darcho MPH), School of Pharmacy (A S Mohammed BA), School of Public Health (A Oumer PhD), Haramaya University, Harar, Ethiopia; School of Public Health (Prof N Bedi MD), Dr. D. Y. Patil University, Mumbai, India; Clinical Nutrition Department (R M Chandika PhD), Epidemiology Program (M Khan MD), Department of Prosthetic Dental Sciences (K A Mattoo MD), Department of Public Health (A Mehmood PhD, W Rehman MS, F Sobia PhD), College of Nursing and Health Sciences (S N Qurashi PhD), Jazan University, Jazan, Saudi Arabia (Prof N Bedi MD); Department of Human Anatomy and Histology (Prof N Beeraka PhD), Department of Epidemiology and Evidence-Based Medicine (P D Lopukhov PhD, R V Polibin PhD), I.M. Sechenov First Moscow State Medical University, Moscow, Russia; Department of Community and Family Medicine (P Behera MD), Department of Pharmacology (Prof R Maiti MD, A Mishra DM), Department of Psychiatry (A Parmar DM), All India Institute of Medical Sciences, Bhubaneswar, India; Avicenna Biotech Research, Germantown, MD, USA (B Behnam MD); Department of Regulatory Affairs (B Behnam MD), Amarex Clinical Research, Germantown, MD, USA; Endocrinology and Metabolism Research Institute (H Farrokhpour MD), Quantitative Department (K Gohari MS, A Sheidaei PhD), Department of Epidemiology (S Khanmohammadi MD), Non-Communicable Diseases Research Center (NCDRC), Tehran, Iran (A Behnoush BS, A Golestani MD); Department of Public Health (M Belayneh PhD), Institute for Social and Health Sciences (Prof L Laflamme PhD), University of South Africa, Pretoria, South Africa; Department of Midwifery (A C Belete MSc, T S Hadaro MSc), Department of Public Health (T Mekene Meto MPH), Arba Minch University, Arba Minch, Ethiopia; Department of Medicine and Surgery (M Belingheri MD, A La Vecchia MD), University of Milan Bicocca, Milan, Italy; Direzione Sanitaria (M Belingheri MD), Fondazione IRCCS San Gerardo dei Tintori, Monza, Italy; Infectious Disease Research Department (M B Bello PhD), Medical Genomics Research Department (Prof M Umair PhD), King Abdullah International Medical Research Center, Riyadh, Saudi Arabia; Department of Biological Sciences (Prof L Belo PhD), Research Unit on Applied Molecular Biosciences (UCIBIO) (Prof L Belo PhD, Prof D Dias da Silva PhD, J Silva PhD), Research Centre for Physical Activity, Health, and Leisure (L Bohn PhD), Institute for Research and Innovation in Health (i3S) (Prof N Cruz-Martins PhD), MEDCIDS, Faculty of Medicine of the University of Porto (A Freitas PhD), Faculty of Medicine (J R Rocha-Gomes MD), Faculty of Pharmacy (M Vojtek PhD), University of Porto, Porto, Portugal; Department of Biomedical Sciences (Prof A Beloukas PhD), National AIDS Reference Center of Southern Greece (Prof A Beloukas PhD), University of West Attica, Athens, Greece; Department of Industrial Engineering (Prof S Bendak PhD), School of Business Administration (Prof V Bodolica PhD), American University of Sharjah, Sharjah, United Arab Emirates; Department of Epidemiology and Psychosocial Research (C Benjet PhD), Department of Epidemiology and Psychosocial Research (R A Gutiérrez PhD), Ramón de la Fuente Muñiz National Institute of Psychiatry, Mexico City, Mexico; Department of Internal Medicine (I M Bensor PhD), Department of Psychiatry (Prof J Castaldelli-Maia PhD, A Caye PhD, Y Wang PhD), Heart Institute (P M Dourado PhD), Center for Clinical and Epidemiological Research (A B Oliveira PhD), University of São Paulo, São Paulo, Brazil (L H C C Santos MSc); BRAC James P Grant School of Public Health (S Bente Kamal Tune MPH), Centre for Noncommunicable Diseases and Nutrition (R Gupta MPH), Pharmacy (M A Haque PhD), School of Pharmacy (M Islam PhD), BRAC University, Dhaka, Bangladesh; Department of Epidemiology and Health Promotion (Prof H Benzian PhD), Department of Child and Adolescent Psychiatry (Prof S Cortese PhD), Institute for Excellence in Health Equity (M Kumar PhD), Rory Meyers College of Nursing (X Qi PhD), New York University, New York, NY, USA; Institute of Marketing and Communication Sciences (Z Berezvai PhD), Corvinus University of Budapest, Budapest, Hungary;

Department of Epidemiology and Biostatistics (A C Bermudez PhD), Department of Environmental and Occupational Health (C M Estrada PhD), Department of Health Policy and Administration (E A Faraon MD, Prof F B Garcia PhD), Department of Neurosciences (Prof R G Jamora PhD), University of the Philippines Manila, Manila, Philippines; Institute of Dentistry (Prof E Bernabe PhD), Barts and the London School of Medicine and Dentistry, London, UK; Hubert Department of Global Health (R S Bernstein MD), Rollins School of Public Health (Prof D A Sleet PhD), Emory University, Atlanta, GA, USA; Faculty of Medicine (P J G Bettencourt PhD), Universidade Católica Portuguesa (Catholic University of Portugal), Sintra, Portugal; Center for Interdisciplinary Research in Health (CIIS) (P J G Bettencourt PhD), Universidade Católica Portuguesa (Catholic University of Portugal), Lisbon, Portugal; Department of Community and Family Medicine (A S Bhadoria MD), All India Institute of Medical Sciences, Rishikesh, India; Community Health Department (A S Bhadoria MD), University of South Wales, South Wales, UK; Department of Public Health (A S Bhagavathula PhD), North Dakota State University, Fargo, ND, USA; Institute of Applied Health Research (N Bhala PhD), Department of Applied Health Sciences (Prof J S Chandan PhD), NIHR Global Health Research Unit on Global Surgery (S K Kamarajah MD), Department of Metabolism and Systems Science (S Tariq PhD), University of Birmingham, Birmingham, UK; Department of Medicine (R Bharadwaj PhD), Department of Neurology (B S Srichawla MD), University of Massachusetts Medical School, Worcester, MA, USA; Global Health Neurology Lab (S Bhaskar MD), NSW Brain Clot Bank, Sydney, NSW, Australia; Division of Cerebrovascular Medicine and Neurology (S Bhaskar MD), National Cerebral and Cardiovascular Center, Suita, Japan; Manipal College of Health Professions (A Bhat MSPT), Kasturba Medical College, Manipal (S Koulmane Laxminarayana MD), Manipal College of Nursing (R Yesodharan MPhil), Manipal Academy of Higher Education, Udupi, India; Department of Medicine (V Bhat MBBS), SUNY Upstate Medical University, Syracuse, NY, USA; Translational and Clinical Research Institute (P Bhattacharjee MD), Newcastle University, Newcastle upon Tyne, UK; School of Sport & Health Sciences (S Bhattacharjee MPH), University of Brighton, Brighton, UK; Department of Public Health Research (S Bhattacharjee MPH), Bengal Rural Welfare Service (BRWS), Kolkata, India; Department of Medical Lab Technology (Prof G K Bhatti PhD), University Centre for Research and Development (S Kalra DM), Chandigarh University, Mohali, India; Laboratory of Translational Medicine and Nanotherapeutics (Prof J S Bhatti PhD), Department of Microbiology (P K Kushawaha PhD, M Yadav PhD), Department of Human Genetics and Molecular Medicine (Prof A Munshi PhD, U Sharma PhD), Department of Biochemistry (B Singh PhD), Department of Computer Science & Engineering (Prof S Singh PhD), Department of Zoology (B Vellingiri PhD), Central University of Punjab, Bathinda, India; Department of Botanical and Environmental Sciences (Prof M S Bhatti PhD), Department of Pharmaceutical Sciences (Prof R Bhatti PhD), Guru Nanak Dev University, Amritsar, India; Department of Health Administration (S S Bhuyan PhD), Institute for Health, Health Care Policy and Aging Research (S Rege PhD), Rutgers University, New Brunswick, NJ, USA; Independent Consultant, Addis Ababa, Ethiopia (S K Biadgilign PhD); Fondazione Banca Degli Occhi Del Veneto (R Bievel-Radulescu MD), Carol Davila University of Medicine and Pharmacy, Venice, Italy; TAF Uludag Winter Training Center (C Bilgin MD), Turkish Ministry of Defence, Bursa, Turkiye; Neurovascular Research Laboratory (C Bilgin MD), Mayo Clinic College of Medicine, Rochester, MN, USA; Department of Neurology (Prof A Biswas DM), Department of Endocrinology & Metabolism (Prof S Mukhopadhyay MD), Institute of Post-Graduate Medical Education and Research and Seth Sukhlal Karnani Memorial Hospital, Kolkata, India; Department of Community and Family Medicine (B Biswas MD), Department of Physiology (H Mondal MD), College of Nursing (S K Mudgal PhD), Department of Pharmacology (S T Y MD), All India Institute of Medical Sciences, Deoghar, India; Clinical Research Centre (R Biswas PhD), Sydney Local Health District,

Sydney, NSW, Australia; Department of Clinical Pharmacy (A Bitar PhD), Universiti Sultan Zainal Abidin, Besut, Malaysia; Health Biotechnology Directorate at Bio and Emerging Technology Institute (M Bitew PhD), School of Public Health (Prof G Davey MD), College of Health Sciences (F S Gebre MD, A M Zenebe MSc), Department of Reproductive, Family and Population Health (N A Kassaw MPH), Addis Ababa University, Addis Ababa, Ethiopia; Department of Physical Education and Health (B Bizzozero-Peroni PhD), Universidad de la República, Rivera, Uruguay; Department of Community and Family Medicine (Prof T Bodhare MD), All India Institute of Medical Sciences, Tamil Nadu, India; Department of Nutrition and Dietetics (M Bodur PhD), Faculty of Health Sciences Healthcare Management Department (M Çakmak Barsbay PhD), Ankara University, Ankara, Turkiye; Faculty of Psychology, Education, and Sport (L Bohn PhD), University Lusofona, Porto, Portugal; Global Healthcare Management (O A Bolarinwa PhD), York University, London, UK; Demography and Population Studies (O A Bolarinwa PhD), University of the Witwatersrand, Johannesburg, South Africa; Faculty of Medicine and Pharmaceutical Sciences (Prof A Bonny MD), University of Douala, Douala, Cameroon; Department of Cardiology (Prof A Bonny MD), Centre Hospitalier Montfermeil (Montfermeil Hospital Center), Montfermeil, France; General Directorate of Health Information Systems (B Bora Basara PhD), Ministry of Health, Ankara, Turkiye; Facultad de Salud (Faculty of Health) (Prof A Botero Carvajal PhD), Universidad Santiago de Cali, Cali, Colombia; Department of Medicine (Prof S Bouaoud DrPH), Faculty of Medicine (Prof A Ouyahia PhD), University Ferhat Abbas of Setif, Setif, Algeria; Department of Epidemiology and Preventive Medicine (Prof S Bouaoud DrPH), University Hospital Saadna Abdenour, Setif, Algeria; Vision and Eye Research Institute (Prof R R A Bourne FRCOphth), Anglia Ruskin University, Cambridge, UK; Department of Earth, Environment, and Equity (C Boxe PhD), Howard University, Washington, DC, USA; Faculty of Medicine (Prof M M Bozic PhD, I M Ilic PhD, Prof M M Santric-Milicevic PhD, A Stevanović MD), School of Public Health and Health Management (Prof M M Santric-Milicevic PhD), University of Belgrade, Belgrade, Serbia; Department Of Pathology (J Brahmaiah MD), Apollo Institute of Medical Sciences & Research Chittoor, Chittoor, India; Cancer Population Sciences Program (D Braithwaite PhD), University of Florida Health Cancer Center, Gainesville, FL, USA; School of Population and Public Health (Prof M Brauer DSc, P A Chakraborty MPH, M Hossain PhD, I O Iyamu MD), Department of Food, Nutrition and Health (M Jessri PhD), Department of Medicine (H Naik MS), School of Nursing (A Pashaei MSc), University of British Columbia, Vancouver, BC, Canada; Department of Psychiatry and Behavioral Health (Prof N J K Breitborde PhD), Department of Psychology (Prof N J K Breitborde PhD), Division of Cardiovascular Medicine (A Guha MD), Center for Tobacco Research (C Keke PhD), Ohio State University, Columbus, OH, USA; Division of Clinical Epidemiology and Aging Research (Prof H Brenner MD), German Cancer Research Center, Heidelberg, Germany; CEVAXIN, Panama City, Panama (G Britton PhD); Institute for Scientific Research and High Technology Services, Panama City, Panama (G Britton PhD); Department of Injury (J Brown PhD), The George Institute for Global Health, Newtown, NSW, Australia; The Malaria Atlas Project (A J Browne DPhil, S F Rumisha PhD), Geospatial Health and Development Team-Child Health Analytics (J Lubinda PhD), Child Health Analytics Research Program (F Sanna PhD, D J Weiss PhD), Telethon Kids Institute, Perth, WA, Australia; Hospital de Clínicas de Porto Alegre (C Buchweitz PhD), Department of Psychiatry (A Caye PhD), School of Medicine (N Feter PhD), Department of Social Medicine (R Mattiello PhD), Department of Psychiatry and Legal Medicine (Prof G A Salum PhD), Federal University of Rio Grande do Sul, Porto Alegre, Brazil; Child & Adolescent Research Program (C Buchweitz PhD), Programa de Depressão na Infância e na Adolescência, Porto Alegre, Brazil; College of Health Sciences (L P Bui PhD, T T Pham PhD, Prof D Poddighe PhD), VinUniversity, Hanoi, Vietnam; Research Advancement Consortium in Health, Hanoi, Vietnam (L P Bui PhD, T T Pham PhD); Department of

Woman and Child Health and Public Health (D Buonsenso MD), Fondazione Policlinico Universitario A. Gemelli IRCCS (Agostino Gemelli University Polyclinic IRCCS), Rome, Italy; Global Health Research Institute (D Buonsenso MD), Università Cattolica del Sacro Cuore (Catholic University of Sacred Heart), Rome, Italy; School of Nursing (A Burhan MSc), Universitas Harapan Bangsa (National Hope University), Banyumas, Indonesia; Department of Radiology (F Busch MD), Department of Public Health and Primary Care (M Dalakoti MPH, Prof P Willeit PhD), University of Cambridge, Cambridge, UK; Department of Health Care Management (Prof R Busse PhD), Technical University of Berlin, Berlin, Germany; School of Public Health Sciences (Z A Butt PhD), University of Waterloo, Waterloo, ON, Canada; Al Shifa School of Public Health (Z A Butt PhD), Al Shifa Trust Eye Hospital, Rawalpindi, Pakistan; JSS Dental College & Hospital (S C J MDS), Department of Respiratory Medicine (Prof M P A DNB), Department of Forensic Medicine and Toxicology (S Rani MD), Department of Oral and Maxillofacial Surgery (M S MDS, C S N PhD), Jagadguru Sri Shivarathreeswara University, Mysore, India; Department of Sociology (Prof T Cai PhD), University of Macau, Macau, China; The Children's Hospital at Westmead (R Cairns PhD), New South Wales Poisons Information Centre, Sydney, NSW, Australia; Department of Clinical Pharmacy (Prof D Calina PhD), University of Medicine and Pharmacy of Craiova, Craiova, Romania; Department of Internal and Geriatric Medicine (Prof L A Cámara MD), Hospital Italiano de Buenos Aires (Italian Hospital of Buenos Aires), Buenos Aires, Argentina; Board of Directors (Prof L A Cámara MD), Argentine Society of Medicine, Buenos Aires, Argentina; Center of Innovation, Technology and Education (CITE) (Prof L A Campos PhD), Anhembi Morumbi University, Sao Jose dos Campos, Brazil; Center for Nutrition and Health Research (I Campos-Nonato PhD), Public Health Intelligence Unit (Prof D Diaz PhD), Center for Health Systems Research (E Serván-Mori PhD), National Institute of Public Health, Cuernavaca, Mexico; Department of Ophthalmology (F Cao MD), Beijing Institute of Ophthalmology, Beijing, China; Department of Surgery (Y Cao MD), Peking Union Medical College Hospital (A Chen PhD), Fuwai Hospital (S Zhao MD), Chinese Academy of Medical Sciences, Beijing, China; Unit of Hygiene and Public Health (A Capodici MD), Romagna Local Health Authority, Forli-Cesena, Italy; Interdisciplinary Research Center for Health Science (A Capodici MD), Sant'Anna School of Advanced Studies, Pisa, Italy; Department of Health Care (Prof R Cárdenas DSc), Metropolitan Autonomous University, Mexico City, Mexico; Institute for Cancer Research, Prevention and Clinical Network, Florence, Italy (G Carreras PhD); Department of Medicine and Surgery (A Carugno PhD), University of Insubria, Varese, Italy; IMPInstitute for Mental and Physical Health and Clinical Translation (IMPACT) (A F Carvalho MD), School of Medicine (V Gupta PhD), Deakin University, Geelong, VIC, Australia; Education Center of Australia (A Carvalho-e-Silva PhD), Health Science College, Sydney, NSW, Australia; Public Health Department (C A Castañeda-Orjuela PhD), Epidemiology and Public Health Evaluation Group (C A Castañeda-Orjuela PhD), Department of Public Health (Prof F P De la Hoz PhD), National University of Colombia, Bogota, Colombia; Division of Country Health Policies and Systems (CPS) (G Castelpietra PhD), World Health Organisation, Trieste, Italy; Mental Health Flagship (G Castelpietra PhD), World Health Organization (WHO), Copenhagen, Denmark; Department of Pharmacological and Biomolecular Sciences (Prof A L Catapano PhD), IRCCS Istituto Ortopedico Galeazzi (Galeazzi Orthopedic Institute IRCCS) (G Damiani MD), Department of Clinical Sciences and Community Health (Prof C La Vecchia MD), Department of Food, Environmental and Nutritional Sciences (Prof D Martini PhD), University of Milan, Milan, Italy; MultiMedica Sesto San Giovanni IRCCS, Sesto San Giovanni, Italy (Prof A L Catapano PhD); Department of Otolaryngology, Head and Neck Surgery (C R Cederroth PhD), University of Tübingen, Tübingen, Germany; Department of Medical, Surgical, and Health Sciences (Prof L Cegolon PhD, Prof M D'Oria MD), University of Trieste, Trieste, Italy; Public Health Unit (Prof L Cegolon PhD), University Health Agency Giuliano-Isontina

(ASUGI), Trieste, Italy; Department of Nutrition (Prof F Cembranel DSc), Department of Physical Education (Prof D A S Silva PhD), Federal University of Santa Catarina, Florianópolis, Brazil; College of Public Health, Medical, and Veterinary Sciences (M Cenderadewi MPHTM, A E Peden PhD), Department of Public Health and Tropical Medicine (T I Emeto PhD), College of Medicine, Dentistry and Public Health (Prof R C Franklin PhD), James Cook University, Townsville, QLD, Australia; Department of Public Health (M Cenderadewi MPHTM), University of Mataram, Mataram, Indonesia; Mary MacKillop Institute for Health Research (Prof E Cerin PhD), Australian Catholic University, Melbourne, VIC, Australia; School of Public Health (Prof E Cerin PhD, C J P Zhang PhD), Department of Medicine (H Chou MSc), Centre for Suicide Research and Prevention (Prof P Yip PhD), Department of Social Work and Social Administration (Prof P Yip PhD), Department of Surgery (Y Zhan PhD), University of Hong Kong, Hong Kong, China; Institute of Clinical Physiology (S Cerrai MSc), Italian National Council of Research, Pisa, Italy; Infection and Global Health Research (M Cevik MD), University of St Andrews, St Andrews, UK; Regional Infectious Diseases Unit (M Cevik MD), NHS National Services Scotland, Edinburgh, UK; Department of Biotechnology (Prof C Chakraborty PhD), Adamas University, Kolkata, India; Institute for Skeletal Aging & Orthopedic Surgery (Prof C Chakraborty PhD), Hallym University, Chuncheon, South Korea; State Disease Investigation Laboratory (S Chakraborty MVSc), Animal Resources Development Department, Agartala, India; Department of Psychiatry (Prof M Chandradasa MD), Department of Pharmacology (Prof C D K Mettananda PhD), Department of Paediatrics (Prof S Mettananda DPhil), University of Kelaniya, Ragama, Sri Lanka; University Psychiatry Unit (Prof M Chandradasa MD), Clinical Medicine Department (Prof C D K Mettananda PhD), University Paediatrics Unit (Prof S Mettananda DPhil), Colombo North Teaching Hospital, Ragama, Sri Lanka; Department of Anesthesiology and Perioperative Medicine (E K Chandrasekar MD), School of Medicine (Prof S Xu PhD), University of Rochester, Rochester, NY, USA; College of Medicine (J Chang PhD), Institute of Epidemiology and Preventive Medicine (Y L Samodra PhD), National Taiwan University, Taipei, Taiwan; Department of Nursing (J Chang PhD), National Taiwan University Hospital, Taipei, Taiwan; Department of Epidemiology and Biostatistics (V Chattu PhD), Semey Medical University (SMU), Semey, Kazakhstan; Department of Community Medicine (V Chattu PhD), Datta Meghe Institute of Medical Sciences, Sawangi, India; Department of Endocrinology (V Chatzimavridou-Grigoriadou MD), Division of Immunology, Immunity to Infection and Respiratory Medicine (A G Mathioudakis PhD), Division of Psychology and Mental Health (M R Radojčić PhD), University of Manchester, Manchester, UK; Department of Endocrinology (V Chatzimavridou-Grigoriadou MD), Christie Hospital NHS Foundation Trust, Manchester, UK; Department of Public Health (S Chaudhuri MD), Indian Institute of Public Health, Hyderabad, India; Department of Oral Medicine and Radiology (Prof A Chaurasia MD), Department of Psychiatry (S K Kar MD), Department of Neurology (Prof H S Malhotra DM), Internal Medicine Department (J Tewari MBBS), King George's Medical University, Lucknow, India; EPI (G B Chemedo MPH), Oromia Health Bureau, Addis Ababa, Ethiopia; Hospital of Stomatology (G Chen PhD), Sun Yat-sen University, Guangzhou, China; Faculty of Humanities and Health Sciences (H Chen MSc), Curtin University, Miri, Malaysia; Clinical Research Center (H Chen PhD), Zhujiang Hospital of Southern Medical University, Guangzhou, China; Science and Technology Department (H Chen MMed), Northern Jiangsu People's Hospital, Yangzhou, China; Department of Urology (J Chen MSc), Academy of Medical Science, Kunming, China; School of Dentistry (M Chen DDS), Department of Family Medicine (T G James PhD), Management Science and Healthcare Analytics (O A Okoli MS), University of Michigan, Ann Arbor, MI, USA; Faculty of Epidemiology and Population Health (Prof S Chen PhD), Epidemiology Programme (A Hafiz PhD), Department of Non-Communicable Disease Epidemiology (M Iwagami PhD), Department of Health Services Research and Policy (Prof M McKee

DSc), Department of Non-communicable Disease Epidemiology (A Nur MPH), International Centre for Eye Health (A J Thirunavukarasu MA), London School of Hygiene & Tropical Medicine, London, UK; Department of Computer, Electrical and Mathematical Sciences and Engineering (X Chen MSc), Computer, Electrical, and Mathematical Sciences and Engineering Division (P Moraga PhD), King Abdullah University of Science and Technology, Thuwal, Saudi Arabia; Department of Cardiology (Y Chen PhD), Shanghai Jiao Tong University School of Medicine, Shanghai, China; School of Chinese Medicine (H Cheng BSc), Hong Kong Baptist University, Hong Kong, China; Yong Loo Lin School of Medicine (N W Chew MD, M Ng PhD, Prof H Z Sun PhD, Prof N Venketasubramanian MSc), Department of Medicine (B Chong MBBS), Cardiovascular Metabolic Translational Research Program (M Dalakoti MPH), Saw Swee Hock School of Public Health (S Ramazanu PhD, Prof S Yi PhD), Department of Surgery (K Tan PhD), National University of Singapore, Singapore, Singapore; Department of Laboratory Medicine (J Chien PhD), Taichung Tzu-Chi Hospital Buddhist Tzu-Chi Medical Foundation, Tansih, Taiwan; Department of Medical Laboratory Science and Biotechnology (J Chien PhD), Central Taiwan University of Science and Technology, Taiwan; Department of Public Health and Health Policy (O Chimed-Ochir PhD, I Khaing MPH), Department of Epidemiology (Z Phyto MD), Hiroshima University, Hiroshima, Japan; Department of Public Health, Administration, and Social Sciences (J L Chirinos-Caceres DrPH), Cayetano Heredia University, Lima, Peru; Department of Clinical Oncology (W C S Cho PhD), Queen Elizabeth Hospital, Hong Kong, China; Department of Public Health (M Chowdhury PhD), Asian University for Women, Chittagong, Bangladesh; Bispebjerg Hospital (Prof H Christensen DMSci), Department of Neurology (Prof T J Steiner PhD), University of Copenhagen, Copenhagen, Denmark; Department of Health Science and Technology (S W M Christensen PhD), Aalborg University, Aalborg, Denmark; Department of Physiotherapy (S W M Christensen PhD), University College of Northern Denmark, Aalborg, Denmark; The Interdisciplinary Research Group on Biomedicine and Health (D Chu PhD), VNU International School, Hanoi, Vietnam; Faculty of Applied Sciences (D Chu PhD), VNU International School (VNUIS), Hanoi, Vietnam; Department of Paediatric Surgery (I S Chukwu BMedSc), Federal Medical Centre, Umuahia, Nigeria; Department of AndroUrology (Prof E Chung MD), AndroUrology Centre, Brisbane, QLD, Australia; Health Data Research UK, London, UK (S Chung PhD); Department of Health Behavior (S Chung MPH), Texas A&M University, College Station, TX, USA; Adelaide Medical School (L G Ciobanu PhD, T K Gill PhD), University of Adelaide, Adelaide, SA, Australia; School of Pharmacy and Medical Sciences (L G Ciobanu PhD), The University of Adelaide (Y Damtew PhD), Department of Allied Health and Human Performance (T Y Tiruye PhD), University of South Australia, Adelaide, SA, Australia; Health Effects Institute, Boston, MA, USA (A J Cohen DSc); Nova Medical School (Prof J Conde PhD), National School of Public Health (M O Corda MSc), Nova University of Lisbon, Lisbon, Portugal; Department of Medicine (S E Congly MD), Faculty of Veterinary Medicine (M Jokar DVM), Cumming School of Medicine (M I Olatubi PhD), Department of Medicine (Prof M Tonelli MD), Department of Clinical Neurosciences (Prof S Wiebe MD), Department of Community Health Sciences (Prof S Wiebe MD), University of Calgary, Calgary, AB, Canada; Department of Cardiovascular Sciences (N Conrad PhD, A Schuermans BSc, J Van den Eynde BSc), Faculty of Medicine (A Schuermans BSc), Department of Abdominal Surgery (A Teymouri MD), Katholieke Universiteit Leuven, Leuven, Belgium; General Administration (S Conti PhD), Research Center on Public Health (CESP) (P Cortesi PhD), Center for Public Health Research (P Ferrara PhD), Department of Medicine and Surgery (C Fornari PhD), School of Medicine and Surgery (Prof L G Mantovani DSc), University of Milan Bicocca, Monza, Italy; Egas Moniz Center for Interdisciplinary Research (M O Corda MSc), Egas Moniz School of Health and Science, Almada, Portugal; Department of Respiratory Medicine and Allergology (Prof A Corlateanu PhD), Nicolae Testemitanu State University of Medicine and

Pharmacy, Chisinau, Moldova; School of Psychology (Prof S Cortese PhD), Centre for Innovation in Mental Health (M Garcia-Argibay PhD), Department of Surgery (G Verras MSc), University of Southampton, Southampton, UK; Laboratory of Public Health (P Cortesi PhD), Istituto Auxologico Italiano IRCCS (Italian Auxological Institute), Milan, Italy; Department of Health Sciences (C Cosma MD), Department of Statistics, Computer Science, Applications "G. Parenti" (DiSIA) (A Desta MSc), University of Florence, Florence, Italy; Department of Family Medicine and Public Health (Prof M H Criqui MD), University of California San Diego, La Jolla, CA, USA (L Diaz MD); School of Medicine (X Cui PhD), School of Data Science (J Zhou PhD), The Chinese University of Hong Kong, Shenzhen, Shenzhen, China; Faculty of Medicine (N Dababo MD), University of Aleppo, Aleppo, Syria; Research Center for Child Psychiatry (O Dadras PhD), Heart Center (V Kytö MD), University of Turku, Turku, Finland; Department of Health Statistics and Informatics (O Dadras PhD), Northern Territory Government, Darwin, WA, Australia; Institute for Health Sciences (Prof K Dalal PhD), Mid Sweden University, Sundsvall, Sweden; Department of Dermatology (G Damiani MD), Lerner College of Medicine (Prof L Göbölös PhD), Harrington Heart and Vascular Institute (A Guha MD), Department of Population and Quantitative Sciences (P Guttoo PhD), Department of Quantitative Health Science (Prof X Liu PhD), Department of Endocrinology (A Sood MD), Case Western Reserve University, Cleveland, OH, USA; Department of Community Medicine (R A Daniel MD, S Rajaa MD), Employees' State Insurance Model Hospital, Chennai, India; Department of Internal Medicine (P Danpanichkul MD), Texas Tech University, Lubbock, TX, USA; Department of Environmental Health (R Darvishi Cheshmeh Soltani PhD), Department of Nursing (A Jadidi PhD), Department of Pediatrics (J Nazari MD), Arak University of Medical Sciences, Arak, Iran; 2nd University Ophthalmology Department (A Dastiridou MD), 2nd Department of Cardiology (P Karakasis MD), Department of Ophthalmology (Prof A G P Konstas PhD), First Department of Ophthalmology (Prof G D Panos MD), Second Propedeutic Department of Internal Medicine (Prof D Patoulas PhD), Aristotle University of Thessaloniki, Thessaloniki, Greece; Ophthalmology Department (A Dastiridou MD), University of Thessaly, Greece; Department of Global Health and Infection (Prof G Davey MD), Brighton and Sussex Medical School, Brighton, UK; Department of Population and Development (C A Dávila-Cervantes PhD), Latin American Faculty of Social Sciences Mexico, Mexico City, Mexico; biomedical and nutritional sciences (E Davoudi PharmD), University of Massachusetts Lowell, Lowell, MA, USA; School of Health, Medical and Applied Sciences (K de Luca PhD), CQUniversity, Brisbane, QLD, Australia; Memorial Sloan Kettering Cancer Center (E Dee MD), Memorial Sloan Kettering Cancer Center, New York, NY, USA; Department of Pediatrics (S Deekonda MD), Brookdale University Hospital Medical Center, Brooklyn, NY, USA; Ophthalmology Department (M Delsoz MD), Department of Ophthalmology (A Nabavi MD), University of Tennessee, Memphis, TN, USA; Department of Neurosurgery (A K Demetriades MD), College of Medicine and Veterinary Medicine (G Verras MSc), University of Edinburgh, Edinburgh, UK; Department of Neurosurgery (A K Demetriades MD), National Health Service (NHS) Scotland, Edinburgh, UK; Dirección de Nutrición (E Denova-Gutiérrez DSc), Salvador Zubiran National Institute of Medical Sciences and Nutrition, Mexico City, Mexico; Research and Training Directorate (T N Derese MPH), Eka Kotebe General Hospital, Addis Ababa, Ethiopia; Department of Biological Sciences (I Dergaa PhD), University of Manouba, Manouba, Tunisia; Department of Social Sciences (I Dergaa PhD), University of Jendouba, El Kef, Tunisia; Department of Forensic Medicine (E Dervišević PhD), University of Sarajevo, Sarajevo, Bosnia and Herzegovina; Chettinad Hospital & Research Institute (Prof V Devanbu MD), Chettinad Academy of Research and Education, Chennai, India; Department of Cardiology (P Devarakonda MD), Department of Neurosurgery (K Margetis MD), Icahn School of Medicine at Mount Sinai, New York, NY, USA; Department of Pharmacy (S Dewan PhD), United International University,

Dhaka, Bangladesh; Pharmacology Division (S Dewan PhD), Center for Life Sciences Research Bangladesh, Dhaka, Bangladesh; Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK (A Dhali MBBS); Division of Pathology (K Dhama PhD), ICAR-Indian Veterinary Research Institute, Bareilly, India; Neurology Department Institute of Human Behavior and Allied Sciences (Prof R K Dhamija MD), University of Delhi, New Delhi, India; Research and Development Cell (A S Dhane MBA), Department of Oral Pathology and Microbiology (Prof G S Sarode PhD, Prof S C Sarode PhD), Dr. D. Y. Patil Vidyapeeth, Pune (Deemed to be University), Pune, India; Department of Zoology (N K Dhanial PhD), University of Delhi, Delhi, India; Research Department (M L Dhimal PhD), Planetary Health Research Centre, Kathmandu, Nepal; Institute of Occupational, Social and Environmental Medicine (M L Dhimal PhD, M Dhimal PhD), Goethe University, Frankfurt am Main, Germany; Research Department (M Dhimal PhD, S Ghimire MPH), Nepal Health Research Council, Kathmandu, Nepal; Department of Pharmacy Practice (S Dhingra PhD), National Institute of Pharmaceutical Education and Research Hajipur, Hajipur, India; Population Interventions Unit (B Dhungel DrPH), Department of Medicine (Prof F K Jebasingh DM), School of Health Sciences (A Meretoja MD), Melbourne School of Population and Global Health (M M Mittinty PhD, L Reifels PhD), University of Melbourne, Melbourne, VIC, Australia; Department of Life Science and Public Health (M Di Pumpo DrPH), Università Cattolica del Sacro Cuore (Catholic University of the Sacred Heart), Rome, Italy; Escola Superior de Saúde (Higher School of Health) (Prof D Dias da Silva PhD), Instituto Politécnico do Porto (Polytechnic Institute of Porto), Porto, Portugal; Department of Anesthesiology (K Didehvar MD), Rutgers University, Newark, NJ, USA; Department of Otolaryngology - Head and Neck Surgery (L K Dillard PhD), Medical University of South Carolina, Charleston, SC, USA; Joe C. Wen School of Population & Public Health (X Ding MA), University of California Irvine, Irvine, CA, USA; College of Health Sciences (H P Do PhD), VinUniversity, Ha Noi, Vietnam; Institute of Health Economics and Technology (iHEAT), Hanoi, Vietnam (H P Do PhD); Department of Medicine (T H P Do MD), Can Tho University of Medicine and Pharmacy, Can Tho, Vietnam; Department of Social Medicine and Health Care Organisation (Prof K G Dokova PhD), Medical University of Varna, Varna, Bulgaria; Mahidol Oxford Tropical Medicine Research Unit (C Dolecek PhD), Mahidol University, Bangkok, Thailand; Nuclear Medicine Department (F Dondi MD), ASST Spedali Civili di Brescia and Università degli Studi di Brescia, Brescia, Italy; Cardio-Thoraco-Vascular Department (Prof M D'Oria MD), Azienda Sanitaria Universitaria Giuliano Isontina, Trieste, Italy; Independent Consultant, Bridgewater, NJ, USA (O P Doshi MS); Clínica Pró Coração, São Paulo, Brazil (P M Dourado PhD); Department of Epidemiology (M Dresse MD), University of Pittsburgh, Pittsburgh, PA, USA; Department of Psychiatry (M Dresse MD), University of Pittsburgh Medical Center, Pittsburgh, PA, USA; Department of Medicine (A C Dsouza MBBS), Bangalore Medical College and Research Institute, Bangalore, India; Faculty of Health, Medicine and Life Sciences (FHML) (V S Dsouza MSc), Care and Public Health Research Institute (CAPHRI) (R Kamath MHA), Maastricht University, Maastricht, Netherlands; Department of Pathology (Prof J Du PhD), China Medical University, Liaoning, China; Office of Institutional Analysis (J Dube MA), University of Windsor, Windsor, ON, Canada; School of Sociology (E W Dumbili PhD), UCD Centre for Disability Studies (C Linehan PhD), University College Dublin, Dublin, Ireland; Postgraduate Program in Health Sciences (S C Dumith PhD), Federal University of Rio Grande do Sul, Rio Grande, Brazil; School of Medicine (Prof A R Duraes PhD), Institute of Collective Health (Prof D Rasella PhD), Federal University of Bahia, Salvador, Brazil; Department of Internal Medicine (Prof A R Duraes PhD), Escola Bahiana de Medicina e Saúde Pública (Bahiana School of Medicine and Public Health), Salvador, Brazil; Faculty of Science and Humanities (S Duraisamy PhD), SRM Institute of Science and Technology, Kattankulathur, India; Department of Conservative Dentistry with Endodontics (A M Dziedzic DSc), Medical University of Silesia, Katowice,

Poland; Department of Biological and Chemical Sciences (O Ebohon MPH), Michael and Cecilia Ibru University, Delta State, Nigeria; Department of Psychiatry (E Eboime PhD, E Tsermpini PhD), Department of Physics and Atmospheric Science (Prof R V Martin PhD), Dalhousie University, Halifax, NS, Canada; Department of Psychiatry (E Eboime PhD), Department of Medicine (E Lytvak MD), Faculty of Nursing (U Yunusa PhD), University of Alberta, Edmonton, AB, Canada; Histology Department (L L M Ebraheim PhD), Department of Animal Medicine (I Elsohaby PhD), Department of Pathology (Prof M M M Metwally PhD), Cardiovascular Department (Prof A M A Saad MD), Department of Microbiology and Immunology (G Yahya PhD), Zagazig University, Zagazig, Egypt (Prof M I Hussein PhD); Department of Public Health Science (H Xiao PhD), Fred Hutchinson Cancer Research Center, Seattle, WA, USA (A Ebrahimi MD); Environmental and Occupational Health Research Center (M Ebrahimi MD), Shahroud University of Medical Sciences, Shahroud, Iran; Higher School of Technology (Prof A Ed-Dra PhD), Sultan Moulay Slimane University, Beni Mellal, Morocco; Department of Zoology (E G Edelduok PhD), University of Uyo, Ikot Akpaden, Nigeria; School of Nursing and Midwifery (Prof K Edvardsson PhD), School of Nursing and Midwifery (E M M Has PhD), La Trobe University, Bundoora, VIC, Australia; La Trobe University, Melbourne, VIC, Australia (Prof F Efendi PhD); Semnan University of Medical Sciences and Health (F Ehsani PhD), Samara University, Semnan, Iran; Isenberg School of Management (A Eighaei Sedeh MD), University of Massachusetts Amherst, Amherst, MA, USA; Centre for Global Health Inequalities Research (CHAIN) (Prof T Eikemo PhD), Department of Neuromedicine and Movement Science (A K Husøy PhD, Prof T J Steiner PhD, Prof L J Stovner PhD), Department of Circulation and Medical Imaging (J Nauman PhD), Norwegian University of Science and Technology, Trondheim, Norway; Private Orthodontist, Ahvaz, Iran (E Eini MSD); Faculty of Science and Health (M Ekholuenetale PhD), University of Portsmouth, Hampshire, UK; Almoosa College of Health Sciences, Al Ahsa, Saudi Arabia (R A El Arab PhD); College of Medicine (Prof R Elbeshbeishy PhD), Department of Periodontics (N T Hashim PhD), Department of Pharmacology (S Srinivasamurthy MD), RAK Medical and Health Sciences University, Ras Al Khaimah, United Arab Emirates; Faculty of Medicine (Prof R Elbeshbeishy PhD), Department of Internal Medicine (Prof G M T ElGohary MD), Department of Neuropsychiatry (Prof G ELNahas MD), Biochemistry Department (Prof N M Hamdy PhD), Department of Entomology (A M Samy PhD), Medical Ain Shams Research Institute (MASRI) (A M Samy PhD), Neurology Department (Prof A S Shalash PhD), Ain Shams University, Cairo, Egypt; College of Medicine (M Elhadi MD, Prof S Jeong PhD), Department of Medicine (I R Fakhradiyev PhD), School of Health and Environmental Science (Prof J Kang PhD), Department of Health Policy and Management (Prof J Kim PhD), Department of Preventive Medicine (Prof Y Lee PhD), Korea University, Seoul, South Korea (Prof M Shin PhD); Houston Methodist Hospital, Houston, TX, USA (M Elhadi MD); National Institute of Public Health Research (M Elhoumed PhD), Ministry of Health, Nouakchott, Mauritania; Faculty of Applied Health Science (Prof S Elkannishy PhD), Horus University, New Damietta, Egypt; School of Pharmacy and Pharmaceutical Sciences (M Elnaem PhD), Ulster University, Coleraine, UK; Executive Committee (Prof G ELNahas MD), International Association for Women Mental Health, Potomac, MD, USA; Department of Infectious Diseases and Public Health (I Elsohaby PhD, G Fekadu PhD, Prof W Ming MD), Department of Biomedical Sciences (W Jin MD), City University of Hong Kong, Hong Kong, China; Faculty of Veterinary Medicine (Prof A S A Eltahawy PhD), Damanhour University, Damanhur, Egypt; Department of Midwifery (T Emagneneh MSc), Woldia University, Addis Ababa, Ethiopia; Health Research and Technology Transfer Directorate (M Endriyas MSc), South Ethiopia Region Public Health Institute, Jinka, Ethiopia; Department of Public Health (M Endriyas MSc), Department of Pathology (A M Nisro MD), Hawassa University, Hawassa, Ethiopia; Queensland Centre for Mental Health Research, Brisbane, QLD, Australia (H E Erskine PhD);

Department of Paediatrics (C I Esezobor MB), Department of Psychiatry (Prof A T Olagunju PhD), University of Lagos, Lagos, Nigeria; Department of Paediatrics (C I Esezobor MB), Lagos University Teaching Hospital, Lagos, Nigeria; Goba College of Medicine and Health Sciences (D Eshetu MSc), Madda Walabu University, Robe, Ethiopia; Wassa Amenfi East Municipal Health Directorate (G Eshun BSc), Ghana Health Service, Wassa Akropong, Ghana; Department of Bacteriology and Virology (M Eslami PhD), Semnan University of Medical Sciences, Semnan, Iran; Cancer Research Center (M Eslami PhD), Semnan University of Medical Sciences, Semnan, Iran; Department of Public Health (F Eva MPH), North South University, Dhaka, Bangladesh; Department of Anesthesia (A O Fadaka PhD), Cincinnati Children's Hospital Medical Center, Cincinnati, OH, USA; Department of Biotechnology (A O Fadaka PhD), School of Pharmacy (O C Okonji MSc), University of the Western Cape, Cape Town, South Africa; Department of Electrical and Computer Engineering (H Fadavian MSc), Department of Electrical and Computer Engineering (ECE) (Prof D Fathi PhD), Department of Biostatistics (K Gohari MS), Department of Bacteriology (M Mohammadi MSc), Department of Hematology (B Razi PhD), Tarbiat Modares University, Tehran, Iran; Research Centre for Healthcare and Community (A F Fagbamigbe PhD), Faculty of Health and Life Sciences (O P Kurmi PhD), Centre for Intelligent Healthcare (H Liu PhD), Coventry University, Coventry, UK; Department of Oral Biology (A Fahim PhD), Riphah International University, Islamabad, Pakistan (Z Z Piracha PhD); Department of Food Hygiene and Quality Control (A Fakhri-Demeshghieh PhD), School of Biotechnology (M Yeganeh PhD), University of Tehran, Tehran, Iran; Department of Public Health Sciences (Q Fan DrPH), Clemson University, Clemson, SC, USA; Saveetha Medical College and Hospital (M Fareed PhD), Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai, India; Division of Statistics (Z Farhana MS), Bangladesh Bank, Sylhet, Bangladesh; Environmental Statistics Unit (C S E S Farinha PhD), National Institute of Statistics, Lisbon, Portugal; Ecological Economics and Environmental Management (C S E S Farinha PhD), NOVA University of Lisbon, Lisbon, Portugal; Department of Psychology (A Faro PhD), Federal University of Sergipe, São Cristóvão, Brazil; Department of Radiography and Imaging Technology (S Farooq PhD), Department of Public Health (S Hameed PhD), Green International University, Lahore, Pakistan; Department of Family Medicine (U Farooque MD), Luton & Dunstable University Hospital, Luton, UK; Department of Clinical Psychology (M Faruk MSc), Department of Population Sciences (Prof M B Hossain PhD), University of Dhaka, Dhaka, Bangladesh; Community-based Inclusive Mental Health Department (M Faruk MSc), Centre for Disability in Development (CDD), Dhaka, Bangladesh; Department of Veterinary Tropical Diseases (Prof F O Fasina PhD), University of Pretoria, Pretoria, South Africa; Animal Production and Health Division (EMPRES) (Prof F O Fasina PhD), Food and Agriculture Organization of the United Nations, Rome, Italy; Charité University Berlin (M M Fasina MSc), Institute of Public Health (F Fischer PhD), Charité Medical University Berlin (Charité Universitätsmedizin Berlin), Berlin, Germany; Department of Chemistry and Biochemistry (E T Fasusi MSc), University System of Georgia, Statesboro, GA, USA; School of Engineering (A Fatehizadeh PhD), Edith Cowan University, Joondalup, WA, Australia; Department of Environmental Health Engineering (M Fazlzadeh PhD, M Vosoughi PhD), Department of Occupational Health and Safety Engineering (Prof M Poursadeqiyan PhD), Ardabil University of Medical Science, Ardabil, Iran; Department of Cardiovascular Surgery (Prof L Fei MD), Division of Gastroenterology (Prof Z Wu PhD), Tongji Medical College (G Xiao MD), Huazhong University of Science and Technology, Wuhan, China; National Institute for Stroke and Applied Neurosciences (Prof V L Feigin PhD), The National Institute for Stroke and Applied Neurosciences (I Rautalin PhD), Auckland University of Technology, Auckland, New Zealand; Third Department of Neurology (E V Gnedovskaya PhD), Research Center of Neurology, Moscow, Russia (Prof V L Feigin PhD, Prof M A Piradov DSc); Department of Urology (D Feng MD), The

First Affiliated Hospital of Zhejiang Chinese Medical University, Hangzhou, China; School of Acupuncture-Tuina (K Feng BA), First Clinical Medicine (W Li† BSc), School of Acupuncture-Tuina (L Sui MS), Shandong University of Traditional Chinese Medicine, Jinan, China; National Institute of Environmental Health (X Feng PhD), National Center for Chronic and Noncommunicable Disease Control and Prevention (P Ye PhD), Chinese Center for Disease Control and Prevention, Beijing, China; Department of Biomedical Engineering (T Ferdous MSc), Department of Decision and Information Sciences (M Hossain DrPH), Department of Biology and Biochemistry (S Ullah MSc), University of Houston, Houston, TX, USA; Division of Neurology (S Fereshtehnejad PhD), University Health Network (S Mirshahvalad MD), Dalla Lana School of Public Health (S Popova PhD), University of Toronto, Toronto, ON, Canada; Cardiovascular Health and Imaging Laboratory (R Fernandez-Jimenez PhD), Centro Nacional de Investigaciones Cardiovasculares (CNIC) (National Centre for Cardiovascular Disease Research), Madrid, Spain; Department of Cardiology (R Fernandez-Jimenez PhD), Hospital Clinico San Carlos, IdISSC, Madrid, Spain; Laboratory of Public Health (P Ferrara PhD, Prof L G Mantovani DSc), IRCCS Istituto Auxologico Italiano, Milan, Italy; West Moreton Hospital Health Services (A M Mantilla Herrera PhD), Queensland Centre for Mental Health Research, Wacol, QLD, Australia (A J Ferrari PhD, D F Santomauro PhD, J Shadid BSc, Prof H A Whiteford PhD); Ophthalmology (Prof A Ferreira PhD), Hospital Center of Porto, Porto, Portugal; Department of Social Sciences (Prof N Ferreira PhD, Prof M J M Sullman PhD), Department of Life and Health Sciences (Prof M J M Sullman PhD), University of Nicosia, Nicosia, Cyprus; Medical School (A Finnemore Dipl), Universidad de Navarra, Pamplona, Spain; Department of Cardiac, Thoracic, Vascular Sciences and Public Health (M Fonzo MD), University of Padova, Padova, Italy; Division of Pediatric Hematology-Oncology (L M Force MD), St. Jude Children's Research Hospital, Seattle, WA, USA; Department of Neurology, Public Health and Disability (A Fornari PhD), SC Neurologia, Salute Pubblica e Disabilità (Neurology, Public Health, Disability Unit) (M Leonardi MD), Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan, Italy; Department of Disease Burden (I Forthun PhD, C Madsen PhD, C Schwinger PhD), GBD Collaborating Unit (K Giannakis PhD, Prof S E Vollset DrPH), Centre for Disease Burden (A S Knudsen PhD), Norwegian Institute of Public Health, Bergen, Norway; Emilia-Romagna Region - Innovation in Healthcare and Social Services Department, Bologna, Italy (D Fortuna MSc); Department of Neuroscience (M Foschi MD), Multiple Sclerosis Research Center, Ravenna, Italy; Department of Biotechnological and Applied Clinical Sciences (M Foschi MD), University of L'Aquila, L'Aquila, Italy; Clinical Epidemiology Division (KEP) (K R Fowobaje PhD), Karolinska Institute, Stockholm, Sweden; Department of Microbiology and Parasitology (J Foyet F MSc, G Nchanji PhD), University of Buea, Buea, Cameroon; Center for Health Technology and Services Research (CINTESIS), Porto, Portugal (A Freitas PhD); Department of Biostatistics (J Fu MD, Prof X Gao PhD), Key Lab of Environment and Health (Prof X Gao PhD), School of Public Health (Y Huang PhD, Prof J Li PhD, P Li PhD, W Li§ PhD, Prof Z Qi PhD, Prof W Song PhD, F Wang PhD, Prof W Wang PhD, X Yang PhD, T Zhan PhD), Department of Epidemiology (D Yin DrPH), Xuzhou Medical University, Xuzhou, China (M Jiang PhD); Department of Pathology (Prof B Fux PhD), Department of Integrated Health Education (Prof L B Salaroli PhD), Federal University of Espirito Santo, Vitória, Brazil; Health Services Management Training Centre (Prof P A Gaal PhD, T Joo PhD, J Lám PhD, T Palicz MD), Institute of Digital Health Sciences (P Pollner PhD), Semmelweis University, Budapest, Hungary; Department of Applied Social Sciences (Prof P A Gaal PhD), Sapientia Hungarian University of Transylvania, Târgu-Mureş, Romania; School of Public Health (D Gadeka PhD), University of Ghana, Legon, Accra, Ghana; Department of Public Health (M Gajdács PhD), University of Szeged, Szeged, Hungary; Department of Food Technology (Y Galali ResM, B A Sadee PhD), Department of Statistics (Prof D H Kadir PhD), Department of Chemistry (H I M Amin PhD), Salahaddin University-

Erbil, Erbil, Iraq; Department of Nutrition and Dietetics (Y Galali ResM, B A Sadee PhD), Department of Medical Biochemical Analysis (A Ghandili PhD, H I M Amin PhD, Y Mirzaei PhD), Department of Business Administrations (Prof D H Kadir PhD), Cihan University-Erbil, Erbil, Iraq; Department of Medical Epidemiology (S Gallus PhD, A Lugo PhD), Mario Negri Institute for Pharmacological Research, Milan, Italy; Department of Endocrinology (Prof M Ganie MD), Department of Internal and Pulmonary Medicine (Prof P A Koul MD), Sheri Kashmir Institute of Medical Sciences, Srinagar, India; Department of Endocrinology and Metabolism (Prof M Ganie MD), All India Institute of Medical Sciences, Delhi, India; Clinical Nuclear Medicine Center (D Gao MS), Shanghai Tenth People's Hospital, Shanghai, China; Department of Nuclear Medicine (D Gao MS), Tongji University Tenth People's Hospital, Shanghai, China; Department of Public Health (B Garba PhD), SIMAD University Mogadishu, Somalia, Mogadishu, Somalia; School of Medicine (M Garcia-Argibay PhD), Orebro University, Orebro, Sweden; Department of Medicine (Prof D Garcia-Azorin MD), University of Valladolid, Valladolid, Spain; Department of Neurology (Prof D Garcia-Azorin MD), Hospital Universitario Rio Hortega, Valladolid, Spain; Infectious Diseases Unit (J Garlasco MD), University of Verona, Verona, Italy; Professional Services Division (P Gautam PhD), Texas State Board of Pharmacy, Austin, TX, USA; Department of Pharmacology (Prof R K Gautam PhD), IES Institute of Pharmacy, Bhopal, India; Independent Consultant, Rome, Italy (F Gazzelloni MSc); Department of Midwifery (M W Gebregergis MSc), School of Public Health (H G Gebreslassie MPH), Department of Epidemiology (M Mehari MPH), Department of Medical Laboratory Sciences (H N Meles MSc), Adigrat University, Adigrat, Ethiopia; Department of Neurosciences, Neurology and Stroke Unit (S Gelibter MD), Stroke Unit and Neurology Unit (G Schwarz MD), ASST Grande Ospedale Metropolitano Niguarda, Milan, Italy; Institute of Public Health (N S George MPH), Department of Health Economics and Social Security (K Kissimova-Skarbek PhD), Jagiellonian University Medical College, Krakow, Poland; Department of Public Health (G K Getahun MPH), Menelik II Medical and Health Science College, Addis Ababa, Ethiopia; Infectious Disease Research Center (Prof K Ghadiri MD), Pediatric Department (Prof K Ghadiri MD), Universal Scientific Education and Research Network (USERN) (P Goleij MSc), Research Center for Environmental Determinants of Health (Prof E Sadeghi PhD), Kermanshah University of Medical Sciences, Kermanshah, Iran; Research Committee of Qom University of Medical Sciences (A Ghamkhar BSc), Qom University of Medical Sciences, Qom, Iran; Department of Global Health Sciences (S Ghasemi Assl MD), Department of Epidemiology and Biostatistics (Prof K M Mehta DSc), Division of Cardiology (J Noubiap MD), Department of Neurosurgery (A Orselik MD, Y Senol MD), School of Nursing (J Ouner PhD), University of California San Francisco, San Francisco, CA, USA; School of Medicine (H Ghasrsaz MD), Mazandaran University of Medical Sciences, Mazandaran, Iran; Family and Community Medicine Department (R M Ghazy PhD), King Khalid University, Abha, Saudi Arabia; Research Group for Childhood Cancer (N Ghith PhD), Danish Cancer Research Institute, Copenhagen, Denmark; Department of Dermatology (N Gholizadeh MD, G Rahmatpour Rokni MD), Invasive Fungi Research Center (J Javidnia PhD), Department of Medical Mycology (J Javidnia PhD), Department of Medical-Surgical Nursing (S Shorofi PhD), Mazandaran University of Medical Sciences, Sari, Iran; Department of Epidemiology and Prevention (A Gialluisi PhD), IRCCS Neuromed, Pozzilli, Italy; Country Office (A U Gil PhD), World Health Organization (WHO), Astana, Kazakhstan; Department of Zoology (B R Giri PhD), KKS Women's College, Balasore, India; Department of Nursing (A A Girmay MSc), Aksum University, Aksum, Ethiopia; Department of Anesthesiology and Critical Care Medicine (A Girombelli MD), Ospedale SS Annunziata Savigliano, Savigliano, Italy; Department of Health Systems and Policy Research (Prof M Golechha PhD), Indian Institute of Public Health, Gandhinagar, India; Department of Genetics (P Goleij MSc), Sana Institute of Higher Education,

Sari, Iran; Department of Life Sciences, Health and Healthcare Professions (Prof D Golinelli MD), Link Campus University, Rome, Italy; Health Services Research, Evaluation and Policy Unit (Prof D Golinelli MD), AUSL della Romagna, Ravenna, Italy; Research Institute for Endocrine Sciences, Tehran, Iran (M Golmohammadi MD); Senior Department of Tuberculosis (Prof W Gong PhD), The Eighth Medical Center of PLA General Hospital, Beijing, China; Department of Epidemiology (Prof A C Goulart PhD), Universidade de São Paulo (University of São Paulo), São Paulo, Brazil; Department of Dermatology (A Grada MD), Case Western Reserve University, Libertyville, IL, USA; Liverpool Orthopaedic and Trauma Service (S Graham PhD), Institute of Population Health Sciences (M R Mathur PhD), University of Liverpool, Liverpool, UK; Department of Public Health and Preventive Medicine (Prof M Grivna PhD), Charles University, Prague, Czech Republic; Department of Epidemiology and Biostatistics (S Guan MD, Prof H Pan PhD), Department of Urology (C Mao MSc), Anhui Medical University, Hefei, China; Health Direction (G Guarducci MD), Local Health Authority of Ferrara, Ferrara, Italy; Department of Clinical Science (M I M Gubari PhD), University Of Sulaimani, Sulaimani, Iraq; Department of Community Medicine (D A Gunawardane MD, Prof S N K Navaratna MD), University of Peradeniya, Kandy, Sri Lanka; Department of Geriatric Neurology (X Guo PhD), Shaanxi Provincial People's Hospital, Xi'an, China; Division of Epidemiology (Z Guo PhD), Vanderbilt University Medical Center, Nashville, TN, USA; Nanyang Maternal and Child Health Care Hospital (Z Guo MPH), Nanyang Central Hospital, Nanyang, China; Department of Nephrology (A K Gupta PharmD), Max Super Specialty Hospital, New Delhi, India; Non-communicable Diseases Division (NCD) (A K Gupta PharmD), Indian Council of Medical Research, New Delhi, India (D K Lal MD, L Singh PhD); College of Medicine and Public Health (H Gupta PhD), Flinders University, Adelaide, VIC, Australia; Independent Consultant, Bharatpur, India (I Gupta MD); Independent Consultant, Delhi, India (I Gupta MD); Department of Anaesthesia (Prof L Gupta MD), Maulana Azad Medical College, New Delhi, India; Department of Preventive Cardiology & Medicine (Prof R Gupta MD), Eternal Heart Care Centre & Research Institute, Jaipur, India; Department of Medicine (Prof R Gupta MD), Mahatma Gandhi University Medical Sciences, Jaipur, India; Department of Toxicology (S Gupta PhD), Shriram Institute for Industrial Research, Delhi, India; School of Biotechnology (V Gupta PhD), Dublin City University, Dublin, Ireland; Department of Anthropology (V Gupta PhD), Deemed University, Delhi, India; Faculty of Health, Medicine and Life Sciences (FHML) (Prof V K Gupta PhD), Australian Institute of Health Innovation (P Peprah MSc), Macquarie University, Sydney, NSW, Australia; Doctoral Program in Biomedical Gerontology (R S Gutiérrez-Murillo PhD), Pontifical Catholic University of Rio Grande do Sul, Porto Alegre, Brazil; Research Unit in Epidemiology Clinic (J Guzman-Esquivel DSc), Mexican Institute of Social Security, Colima, Mexico; Neurosurgery Department (A Habibzadeh MD), Fasa University of Medical Sciences, Shiraz, Iran; College of Health Science (A Habteyes MPH), Dilla University, Dilla, Ethiopia; Department of Clinical Pharmacology and Medicine (Prof N R Hadi PhD), University of Kufa, Najaf, Iraq; School of Medicine (A Haghtalab MD), Hamedan University of Medical Sciences, Hamedan, Iran; Department of Community Medicine (P Halder MD, A KM MD), Department of Pharmacology (A K Kakkar MD), Department of Pediatrics (J Kumar MD), Post Graduate Institute of Medical Education and Research, Chandigarh, India; Department of Infectious Disease Epidemiology (S Haller MD), Robert Koch Institute, Berlin, Germany; Department of Public Health (S Haller MD), Charité Institute of Public Health, Berlin, Germany; Department of Pharmacy (Prof I M Hamad PhD), American University of Madaba, Amman, Jordan; Department of Family and Community Medicine (Prof R R Hamadeh PhD), College of Medicine and Health Sciences (H Jahrami PhD), Arabian Gulf University, Manama, Bahrain; Department of Medical and Technical Information Technology (A Hammoud PhD), Bauman Moscow State Technical University, Moscow, Russia; Guthrie Medical Group

(M Hamza MD), Guthrie Medical Group, Cortland, NY, USA; Edirne Public Health Center (D Han Yekdeş MD), Edirne Provincial Health Directorate, Edirne, Turkiye; Sakarya University, Sakarya, Turkiye (A Hanif PhD); Stroke Research Centre (Prof G J Hankey MD), Perron Institute for Neurological and Translational Science, Perth, WA, Australia; Department of Health and Education (F Hanna PhD), Torrens University Australia, Melbourne, VIC, Australia; Department of Population Science and Human Resource Development (Prof M Haque PhD, Prof M Rahman PhD, Prof M Rahman DrPH), Department of Physics (A Hossain PhD), University of Rajshahi, Rajshahi, Bangladesh; Medical Research Unit (H Harapan PhD), Universitas Syiah Kuala (Syiah Kuala University), Banda Aceh, Indonesia; Vital and Health Statistics (H L Harb MPH), Ministry of Health, Beirut, Lebanon; University of Nevada Reno, Reno, NV, USA (K L Harding PhD); Directorate General of Health Human Resources (A M A Hariandja DrPH), Center for Health System and Strategy (A Nur MPH), Ministry of Health, Jakarta, Indonesia; Research Unit (J M Haro MD), Parc Sanitari Sant Joan de Deu, Barcelona, Spain; Department of Mental Health (J M Haro MD), Carlos III Health Institute (Prof R Tabarés-Seisdedos PhD), Biomedical Research Networking Center for Mental Health Network (CiberSAM), Madrid, Spain; Faculty of Nursing (F Hasan PhD, D S Romadlon PhD), Chulalongkorn University, Bangkok, Thailand; Department of Health Research Methods, Evidence, and Impact (M Hasan MPH), Department of Medicine (O P Kurmi PhD), Department of Psychiatry and Behavioural Neurosciences (Prof A T Olagunju PhD), McMaster University, Hamilton, ON, Canada; Department of Biochemistry and Molecular Biology (M Hasan MPH), Tejgaon College, Dhaka, Bangladesh; Department of Medical Surgical (Prof A Hasanpour- Dehkordi PhD), Shahroud University of Medical Sciences, Shahrekord, Iran; Department of Biotechnology (A Hasnain PhD), Lahore University of Biological and Applied Sciences, Lahore, Pakistan; Department of Medicine (I Hassan MD), University of Khartoum Faculty of Medicine, Khartoum, Sudan; Department of Community Medicine (I Hassan PhD), Federal University Teaching Hospital, Lafia, Nigeria; Department of Epidemiology and Community Medicine (I Hassan PhD), Federal University of Lafia, Lafia, Nigeria; National Data Management Center (M Hassen MSc), Ethiopian Public Health Institute, Addis Ababa, Ethiopia; Department of Paediatrics (L W Hathagoda MD, Prof S Rajindrajith PhD), Postgraduate Institute of Medicine (A U Jayatilleke PhD, Prof S N K Navaratna MD, J Samaranyake MBBS), Department of Anatomy, Genetics and Biomedical Informatics (Y Mathangasinghe PhD), Department of Surgery (D P Wickramasinghe MD), University of Colombo, Colombo, Sri Lanka; Skaane University Hospital (R J Havmoeller PhD), Skaane County Council, Malmö, Sweden; Faculty of Medicine (A Hawat MD), Damascus University, Damascus, Syria; Institute of Pharmaceutical Sciences (K Hayat MS), University of Veterinary and Animal Sciences, Lahore, Pakistan; Department of Pharmacy Administration and Clinical Pharmacy (K Hayat MS), Xian Jiaotong University, Xian, China; Department of Neurosurgery (J He MD), Beijing Fengtai Hospital, Beijing, China; Faculty of Kinesiology (Prof J J Hebert PhD), University of New Brunswick, Fredericton, NB, Canada; School of Allied Health (Prof J J Hebert PhD), Murdoch University, Murdoch, WA, Australia; Community-Oriented Nursing Midwifery Research Center (M Heidari PhD), Department of Community Health (M Lotfizadeh PhD), Social Determinants of Health Research Center (M Lotfizadeh PhD), Modeling in Health Research Center (A Mohammadian-Hafshejani PhD), Department of Epidemiology and Biostatistics (H Raeisi Shahraki PhD), Shahrekord University of Medical Sciences, Shahrekord, Iran (S JamshidiRastabi MSc); Department of Medicine (M Hemmati MD), Internal Medicine Department (L Manjani MD), MedStar Health, Washington, DC, USA; Babes-Bolyai University, Cluj-Napoca, Romania (Prof C Herteliu PhD); Australian Centre for Health Service Innovations (S A Hewage MD), Australian Centre for Health Services Innovation (Prof S M McPhail PhD), International Laboratory for Air Quality and Health (Prof L Morawska PhD), Faculty of Science (M Sarmadi MSc), Queensland University of Technology, Brisbane, QLD, Australia;

Department of Virology (Z Heydarifard PhD), Lorestan University of Medical Sciences, Khorramabad, Iran; Department of Microbiology (K Hezam PhD), Faculty of Applied Sciences (E A Noman PhD), Taiz University, Taiz, Yemen; School of Medicine (K Hezam PhD), Nankai University, Tianjin, China; Graduate School of Medicine (Y Hiraike PhD), Department of Global Health Policy (S K Rauniyar PhD), University of Tokyo, Tokyo, Japan; Centre for Advancing Health Outcomes, Vancouver, BC, Canada (M Hossain PhD); Public Health Research Group (M Hossain DrPH), Nature Study Society of Bangladesh, Khulna, Bangladesh; Department of Statistics (M Hossain MSc, S Noor MS), Shahjalal University of Science and Technology, Sylhet, Bangladesh; School of Health and Society (Prof H Hosseinzadeh PhD), Faculty of Science, Medicine and Health (P A Saunders PhD), University of Wollongong, Wollongong, NSW, Australia; School of Engineering and Technology (Prof M Hosseinzadeh PhD), Faculty of Medicine (T Nguyen PhD), Duy Tan University, Da Nang, Vietnam; Jadara Research Center (Prof M Hosseinzadeh PhD), Jadara University, Irbid, Jordan; Department of Clinical Legal Medicine (Prof S Hostiu PhD), National Institute of Legal Medicine Mina Minovici, Bucharest, Romania; Department of Community Medicine (M Htay PhD), Manipal University College Malaysia, Melaka, Malaysia; Department of Psychological and Cognitive Sciences (C Hu PhD), Tsinghua Vanke School of Public Health (Z Li PhD), Vanke School of Public Health (Y Xia MD), Tsinghua University, Beijing, China; Maternal Care and Child Health Department (Prof Y Hu PhD), Department of Neurosurgery (S Wang MD), Capital Medical University, Beijing, China; Department of Otorhinolaryngology Head and Neck Surgery (W Huang PhD), School of Medicine (Z Li PhD), Shanghai Mental Health Center (Prof M R Phillips MD), Ruijin Hospital (S Xu MPH), School of Global Health (J Zheng PhD), Shanghai Jiao Tong University, Shanghai, China; Pediatric Nursing Department (M H Huda PhD), Faculty of Public Health (D Kusuma DSc, Prof I Trihandini PhD), Centre for Family Welfare (K Latief PhD), University of Indonesia, Depok, Indonesia; East Manggarai Regency Health Office (A I Human BSN), Ministry of Health, Borong, Indonesia; Department of Social Sciences and Business (Prof M Hussain PhD), Roskilde University, Roskilde, Denmark; Czech National Centre for Evidence-Based Healthcare and Knowledge Translation (S Hussain PhD), Institute of Biostatistics and Analyses (S Hussain PhD), Masaryk University, Brno, Czech Republic; Clinical Governance and Quality Improvement Head (D Hussein MPH), Salale University, Gerba Guracha, Ethiopia; Department of Biomolecular Sciences (Prof N R Hussein PhD), Department of Biology (K S Ibrahim PhD), Department of Biomedical Sciences (Prof I A Naqid PhD), University of Zakho, Zakho, Iraq; Artur Riggs Diabetes & Metabolism Research Institute (Prof M I Hussein PhD), Cancer Prevention and Research Institute, Duarte, CA, USA; International Master Program for Translational Science (H Huynh BS), School of Nursing (M Kurniasari PhD, I Rohmah MSN), Department of Global Health and Health Security (K Latief PhD), International Ph.D. Program in Medicine (M H N Le MD), Research Center for Artificial Intelligence in Medicine (M H N Le MD), International Ph.D. Program in Biotech and Healthcare Management (M Muhtar MBA), Graduate Institute of Biomedical Informatics (D N A Ningrum PhD), Taipei Medical University, Taipei, Taiwan; Department of Occupational Safety and Health (Prof B Hwang PhD), College of Public Health (R Lin PhD), China Medical University, Taiwan, Taichung, Taiwan; Department of Occupational Therapy (Prof B Hwang PhD), Asia University, Taiwan, Taichung, Taiwan; Department of Biomedical, Metabolic, and Neural Science (L F Iannone MD), University of Modena and Reggio Emilia, Modena, Italy; Gastroenterology and Hepatology (A Ibrahim MD), Alexandria University, Charleston, SC, USA; Genetics and Molecular Biology Department (R Ibrahim PhD), Abu Dhabi University, Abu Dhabi, United Arab Emirates; Department of Medicine (F J Idalsoaga MD), Western University, London, ON, Canada; Health Policy and Management Department (P M Iftikhar MD), City University of New York, New York, NY, USA; Center for Nutritional Epidemiology and Policy Research (N Ikeda PhD),

National Institutes of Biomedical Innovation, Health and Nutrition, Settsu, Japan; Collaborative Alliance Research and Education (CARE) Programme (A Ikiroma PhD), Episcopo Research Service, Aberdeen, Scotland; West Africa RCC (O S Ilesanmi PhD), Africa Centre for Disease Control and Prevention, Abuja, Nigeria; Faculty of Medical Sciences (Prof M D Ilic PhD), University of Kragujevac, Kragujevac, Serbia; Department of Clinical Pharmacy (M Imam PhD), College of Pharmacy (M Kamal PhD), Department of Computer and Self Development (A S Zamani PhD), College of Nursing (M Zoromba PhD), Prince Sattam bin Abdulaziz University, Al Kharj, Saudi Arabia; Department of Chemical Pathology (L C Imoh MPH), University of Jos, Jos, Nigeria; Department of Chemical Pathology (L C Imoh MPH), Jos University Teaching Hospital, Jos, Nigeria; Department of Health Research (L R Inbaraj MD), ICMR National Institute for Research in Tuberculosis, Chennai, India; Faculty of Health and Life Sciences (A Inok PhD), Living Systems Institute (Y Taheri Abkenar PharmD), University of Exeter, Exeter, UK; Department of Psychology (M Iqbal PhD), Department of Orthopedics (W Jin MD), Department of Epidemiology and Biostatistics (Prof S Mubarak PhD, Prof C Yu PhD), Wuhan University, Wuhan, China; Faculty of Pharmacy (L M Irham PhD), Faculty of Public Health (Prof S Solikhah DrPH), Universitas Ahmad Dahlan, Yogyakarta, Indonesia; Department of Biotechnology (M A Isa PhD), Sharda University, Greater Noida, India; Journal of Biological Sciences and Public Health, Dhaka, Bangladesh (D Islam PhD); Department of Surveillance and Health Equity Science (F Islami PhD), American Cancer Society, Atlanta, GA, USA; Clinical Laboratory Department (F Ismail PhD), Tobruk University, Tobruk, Libya; Department of Blood Transmitted Diseases (F Ismail PhD), National Centre for Disease Control (NCDC), Tobruk, Libya; Department of Clinical Pharmacy & Pharmacy Practice (Prof N E Ismail PhD), Asian Institute of Medicine, Science and Technology, Bedong, Malaysia; Malaysian Academy of Pharmacy, Puchong, Malaysia (Prof N E Ismail PhD); Public Health Department of Social Medicine (Prof H Iso MD), Osaka University, Suita, Japan; Department of Medicine (M C Ituka MD), Department of Internal Medicine and Specialties (J Nkeck MD), University of Yaoundé I, Yaounde, Cameroon; Department of Health Services Research (M Iwagami PhD), Department of Public Health Medicine (Prof K Yamagishi MD), University of Tsukuba, Tsukuba, Japan; Department of Global Health (C J Iwu-Jaja PhD), Cochrane South Africa (Prof C S Wiysonge MD), South African Medical Research Council, Cape Town, South Africa; Department of Global Health (C J Iwu-Jaja PhD, Prof P D Katoto PhD, Prof C S Wiysonge MD), Department of Epidemiology (J L Tamuzi MSc), Stellenbosch University, Cape Town, South Africa; Knowledge Translation Program (I O Iyamu MD), Centre for Health Evaluation and Outcome Sciences, Vancouver, BC, Canada; Department of Biotechnology (M Iyer PhD), Karpagam Academy of Higher Education, Coimbatore, India; Indian Institute of Public Health (V J Iyer MPH), Public Health Foundation of India, Gandhinagar, India; Department of Physical Medicine and Rehabilitation (L Jacob MD), Université Paris Cité, Paris, France; Research and Development Unit (L Jacob MD), Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain (R F Palma-Alvarez PhD); Department of Health Studies (K H Jacobsen PhD), University of Richmond, Richmond, VA, USA; Government Hospitals, Manama, Bahrain (H Jahrami PhD); Department of Health and Safety (A A Jairoun PhD), Dubai Municipality, Dubai, United Arab Emirates; Department of Research and Academic Affairs (V Jaiswal MD), Larkin Community Hospital, South Miami, FL, USA; Department of Medicine (V Jaiswal MD), AMA School of Medicine, Makati, Philippines; UNESCO-TWAS Section of Economic & Social Sciences, Humanities & Arts (Prof M Jakovljevic PhD), The World Academy of Sciences UNESCO-TWAS, Trieste, Italy; Shaanxi University of Technology, Hanzhong, China (Prof M Jakovljevic PhD); Department of Environmental Engineering (Prof R Jalilzadeh Yengejeh PhD), Islamic Azad University, Ahvaz, Iran; Department of Neurosurgery (M Jalloh MD), Division of Hematology and Oncology (J F Wu MD), Medical College of Wisconsin, Milwaukee, WI, USA;

Department of Primary Care Medicine (J Jamaluddin MMed), Universiti Malaya, Kuala Lumpur, Malaysia; Department of Public Health (S Jamil MPH, M Shimul MPH), Department of Development Studies (M Sohel MPH), Daffodil International University, Dhaka, Bangladesh; Department of Public and Community Health (S Jamil MPH), Frontier University Garowe, Puntland, Somalia; Institute for Neurosciences (Prof R G Jamora PhD), St. Luke's Medical Center, Bonifacio Global City, Philippines; Department of Stem Cells and Developmental Biology (E Jarrahi MSc), Royan Institution, Tehran, Iran; Department of Medicine (S Javaid MD), University of Mississippi Medical Center, Jackson, MS, USA; Department of Medicine (S Javaid MD), Jinnah Sindh Medical University, Karachi, Pakistan; Department of Nursing (Q Jawell Odah Abed PhD), Middle Technical University of Kut Technical Institute, Baghdad, Iraq; Department of Oral Medicine and Periodontology (Prof R D Jayasinghe MS, Y A Jayasinghe BSc), University of Peradeniya, Peradeniya, Sri Lanka; Department of Research (Y A Jayasinghe BSc, Prof K K Kanmodi MPH), University of Puthisastra, Phnom Penh, Cambodia; Faculty of Graduate Studies (A U Jayatilleke PhD), Institute for Violence and Injury Prevention, Colombo, Sri Lanka; Department of Endocrinology, Diabetes and Metabolism (Prof F K Jebasingh DM, Prof N Thomas PhD), Christian Medical College and Hospital (CMC), Vellore, India; Department of Epidemiology and Health Promotion (Prof S Jee PhD), Institute for Global Engagement & Empowerment (Prof S Oh PhD), Department of Pediatrics (Prof J Shin MD), Yonsei University, Seoul, South Korea; Department of Biotechnology (B Sharma PhD), Graphic Era (Deemed to be University), Dehradun, India (D Jena PhD); Department of Internal Medicine (B M Jeswani MBBS), GCS Medical College, Hospital & Research Centre, Ahmedabad, India; Research Division (Prof P K Maulik PhD), The George Institute for Global Health, New Delhi, India (Prof V Jha MD); Department of Public Health (Z Ji MD), School of Medicine (J Yu MD), Tongji University, Shanghai, China; Department of Radiology (W Jin MD), Department of Cardiology (B Zhang PhD), Zhongshan Hospital, Shanghai, China; Danish Center for Health Economics (E K Johnson MSc), Department of Sports Science and Clinical Biomechanics (Prof S T Skou PhD), University of Southern Denmark, Odense, Denmark; Rothschild Foundation Hospital (Prof J B Jonas MD), Institut Français de Myopie, Paris, France; Singapore Eye Research Institute, Singapore, Singapore (Prof J B Jonas MD); Hungarian Health Management Association, Budapest, Hungary (T Joo PhD, T Palicz MD); School of Public Health, (Prof A Joseph PhD), SRM Centre for Clinical Trials and Research (CCTR) (D Kumar PhD), Sri Ramaswamy Memorial Institute of Science and Technology (SRMIST), Chennai, India; Department of Economics (C E Joshua BSc), National Open University, Benin City, Nigeria; Department of Family Medicine and Public Health (J J Jozwiak PhD), University of Opole, Opole, Poland; Institute of Family Medicine and Public Health (M Jürisson PhD), University of Tartu, Tartu, Estonia; School of Public Health (M K MD), National Institute of Epidemiology, Chennai, India; Research Department (Z Kabir PhD), TobaccoFree Research Institute Ireland, Dublin, Ireland; School of Public Health (Z Kabir PhD), University College Cork, Cork, Ireland; Department of Health (K Kalavani PhD), Khoy Medical Sciences, Khoy, Iran; Department of Dermatology (F Kaliyadan MD), King Faisal University, Hofuf, Saudi Arabia; Research Institute of Cardiology and Internal Medicine, Almaty, Almaty, Kazakhstan (A Kaliyakparova MD); Department of Endocrinology (S Kalra DM), Bharti Hospital Karnal, Karnal, India; Canberra Business School (M M Kamal MPH), University of Canberra, Hawker, ACT, Australia; Department of Public Health (R T Kamorudeen MPH), South Wales University, Treforest, UK; Microbiology, Virology and Immunology Department (Prof O Kamyshnyi DSc), I. Horbachevsky Ternopil National Medical University, Ternopil, Ukraine; Department of Health Sciences (Prof M Kanaan PhD), University of York, York, UK; Office of the Executive Director (Prof K K Kanmodi MPH), Cephas Health Research Initiative Inc, Ibadan, Nigeria; MS Ramaiah Memorial Hospital (S Kannan MD), Ramaiah University of Applied Sciences, Bangalore, India; Department of Community Medicine (S

Kannan S MD), ESIC Medical College and Hospital Chennai, Chennai, India; The Hansjörg Wyss Department of Plastic and Reconstructive Surgery (R S Kantar MD), NYU Langone Health, New York, NY, USA; Cleft Lip and Palate Surgery Division (R S Kantar MD), Global Smile Foundation, Norwood, MA, USA; Amity Stem Cell Institute (ASCI) (Prof M K Kashyap PhD), Amity University Haryana, Gurugram, India; College of Health Science, Department of Public Health (A Kaso MPH), Arsi University, Asella, Ethiopia; Department of Medicine (A Katamreddy MD), Jacobi Medical Center, New York, NY, USA; Centre for Tropical Diseases and Global Health (Prof P D Katoto PhD), Catholic University of Bukavu, Bukavu, Democratic Republic of the Congo; Surgery Research Unit (Prof J H Kauppila MD), Oulu Business School (I Shiue PhD), Martti Ahtisaari Institute (I Shiue PhD), University of Oulu, Oulu, Finland; International Research Center of Excellence (G A Kayode PhD), Institute of Human Virology Nigeria, Abuja, Nigeria; Julius Centre for Health Sciences and Primary Care (G A Kayode PhD), Copernicus Institute of Sustainable Development (G Koren PhD), Utrecht University, Utrecht, Netherlands; Open, Distance and eLearning Campus (Prof P N Keiyoro PhD), Department of Psychiatry (M Kumar PhD), Department of Management Science and Project Planning (A W Ndungu PhD), Population Studies and Research Institute (A W Wamai MSc), School of Nursing Sciences (M N Wanjau PhD), University of Nairobi, Nairobi, Kenya; Eye Unit (Prof J H Kempen PhD), MyungSung Medical College, Addis Ababa, Ethiopia (A A Negash MD); Center of Global Child Health (S Kerai PhD), Department of Gastroenterology, Hepatology, and Nutrition (M K Thind PhD), The Hospital for Sick Children, Toronto, ON, Canada; Jindal School of Public Health and Human Development (V Keshri PhD), O. P. Jindal Global University, Sonapat, Sonapat, India; Department of Biomedical Informatics (K Keshtkar BSc), Arizona State University, Phoenix, AZ, USA; Department of Human Nutrition of INRAE (E Kesse-Guyot PhD), National Research Institute for Agriculture, Food and Environment, Paris, France; Department of Health, Medicine and Human Biology (M Touvier PhD), Sorbonne Paris Nord University, Bobigny, France (E Kesse-Guyot PhD); Amity Institute of Forensic Sciences (H Khajuria PhD, B P Nayak PhD), Amity Institute of Pharmacy (K Munjal PhD), Amity Institute of Public Health (M Shannawaz PhD), Amity Institute of Public Health and Hospital Administration (A Singh PhD), Amity Institute of Public Health and Hospital Administration (P S Singh PhD), Amity University, Noida, India; Lahore Medical Research Center (S Khalid PhD), Lahore Medical Research Center, Lahore, Pakistan; Faculty of Veterinary Medicine (H O Khalifa PhD), Kafrelsheikh University, Kafrelsheikh, Egypt; Department of Public Health (Prof M Khalis PhD), Mohammed VI Center for Research and Innovation, Rabat, Morocco; Higher Institute of Nursing Professions and Health Techniques, Rabat, Morocco (Prof M Khalis PhD); Food and Drug Research Center (F Khamesipour PhD), Iran Food and Drug Administration, Tehran, Iran; NITVAR (A Khan PhD), Indian Council of Medical Research, Pune, India; Academy of Scientific and Innovative Research (AcSIR), India, Ghaziabad, India (A Khan PhD); Department of Pharmacy Administration and Clinical Pharmacy (F U Khan PhD), School of Public Health (S Li MD, H Zhang PhD), Department of Epidemiology and Biostatistics (Prof J Liu PhD), Institute of Child and Adolescent Health (Y Liu MS, Prof Z Zou MD), School of Public Health and China Center for Health Developments (L Ren PhD), Peking University, Beijing, China; Department of Pharmacy Administration and Clinical Pharmacy (F U Khan PhD), The First Affiliated Hospital of Xi'an Jiaotong University, Xi'an, China; Department of Community Medicine (M Khan MPH), Department of Biostatistics (Prof M Rahman MS), National Institute of Preventive and Social Medicine, Dhaka, Bangladesh; BD Statistics Center for Research, Dhaka, Bangladesh (M Khan MPH); Karachi Medical and Dental College, Karachi, Pakistan (M Khan MBBS); Center for Atmospheric Particle Studies (CAPS) (M Khan MSc), Department of Mechanical Engineering (MechE) (M Khan MSc), Carnegie Mellon University, Pittsburgh, PA, USA; Aston Pharmacy School, College of Health and Life Sciences (M Khan PhD), Aston University, Birmingham, UK; Joint

Doctoral School (S A Khan MSc), Silesian University of Technology, Gliwice, Poland (R Khan PhD); Dr. Panjwani Center for Molecular Medicine & Drug Research (S A Khan MSc), International Center for Chemical and Biological Sciences (F Mansoor MS, S Ullah MSc), H.E.J. Research Institute of Chemistry (M Shahbaz MPH), University of Karachi, Karachi, Pakistan; International Center for Chemical and Biological Sciences (S Khan PhD), International Center for Chemical and Biological Sciences, Karachi, Pakistan; Department of Cardiology (Z Khan MD), University of South Wales, Treforest, UK; Department of Cardiology (Z Khan MD), University of Buckingham, Buckingham, UK; Central Department of zoology (S Khanal MSc), Department of Community Medicine and Public Health (P M S Pradhan MD), Tribhuvan University, Kathmandu, Nepal; Department of Health (V Khanal PhD), Nepal Development Society, Chitwan, Nepal; Department of Preventable Non Communicable Disease (V Khanal PhD), Menzies School of Health Research, Alice Springs, NT, Australia; Department of Pharmacology (S U Khasbage MD, P Thangaraju MD), All India Institute of Medical Sciences, Raipur, India; College of Health, Wellbeing and Life Sciences (Prof K Khatab PhD), Sheffield Hallam University, Sheffield, UK; College of Arts and Sciences (Prof K Khatab PhD), Ohio University, Zanesville, OH, USA; Department of Orthopaedics (K Khatri MS), Postgraduate Medical Institute, Sangrur, India; Asadabad School of Medical Sciences, Asadabad, Iran (A Khzaei PhD); University of Sulaimani College of Medicine (N S H Khoshnaw PhD), Sulaimani Polytechnic University, Sulaymaniyah, Iraq; Department of Internal Medicine (A A Khosla MD), Corewell Health East William Beaumont University Hospital, Royal Oak, MI, USA; Department of Medical Oncology (A A Khosla MD), Department of Medical and Surgical Oncology (A Pon Avudaiappan MD), Miami Cancer Institute, Miami, FL, USA; Research Department (M Khosrowjerdi PhD), University of Inland Norway, Elverum, Norway; Ashok & Rita Patel Institute of Physiotherapy (P Khuman PhD), Charotar University of Science and Technology, Changa, Anand, India; Faculty of Health Sciences (H Khusun PhD), University of Muhammadiyah Prof. Dr. Hamka, Jakarta, Indonesia; Program Division (H Khusun PhD), SEAMEO Regional Center for Food and Nutrition, Jakarta, Indonesia; Department of Biomedical Sciences (H Kim MS), Department of Psychiatry (W Myung PhD), Department of Food and Nutrition (A P Okeunle PhD), Seoul National University, Seoul, South Korea; Cardiovascular Disease Initiative (M Kim MD), Broad Institute of MIT and Harvard, Cambridge, MA, USA; Department of Environmental Health Sciences (Prof S Kim PhD), Soonchunhyang University, Asan, South Korea; Health and Healing Research, Education, and Service, Inc., Boston, MA, USA (R W Kimokoti MD); Millennium Prevention, Inc., Westwood, MA, USA (R W Kimokoti MD); The Pacific Community, Noumea, New Caledonia (Prof Y Kinfu PhD); School of Health Sciences (Prof A Kisa PhD), Kristiania University College, Oslo, Norway; Department of International Health and Sustainable Development (Prof A Kisa PhD), Department of Environmental Health Sciences (S P Sherchan PhD), Tulane University, New Orleans, LA, USA (E Lytvyak MD); Department of Nursing and Health Promotion (S Kisa PhD), Faculty of Health Sciences (Prof A W Wolf PhD), Oslo Metropolitan University, Oslo, Norway; Department of Public Health Dentistry (Prof S KM PhD), Krishna Vishwa Vidyapeeth (Deemed to be University), Karad, India; Endocrinology Department (Prof N Kobylak DSc), Bogomolets National Medical University, Kyiv, Ukraine; Scientific Department (Prof N Kobylak DSc), Medical Laboratory CSD, Kyiv, Ukraine; Global Healthcare Consulting, New Delhi, India (S Kochhar MD); Mycobacteriology Unit (D Kolioghu Tcheumeni MSc), Center for Health Promotion and Research, Bamenda, Cameroon; Department of Science and Environmental Studies (T Kormoker PhD), The Education University of Hong Kong, Hong Kong, China; Department of General Practice and Family Medicine (Prof O Korzh DSc), Kharkiv National Medical University, Kharkiv, Ukraine; Department of Epidemiology (Prof K Kostev PhD), IQVIA, Frankfurt am Main, Germany; University Hospital Marburg, Marburg, Germany (Prof K Kostev PhD); Department of Psychiatry (Prof K Kotsis PhD), University of

Ioannina, Ioannina, Greece; Amity Institute of Public Health and Hospital Administration (A Koul MHA), Amity University Noida, Noida, India; School of Pharmacy (Prof I A Kretchy PhD), University of Ghana, Legon, Ghana; Department of Public Health (J Kretchy PhD), Central University, Accra, Ghana (J Kretchy PhD); Department of Anthropology (Prof K Krishan PhD), Institute of Forensic Science & Criminology (V Sharma PhD), Panjab University, Chandigarh, India; School of Applied Science (C Kua PhD), Republic Polytechnic, Singapore, Singapore; Centre for Biotechnology (A Kuanar PhD, S K Panda PhD, S Patel PhD, P Verma PhD), Siksha 'O' Anusandhan Deemed to be University, Bhubaneswar, India; Department of Demography (Prof B Kuate Defo PhD), Department of Social and Preventive Medicine (Prof B Kuate Defo PhD), University of Montreal, Montreal, QC, Canada; Department of Biotechnology (R H Kuchay PhD), Baba Ghulam Shah Badshah University, Jammu and Kashmir, India; Department of Medical Education and Informatics (B Kucuk Bicer PhD), Gazi University Faculty of Medicine, Ankara, Turkey; Department of Pediatrics (I Kuitunen PhD), Kuopio University Hospital, Kuopio, Finland; Institute of Clinical Medicine (I Kuitunen PhD), University of Eastern Finland, Kuopio, Finland; Rajendra Institute of Medical Sciences (A Kujur PharmD), Ministry of Health and Family Welfare, Ranchi, India; Center of Medicine and Public Health (M Kulimbet MSc), Director of Central Asia Research Collaboration Group (Prof F Rahim PhD), Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan; Department of Medicine (V Kulkarni MS), Digital Health and Informatics Directorate (Prof S M McPhail PhD), Queensland Health, Brisbane, QLD, Australia; Amity Centre for Water Studies and Research (S Kulshreshtha PhD), Amity Institute of Biotechnology (E Upadhyay PhD), Amity University Rajasthan, Jaipur, India; Department of Community Medicine (D Kumar MD), Department of Anaesthesiology (T Kumar DNB), Rajendra Institute of Medical Sciences, Ranchi, India; Department of Pharmacology and Toxicology (N Kumar PhD), National Institute of Pharmaceutical Education and Research, Hajipur, Hajipur, India; Gastroenterology Department (S Kumar FCPS), Ahalia Hospital, Abu Dhabi, United Arab Emirates; Allied Health Sciences (S Kumar FCPS), Bahria University Medical and Dental College, Karachi, Pakistan; Department of Economics (V Kumar PhD), Manipal University, Jaipur, Jaipur, India; IITM Pravartak Technologies Foundation, Chennai, India (S Kumaran PhD); Section of Cardiology (Prof S K Kunutsor PhD), University of Manitoba, Winnipeg, MB, Canada; Department of Translational Health Sciences (Prof S K Kunutsor PhD), Bristol Medical School (Y Nartey PhD), Integrative Epidemiology Unit (A Suhag PhD), University of Bristol, Bristol, UK; Faculty of Medicine and Health Science (M Kurniasari PhD), Universitas Kristen Satya Wacana (Satya Wacana Christian University), Salatiga, Indonesia; Division of Cardiology (K Kurpad MD), Department of Computer Science (P Naghavi MS), Department of Health and Kinesiology (M Sajib BDS), University of Illinois, Champaign, IL, USA; Research Center for Public Health and Nutrition (B Rachmat MPH), National Research and Innovation Agency, Jakarta, Indonesia (A Kusnali MA, I U Tarigan PhD); Institute for Health Sciences (C Kustanti PhD), STIKES Bethesda Yakkum Yogyakarta Indonesia, Yogyakarta, Indonesia; Department of Public Health and Epidemiology (D Kusuma DSc), Khalifa University of Science and Technology, Abu Dhabi, United Arab Emirates; Department of Pediatric Oncology (Prof T Kutluk MD), Medicana Health International, Istanbul, Turkey; Department of Pediatric Oncology (Prof T Kutluk MD), Hacettepe University, Ankara, Turkey; Department of Clinical Surgical Sciences (M A Kwarteng PhD), University of the West Indies, St Augustine, Trinidad and Tobago; Department of Nursing (E F Kyei PhD, G K Kyei BSc), University of Massachusetts Boston, Boston, MA, USA; Clinical Research Center (V Kytö MD), Turku University Hospital, Turku, Finland; Division of Evidence Synthesis (C Lahariya MD), Foundation for People-centric Health Systems, New Delhi, India; Division of Lifestyle Medicine (C Lahariya MD), Centre for Health: The Specialty Practice, New Delhi, India; School of Digital Science (D Lai PhD), Institute of Applied Data Analytics (D Lai PhD), Universiti

Brunei Darussalam (University of Brunei Darussalam), Bandar Seri Begawan, Brunei; Department of Chemistry (Prof A Lakhani PhD), Dayalbagh Educational Institute, Agra, India; NEVES Society for Patient Safety, Budapest, Hungary (J Lám PhD); Unidad de Genética y Salud Pública (Prof I Landires MD), Instituto de Ciencias Médicas, Las Tablas, Panama; Ministry of Health (Prof I Landires MD), Hospital Joaquín Pablo Franco Sayas, Las Tablas, Panama; Department of Psychiatry and Psychotherapy (B Langguth PhD), University of Regensburg, Regensburg, Germany; Department of Behavioural Sciences and Learning (Prof A Laplante-Lévesque PhD), Linköping University, Linköping, Sweden; Department of Otorhinolaryngology (S Lasrado MS), Father Muller Medical College, Mangalore, India; Department of Clinical Pharmacy and Pharmacy Management (B K Lawal PhD), Department of Radiology (H Theyra-Enias MD), Kaduna State University, Kaduna, Nigeria; Department of Obstetrics and Gynaecology (B K Lawal MSc), University of Nottingham, Derby, UK; Health Systems, Administration and Management (S A Lawal PhD), Babcock University, Sagamu, Nigeria; Health Services Management Programme (S A Lawal PhD), Plasma University, Mogadishu, Somalia; Faculty of Medicine, (D Le MD), Nam Can Tho University, Can Tho, Vietnam; PhD Program in Epidemiology (D Le MD), Vanderbilt University, Nashville, TN, USA; Faculty of Medicine (H Le MD, N Le MD), Department of General Medicine (V T Nguyen MD), Department of Internal Medicine (T H Tran MD), University of Medicine and Pharmacy at Ho Chi Minh City, Ho Chi Minh City, Vietnam (T T T Le MD, T D T Le MD); Department of Cardiovascular Research (H Le MD, N Le MD), Methodist Hospital, Merrillville, IN, USA; Health Economics Division (L K D Le PhD), Monash University, Burwood, VIC, Australia; Independent Consultant, Ho Chi Minh City, Vietnam (T D T Le MD); Clinical Trial Center (H Lee PhD), Ewha Womans University, Seoul, South Korea; Department of Family Medicine (W Lee PhD), University of Texas Medical Branch, Galveston, TX, USA; Department of Cardiothoracic and Vascular Surgery (V Leivaditis PhD), Westpfalz Klinikum, Kaiserslautern, Germany; Faculty of Science (E Leong PhD), (Universiti Brunei Darussalam) University of Brunei Darussalam, Bandar Seri Begawan, Brunei; School of Public Health and Management (C Li MD), Guangzhou University of Chinese Medicine, Guangzhou, China; Peking Union Medical College, Beijing, China (H Li MD, X Xu MD); Department of Rheumatology and Immunology (H Li MD), The People's Hospital of Baoan Shenzhen, Shenzhen, China; Global Health Research Center (Prof J Li PhD), Guangdong Cardiovascular Institute (J Qiu MD), Guangdong Academy of Medical Sciences, Guangzhou, China; Shanxi Medical University, Taiyuan, China (J Li MD); Department of Health Promotion and Health Education (M Li PhD), National Taiwan Normal University, Taipei, Taiwan; The First Affiliated Hospital of Guangzhou Medical University (W Li MD), Guangzhou Medical University, Guangzhou, China; Department of Radiation Oncology (W Li MD), Zhujiang Hospital of Southern Medical University (P Luo MD), Division of Nephrology (X Shao MD), Department of Joint and Orthopedics (J Tan MD), Southern Medical University, Guangzhou, China; Department of Nephrology (X Li MD), the Second Affiliated Hospital of Anhui Medical University, Hefei, China; National Clinical Research Center for Cardiovascular Diseases (Y Li PhD), Chinese Academy of Medical Sciences, Shenzhen, China; Department of Endocrinology and Metabolism (Prof Y Li PhD), The First Hospital of China Medical University, Shenyang, China; Discipline of Physiology (Y Lian MA), National University of Ireland, Galway, Galway, Ireland (D Shan MD); First Clinical Medical College (X Liang DrPH), Shandong University of Chinese Medicine, Jinan, China; Department of Food Science and Human Nutrition (Q Lin MPH), Iowa State University, Ames, IA, USA; Asbestos Diseases Research Institute, Concord, NSW, Australia (R Lin PhD); The First Affiliated Hospital of Wenzhou Medical University (Y Lin MD), Department of Epidemiology and Health Statistics (F Shi PhD), The Second Affiliated Hospital (Prof A Wu MD), Department of Hepatology (Prof M Zheng PhD), Wenzhou Medical University, Wenzhou, China; Department of Medicine (D Lindholm MD), Norrrtälje Hospital (Tiohundra),

Norrköping, Sweden; School of Nursing and Health Sciences (X Liu PhD, S Ramazan PhD), Hong Kong Metropolitan University, Hong Kong, China; Department of Radiology and Biomedical Imaging (X Liu PhD, M Mayeli MD, S Rahmani MD), Department of Genetics (S Pawar PhD), Department of Psychiatry (T Rhee PhD), Yale University, New Haven, CT, USA; Xiangya Hospital (Y Liu MSc), Anesthesiology Department of The Third Xiangya Hospital (K Pang MS), Central South University, Changsha, China; Department of Molecular Epidemiology (E Llanaj PhD), German Institute of Human Nutrition Potsdam-Rehbrücke, Potsdam, Germany; German Center for Diabetes Research (DZD), München-Neuherberg, Germany (E Llanaj PhD); Department of Infectious Diseases (M J Loftus MBBS), Alfred Health, Melbourne, VIC, Australia; Department of Cardiology (V Lohner PhD), University of Cologne, Cologne, Germany; School of Medicine (J López-Gil PhD), Universidad Espíritu Santo, Samborondón, Ecuador (J Sharifi Rad PhD); Vicerrectoría de Investigación y Postgrado (J López-Gil PhD), Universidad de Los Lagos, Osorno, Chile; Institute of Nutritional Sciences (Prof S Lorkowski PhD), Friedrich Schiller University Jena, Jena, Germany; Competence Cluster for Nutrition and Cardiovascular Health (nutriCARD), Jena, Germany (Prof S Lorkowski PhD); Department of Spine Surgery (S Luan MD), Qingdao Municipal Hospital Group, Qingdao, China; Scientific Research and Surveillance Systems (J Lubinda PhD), Macha Research Trust, Choma, Zambia; School of Medicine (Prof G Lucchetti PhD), Federal University of Juiz de Fora, Juiz de Fora, Brazil; Department of Emergency General and Trauma Surgery (Prof R Lunevicius DSc), NHS University Hospitals of Liverpool Group, Aintree Hospital, Liverpool, UK; Department of Population Health Sciences (J B Lusk MD), Duke Global Health Institute (C Wu PhD), Duke University, Durham, NC, USA; Dodoma Medical Research Centre (A M Lutambi PhD), National Institute for Medical Research in Tanzania, Dodoma, Tanzania; Department of Neurosciences and Behavioral Sciences (R Lutzky Saute MD), University of São Paulo, Ribeirão Preto, Brazil; College of Engineering (Prof M D Lytras PhD), Effat University, Jeddah, Saudi Arabia; Management of Information Systems Department (Prof M D Lytras PhD), The American College of Greece, Aghia Paraskevi, Greece; Centre for Public Health and Wellbeing (Z Ma PhD), University of the West of England, Bristol, UK; Department of Microbiology and Parasitology (M Mabrok PhD), King Salman International University, South of Sinai, Egypt; Department of Family Medicine, Mental and Public Health (Prof I E Machado PhD), Federal University of Minas Gerais, Ouro Preto, Brazil; Associate Laboratory i4HB (A M Madureira-Carvalho PhD), University Institute of Health Sciences (CESPU), Gandra, Portugal; UCIBIO Research Unit on Applied Molecular Biosciences (A M Madureira-Carvalho PhD), University Institute of Health Sciences, Gandra, Portugal; Ophthalmology Department (M Magdy Abd El Razek MSc), Ministry of Health & Population, Aswan, Egypt; Department of Forensic Medicine & Toxicology (D Mahadeshwara Prasad MD), Mysore Medical College & Research Institute, Mysooru, India; Department of Health & Family Welfare (D Mahadeshwara Prasad MD), Government of Karnataka, Bangalore, India; Department of Emergency Medicine (S Mahalingam MD), Sri Lakshmi Narayana Institute of Medical Science, Puducherry, Puducherry, India; Research Center (N H Mahmood PhD), Cihan University-Sulaimaniya, Sulaymaniyah, Iraq; Institute of Health Science (M T Mai MD), Faculty of Medicine (H T Nguyen MD, T T T T Truyen MD), International Medical Faculty (N P Nguyen MD), Nam Can Tho University, Can Tho, Vietnam; Cyprus International Institute for Environmental and Public Health (Prof K C C Makris PhD), Cyprus University of Technology, Limassol, Cyprus; Division of Research and Development (Prof T Malik PhD), Lovely Professional University, Phagwara, India; University of Kansas Medical Center (M Mangdow MSc), A.T. Still University, Kansas City, KS, USA; Internal Medicine Department (Y Manla MD), Eisenhower Health, Palm Desert, CA, USA; Biomedical Engineering Research Center (CREB) (Prof M Mansourian PhD), Automatic Control Department (H Marateb PhD), Universitat Politècnica de Catalunya (Barcelona Tech - UPC), Barcelona,

Spain; Department of Biomedical Engineering (H Marateb PhD, M Noroozi BSc), University of Isfahan, Isfahan, Iran; Far Eastern University, Manila, Philippines (J C Maravilla PhD); Department of Food, Environmental and Nutritional Sciences (M Marino PhD, Prof S Perna PhD), Department of Biomedical Sciences for Health (S Villa MD), University of Milan, Milano, Italy; Faculty of Human Kinetics (Prof A Marques PhD), University of Lisbon, Lisbon, Portugal; Department of Economics (Prof G Martinez PhD), Instituto Tecnológico Autónomo de México (Autonomous Technology Institute of Mexico), Mexico City, Mexico; Department of Infectious Diseases (B A Martinez-Guerra MSc), Instituto Nacional de Nutrición Salvador Zubirán (Salvador Zubiran National Institute of Medical Sciences and Nutrition), Mexico City, Mexico; Department of Non-communicable Diseases and Mental Health (R Martinez-Piedra BSc), Pan American Health Organization, Washington, DC, USA; Campus Fortaleza (F R Martins-Melo PhD), Federal Institute of Education, Science and Technology of Ceará, Fortaleza, Brazil; Department of Nutrition and Dietetics (M Martorell PhD), Centre for Healthy Living (M Martorell PhD), University of Concepción, Concepción, Chile; Clinical Institute of Medical and Chemical Laboratory Diagnostics (Prof W März MD), Medical University of Graz, Graz, Austria; Medical Clinic V (Prof W März MD), Department of Experimental Pharmacology (Y Wibowo MD), Heidelberg University, Mannheim, Germany; Faculty of Humanities and Health Sciences (Prof R R Marzo MD), Curtin University, Sarawak, Malaysia; Jeffrey Cheah School of Medicine and Health Sciences (Prof R R Marzo MD), Monash University, Subang Jaya, Malaysia; Department of Clinical and Experimental Medicine (Prof S Masi PhD, D Trico MD), University of Pisa, Pisa, Italy; Board of Directors (C N Matei PhD), Association of Resident Physicians, Bucharest, Romania; Department of Anatomy and Developmental Biology (Y Mathangasinghe PhD), Monash University, Clayton, VIC, Australia; North West Lung Centre (A G Mathioudakis PhD), Manchester University NHS Foundation Trust, Manchester, UK; Health Policy Research (M R Mathur PhD), Public Health Foundation of India, Gurugram, India; Department of Community Medicine (M Mathur MD), Geetanjali Medical College and Hospital in Udaipur India, Udaipur, India; Department of Epidemiology (Prof R J Maude PhD), Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand; Department of Social Medicine and Family (M Mazaheri PhD), Dezfoul University of Medical Sciences, Dezfoul, Iran; Orthopedic Trauma Pathology Department (A Mazzotti PhD), IRCCS, Bologna, Italy; Department of Paediatrics (C N P Mbachu PhD), Nnamdi Azikiwe University, Nnewi, Nigeria; Department of Obstetrics and Gynaecology (Prof I I Mbachu FWACS), Department of Paediatrics (C A Nri-Ezedi PhD), Nnamdi Azikiwe University, Awka, Nigeria; Department of Healthcare (Prof E A Mechili PhD), University of Vlora, Vlora City, Albania; Clinic of Social and Family Medicine (Prof E A Mechili PhD), Department of Medicine (Prof A Tsatsakis DSc), University of Crete, Heraklion, Greece; Neurology Department (Prof M Mehndiratta MD), Janakpuri Super Specialty Hospital Society, New Delhi, India; Department of Neurology (Prof M Mehndiratta MD), Govind Ballabh Institute of Medical Education and Research, New Delhi, India; Department of Dental Research Cell (Prof V Mehta PhD), Dr. D. Y. Patil University, Pune, India; Department of Biosciences and Bioengineering (S Mehto PhD), Indian Institute of Technology Dharwad, Dharwad, India; Institute for Sustainable Agriculture and Food Economics (INL) (T Meier PhD), Martin Luther University Halle-Wittenberg, Halle, Germany; Office of Innovation (T Meier PhD), Competence Cluster for Nutrition and Cardiovascular Health (nutriCARD), Halle, Germany; Health Care Authority, Olympia, WA, USA (A Memetova MA); Dirección General de Investigación, Desarrollo e Innovación (DGIDI) (W Mendoza MD), Universidad Científica del Sur (University of the South), Lima, Peru; Department of Medical Microbiology and Immunology (G A Menezes PhD), Trinity Medical Sciences University, St. Vincent, Saint Vincent and the Grenadines; Department of Public Health (M Mercogliano MD), University "Federico II" of Naples, Naples, Italy; General Administration Department

(A Meretoja MD), Comprehensive Cancer Center (T J Meretoja MD), Department of Neurosurgery (I Rautalin PhD), Helsinki University Hospital, Helsinki, Finland; University Centre Varazdin (T Mestrovic PhD), University North, Varazdin, Croatia; Stritch School of Medicine (A Mhlanga PhD), Loyola University Chicago, Chicago, IL, USA; Dermatology Unit (A Michelerio PhD), Fondazione IRCCS Policlinico San Matteo, Pavia, Italy; Department of Oncology (H S Mideksa MD), Addis Ababa University, Addis Ababa, Ethiopia; Queensland Centre for Mental Health Research (QCMHR) (P A Miller PhD), The University of Queensland, Wacol, QLD, Australia; College of Human Medicine (T R Miller PhD), Michigan State University, Flint, MI, USA; Multidisciplinary Department of Medical-Surgical and Dental Specialties (G Minervini PhD), University of Campania Luigi Vanvitelli, Naples, Italy; Department of Public Health Dentistry (Prof G Mini PhD), Saveetha Medical College and Hospital (M Tabish MPharm), Saveetha Institute of Medical and Technical Sciences, Chennai, India; Global Institute of Public Health (Prof G Mini PhD), Ananthapuri Hospitals and Research Institute, Trivandrum, India; Internal Medicine Programme (Prof E M Mirrakhimov PhD), Kyrgyz State Medical Academy, Bishkek, Kyrgyzstan; Department of Atherosclerosis and Coronary Heart Disease (Prof E M Mirrakhimov PhD), National Center of Cardiology and Internal Disease, Bishkek, Kyrgyzstan; Department of Radiology (S Mirshahvalad MD), Health Sciences North, Sudbury, ON, Canada; Bergen Center for Ethics and Priority Setting (M K Mirutse PhD), Department of Psychosocial Science (Prof D Sagoe PhD), Center for International Health (C Schwinger PhD), University of Bergen, Bergen, Norway; Department of Community Medicine (K G Mishra MD), Department of Dermatology, Venereology and Leprosy-DVL (Prof T Priscilla MD), Apollo Institute of Medical Sciences and Research, Hyderabad, India; Thumbay College of Management and AI in Healthcare (V Mishra PhD), Gulf Medical University, Ajman, United Arab Emirates; Research and Development Department (V Mishra PhD), Panacea Institute of Interdisciplinary Research and Education, Varanasi, India; Department of Pharmacology (A K Misra MD), All India Institute of Medical Sciences, Mangalagiri, India; Department of Internal Medicine (S Modi MD), Albert Einstein Hospital, Philadelphia, PA, USA; College of Applied and Natural Science (J Mohamed MSc), University of Hargeisa, Hargeisa, Somalia; RAK College of Nursing (M Mohamed PhD), RAK Medical and Health Sciences University, Ras Alkhima, United Arab Emirates; Nursing College (M Mohamed PhD), Sohag University, Sohag, Egypt; Molecular Biology Unit (N S Mohamed MSc), Bio-Statistical and Molecular Biology Department (N S Mohamed MSc), Sirius Training and Research Centre, Khartoum, Sudan; Department of Medicine (S Mohammadi BS), Anne Burnett Marion School of Medicine at Texas Christian University, Fort Worth, TX, USA; Department of Public Health (H Mohammed PhD, A Oumer PhD, N K Worku MPH), Public Health Department (M Yigezu MPH), Dire Dawa University, Dire Dawa, Ethiopia; Department of Medicine (O Mohammed MBBS), Government Medical College Kozhikode, Kozhikode, India; Department of Health Sciences, Azare (S Mohammed MSc), National Institute for Research in Tribal Health, Bauchi, Nigeria; Medical Microbiology Department (Prof Y Mohammed FWACP), Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria; Department of Pharmacology (S Mohan PhD), Dale View College of Pharmacy and Research Centre, Thruvananthapuram, India; School of Health Sciences (S Mohan PhD), University of Petroleum and Energy Studies, Dehradun, India; Department of Applied Biology (Y Mohanta PhD), University of Science and Technology Meghalaya, Ri-Bhoi, India; Department of Health Services Management (M Mohseni PhD), Iran University of Medical Sciences, Iran, Iran; Kazakh-Russian Medical University, Almaty, Kazakhstan (A Mokhiev MSc); Institute of Clinical Physiology (S Molinaro PhD), National Research Council, Pisa, Italy; Department Medical-Surgical Nursing (A Mollaei PhD), Department of Nursing and Midwifery (F Ranjbar Noei MSc), Golestan University of Medical Sciences, Gorgan, Iran; Clinical Epidemiology and Public Health Research Unit (L Monasta DSc, L Ronfani PhD, E

Traini PhD, G Zamagni MSc), Burlo Garofolo Institute for Maternal and Child Health, Trieste, Italy; Department of Sport Physiology (A Monazzami PhD), Razi University, Kermanshah, Iran; Department of Biomedical and Dental Sciences and Morphofunctional Imaging (Prof S Mondello MD), Messina University, Messina, Italy; Department of Medicine (A A Montasir FMD), TMSS Medical College, Bogura, Bangladesh; Department of Medicine (A A Montasir FMD), Sofia Ismail Memorial Medical Centre, Bogura, Bangladesh; Centre for Neonatal and Paediatric Infection (C E Moore PhD), St. George's University of London, London, UK; Department of Epidemiology and Biostatistics (Y Moradi PhD), Epidemiology and Biostatistics (M Rasouli PhD), Social Determinants of Health Research Center (A Shokri PhD), Kurdistan University of Medical Sciences, Sanandaj, Iran; Department of Public Health (Prof R S Moreira PhD), Oswaldo Cruz Foundation, Recife, Brazil; Department of Public Health (Prof R S Moreira PhD), Federal University of Pernambuco, Recife, Brazil; Baan Clinic (M Morovvati MD), Baan Clinic, Tehran, Iran; Faculty of Medicine (M Morsy MD), October 6 University, Giza, Egypt; Department of Biology and Biological Engineering (J Morze PhD), Chalmers University of Technology, Gothenburg, Sweden; College of Medical Sciences (J Morze PhD), SGMK Copernicus University, Warsaw, Poland; NHS National Services Scotland, Belfast, UK (N Motamedgorji MD); Social Determinants of Health Research Center (S Mouodi PhD), School of Medicine (S Soraneh MD), Babol University of Medical Sciences, Babol, Iran; Faculty of Biotechnologies (Prof A Mousavi Khaneghah PhD), ITMO University, Saint Petersburg, Russia; Department of Physical and Environmental Sciences (S Mousavi Kiasary DVM), Texas A&M University, Corpus Christi, TX, USA; School of Pharmacy (M A A Mousnad PhD), Management and Science University (MSU), Shah Alam, Malaysia; International University of Africa (IUA), Khartoum, Sudan (M A A Mousnad PhD); René Rachou Institute (M Mrejen PhD), Oswaldo Cruz Foundation, Belo Horizonte, Brazil; Department of Radiology (A Msherghi MD), University of Tripoli, Tripoli, Libya; PMAS Arid Agriculture University Rawalpindi, Rawalpindi, Pakistan (R Mubarak MSc); Unit of Pharmacotherapy, Epidemiology and Economics (Prof S Mubarak PhD), University of Groningen (Rijksuniversiteit Groningen), Groningen, Netherlands; Institute of Molecular Biology and Biotechnology (S Muhammad PhD), Bahauddin Zakariya University Multan, Multan, Pakistan; Department of Biochemistry (S Mukherjee PhD), Department of Dentistry (Prof A Singh MDS), All India Institute of Medical Sciences, Bhopal, India; Knowledge Management Department (S Mukherjee PhD), Prahlad Omkarwati Foundation (POF), Mumbai, India; Independent Consultant, New Delhi, India (S Mukherjee PhD, P Sood PhD); Department of Medicine (A Mukhopadhyay MD), National University Health System, Singapore, Singapore; Department of Mechanical Engineering (M Muktadir PhD), North Carolina Agricultural and Technical State University, Greensboro, NC, USA; Department of Surgery (F Mulita PhD), General University Hospital of Patras, Patras, Greece; Faculty of Medicine (F Mulita PhD), Department of Emergency Medicine (Prof I Pantazopoulos PhD), University of Thessaly, Larissa, Greece; Department of Nursing (M Mulyadi PhD), Sam Ratulangi University, Manado, Indonesia; Department of Medicine (M Muneer MBBS), Allama Iqbal Medical College, Lahore, Pakistan; Department of Health Economics (M Muniyandi PhD), Department of Epidemiology (M Sathya Narayanan MBBS), National Institute for Research in Tuberculosis, Chennai, India; Department of Community and Global Health (Y Munkhsaikhhan MD), The University of Tokyo, Tokyo, Japan; Epidemiology, Biostatistics and Prevention Institute (EBPI) (J Muñoz Laguna MSc), University of Zürich, Zurich, Switzerland; Center for Infectious Disease Education and Research (Prof M Murakami PhD), Department of Biostatistics and Data Science (Y Yasufuku MSc), The University of Osaka, Suita, Japan; School of Postgraduate research and publications (Y H Muse PhD), Amoud University, Hargeisa, Somalia; Department of Pediatrics & Pediatric Pulmonology (Prof G Mustafa MD), Institute of Mother & Child Care, Multan, Pakistan; Department of Pathology and

Microbiology (S I Mustafa PhD), Duhok University, Duhok, Iraq; Operational Research Center in Healthcare (M T Mustapha PhD), Near East University, Nicosia, Cyprus; Department of Research Methods (S Muthu PhD), Orthopaedic Research Group, Coimbatore, India; Central Research Laboratory (S Muthu PhD), Meenakshi Medical College Hospital and Research Institute, Chennai, India; Director General (Prof C M Muvunyi PhD), Rwanda Biomedical Centre, Kigali, Rwanda; College of Medicine and Health Sciences (Prof C M Muvunyi PhD), University of Rwanda, Kigali, Rwanda; Department of Neuropsychiatry (W Myung PhD), Seoul National University Bundang Hospital, Seongnam, South Korea; Department of Health Education & Promotion (F Naddafi PhD), School of Medicine (M Rostamian PhD), Faculty of Medicine (Z Saadatian PhD), Infectious Diseases Research Center (Z Saadatian PhD), Gonabad University of Medical Sciences, Gonabad, Iran; Research and Analytics Department (A J Nagarajan MTech), Initiative for Financing Health and Human Development, Chennai, India; Department of Research and Analytics (A J Nagarajan MTech), Bioinsilico Technologies, Chennai, India; Department of Computer Science and IT (G R Naik PhD), Torrens University, Adelaide, SA, Australia; Department Health Services Research (G Naik MPH), Department of Psychology (D C Schwebel PhD), University of Alabama at Birmingham, Birmingham, AL, USA; Faculty of Pharmacy (Prof F Nainu PhD), Hasanuddin University, Makassar, Indonesia; Department of Pulmonary Medicine (Prof S Nair MD), Government Medical College, Thrissur, Thrissur, India; Health Action by People, Trivandrum, India (Prof S Nair MD); Suraj Eye Institute, Nagpur, India (V Nangia PhD); Department for the Control of Disease, Epidemics, and Pandemics (J Nansseu MD), Ministry of Public Health, Yaoundé, Cameroon; Department of Public Health (J Nansseu MD), Department of Public Health (G Nguefack-Tsague PhD), University of Yaoundé I, Yaoundé, Cameroon; National Dental Research Institute Singapore (G G Nascimento PhD), Duke-NUS Medical School, Singapore, Singapore; Department of Applied Pharmaceutical Sciences and Clinical Pharmacy (A Y Naser PhD), Isra University, Amman, Jordan; Critical Care Unit (M Naser MD), Sheikh Shakhbout Medical City hospital, Abu Dhabi, United Arab Emirates; Division of Endocrinology and Diabetes (M Nassar PhD), University of Vermont, South Burlington, VT, USA; Department of Internal Medicine (A Nawaz MD), Khyber Medical University, Islamabad, Pakistan; Department of Research (G Nchanji PhD), TroDDIVaT Initiative, Buea, Cameroon; Department of Disease Control and Environmental Health (R Ndejjo PhD), School of Public Health (R Olum MD), Makerere University, Kampala, Uganda; Department of General Surgery (I Negoï PhD), Emergency University Hospital Bucharest, Bucharest, Romania; Department of Cardiology (R I Negoï PhD), Cardio-Aid, Bucharest, Romania; Department of Cardiology (A G Negru PhD), University of Medicine and Pharmacy "Victor Babes", Timisoara, Romania; Rocordis Heart Center (A G Negru PhD), Cardiology and Cardiovascular Surgery Hospital, Timisoara, Romania; Health Promotion Research Center (J Nejati PhD, H Okati-Aliabad PhD), Zahedan University of Medical Sciences, Zahedan, Iran; Euromed Research Center (Prof C Nejjari MD), Euromed University of Fes, Fez, Morocco; Faculty of Medicine, Pharmacy, and Dentistry (Prof C Nejjari MD), University Sidi Mohammed Ben Abdellah, Fez, Morocco; Department of Neurosciences (Prof C R J Newton MD), Kenya Medical Research Institute/Wellcome Trust Research Programme, Kilifi, Kenya; Department of Biological Sciences (J W Ngunjiri PhD), University of Embu, Embu, Kenya; Institute for Global Health Innovations (C T Nguyen MPH, H L T Nguyen MPH), Duy Tan University, Hanoi, Vietnam; Cardiovascular Research Department (N P Nguyen MD), Methodist Hospitals, Merrillville, IN, USA; Department of Surgery (P T Nguyen MD), Danang Family Hospital, Danang, Vietnam; Hitotsubashi Institute for Advanced Study (HIAS) (T Nguyen DrPH), Hitotsubashi University, Tokyo, Japan; Institute for Cancer Control (T Nguyen DrPH), National Cancer Center, Chuo-ku, Japan; Faculty of Public Health (T Nguyen PhD, L Vu PhD), International Institute for Training and Research (INSTAR) (L Vu PhD), VNU University of Medicine and

Pharmacy, Hanoi, Vietnam; Department of Pediatrics (T Nguyen MD), New York Medical College, New York, NY, USA; Tuberculosis Group (V T Nguyen MD), Oxford University Clinical Research Unit, Vietnam, Ho Chi Minh City, Vietnam; Department of Public Health (A M Ngwa MSc), University of Bamenda, Bamenda, Cameroon; International Islamic University Islamabad, Islamabad, Pakistan (R K Niazi PhD); Population Research Institute (J Nie PhD), High-Quality Development Evaluation Research Institute (Z Sun PhD), Nanjing University of Posts and Telecommunications, Nanjing, China; Department of Humanities and Social Science (L Nieddu PhD), University for International Studies in Rome, Rome, Italy; Institute for Mental Health Policy Research (Y T Nigatu PhD, S Popova PhD), Centre for Addiction and Mental Health, Toronto, ON, Canada; Public Health Department (D N A Ningrum PhD), Universitas Negeri Semarang (State University of Semarang), Kota Semarang, Indonesia; School of Medicine (V Niranjana PhD), University of Limerick, Limerick, Ireland; Department of Public Health (V Niranjana PhD), UNICAF, Larnaca, Cyprus; College of Health Sciences (P Nkrumah-Boateng BSc), University of Ghana, Accra, Ghana; Technical Department (C A Nnaji PhD), School of Public Health and Family Medicine (C A Nnaji PhD), Institute of Infectious Disease and Molecular Medicine (O G Oluwole PhD), SAMRC Unit on Risk and Resilience in Mental Disorders (Prof D J Stein FRCPC), Psychiatry and Mental Health (G Van Der Walt BA), Department of Paediatrics and Child Health (Prof H J Zar PhD, Prof L J Zuhlke PhD), Department of Medicine (Prof L J Zuhlke PhD), University of Cape Town, Cape Town, South Africa; Global Research Institute (Prof S Nomura PhD), Keio University, Tokyo, Japan; Canadian Institute for Health Information, Toronto, ON, Canada (P Noormohammadpour MD); Department of Microbiology and Molecular Genetics (M Noreen PhD), The Women University Multan, Multan, Pakistan; Internal Medicine Department (V C Nriagu MD), Maimonides Medical Center, Brooklyn, NY, USA; Global Health Department (J Nshimiyimana MPH), Euclid University, Banqui, Central African Republic; School of Information (F Nugen PhD), College of Computing, Data Science and Society (G Obaido PhD), University of California Berkeley, Berkeley, CA, USA; Department of Public Health (A N Nugusa MPH), Mattu University, Mattu, Ethiopia; Department of Public Health (D Nurrika PhD), Banten School of Health Science, South Tangerang, Indonesia; Ministry of Research, Technology and Higher Education (D Nurrika PhD), Higher Education Service Institutions (LL-DIKTI) Region IV, Bandung, Indonesia; Center of Excellence in Reproductive Health Innovation (CERHI) (C I Nzopotam MPH), University of Benin, Benin City, Nigeria; Department of Physiology (O J Nzopotam PhD), University of Benin, Edo, Nigeria; Department of Physiology (O J Nzopotam PhD), Benson Idahosa University, Benin City, Nigeria; Department of Applied Economics and Quantitative Analysis (Prof B Oancea PhD), University of Bucharest, Bucharest, Romania; Bioinformatics Department (Prof B Oancea PhD), National Institute of Research and Development for Biological Sciences, Bucharest, Romania; Department of Biomedicine and Prevention (F Oddi PhD), University of Rome "Tor Vergata", Rome, Italy; Department of Community Health and Primary Care (Prof O O Odukoya MSc), University of Lagos, Idi Araba, Nigeria; Department of Family and Preventive Medicine (Prof O O Odukoya MSc), Department of Biomedical Informatics (D Villarreal-Zegarra MPH), University of Utah, Salt Lake City, UT, USA; PSSM Data Sciences, Pfizer Research & Development (M Oduro PhD), Pfizer Inc., Groton, CT, USA; Department of Physiology (O B Oghenetega PhD), Adeleke University, Ede, Nigeria; Department of Medical Laboratory Science (O J Okesanya MPH), Federal Neuropsychiatric Hospital, Abeokuta, Nigeria; Associação Brasileira de Cefaleia em Salvas e Enxaqueca (ABRACES), São Paulo, Brazil (A B Oliveira PhD); Cardiology Department (Prof G M M Oliveira PhD), Federal University of Rio de Janeiro, Rio de Janeiro, Brazil; School of Health and Life Sciences (O O Oludoye PhD), Teesside University, Middlesbrough, UK; Research Policy & Administration (J O Olusanya MBA), Centre for Healthy Start Initiative, Lagos, Nigeria (B O Olusanya PhD); Department of

Pharmacology and Therapeutics (O G Oluwole PhD), Olabisi Onabanjo University, Sagamu, Nigeria; Institute of Chemistry (F Omage PhD), Universidade Estadual de Campinas (State University of Campinas), Campinas, Brazil; Department of Computational Biology (F Omage PhD), Brazilian Agricultural Research Institute (EMBRAPA), Campinas, Brazil; Department of Pharmacology and Toxicology (Prof H A Omar PhD), Beni-Suef University, Beni-Suef, Egypt; Surgery Department (G L Omer MD), Sulaimani University, Sulaimani, Iraq; ENT Department (G L Omer MD), Tor Vergata University of Rome, Rome, Italy; Lee Kong Chian School of Medicine (Q Ong MD), Nanyang Technological University, Singapore, Singapore; Wellspring Research (S Onie PhD), Wellspring Center Indonesia, Jakarta, Indonesia; Institute of Diagnostic and Interventional Radiology and Neuroradiology (M Opitz MD), University Hospital Essen, Essen, Germany; Department of Pharmacotherapy and Pharmaceutical Care (M Ordak PhD), Department of Biochemistry and Pharmacogenomics (M Zielińska MPharm), Medical University of Warsaw, Warsaw, Poland; Sickle Cell Unit (Prof V N Orish PhD), Ho Teaching Hospital, Ho, Ghana; Department of Biotechnological and Applied Clinical Sciences (R Ornello PhD), University of L'Aquila, L'Aquila, Italy; Department of Neurology (R Ornello PhD), ASL Avezzano-Sulmona-L'Aquila, L'Aquila, Italy; Department of Nephrology and Hypertension (Prof A Ortiz MD), IIS-Fundacion Jimenez Diaz, Madrid, Spain; Department of Medicine (Prof A Ortiz MD), Faculty of Medicine (P Perez-Lopez MD), Autonomous University of Madrid, Madrid, Spain; One Health Global Research Group (Prof E Ortiz-Prado PhD), Universidad de las Americas (University of the Americas), Quito, Ecuador; Department of Biological Sciences (A Osborne MSc), Njala University, Freetown, Sierra Leone; School of Medicine (U L Osuagwu PhD), Western Sydney University, Bathurst, NSW, Australia; Department of Optometry and Vision Science (U L Osuagwu PhD), University of KwaZulu-Natal, KwaZulu-Natal, South Africa; Department of Biological Sciences (O Osuolale PhD), Elizade University, Ilara-Mokin, Nigeria; Department of Preventive and Social Medicine (G Otchere MSc), University of Otago, Dunedin, New Zealand; Independent Consultant, Gothenburg, Sweden (M Othman MSc); School of Public Health (O J Otokpa PhD), Texila American University, Georgetown, Guyana; Division of Infectious Diseases (Prof A Ouyahia PhD), University Hospital of Setif, Setif, Algeria; Department of General Surgery (G Ouyang PhD), Central South University, ChangSha, China; West African Center for Cell Biology of Infectious Pathogens (I A Owusu PhD), University of Ghana, Legon-Accra, Ghana; School of Medicine (T Oyelade PhD), Keele University, Keele, UK; Operational Research Center in Healthcare (I Ozsahin PhD, Prof U Saeed PhD), Near East University, Nicosia, Turkiye; Department of Mathematical Sciences (I Ozsahin PhD), Saveetha School of Engineering, SIMATS, Chennai, India; Universidad San Ignacio de Loyola, Lima, Peru (K Pacheco-Barrios MD); Department of Medicine (I Padda MD), Richmond University Medical Center, Staten Island, NY, USA; National School of Public Health (A Padron-Monedero PhD), Institute of Health Carlos III, Madrid, Spain; Department of Neurology (Prof P K Pal DM), National Institute of Mental Health and Neurosciences, Bangalore, India; Department of Mental Health (R F Palma-Alvarez PhD), Hospital Universitari Vall d'Hebron (CIBERSAM), Barcelona, Spain; Primary Health Center (T Paluvai MBBS), Directorate of Public Health and Family Welfare, Eluru District, India; Menzies Institute for Medical Research (F Pan PhD, A Singh PhD), University of Tasmania, Hobart, TAS, Australia; Centre for Medical Biotechnology (Prof D Pande Katare PhD), Amity University Uttar Pradesh, Noida, India; Department of Neurological Sciences (K Pang MS), Department of Anesthesiology (M L Rolfzen MD), Department of Environmental, Agricultural and Occupational Health (J Taiba PhD), University of Nebraska Medical Center, Omaha, NE, USA; National Institute of Health Research and Development (H U Pangaribuan MSc), Ministry of Health Indonesia, Jakarta, Indonesia; Department of Neurology (L D Panos MD), University of Bern, Biel/Bienne, Switzerland; Department of Neurology (L D Panos MD),

University of Cyprus, Nicosia, Cyprus; Department of Emergency Medicine (Prof I Pantazopoulos PhD), Division of Neurological Science (F Shams DVM), University of Bern, Bern, Switzerland; Unit of Dermatology (G Paolino PhD), IRCCS Ospedale San Raffaele, Milan, Italy; University of Padua, Padua, Italy (M Papa MD); Medical University of Vienna, Vienna, Austria (I Papadimopoulos MD); Department of Science and Mathematics (Prof P Papadopoulou PhD), Deree-The American College of Greece, Athens, Greece; Department of Biophysics (Prof P Papadopoulou PhD), 3rd Department of Cardiology (M Spartalis PhD), University of Athens, Athens, Greece; Department of Forensic Medicine and Toxicology (U Parekh MD), All India Institute of Medical Sciences, Rajkot, India; Department of Medical Humanities and Social Medicine (Prof E Park PhD), Kosin University, Busan, South Korea; Department of Primary Care and General Practice (S Parve PhD), Kazan State Medical University, Kazan, Russia; Department of Cardiology (S Parve PhD), Parve Nursing Home, Sindkhed Raja, India; Department of Medical Sciences (R Passera PhD), University of Torino, Torino, Italy; Department of Imaging (R Passera PhD), AOU Città della Salute e della Scienza di Torino (AOU City of Health and Science of Turin), Torino, Italy; Institute of Physiotherapy (B H Patel MSPT), Ashok and Rita Patel Institute of Physiotherapy, Anand, India; Department of Physiotherapy (H M Patel PhD), Ashok & Rita Patel Institute of Physiotherapy (S Sunny PhD), Charotar University of Science and Technology, Anand, India; Marwadi University Research and Development Cell (M Patel PhD), Marwadi University, Rajkot, India; Department of Cardiovascular Medicine (N N Patel MD), University of Tennessee, Nashville, TN, USA; Department of Physiology (A Patil MD), All India Institute of Medical Sciences, Nagpur, India; College of Dental Medicine (Prof S Patil PhD), Roseman University of Health Sciences, South Jordan, UT, USA; Department of Human Anatomy (A Patra MD), Department of Dentistry (S S Rana MDS), Department of Radiodiagnosis (P Singh MD), All India Institute of Medical Sciences, Bathinda, India; Department of Interventional Cardiology (S Pawar MD), Cedars Sinai Medical Center, Los Angeles, CA, USA; IRCCS Fondazione Don Carlo Gnocchi, Milan, Italy (P Pedersini MSc); Department of Clinical and Experimental Sciences (P Pedersini MSc), University of Brescia, Brescia, Italy; Department of Public Health (J Pekarcikova PhD), Trnava University, Trnava, Slovakia; Research Institute for Medicines (Prof J Perdigão PhD), Universidade de Lisboa (University of Lisbon), Lisbon, Portugal; Centre for Fertility and Health (Prof G Pereira PhD), Department of Chemical Toxicology (M W Wojewodzc PhD), Norwegian Institute of Public Health, Oslo, Norway; Mario Negri Institute for Pharmacological Research, Bergamo, Italy (N Perico MD, Prof G Remuzzi MD); Department of Biochemistry and Pharmacology (P Petakh PhD), Uzhhorod National University, Uzhhorod, Ukraine; Facultad de Medicina (Faculty of Medicine) (F E Petermann-Rocha PhD), Universidad Diego Portales (Diego Portales University), Santiago, Chile; School of Cardiovascular and Metabolic Health (F E Petermann-Rocha PhD), University of Glasgow, Glasgow, UK; Basic Medical Sciences Department (J D Pillay PhD), Durban University of Technology, Durban, South Africa; International Center of Medical Sciences Research, Islamabad, Pakistan (Z Z Piracha PhD, Prof U Saeed PhD); Department of Promoting Health, Maternal-Infant, Excellence and Internal and Specialized Medicine (PROMISE) G. D'Alessandro (E Pirera MD), University of Palermo, Palermo, Italy; Air and Climate Unit (E Pisoni PhD), European Commission, Ispra, Italy; Department of Environmental Hygiene (D Plass DrPH), German Environment Agency, Berlin, Germany; Mental Health Research Institute (E Plotnikov PhD), Tomsk National Research Medical Center, Tomsk, Russia; Siberian State Medical University, Tomsk, Russia (E Plotnikov PhD); Department of Dermatology (I Podder MD), Sagore Dutta Hospital, Kolkata, India; Data Driven Health Division (P Pollner PhD), Hungarian Healthcare Management Association, Budapest, Hungary; Department of Data Management and Analysis (R Poluru PhD), The INCLIN Trust International, New Delhi, India; Wicking Dementia Research and Teaching Centre (Prof C D Pond PhD), University of

Newcastle, Hobart, TAS, Australia; Department of Orthopedics and Traumatology (V T Ponkilainen PhD), University of Tampere, Tampere, Finland; Academy of Romanian Scientists, Bucharest, Romania (Prof I Popa PhD); Department of Internal Medicine (D S Popovic PhD), University of Novi Sad, Novi Sad, Serbia; Clinic for Endocrinology, Diabetes and Metabolic Disorders (D S Popovic PhD), Clinical Center of Vojvodina, Novi Sad, Serbia; University Medical Center Groningen (Prof M J Postma PhD), Department of Internal Medicine (P Vart PhD), University of Groningen, Groningen, Netherlands; Center of Excellence in Higher Education for Pharmaceutical Care Innovation (Prof M J Postma PhD), Padjadjaran University, Bandung, Indonesia; Non-communicable Diseases Research Center (N Pourtaheri PhD), Bam University of Medical Sciences, Bam, Iran; Centro de Investigaciones Clínicas (Clinical Research Center) (S I Prada PhD), Fundación Valle del Lili (Valle del Lili Foundation), Cali, Colombia; Centro PROESA (S I Prada PhD), Departamento de Ciencias Básicas Médicas (E Rubagotti PhD), Universidad ICESI, Cali, Colombia; Department of Humanities and Social Sciences (Prof J Pradhan PhD), National Institute of Technology Rourkela, Rourkela, India; Research Center in Advancing Community Healthcare, Surabaya, Indonesia (R Pradipta MS); Department of Biochemistry (Prof A Prashant PhD), JSS Academy of Higher Education and Research, Mysuru, India; Department of Medical Instrumentation Techniques Engineering (N H Qasim DSc), Al-Rafidain University College, Baghdad, Iraq; Department of Cybersecurity (N H Qasim DSc), Kyiv National University of Construction and Architecture, Kyiv, Ukraine; Department of Respiratory and Critical Care Medicine (J Qiu MD), Henan University of Science and Technology, Luoyang, China; Global Consortium for Public Health and Research (Prof Z Quazi PhD), Datta Meghe Institute of Higher Education and Research, Wardha, India; Department of Community Medicine (D R MD), Rajiv Gandhi Institute of Medical Sciences, Bengaluru, India; Oman Dental College, Muscat, Oman (Prof R A Radhakrishnan PhD); Department of Medical Oncology (Prof V Radhakrishnan MD), Cancer Institute (W.I.A), Chennai, India; Department of Community and Family Medicine (Prof P Raghav MD), Department of Pharmacology (M Shamim MBBS), Department of Biochemistry (S Tomo MD), All India Institute of Medical Sciences, Jodhpur, India; Department of Epidemiology (P Raghuvver MD), National Institute of Mental Health and Neurosciences, Bengaluru, India; Osh State University, Osh, Kyrgyzstan (Prof F Rahim PhD); Department of Environmental Health Engineering (S Rahimi PhD), Health Science Research Centre (S Rahimi PhD), Health Sciences Research Center (M Sarmadi MSc), Torbat Heydariyeh University of Medical Sciences, Torbat Heydariyeh, Iran; Faculty of Health Sciences (F M Rahman PhD), Qaiwan International University, Sulaymaniyah, Iraq; Department of Epidemiology (M Rahman PhD), Institute of Epidemiology, Disease Control and Research (IEDCR), Dhaka, Bangladesh; Department of Pathobiology and Population Sciences (PPS) (M Rahman PhD), Royal Veterinary College (RVC), London, UK; College of Medicine and Health Sciences (M Rahman PhD), National University of Science and Technology, Sohar, Oman; Health Service Research and Quality of Life Center (CEReSS) (Prof M Rahmati PhD), Aix-Marseille University, Marseille, France; Faculty of Medicine (H Rahmoune PhD), LIRSSEI Research Lab (H Rahmoune PhD), University of Setif Algeria, Setif, Algeria; Division of Gynecology and Human Reproduction Physiopathology (D Raimondo PhD), IRCCS Azienda Ospedaliero-Universitaria di Bologna, Bologna, Italy; Department of Medical, Surgical and Experimental Sciences (I Raimondo MD), University of Sassari, Sassari, Italy; Gynecology and Breast Care Center (I Raimondo MD), Mater Olbia Hospital, Olbia, Italy; Dr. Rajendra Prasad Government Medical College, Tanda, Kangra, India (Prof S K Raina MD); Department of Cardiology (A Raja MD), Department of Medicine (S Raja MD), Dow University of Health Sciences, Karachi, Pakistan; Emergency Medicine Department (G Rajendran MD), Sri Manakula Vinayagar Medical College and Hospital, Puducherry, India; Centre for Chronic Disease Control, New Delhi, India (P Rajput PhD); Department of Population Health (M Ramadan DrPH), King Saud bin

Abdulaziz University for Health Sciences, Jeddah, Saudi Arabia; Department of Midwifery (K Ramadhan MPH), Ministry of Health of the Republic of Indonesia, Palu, Indonesia; Department of Anatomy (C Ramasamy MD), Govt. Siddhartha Medical College, Vijayawada, India; Department of Biological Science and Bioengineering (M Ramezani Farani PhD), Inha University, Incheon, South Korea; Department of Biotechnology (Prof P W Ramteke PhD), Hislop College, Nagpur, India; Department of Molecular Biology & Genetic Engineering (Prof P W Ramteke PhD), RTM Nagpur University, Nagpur, India; South Asian Institute for Social Transformation (SAIST), Dhaka, Bangladesh (J Rana MPH); Department of Epidemiology, Biostatistics and Occupational Health (J Rana MPH), McGill University, Montreal, QC, Canada; Department of Research (C L Ranabhat PhD), Eastern Scientific LLC, Richmond, KY, USA; Planetary Health Research Centre (PHRC), Kathmandu, Nepal (C L Ranabhat PhD); Centre for Clinical Pharmacology (N Rancic PhD), University of Defence in Belgrade, Belgrade, Serbia; Centre for Clinical Pharmacology (N Rancic PhD), Medical College of Georgia at Augusta University, Belgrade, Serbia; Department of Oral Medicine and Radiology (K Rao PhD), KS Hegde Medical Academy (S S Shetty MD), Nitte University, Mangalore, India; Department of Oral Pathology, Microbiology and Forensic Odontology (S J Rao MDS), Sharavathi Dental College and Hospital, Shimogga, India; Department of Geography (A Rasul PhD), Soran University, Soran, Iraq; Department of Family Medicine (Prof D Rathish PhD), Department of Parasitology (Prof K G Weerakoon PhD), Department of Community Medicine (N Wickramasinghe MD), Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka; University of Swabi (A Rauf PhD), University of Swabi, Swabi, Pakistan; Department of Psychiatry (D Ravi MBBS), St. John's National Academy of Health Sciences, Bangalore, India; Inovus Medical, St Helens, UK (D L Rawaf MD); Academic Public Health England (Prof S Rawaf MD), Public Health England, London, UK; Department of Computer Science (R Rawassizadeh PhD), Boston University, Boston, MA, USA; Department of Mathematical Demography & Statistics (R Rawat PhD), International Institute for Population Sciences, Mumbai, India; Interventional Cardiology Department (A Ray MD), Saint Vincent Hospital, Worcester, MA, USA; Department of Hematology (B Razi PhD), North Khorasan University of Medical Sciences, Bojnurd, Iran; Clinical Epidemiology Unit (F Recenti MSc), Lund University, Lund, Sweden; Department of Neurosciences, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (F Recenti MSc), University of Genoa, Genoa, Italy; Department of Internal Medicine (M M R K Reddy MD), Northwest Health, Porter, Valparaiso, IN, USA; Department of Biological Sciences (Prof E Redwan PhD), King Abdulaziz University, Jeddah, Egypt; Department of Protein Research (Prof E Redwan PhD), Research and Academic Institution, Alexandria, Egypt; The School of Pharmaceutical Sciences (W Rehman MS), University of Science Malaysia, Penang, Malaysia; School of Medicine (Prof A M N Renzaho PhD), Translational Health Research Institute (Prof A M N Renzaho PhD), Western Sydney University, Campbelltown, NSW, Australia; Brien Holden Vision Institute, Sydney, NSW, Australia (Prof S Resnikoff MD); Unisabana Center for Translational Science (L Reyes PhD), Universidad de La Sabana (Savannah University), Chia, Colombia; Critical Care Department (L Reyes PhD), Clinica Universidad De La Sabana (Savannah University Clinic), Chia, Colombia; School of Environment (M Rezaei PhD), Tehran University, Tehran, Iran; Network of Immunity in Infection, Malignancy and Autoimmunity (NIIMA) (Prof N Rezaei PhD), Universal Scientific Education and Research Network (USERN), Tehran, Iran; Department of Public Health Sciences (T Rhee PhD), University of Connecticut, Farmington, CT, USA; Department of Surgery (J Rickard MD), University of Minnesota, Minneapolis, MN, USA; Department of Surgery (J Rickard MD), University Teaching Hospital of Kigali, Kigali, Rwanda; Department of Physiology and Physiotherapy (Prof M R Rizvi PhD), DIT University, Delhi, India; Community Health Department (Prof H A L Rocha PhD), Federal University of Ceará, Fortaleza, Brazil; Department of Geography and Demography (M Rodrigues

PhD), University of Coimbra, Coimbra, Portugal; Department of Clinical Research (Prof L Roever PhD), University of Sao Paulo, Ribeirão Preto, Brazil; Center for Indigenous Health Research (P Rohloff MD), Wuqu' Kawoq Maya Health Alliance, Tecpan, Guatemala; Department of Environmental and Radiological Health Sciences (Prof D Rojas-Rueda PhD, C Sewor MPH), Colorado State University, Fort Collins, CO, USA; Department of Neurosciences (M Romoli MD), Maurizio Bufalini Hospital, Cesena, Italy; Fondazione Policlinico Universitario A. Gemelli (M Romozzi MD), Cuore Università Cattolica del Sacro Cuore (Catholic University of Sacred Heart), Rome, Italy; Department of Ophthalmology and Visual Sciences (A Roshanshad MD), University of Wisconsin-Madison, Madison, WI, USA; Department of Pharmacy Services (K Rotimi MSc), Alberta Health Services, Edmonton, AB, Canada; West African Postgraduate College of Pharmacists, Lagos, Nigeria (K Rotimi MSc); Department of Analytical and Applied Economics (Prof H Rout PhD, P Sahoo MA, C Swain MPhil), RUSA Centre of Excellence in Public Policy and Governance (Prof H Rout PhD), Utkal University, Bhubaneswar, India; Isfahan University of Medical Sciences (H Rouzbahani MD), Islamic Azad University, Isfahan, Iran; Faculty of Medicine (B Roy PhD), Quest International University Perak, Ipoh, Malaysia; Department of Biochemistry and Food Analysis (N Roy PhD), Department of Post-Harvest Technology and Marketing (A Sayeed MSc), Patuakhali Science and Technology University, Patuakhali, Bangladesh; Department of Veterinary Microbiology (P Roy PhD), College of Veterinary Science and Animal Husbandry, Agartala, India; Department of Medicine (P Roy MBBS), North Bengal Medical College and Hospital, Siliguri, India; Department of Labour (P Roy PhD), Government of West Bengal, Kolkata, India; Department of Public Health (S Roy MD), New Mexico State University, Las Cruces, NM, USA; Research Department (S Roy MSc), Indian Institute of Public Health, Delhi, India; Advanced Campus Governador Valadares (Prof G D A Ruela MSc), Juiz de Fora Federal University, Governador Valadares, Brazil; Department of Health Statistics (S F Rumisha PhD), National Institute for Medical Research, Dar es Salaam, Tanzania; Department of Cardiology (M Russo PhD), SS. Annunziata Hospital - ASL2 Abruzzo, Chieti, Italy; Department of Internal Medicine (G M Rwegerera MD), Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; Department of Critical Care Anesthesiology (A Saad Eddin MD), University of Alabama Birmingham, Birmingham, AL, USA; Department of Medical Pharmacology (Prof M M Saber-Ayad PhD), Public Health and Community Medicine Department (M R Salem MD), Cairo University, Giza, Egypt; Escuela de Kinesiología (Prof K P Sadarangani PhD), Diego Portales University, Santiago de Chile, Chile; Universidad Autónoma de Chile, Santiago de Chile, Chile (Prof K P Sadarangani PhD); Department of Computer (T Sadegh MSc), University of Science and Culture, Tehran, Iran; Faculty of Medicine, Bioscience and Nursing (S Safi PhD), MAHSA University, Selangor, Malaysia; Interdisciplinary Research Centre in Biomedical Materials (IRCBM) (S Safi PhD), COMSATS Institute of Information Technology, Lahore, Pakistan; Canadian Red Cross (K Sahu PhD), Red Cross, Ottawa, ON, Canada; Department of Psychiatry (Z Saif MBA), Ministry of Health, Manama, Bahrain; College of Pharmacy (Prof S Sajadi PhD), Al-Hadba University, Mosul, Iraq; Department of Statistics (M R Sajid PhD), University of Gujrat, Gujrat, Pakistan; Department of Health Education & Promotion (Prof L Salehi PhD), A.C.S. Medical College and Hospital, Karaj, Iran; Student Research Committee (M Salehi MD), Kashan University of Medical Sciences, Kashan, Iran; Technology Management Department (Prof M Z Y Salem PhD), University College of Applied Sciences, Gaza, Palestine; School of Economics and Management (Prof M Z Y Salem PhD), University of Kassel, Kassel, Germany; College of Nursing (D Salihu PhD), Jouf University, Jouf, Saudi Arabia; Department of Global Initiatives (Prof G A Salum PhD), Child Mind Institute, New York, NY, USA; Clinical Research Division (S S Salvi MD), Pulmocare Research and Education (PURE) Foundation, Pune, India; Faculty of Health Sciences (S S Salvi MD), Symbiosis International University, Pune, India; Surgical Department (J

Samaranayake MBBS), North Colombo Teaching Hospital, Ragama, Sri Lanka; Benang Merah Research Center (BMRC), Minahasa Utara, Indonesia (Y L Samodra PhD); Department of Anatomy (Prof V P Samuel PhD), Ras Al Khaimah Medical and Health Sciences University, Ras Al Khaimah, United Arab Emirates; Department of Forensic Biology (S G Sangle PhD), Government Institute of Forensic Science Chhatrapati Sambhajanagar, Chhatrapati Sambhajanagar, India; Primary Healthcare Department (F Sanmarchi MD), Azienda USL di Bologna, Bologna, Italy; Department of Sociology and Gerontology (K P Sapkota MSc), Miami University, Oxford, OH, USA; Independent Consultant, Thiruvananthapuram, India (S Y I Saraswathy PhD); Department of Public Health (Y Sarikhani PhD), Jahrom University of Medical Sciences, Jahrom, Iran; Botany Department (H Sarma PhD), Bodoland University, Kokrajhar, India; Department of Community Medicine (S Saroshe MD), Mahatma Gandhi Memorial Medical College, Indore, India; Faculty of Health & Social Sciences (B Sathian PhD), Bournemouth University, Bournemouth, UK; Precision Medicine Department (M Savabi Far MD, S Tajabadi MSc), Università degli studi della Campania Luigi Vanvitelli (University of Campania Luigi Vanvitelli), Naples, Italy; Department of Public Health Sciences (M Sawhney PhD), University of North Carolina at Charlotte, Charlotte, NC, USA; Department of Public Health Sciences (S G Saxena DrPH), Coastal Carolina University, Conway, SC, USA; Harvard Extension School (S G Saxena DrPH), Department of Orthopaedics (O Subasi PhD), Harvard Kennedy School (K J Uzor MD), Harvard University, Cambridge, MA, USA; Department of Preventive and Social Medicine (G Saya MD), Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India; Psychiatry Clinic (M Saylan MD), Holy Savior Armenian Hospital, Istanbul, Turkiye; Faculty of Business and Computing (Prof C Schinckus PhD), University of the Fraser Valley, Abbotsford, BC, Canada; Graduate School of Business (Prof C Schinckus PhD), ESAN University, Lima, Peru; Clinic for Conservative Dentistry and Periodontology (Prof F Schwendicke PhD), University Hospital of the Ludwig-Maximilians-University Munich, Munich, Germany; Department of Medical Statistics (M Šekerija PhD), University of Zagreb, Zagreb, Croatia; Department of Epidemiology and Prevention of Chronic Noncommunicable Diseases (M Šekerija PhD), Croatian Institute of Public Health, Zagreb, Croatia; Department of Applied Mechanics and Biomedical Engineering (V Selvaraj PhD), Indian Institute of Technology Delhi, Chennai, India; Emergency Department (S Senthilkumaran PhD), Manian Medical Centre, Erode, India; Department of Medicine (Y Sethi MD), Swami Vivekanand Subharti University, Meerut, India; National Heart, Lung, and Blood Institute (A Seylani MD), National Institutes of Health, Rockville, MD, USA; Rita A. Patel Institute of Physiotherapy (S Shah PhD), The Charutar Vidya Mandal (CVM) University, Anand, India; School of Health Sciences (S Shaharudin PhD), Universiti Sains Malaysia, Kota Bharu, Malaysia; Department of Biotechnology (S Shahid MPhil), Quaid-i-Azam University Islamabad, Islamabad, Pakistan; Gastroenterology Unit (E Shahini MD), IRCCS, Bari, Italy; Department of Chemistry (H R Shahsavari PhD), Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran; Independent Consultant, Karachi, Pakistan (M A Shaikh MD); Noncommunicable Diseases Research Center (A Shakerimoghaddam PhD), Department of Basic Medical Sciences (S Yaghoubi PhD), Neyshabur University of Medical Sciences, Neyshabur, Iran; Department of Pathology and Laboratory Medicine (S Sham MD), Northwell Health, New York, NY, USA; Department of Pathobiology (M Shamshirgaran PhD), Shahid Bahonar University of Kerman, Kerman, Iran; Department for Evidence-based Medicine and Evaluation (A Sharifan PharmD), University for Continuing Education Krems, Krems, Austria; Amity Institute of Biotechnology (A Sharma PhD), Amity University Rajasthan, Rajasthan, India; Department of Forensic Science (Prof B K Sharma PhD, M Walia MPhil), Faculty of Medicine and Health Sciences (Prof N P Singh MD), Shree Guru Gobind Singh Tricentenary University, Gurugram, India; UN Mehta Institute of Cardiology and Research Center (Prof K Sharma MD), B.J. Medical College, Ahmedabad, India;

Department of Cardiology (Prof K Sharma MD), Government Medical College, Ahmedabad, India; Department of Nephrology (S Sharma DNB), Vardhman Mahavir Medical College, New Delhi, India; Yenepoya Research Center (R P Shastry PhD), Yenepoya University, Mangalore, India; Department of Engineering (A Shavandi PhD), Free University of Brussels, Brussels, Belgium; Physiotherapy Department (B Shehu Bappah MSc), Federal University of Health Sciences, Azare, Nigeria; Department of Microbiology (S M Shenoy MD), Kasturba Medical College, Mangalore, India; Department of Biology (S P Sherchan PhD), Morgan State University, Baltimore, MD, USA; General Surgery Department (M Shibani MD), Glasgow Royal Infirmary, Glasgow, UK; Department of HIV/AIDS Prevention and Control (B F Shibesh MPH), Bahir Dar University, Bahir Dar, Ethiopia; Tokyo Foundation for Policy Research, Tokyo, Japan (Prof K Shibuya MD); Department of Public Health (D Shiferaw MPH), Dambi Dollo University, Dembi Dollo, Ethiopia; Finnish Institute of Occupational Health, Helsinki, Finland (R Shiri PhD); Department of Experimental Research (V Shivarov PhD), Medical University Pleven, Pleven, Bulgaria; Department of Genetics (V Shivarov PhD), Sofia University "St. Kliment Ohridski", Sofia, Bulgaria; Department of Neurosurgery (N A Shlobin MD), Columbia University Medical Center, New York, NY, USA; Department of Community Medicine and Public Health (G Shrestha MD), Institute of Medicine, Kathmandu, Nepal; Department of Research and Academics (S Shrestha PhD), Kathmandu Cancer Center, Bhaktapur, Nepal; Kenneth H. Cooper Institute (Prof K Shuval PhD), Texas Tech University Health Sciences Center, Dallas, TX, USA; Advanced Materials Division (N R S Sibuyi PhD), Mintek, Randburg, South Africa; Department of Biotechnology (N R S Sibuyi PhD), University of the Western Cape, Bellville, South Africa; Department of Medical Microbiology and Infectious Diseases (E E Siddig MD), Erasmus University, Rotterdam, Netherlands; Chair for General Economics, Health Economics and Econometrics (Prof M Siegel PhD), University of Greifswald, Greifswald, Germany; Instituto Salud Publica (J Silva MD), Pontifical Javeriana University, Bogota, Colombia; RISE Health (Prof L M L R Silva PhD), University of Beira Interior, Covilhã, Portugal; School of Human and Health Sciences (Prof P P Simkhada PhD), University of Huddersfield, Huddersfield, UK; Department of Agriculture and Environmental Sciences (Prof B P Singh PhD), National Institute of Food Technology Entrepreneurship and Management-Kundli (NIFTEM-K), Sonapat, India; Department of Pharmacology (H Singh DM), Government Medical College and Hospital, Chandigarh, India; School of Pharmaceutical Sciences (H Singh PhD), IFTM University, Moradabad, India; Department of Paediatrics (J Singh MD), All India Institute of Medical Sciences, Bilaspur, India; School of Medicine (Prof J A Singh MD), Baylor College of Medicine, Houston, TX, USA; Department of Medicine Service (Prof J A Singh MD), US Department of Veterans Affairs (VA), Houston, TX, USA; National Institute of Cancer Prevention and Research, Noida, India (P Singh PhD); Department of Human Genetics (P Singh PhD), Punjabi University Patiala, Patiala, India; Department of Biochemistry (Prof R K Singh PhD), Institute of Medical Sciences (S Singh PhD), Banaras Hindu University, Varanasi, India; Department of Community Medicine (S Singh MD), Veer Chandra Singh Garhwali Government Institute of Medical Science and Research, Srinagar Garhwal, India; ESIC Medical College and Hospital (R Sinha MD), ESIC Medical College and Hospital, Ranchi, India; Department of Internal Medicine (R Sinto MD), University of Indonesia, Jakarta, Indonesia; Department of Internal Medicine (R Sinto MD), Dr. Cipto Mangunkusumo National Hospital, Jakarta Pusat, Indonesia; Department of Physiotherapy and Occupational Therapy (Prof S T Skou PhD), Næstved-Slagelse-Ringsted Hospitals, Slagelse, Denmark; Division of Injury Prevention (Prof D A Sleet PhD), The Bizzell Group, Atlanta, GA, USA; School of Medicine (B Sokhal MD), Keele University, Stoke-On-Trent, UK; University Hospitals North Midlands, Stoke-on-Trent, UK (B Sokhal MD); Department of Systemic Pathology (R Solanki MD), Touro College of Osteopathic Medicine, Middletown, NY, USA; Department of Pathology (R Solanki MD), American

University of the Caribbean School of Medicine, Cupecoy, Saint Martin; Division of Engineering in Medicine (Y Song PhD), Harvard Medical School, Boston, MA, USA; Hospital Universitario de La Princesa (Prof J B Soriano MD), Universidad Autónoma de Madrid (Autonomous University of Madrid), Madrid, Spain; Centro de Investigación Biomédica en Red Enfermedades Respiratorias (CIBERES) (Center for Biomedical Research in Respiratory Diseases Network), Madrid, Spain (Prof J B Soriano MD); Department of Public Health, Experimental and Forensic Medicine (M Sorrentino MD), University of Pavia, Pavia, Italy; Universidade Federal de Minas Gerais (Federal University of Minas Gerais), Belo Horizonte, Brazil (M A Sousa PhD); Doheny Eye Institute (C Soylu MD), University of California Los Angeles, Pasadena, CA, USA; College of Health and Public Service (S Sriram PhD), University of North Texas, Denton, TX, USA; Nutrition and Dietetics Department (A V Starodubova DSc), Federal Research Institute of Nutrition, Biotechnology and Food Safety, Moscow, Russia; Department of Internal Disease (A V Starodubova DSc), Pirogov Russian National Research Medical University, Moscow, Russia; Department of Medicine (P Steiropoulos MD), Democritus University of Thrace, Alexandroupolis, Greece; Occupational and Environmental Medicine Department (L Stockfelt PhD), Institute of Health and Care Sciences (Prof A W Wolf PhD), University of Gothenburg, Gothenburg, Sweden; Global Observatory on Pollution and Health (Prof K Straif PhD), Boston College, Chestnut Hill, MA, USA; ISGlobal Instituto de Salud Global de Barcelona, Barcelona, Spain (Prof K Straif PhD); Department of Ophthalmology (Y Su PhD), Renmin Hospital of Wuhan University, Wuhan, China; Research Department (N Subedi PhD), Nepal Development Society, Kathmandu, Nepal; Department of Geriatrics (C K Suemoto MD), University of São Paulo, Sao Paulo, Brazil; Praboromarajchanok Institute (T Sukaew PhD), Ministry of Public Health, Nonthaburi, Thailand; Department of Human Anatomy (M Suleiman Odidi PhD), Federal University, Dutse, Dutse, Nigeria; School of Life Sciences (M Suleman PhD), Xiamen University, Xiamen, China; Faculty of Health Science (D Sulistiyorini MSc), Universitas Indonesia Maju, Jakarta, Indonesia; School of Medicine, Medical Sciences and Nutrition (A Sultan Meo MPH), University of Aberdeen, Aberdeen, UK; Yusuf Hamied Department of Chemistry (Prof H Z Sun PhD), University of Cambridge, Cambridgeshire, UK; Institute of Integrated Intelligence and Systems (Prof J Sun PhD), Griffith University, Brisbane, QLD, Australia; The First Hospital of China Medical University (M Sun MM), China Medical University, Shenyang, China; Department of Endocrinology and Metabolism (X Sun PhD), Affiliated Hospital of Shandong Second Medical University, Weifang, China; Department of Biomedical Sciences (Z Sun PhD), Universiti Putra Malaysia, Selangor, Malaysia; Gandhi Medical College (S Sundaragiri MD), Kaloji Narayana Rao University of Health Sciences (KNRUHS), Secunderabad, India; Cardiovascular Program (X Xu PhD), The George Institute for Global Health, Sydney, NSW, Australia (Prof J Sundström PhD); Department of Clinical Research and Development (Prof L Szarpak PhD), LUXMED Group, Warsaw, Poland; Collegium Medicum (Prof L Szarpak PhD), John Paul II Catholic University of Lublin, Lublin, Poland; Department of Neurology (P Tabae Damavandi MD), Neurocenter of Southern Switzerland (NSI), Lugano, Switzerland; Department of Medicine (Prof R Tabarés-Seisdedos PhD), University of Valencia, Valencia, Spain; Department of Basic Medical Sciences (S Tabatabaeizadeh PhD), Department of Internal Medicine (S Tabatabaeizadeh PhD), Islamic Azad University, Mashhad, Iran; Department of Health, Safety, and Environmental Management (R Tabibi PhD), Abadan School of Medical Sciences, Abadan, Iran; Department of Dentistry and Oral Health (J Tadakamadla PhD), La Trobe University, Bendigo, VIC, Australia; School of Dentistry and Oral Health (S K Tadakamadla PhD), School of Medicine and Dentistry (M T N Tran PhD, M N Wanjau PhD), Griffith University, Gold Coast, QLD, Australia; Department of Physiotherapy (B A Tafida MSc), A.T. Still University, Azare, Nigeria; Department of Biostatistics and Epidemiology (M Taheri Soodejani PhD), Shahid Sadoughi University of Medical

Sciences, Yazd, Iran; Research Center for Molecular Medicine (A Taherkhani PhD), Hamadan University of Medical Sciences, Hamadan, Iran; Department of Dermato-Venereology (M Tampa PhD), Dr. Victor Babes Clinical Hospital of Infectious Diseases and Tropical Diseases, Bucharest, Romania; Department of Medicine (J L Tamuzi MSc), Northlands Medical Group, Omuthiya, Namibia; Department of Orthopaedics (J Tan MD), Western Institute of Digital-Intelligent Medicine (Z Xia MD), Department of Anesthesiology (J Yu MD), Chongqing Medical University, Chongqing, China; State Key Laboratory of Numerical Modeling for Atmospheric Sciences and Geophysical Fluid Dynamics (LASG) (H Tang PhD), Chinese Academy of Sciences, Beijing, China; Department of Medicine (E Tantisattamo MD), University of California Irvine, Orange, CA, USA; Department of Public Health (M K Tariku MPH), Public Health Department (T Y Tiruye PhD), School of Public Health (G K Wirtu PhD), Debre Markos University, Debre Markos, Ethiopia; Department of Pharmacology and Therapeutics (S Tariq PhD), The University of Faisalabad, Faisalabad, Pakistan; Taking Our Best Shot, Houston, TX, USA (N Y Tat MS); Department of Research and Innovation (N Y Tat MS), Enventure Medical Innovation, Houston, TX, USA; Institute of General Practice and Interprofessional Care (R Tavakoly PhD), University Hospital Tübingen, Tübingen, Germany; Robert Bosch Center for Integrative Medicine and Health (R Tavakoly PhD), Bosch Health Campus, Stuttgart, Germany; Indiana University School of Medicine (M G Tedla PhD), University of Missouri, Indianapolis, IN, USA; University of Gondar (A T Tefera MPH), Ethiopian Medical Association, Gondar, Ethiopia; Department of Urology (M Teimoori MD), Sabzevar University of Medical Sciences, Sabzevar, Iran; Department of Surgery (O Thaher PhD), University Hospital Bochum, Herne, Germany; Amrita Vishwa Vidyapeetham (Prof K R Thankappan MD), Amrita Institute of Medical Sciences, Kochi, India; Department of Economics (I Tharwat PhD), The American University in Cairo, Cairo, Egypt; Department of Applied Bioscience (Prof M Thiruvengadam PhD), Konkuk University, Seoul, South Korea; Clinical Epidemiology (A Thiyagarajan MPH), Leibniz Institute for Prevention Research and Epidemiology, Bremen, Germany; School of Public Health (W Tian PhD, G Yan MD), Harbin Medical University, Harbin, China; Faculty of Public Health (J H V Ticoalu MPH), Universitas Sam Ratulangi (Sam Ratulangi University), Manado, Indonesia; Interdisciplinary Health Data Center (R Topor-Madry PhD), Jagiellonian University Medical College, Kraków, Poland; Merylyn and Glick Eye Institute (A Torkashvand MD), University of Indiana, Indianapolis, IN, USA; Nutritional Epidemiology Research Team (EREN) (M Touvier PhD), National Institute for Health and Medical Research (INSERM), Paris, France; High Institute of Sport and Physical Education of Sfax (K Trabelsi PhD), University of Sfax, Sfax, Tunisia; Netherlands Organisation for Applied Scientific Research (TNO) (E Traini PhD), Netherlands Organisation for Applied Scientific Research (TNO), Utrecht, Netherlands; Department of Health (N M Tran MD), Children's Hospital 1, Ho Chi Minh City, Vietnam; Second Department of Internal Medicine (Q T H Tran MD), Kansai Medical University, Hirakata, Japan; Department of Business Analytics (T H Tran MD), University of Massachusetts Dartmouth, Dartmouth, MA, USA; Molecular Neuroscience Research Center (N Tran Minh Duc MD), Shiga University of Medical Science, Shiga, Japan; ALS Vietnam Research and Advocacy Initiative (N Tran Minh Duc MD), ALS Vietnam, Quang Ngai, Vietnam; Adult Learning Disability Service (S J Tromans PhD), Leicestershire Partnership National Health Service Trust, Leicester, UK; College of Health Science (Q X N Truong PhD), Vin University, Hanoi, Vietnam; Department of Cardiology (Prof G Tse PhD), Tianjin Medical University, Tianjin, China; Kent and Medway Medical School (Prof G Tse PhD), Kent and Medway Medical School, Canterbury, UK; Department of Internal Medicine (M Tumurkhuu PhD), Wake Forest University, Winston-Salem, NC, USA; Department of Urology (Z Tuo MS), The Second Hospital of Tianjin Medical University, Tianjin, China; Hayatabad Medical Complex (H Ullah FCPS), Postgraduate Medical Institute, Peshawar, Pakistan; Department of Allied Health Sciences (I Ullah PhD),

Iqra University Chak Shahzad Campus, Islamabad, Pakistan; Department of Pediatric Cardiology (K Umapathi MD), Rush University, Chicago, IL, USA; Department of Physiotherapy (L Umar PhD), Federal Ministry of Health, Azare, Nigeria; Department of Medicine (M Umar MBBS), Khairpur Medical College, Khairpur, Pakistan; Department of Oncology (S S Umar FWACS), Federal Medical Centre, Gusau, Nigeria; Section of Advanced Heart Failure and Transplant (D Uppal MD), North Shore University Hospital, Manhasset, NY, USA; Center for Neurodegenerative Diseases and the Aging Brain (D Urso MD), University of Bari, Tricase, Italy; Operational Research Center in Healthcare (Prof D Uzun Ozsahin PhD), Near East University, Mersin, Turkiye; Department of Orthodontics (H Uzunçibuk PhD), University of Trakya, Edirne, Turkiye; Johnson & Johnson (P Vadagam MS), Duquesne University, Pittsburgh, PA, USA; Sociedad Argentina de Medicina, Buenos Aires, Argentina (Prof P R Valdez PhD); Hospital Vélez Sarsfield, Buenos Aires, Argentina (Prof P R Valdez PhD); Department of Biomedical Sciences (M Valenti MD), Humanitas University, Milan, Italy; Dermatology Unit (M Valenti MD), IRCCS Humanitas Research Hospital, Milan, Italy; Faculty of Sciences (J Varasteh MSc), University of Guilan, Rasht, Iran; Achutha Menon Centre for Health Science Studies (R P Varma MD), Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, India; UKK Institute, Tampere, Finland (Prof T J Vasankari PhD); Faculty of Medicine and Health Technology (Prof T J Vasankari PhD), Tampere University, Tampere, Finland; Department of Biochemistry (S Vasishta PhD), Apollo Institute of Medical Sciences and Research Chittoor, Chittoor, India; Department of Otolaryngology Head and Neck Surgery (S Vasudevan MS), Louisiana State University Health Sciences Center, Shreveport, LA, USA; School of Dentistry and Medical Sciences (P Veginadu PhD), Charles Sturt University, Wagga Wagga, NSW, Australia; Department of Human Genetics & Molecular Biology (B Vellingiri PhD), Bharathiar University, Coimbatore, India; Raffles Neuroscience Centre (Prof N Venketasubramanian MSc), Raffles Hospital, Singapore, Singapore; Department of Neurology (S Vidale MD), Infermi Hospital, Rimini, Italy; Department of Neurology & Stroke Unit (S Vidale MD), Sant'Anna Hospital, Como, Italy; Department of Physiotherapy (J H Villafaña PhD), Universidad Europea de Madrid (European University of Madrid), Villaviciosa de Odón, Spain; Digital Health Research Center (D Villarreal-Zegarra MPH), Instituto Peruano de Orientación Psicológica, Lima, Peru; Occupational Medicine Unit (Prof F S Violante MD), Sant'Orsola Malpighi Hospital, Bologna, Italy; Cardiac Electrophysiology (S C Vipparthy MD), St Bernard's Medical Center, Jonesboro, AR, USA; Faculty of Medicine of Itajubá, Brazil, Itajubá, Brazil (Prof L M Vitorino PhD); Department of Health Care Administration and Economics (Prof V Vlassov MD), National Research University Higher School of Economics, Moscow, Russia; NUST School of Health Sciences (Prof Y Waheed PhD), National University of Science and Technology (NUST), Islamabad, Pakistan; Széchenyi István University, Győr, Hungary (Prof Y Waheed PhD); Research Organization for Health (M Wahidin PhD), National Research and Innovation Agency, Bogor, Indonesia; Department of Social Sciences (A W Wamai MSc), Chuka University, Nairobi, Kenya; School of Chinese Medicine (Prof J Wan PhD), School of Traditional Chinese Medicine (Prof H Yao PhD), Beijing University of Chinese Medicine, Beijing, China; Brigham and Women's Hospital, Boston, MA, USA (C Wang PhD); Department of Oncology (L Wang MA), Xiang'an Hospital of Xiamen University, Xiamen, China; Department of Laboratory Medicine (Prof L Wang PhD), Guangdong Provincial People's Hospital, Guangzhou, China; Department of Artificial Intelligence (S Wang PhD), Eye Institute of Xiamen University (S Wu MD), Xiamen University Malaysia, Xiamen, China; Department of Neurosurgery (S Wang MD), Beijing Tiantan Hospital, Beijing, China; College of Agriculture (X Wang PhD), Northwest A&F University, Xianyang City, China; Enze Medical Health Academy (X Wang PhD), Taizhou Hospital of Zhejiang Province, Taizhou, China; Division of Gastroenterology and Hepatology (Y Wang MD), Mayo Clinic, Jacksonville, FL, USA; Division of Life

Sciences and Medicine (Prof Z Wang PhD), University of Science and Technology of China, Hefei, China; Key Laboratory of Computer-Aided Drug Design (M Waqas PhD), Guangdong Medical University, Dongguan, China; Department of Biotechnology and Genetic Engineering (M Waqas PhD), Hazara University Mansehra, Mansehra, Pakistan; Centre for Health Policy Research (Prof P Ward PhD), Torrens University Australia, Adelaide, SA, Australia; Institute of Health and Wellbeing (I Weerasekara PhD), Federation University, Melbourne, VIC, Australia; University of Adelaide, North Terrace, NSW, Australia (I Weerasekara PhD); Department of Orthopaedics (F Wei PhD), General Hospital of Central Theater Command, Wuhan, China; Fourth Military Medical University, Xi'an, China (F Wei PhD); Department of Geriatrics (X Wei MS), The Eighth Affiliated Hospital of Sun Yat-sen University, Shenzhen, China; Cardiology Department (Prof R G Weintraub MB), Royal Children's Hospital, Melbourne, VIC, Australia; Department of Critical Care and Neurosciences (Prof R G Weintraub MB), Murdoch Children's Research Institute, Parkville, VIC, Australia; Key Laboratory of Shaanxi Province for Craniofacial Precision Medicine Research (Y Wen PhD), Stomatological Hospital (College) of Xi'an Jiaotong University, Xi'an, China; Demographic Change and Aging Research Area (A Werdecker PhD), Competence Center of Mortality-Follow-Up of the German National Cohort (R Westerman DSc), Federal Institute for Population Research, Wiesbaden, Germany; Department of Physical Therapy (T Wiangkham PhD), Naresuan University, Phitsanulok, Thailand; Department of Nursing (A Wilandika PhD), Universitas Aisyiyah Bandung, Bandung, Indonesia; Institute of Clinical Epidemiology (Prof P Willeit PhD), Medical University Innsbruck, Innsbruck, Austria; Research Organisation (A Wireko MD), Inter-Continental Omni-Research in Medicine Collaborative, Berlin, Germany; Department of Public Health (A T Woday MPH), Samara University, Samara, Ethiopia; Department of Research (M W Wojewodzc PhD), Cancer Registry of Norway, Oslo, Norway; Department of Theory and Empiricism of Healthcare (D T Worede MSc), Universität Kassel, Kassel, Germany; Global Health Research Center (C Wu PhD), Duke Kunshan University, Kunshan, China; Department of Food Science and Human Nutrition (Prof F Wu PhD), Michigan State University, East Lansing, MI, USA; Affiliated Hospital of Guangdong Medical University (J Wu MD), Guangdong Medical University, Zhanjiang, China; Department of Public Health (Prof J Wu MPH), Wuhan Fourth Hospital, Wuhan, China; School of Public Health (H Xiao PhD), Zhejiang University, Zhejiang, China; School of Nursing and Rehabilitation (N Xiao BS), Shandong University, Jinan, China; Department of Intelligent Medical Engineering (Prof W Xie DrPH), Anhui Medical University, Anhui, China; Department of Surgery (Prof W Xie DrPH), The First Affiliated Hospital of Anhui Medical University, Hefei, Anhui, China; Department of Respiratory and Critical Care Medicine (H Xing DrPH), Nanchang University, Jiangxi, China; Department of Endocrinology (Prof S Xu PhD), University of Science and Technology of China, Hefei, China; Department of Nutrition (W Xu MPH), Tufts University, Boston, MA, USA; Department of Environmental Health and Epidemiology (V Yadav MD), National Institute for Research in Environmental Health, Bhopal, India; Department of Community Medicine (S Yahoo (Syed) MD), Apollo Institute of Medical Sciences and Research, Hyderabad, India; Department of Cells and Tissues (G Yahya PhD), Molecular Biology Institute of Barcelona, Barcelona, Spain; Department of Public Health (Prof K Yamagishi MD, Prof N Yonemoto PhD), Faculty of Medicine (Y Yano MD), Juntendo University, Tokyo, Japan; Department of Public Health Administration (H Yang MD), Linyi People's Hospital, Linyi, China; Department of Cardiovascular Surgery (W Yang MD), Tianjin Medical University General Hospital, Tian Jin, China; Department of Medicine (A Yarahmadi PhD), Thomas Jefferson University, Philadelphia, PA, USA; Department of Public Health (A Yekdeş MD), Trakya University, Edirne, Turkiye; Department of Family Medicine (S A Yesuf MSc), St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia; Family Medicine Department (S A Yesuf MSc), St. Peter's Specialized Hospital, Addis Ababa, Ethiopia;

KHANA Center for Population Health Research, Phnom Penh, Cambodia (Prof S Yi PhD); Nankai University (Y Yin PhD), China Population and Development Research Center, Tianjin, China; Pharmacy Department (Y E Yismaw MSc), Alkan Health Science, Business and Technology College, Bahir Dar, Ethiopia; Department of Pediatrics (Prof D Yon MD), Kyung Hee University, Seoul, South Korea; Department of Biostatistics (Prof N Yonemoto PhD), University of Toyama, Toyama, Japan; Department of Health Policy and Management (Prof M Z Younis PhD), Jackson State University, Jackson, MS, USA; School of Business & Economics (Prof M Z Younis PhD), Universiti Putra Malaysia (University of Putra Malaysia), Kuala Lumpur, Malaysia; Department of Public Health (A Yousuf PhD), Jigjiga University, Jigjiga, Ethiopia; School of Public Health (Prof Y Yu MS), Hubei University of Medicine, Shiyan, China; Department of Haematology and Blood Transfusion (A A Yusuf MD), Aminu Kano Teaching Hospital, Kano, Nigeria; Association for Socially Applicable Research (ASAR), Pune, India (S Zadey MS); Department of Emergency Medicine (S Zadey MS), Global Emergency Medicine Innovation and Implementation (GEMINI) Research Center, Durham, NC, USA; Epidemiology and Cancer Registry Sector (Prof V Zadnik PhD), Institute of Oncology Ljubljana, Ljubljana, Slovenia; Department of Environmental and Occupational Health (E Zainal Abidin PhD), Universiti Putra Malaysia, Serdang, Malaysia; Faculty of Medicine and Health Sciences (F Zakham PhD), Hodeidah University, Hodeidah, Yemen; Department of Health Sciences (S Zaman PhD), James Madison University, Harrisonburg, VA, USA; Health Investigation Center (N Zamora MD), Universidad Católica Boliviana San Pablo, Tarija, Bolivia; San Pablo Catholic University Tarija Bolivia, Tarija, Bolivia (N Zamora MD); Sant'Elia Hospital (A Zanghì MD), University of Catania, Caltanissetta, Italy; Unit on Child & Adolescent Health (Prof H J Zar PhD), Medical Research Council South Africa, Cape Town, South Africa; Department of Clinical Practice (M Zawiah PhD), Northern Border University, Rafha, Saudi Arabia; Institute of Diagnostic and Interventional Radiology and Neuroradiology (S Zensen MD), University of Duisburg-Essen, Essen, Germany; School of Public Policy and Administration (J Zhang BA), Xi'an Jiaotong University, Xi'an, China; Medical Oncology Department of Gastrointestinal Cancer (L Zhang MS), Cancer Hospital of Dalian University of Technology, Shenyang, China; School of Biomedical Engineering (L Zhang MS), Dalian University of Technology, Dalian, China; Department of Internal Medicine (X Zhang MD), Jacobi Medical Center, Bronx, NY, USA; Department of Internal Medicine (X Zhang MD), Albert Einstein College of Medicine, Bronx, NY, USA; School of Public Health (Y Zhang PhD), Hubei Province Key Laboratory of Occupational Hazard Identification and Control (Y Zhang PhD), Wuhan University of Science and Technology, Wuhan, China; Tianjin Medical University General Hospital (Z Zhang MD), Tianjin Centers for Disease Control and Prevention, Tianjin, China; Department of Health Management (Z Zhao PhD), Shengjing Hospital of China Medical University, Shenyang, China; National Institute of Parasitic Diseases (J Zheng PhD), Chinese Center for Disease Control and Prevention, Shanghai, China; National Center for Chronic and Noncommunicable Disease Control and Prevention, Beijing, China (M Zhou PhD); School of Public Health and Emergency Management (B Zhu PhD), Southern University of Science and Technology, Shenzhen, China; Adama Hospital Medical College (Z Zhu PhD), Adama Hospital Medical College, Adama, Ethiopia; School of Public Health (L Zihao PhD), Bengbu Medical College, Bengbu, China; Endocrinology and Metabolism Research Center (G Zoghi MD), Hormozgan University of Medical Sciences, Bandar Abbas, Iran; Department of Public Health (L Zuhriyah PhD), Universitas Brawijaya, Malang, Indonesia; NIHR-Biomedical Research Centre (NIHR-BRC) (Prof A Zumla PhD), University College London Hospitals, London, UK; Clinical Research Centre (Prof S H Zyoud PhD), An-Najah National University Hospital, Nablus, Palestine; Department of Building Engineering and Environment (S H Zyoud PhD), Civil

Engineering and Sustainable Structures (S H Zyoud PhD), Palestine Technical University (Kadoorie), Tulkarem, Palestine

Authors' Contributions

Managing the overall research enterprise

Robert W Aldridge, Charlie Ashbaugh, Catherine S Chen, Amanda Deen, Kara Estep, Emmanuela Gakidou, Ashley Ann Harris, Simon I Hay, Miranda L May, Ali H Mokdad, Christopher J L Murray, Mohsen Naghavi, Olivia D Nesbit, Erin M O'Connell, Matthew Seymour, Caitlyn Steiner, and Stein Emil Vollset.

Writing the first draft of the manuscript

Simon I Hay, Susan A McLaughlin, and Samuel M Ostroff.

Primary responsibility for applying analytical methods to produce estimates

Michael Brauer, Channa Buxbaum, Jack Cagney, Rebecca M Cogen, Ewerton Cousin, Andrew Crist, Garland T Culbreth, Nicole K DeCleene, Holly E Erskine, Alize J Ferrari, William M Gardner, Gabriela Fernanda Gil, Demewoz Haile, Hannah Han, Cassandra L Harding, Simon I Hay, Claire A Henson, Austin Heuer, Catherine O Johnson, Jonathan M Kocarnik, Madeline E Moberg, Ali H Mokdad, Brooks W Morgan, Mohsen Naghavi, Paul Nam, Taylor Noyes, Kanyin Liane Ong, Natalie Pritchett, Christian Razo, Gregory A Roth, Damian F Santomauro, Sarah Brooke Sirota, Sandra Spearman, Lauryn K Stafford, Jeffrey D Stanaway, Jaimie D Steinmetz, Corey Teply, Andrew Underwood-Nakamura, Avina Vongpradith, Theo Vos, Joanna L Whisnant, and Faith H Yuh.

Primary responsibility for seeking, cataloguing, extracting, or cleaning data; designing or coding figures and tables

Noah Ahmad, Robert W Aldridge, Jason A Anderson, Ismael A Barreras Beltran, Rachael Bokota, Edmond D Brewer, Channa Buxbaum, Jack Cagney, Rebecca M Cogen, Andrew Crist, Nicole K DeCleene, Lee Deitesfeld, Alize J Ferrari, Vanessa Garcia, Cassandra L Harding, Simon I Hay, Claire A Henson, Austin Heuer, Julia Hon, Jada Averiana Houser, Audrey L Ihler, Catherine O Johnson, Mariam Khalil, Jonathan M Kocarnik, Hilary R Lawlor, Ali H Mokdad, Mohsen Naghavi, Paul Nam, Taylor Noyes, Doori Oh, Kanyin Liane Ong, Brandon V Pickering, David M Pigott, Hannah Elizabeth Robinson-Oden, Jennifer Jacqueline Rosauer, Damian F Santomauro, Noah Joseph Bernard Silva de Leonardi, Sarah Brooke Sirota, Erica Leigh N Slepak, Sandra Spearman, Lauryn K Stafford, Jeffrey D Stanaway, Jaimie D Steinmetz, Andrew Underwood-Nakamura, Avina Vongpradith, Hai Nam Vu, Joanna L Whisnant, and Faith H Yuh.

Providing data or critical feedback on data sources

Bhoomadevi A, Ahmed A.J. Jabbar, Mohammad Amin Aalipour, Ukachukwu O Abaraogu, Biruk Beletew Abate, Cristiana Abbafati, Samar Abd ElHafeez, Mohammed Altigani Abdalla, Nadin M. I. Abdel Razeq, Ahmed Abdelrahman Abdelgalil, Wael M Abdel-Rahman, Jeza Muhamad Abdul Aziz, Rizwan Suliankatchi Abdulkader, Adam Abdullahi, Auwal Abdullahi, Toufik Abdul-Rahman, Armita Abedi, Roberto Ariel Abeldaño Zuñiga, E S Abhilash, Olugbenga Olusola Abiodun, Richard Gyan Aboagye, Shady Abohashem, Hassan Abolhassani, Lucas Guimarães Abreu, Sawsan Abuhammad, Hana J Abukhadijah, Niveen ME Abu-Rmeileh, Salahdein Aburuz, Dina Abushanab, Raghu Ram Achar, Anirudh Balakrishna Acharya, Juan Manuel Acuna, Mesafint Molla Adane, Zenaw Debasu Addisu, Isaac Akinkunmi Adedeji, David Adedia, Kamoru Ademola Adedokun, Rufus Adesoji Adedoyin, Olumide Thomas Adeleke, Habeeb Omoponle

Adewuyi, Mohd Adnan, Qorinah Estiningtyas Sakilah Adnani, Leticia Akua Adzibbli, David Adzrago, Saira Afzal, Gizachew Beykaso Agafari, Temesgen Anjulo Ageru, Mahdi Aghaalikhani, César Agostinis Sobrinho, Anurag Agrawal, Williams Agyemang-Duah, Bright Opoku Ahinkorah, Danish Ahmad, Muayyad M Ahmad, Rabbiya Ahmad, Sajjad Ahmad, Tauseef Ahmad, Ayman Ahmed, Gasha Salih Ahmed, Haroon Ahmed, Mehrunnisha Sharif Ahmed, Muktar Beshir Ahmed, Sindew Mahmud Ahmed, Gulzhanat Aimagambetova, Hossein Akbarialiabad, Roland Eghoghosoa Akhigbe, Sreelatha Akkala, Salah Al Awaidy, Omar Al Omari, Mohammad Al Qadire, Omar Al Ta'ani, Wasan A. M. Al Taie, Yazan Al Thaher, Omar Ali Mohammed Al Zaabi, Mohammad Ahmmad Mahmoud Al Zoubi, Mostafa Alam, Rasmieh Mustafa Al-Amer, Abebaw Alamrew, Turki M Alanzi, Mohammed Albashtawy, Robert W Aldridge, Tekletsadik Tekleslassie Alemayehu, Abdelazeem M Algammal, Khalid F Alhabib, Ashraf Alhumaidi, Abid Ali, Shahid Ali, Syed Shujait Ali, Waad Ali, Montaha Al-Iede, Sheikh Mohammad Alif, Morteza Alipour, Mohammad A Aljasir, Mohamad Aljofan, Syed Mohamed Aljunid, Mayson H. Alkhatib, Mustafa Alkhawam, Wesam Taher Almagharbeh, Wael Almahmeed, Sabah Al-Marwani, Joseph Uy Almazan, Hesham M Al-Mekhlafi, Omar Almidani, Amr Almobayed, Khaldoon Aied Alnawafleh, Hasan Yaser Alniss, Jaber S Alqahtani, Saleh A Alqahtani, Intima Alrimawi, Salman Khalifah Al-Sabah, Najim Z. Alshahrani, Mansour Abdullah Alshehri, Awais Altaf, Alaa B Al-Tammemi, Nelson Alvis-Guzman, Nelson J Alvis-Zakzuk, Hassan Alwafi, Mohammad Al-Wardat, Hany Aly, Amal AlZahmi, Reza Amani-Beni, Amr Amin, Tarek Tawfik Amin, Alireza Amindarolzarbi, Saeed Amini, Ehsan Amini-Salehi, Nafiu Aminu, Majid Aminzare, Dickson A Amugsi, Filippou Anagnostakis, Deanna Anderlini, Sofia Androudi, Susan C Anenberg, Nguyen Hoang Anh, Samuel Egyakwa Ankomah, Kabilan Annadurai, Sumbul Ansari, Saleha Anwar, Sumadi Lukman Anwar, Razique Anwer, Geminn Louis Carace Apostol, Jalal Arabloo, Jorge Arias de la Torre, Benedetta Armocida, Jesu Arockiaraj, Mahwish Arooj, Anton A Artamonov, Kurnia Dwi Artanti, Deepavalli Arumuganainar, Nurila Aryntayeva, Mahsa Asadi Anar, Shewatatek Melaku Asefa, Mulu Tiruneh Asemu, Syed Amir Ashraf, Mitra Ashrafi, Muhammad Shahzad Aslam, Yuni Asri, Batyrbek Assembekov, Mirbahador Athari, Seyyed Shamsadin Athari, Maha Moh'd Wahbi Atout, Alok Atreya, Marcel Ausloos, Núbia Carelli Pereira Avelar, Sana Javaid Awan, Olatunde O Ayinde, Davood Azadi, Masood Azhar, Farya Azimi, Mohd Yusmaidie Aziz, Ahmed Y Azzam, Domenico Azzolino, Rasha Babiker, Giridhara Rathnaiah Babu, Ashish D Badiye, Alaa Aboelnour Badran, Youngoh Bae, Arvind Bagga, Soroush Baghdadi, Sana Baghizadeh, Ruhai Bai, Atif Amin Baig, Abdulaziz T Bako, Senthilkumar Balakrishnan, Jose Balmori-de-la-Miyar, Ovidiu Constantin Baltatu, Maciej Banach, Palash Chandra Banik, Rajon Banik, Shirin Barati, Amadou Barrow, Sandra Barteit, MD Abu Bashar, Shahid Bashir, Mohammad-Mahdi Bastan, Sanjay Basu, Mulat Tirfie Bayih, Feyisa Shasho Bayisa, Nebiyou Simegne Bayleyegn, Narasimha M Beeraka, Jina Behjati, Babak Behnam, Bezawit K Bekele, Melesse Belayneh, Olorunjuwon Omolaja Bello, Apostolos Beloukas, Derrick A Bennett, Samiun Nazrin Bente Kamal Tune, Eduardo Bernabe, Robert S Bernstein, Akshaya Srikanth Bhagavathula, Neeraj Bhala, Jeetendra Bhandari, Kayleigh Bhangdia, Ravi Bharadwaj, Sonu Bhaskar, Ajay Nagesh Bhat, Anup Bhat, Priyadarshini Bhattacharjee, Gurjit Kaur Bhatti, Jasvinder Singh Bhatti, Soumitra S Bhuyan, Sibhatu Kassa Biadgilign, Raluca Bievel-Radulescu, Cem Bilgin, Saeed Biroudian, Bijit Biswas, Ahmad Naoras Bitar, Molalegne Bitew, Lucimere Bohn, Rachael Bokota, Obasanjo Afolabi Bolarinwa, Sri Harsha Boppana, Berrak Bora Basara, Sanaz Bordbar, Hamed Borhany, Souad Bouaoud, Soufiane Boufous, Rupert R A Bourne, Christopher Boxe, Marija M Bozic, Dejana Braithwaite, Michael Brauer, Annie J Browne, Traolach Brugha, Danilo Buonsenso, Asmat Burhan, Katrin Burkart, Felix Busch, Sanjay C J, Jack Cagney, Luciana Aparecida Campos, Yuchen Cao, Juan Jesus Carrero, Joao Mauricio Castaldelli-Maia, Carlos A Castañeda-Orjuela, Christopher R Cederroth, Francieli Cembranel, Madhu Chakkere Shivamadhu, Eeshwar K Chandrasekar, Vijay Kumar Chattu, Victoria

Chatzimavridou-Grigoriadou, Lam Duc Chau, Sirshendu Chaudhuri, Akhilanand Chaurasia, Haowei Chen, Hui Chen, Meng Xuan Chen, Nicholas WS Chew, Clara G Chisari, William C S Cho, Bryan Chong, Dinh-Toi Chu, Eric Chung, Sunghyun Chung, Aaron J Cohen, Alyssa Columbus, Joao Conde, Nathalie Conrad, Sara Conti, Mariana Oliveira Corda, Paolo Angelo Cortesi, Ewerton Cousin, Michael H Criqui, Natalia Cruz-Martins, Xiaochen Dai, Mayank Dalakoti, Gloria Dalla Costa, Giovanni Damiani, Yohannes Tefera Damtew, Lucio D'Anna, Pojsakorn Danpanichkul, Samuel Demissie Darcho, Fernando Pio De la Hoz, Edward Christopher Dee, Sindhura Deekonda, Louisa Degenhardt, Pouria Delbari, Andreas K Demetriades, Tadios Niguss Derese, Ismail Dergaa, Hunegnaw Almaw Derseh, Vinoth Gnana Chellaiyan Devanbu, Pradeep Kumar Devarakonda, Narender K. Dhanial, Mandira Lamichhane Dhimal, Meghnath Dhimal, Marcello Di Pumpo, Diana Dias da Silva, Daniel Diaz, Kimia Didehvar, Xueting Ding, Huyen Phuc Do, Thao Huynh Phuong Do, Klara Georgieva Dokova, Christiane Dolecek, Regina-Mae Villanueva Dominguez, Ojas Prakashbhai Doshi, Robert Kokou Dowou, Jiang Du, Jennifer Dunne, Andre Rodrigues Duraes, Senbagam Duraisamy, Lamiaa Labieb Mahmoud Ebraheim, Alireza Ebrahimi, Mohammad Hossein Ebrahimi, Fatemeh Ehsani, Ashkan Eighaei Sedeh, Ebrahim Eini, Michael Ekholuenetale, Temitope Cyrus Ekundayo, Rabie Adel El Arab, Maysaa El Sayed Zaki, Reza Elahi, Rana Elbeshbeishy, Mohammed Elshaer, Abdelgawad Salah Eltahawy, Victor Oghenekparobo Emojevwe, Holly E Erskine, Derese Eshetu, Gilbert Eshun, Majid Eslami, Fahima Nasrin Eva, Adewale Oluwaseun Fadaka, Heidar Fadavian, Adeniyi Francis Fagbamigbe, Ayesha Fahim, Aliasghar Fakhri-Demeshghieh, Qiping Fan, Zaki Farhana, Syed Muhammad Yousaf Farooq, Hossein Farrokhpour, Fatemeh Farshad, Ali Fatehizadeh, Davood Fathi, Valery L Feigin, Alireza Feizkhan, Ginenus Fekadu, Berhanu Elfu Feleke, Dechao Feng, Seyed-Mohammad Fereshtehnejad, Alize J Ferrari, Natan Feter, Alexander Finmore, Morenike Oluwatoyin Folayan, Lisa M Force, Arianna Fornari, Ingeborg Forthun, Matteo Foschi, Maryam Fotouhi, Richard Charles Franklin, Blima Fux, Sridevi G, Peter Andras Gaal, Yaseen Galali, Silvano Gallus, Dhanraj Ganapathy, Mohd Ashraf Ganie, Bashiru Garba, Fernando Barroga Garcia, William M Gardner, Zisis Gatzoufas, Stefano Gelibter, Nsikakabasi Samuel George, Ali Gerami Matin, Kalab Yigermal Gete, Keyghobad Ghadiri, Arin Ghamkhar, Shakiba Ghasemi Assl, Sailaja Ghimire, Elena Ghotbi, Gabriela Fernanda Gil, Syed Abdullah Gilani, Bikash Ranjan Giri, Alem Abera Girmay, Laszlo Göbölös, Kimiya Gohari, Mahaveer Golechha, Pouya Goleij, Davide Golinelli, Wenping Gong, Yitayal Ayalew Goshu, Aman Goyal, Ayman Grada, Shi-Yang Guan, Avirup Guha, Damitha Asanga Gunawardane, Zheng Guo, Rajat Das Gupta, Rajeev Gupta, Sapna Gupta, Veer Bala Gupta, Vijai Kumar Gupta, Vivek Kumar Gupta, Lami Gurmessa, Adrina Habibzadeh, Awoke Derbie Habteyohannes, Tesfahun Simon Hadaro, Najah R Hadi, Abdul Hafiz, Demewoz Haile, Pritam Halder, Kosar Hikmat Hama Aziz, Islam M Hamad, Nadia M Hamdy, Erin B Hamilton, Mohammad Hamza, Hannah Han, Nasrin Hanifi, Ashanul Haque, Harapan Harapan, Kassandra L Harding, Andy Martahan Andreas Hariandja, Josep Maria Haro, Eka Mishbahatul Marah Has, Faizul Hasan, Ali Hasanpour- Dehkordi, Arezou Hashem Zadeh, Mahgol Sadat Hassan Zadeh Tabatabaei, Mohammed Bheser Hassen, Lasanthi Wathsala Hathagoda, Rasmus J Havmoeller, Simon I Hay, Jeffrey J Hebert, Mehdi Hemmati, Claire A Henson, Claudiu Herteliu, Md Mahbub Hossain, Mohammad Bellal Hossain, Mehdi Hosseinzadeh, Jada Averiana Houser, Weijun Huang, Atanesia Indriyani Human, Andreas Kattem Husøy, Salman Hussain, Dursa Hussein, Nawfal R Hussein, Mohamed Ibrahim Husseiny, Hong-Han Huynh, Luigi Francesco Iannone, Ahmed Ibrahim, Ramzi Ibrahim, Pulwasha Maria Iftikhar, Nayu Ikeda, Jibran Ikram, Olayinka Stephen Ilesanmi, Muhammad Hamza Ilyas, Leebek Raja Inbaraj, Lalu Muhammad Irham, Md. Shahinul Islam, Nahlah Elkudssiah Ismail, Gaetano Isola, Mahalaxmi Iyer, Kathryn H. Jacobsen, Morteza Jafarinia, Shabbar Jaffar, Haitham Jahrami, Vikash Jaiswal, Mihajlo Jakovljevic, Ali Jaliliyan, Mohamed Jalloh, Armaan Jamal, Jazlan Jamaluddin, Jerin James, Safayet Jamil,

Masoud Jamshidi, Rajiv Janardhanan, Syed Sarmad Javaid, Anita Javanmardi, Talha Jawaidd, Qassim Jawell Odah Abed, Yovanthi Anurangi Jayasinghe, Achala Upendra Jayatilleke, Tadesse Hailu Jember, Belayneh Hamdela Jena, Diptismita Jena, Bijay Mukesh Jeswani, Vivekanand Jha, Weiqiu Jin, Wenyi Jin, Catherine O Johnson, Emily Katherine Johnson, Jost B Jonas, Tamas Joo, Abel Joseph, Charity Ehimwenma Joshua, Jacek Jerzy Jozwiak, Billingsley Kaambwa, Zubair Kabir, Dler H. Hussein Kadir, Ethan M Kahn, Ashish Kumar Kakkar, Leila R Kalankesh, Khalil Kalavani, Feroze Kaliyadan, Sivesh Kathir Kamarajah, Saltanat Kamenova, Ramat T. Kamorudeen, Oleksandr Kamyshnyi, Jiseung Kang, Rami S Kantar, Neeti Kapoor, Arman Karimi Behnagh, Mohmed Isaqali Karobari, Tomasz M Karpiński, Manoj Kumar Kashyap, Abdene Weya Kaso, Adarsh Katamreddy, Gbenga A Kayode, Nastaran Kazemi Rad, Mohammad-Hossein Keivanlou, Peter Njenga Keiyoro, Vikash Ranjan Keshri, Emmanuelle Kesse-Guyot, Yousef Saleh Khader, Himanshu Khajuria, Anas Husam Khalifeh, Anees Ahmed Khalil, Mariam Khalil, Pantea Khalili, Faham Khamesipour, Ajmal Khan, Faiz Ullah Khan, Maseer Khan, Mohammad Idreesh Khan, Muhammad Mueed Khan, Muhammad Umer Khan, Ruby Khan, Salman Ali Khan, Zahid Khan, Sameer Uttamaro Khasbage, Zenith Khashim, Khaled Khatab, Atulya Aman Khosla, Farbod Khosravi, Zemene Demelash Kifle, Jinho Kim, Min Seo Kim, Yohannes Kinfu, Mary Kirk, Adnan Kisa, Sezer Kisa, Jessica Klusty, Shivakumar KM, Ann Kristin Skringdo Knudsen, Jonathan M Kocarnik, Michail Kokkorakis, Diana Gladys Kolioghu Tcheumeni, Aida Kondybayeva, Tapos Kormoker, Oleksii Korzh, Archana Koul, Sindhura Lakshmi Koulmane Laxminarayana, Irene Akwo Kretchy, James-Paul Kretchy, Kewal Krishan, Chong-Han Kua, Barthelemy Kuate Defo, Burcu Kucuk Bicer, Shweta Kulshreshtha, Dewesh Kumar, Dhasarathi Kumar, Jogender Kumar, Manasi Kumar, Sanjay Kirshan Kumar, Vijay Kumar, Subramanian Kumaran, Maria Dyah Kurniasari, Asep Kusnali, Dian Kusuma, Assylkhan Kuttybayev, Ville Kytö, Hmwe Hmwe Kyu, Pallavi L C, Muhammad Awwal Ladan, Chandrakant Lahariya, Dharmesh Kumar Lal, Tea Lallukka, Savita Lasrado, Kamaluddin Latief, Saheed Akinmayowa Lawal, Dai Quang Le, Duc Huy Le, Huu-Hoai Le, Long Khanh Dao Le, Minh Huu Nhat Le, Nhi Huu Hanh Le, Thao Thi Thu Le, Trang Diep Thanh Le, Caterina Ledda, Seung Won Lee, Wei-Chen Lee, Yo Han Lee, James Leigh, Vasileios Leivaditis, Janni Leung, Hui Li, Jiaying Li, Weiling Li, Yichong Li, Zhengrui Li, Yanxue Lian, Stephen S Lim, Queran Lin, Gang Liu, Jue Liu, Xuefeng Liu, Erand Llanaj, Michael J Loftus, Stefan Lorkowski, Shanjie Luan, Jailos Lubinda, Jay B Lusk, Angelina M Lutambi, Miltiadis D Lytras, Ellina Lytvyak, Kevin Sheng-Kai Ma, Zheng Feei Ma, Isis E Machado, Seyed Ataollah Madinezad, Christian Madsen, Aurea Marilia Madureira-Carvalho, Mohammed Magdy Abd El Razek, D. R. Mahadeshwara Prasad, Sasikumar Mahalingam, Nozad Hussein Mahmood, My Tra Mai, Rituparna Maiti, Mohammad-Reza Malekpour, Ahmad Azam Malik, Deborah Carvalho Malta, Mustapha Mangdow, Lokesh Manjani, Mohammad Ali Mansournia, Ana M Mantilla Herrera, Lorenzo Giovanni Mantovani, Changkun Mao, Sajid Maqsood, Joemer C Maravilla, Mirko Marino, Randall V Martin, Bernardo Alfonso Martinez-Guerra, Francisco Rogerlândio Martins-Melo, Winfried März, Roy Rillera Marzo, Sammer Marzouk, Stefano Masi, Clara N Matei, Alexander G Mathioudakis, Medha Mathur, Maryam Mazaheri, Chioma Ngozichukwu Pauline Mbachu, Ikechukwu Innocent Mbachu, Steven M McPhail, Enkeleint A Mechili, Medhin Mehari, Asim Mehmood, Entezar Mehrabi Nasab, Vini Mehta, Tesfahun Mekene Meto, Endalkachew Belayneh Melese, Aishe Memetova, Walter Mendoza, Godfred Antony Menezes, Ritesh G Menezes, Berihun Agegn Mengistie, Atte Meretoja, Chamila Dinushi Kukulege Mettananda, Louise Mewton, Andrea Michelerio, Paul Anthony Miller, Ted R Miller, Wai-kit Ming, Erkin M Mirrakhimov, Yousef Mirzaei, Archana Mishra, Kumar Guru Mishra, Arup Kumar Misra, Mohammadreza Mobayen, Mona Gamal Mohamed, Nouh Saad Mohamed, Khabab Abbasher Hussien Mohamed Ahmed, Mohammad Reza Mohammadi, Seyed Omid Mohammadi, Abdollah Mohammadian-Hafshejani, Shafiu Mohammed, Yahaya Mohammed, Yugal Kishore Mohanta,

Ali H Mokdad, Shaher Momani, Lorenzo Monasta, Amirabbas Monazzami, Ahmed Al Montasir, Catrin E Moore, Yousef Moradi, Maziar Moradi-Lakeh, Brooks W Morgan, Mahdis Morovvati, Mahmoud M Morsy, Jakub Morze, Jonathan F Mosser, Nogol Motamedgorji, Vincent Mougin, Seyed Mohamad Sadegh Mousavi Kiasary, Mohamed Awad Abdalaziz Mousnad, Ahmed Msherghi, Rabia Mubarak, Sumaira Mubarik, Shiv K Mudgal, Syed Aun Muhammad, Sukhes Mukherjee, Sumoni Mukherjee, Amartya Mukhopadhyay, Francesk Mulita, Getaneh Baye Mulu, Chalie Mulugeta, Kavita Munjal, Yanjinkham Munkhsaikhan, Christopher J L Murray, Ali Mushtaq, Ghulam Mustafa, Saravanan Muthupandian, Muhammad Muzaffar, Ahamarshan Jayaraman Nagarajan, Mohsen Naghavi, Ganesh R Naik, Sanjeev Nair, Ibrahim A Naqid, Shumaila Nargus, Yvonne Nartey, Bruno Ramos Nascimento, Abdallah Y Naser, Mohammad Naser, Hamide Nasiri, Zuhair S Natto, Zakira Naureen, Anum Nawaz, M. Omar Nawaz, Biswa Prakash Nayak, Javad Nazari, Ionut Negoii, Ruxandra Irina Negoii, Henok Biresaw Netsere, Josephine W Ngunjiri, Anh Thy H Nguyen, Cuong Tat Nguyen, Huong Lan Thi Nguyen, Nghia Phu Nguyen, Phat Tuan Nguyen, Trang Nguyen, Tu Anh Nguyen, Van Thanh Nguyen, Ambe Marius Ngwa, Robina Khan Niazi, Luciano Nieddu, Yeshambel T Nigatu, Jan Rene Nkeck, Chukwudi A Nnaji, Shuhei Nomura, Pardis Noormohammadpour, Mamoona Noreen, Masoud Noroozi, Jean Jacques Noubiap, Valentine C Nriagu, Fred Nugen, Dieta Nurrika, Chimezie Igwegbe Nzoputam, Ogochukwu Janet Nzoputam, Bogdan Oancea, George Obaido, Ismail A Odetokun, Michael Safo Oduro, Onome Bright Oghenetega, Oluwaseun Adeolu Ogundijo, Abiola Ogunkoya, James Odhiambo Oguta, Doori Oh, Akinkunmi Paul Okekunle, Olalekan John Okesanya, John Olayemi Okunlola, Andrew T Olagunju, Oladotun Victor Olalusi, Matthew Idowu Olatubi, Abdulhakeem Abayomi Olorukooba, Ronald Olum, Bolajoko Olubukunola Olusanya, Jacob Olusegun Olusanya, Folorunsho Bright Omage, Hany A Omar, Kanyin Liane Ong, Sandersan Onie, Obinna E Onwujekwe, Marcel Opitz, Atakan Orscelik, Alberto Ortiz, Samuel M Ostroff, Uchechukwu Levi Osuagwu, Olayinka Osulale, Godfred Otchere, Mostafa Monier Othman, Adrian Otoi, Oche Joseph Otorkpa, Abdu Oumer, Jerry John Ouner, Amel Ouyahia, Guoqing Ouyang, Mayowa O Owolabi, Mahesh P A, Kevin Pacheco-Barrrios, Inderbir Padda, Jagadish Rao Padubidri, Anton Pak, Raffaele Palladino, Tejasri Paluvai, Sujogya Kumar Panda, Songhomitra Panda-Jonas, Deepshikha Pande Katare, Giovanni Paolino, Mario Virgilio Papa, Paraskevi Papadopoulou, Chulwoo Park, Seoyeon Park, Bhumi Hemal Patel, Hemal M Patel, Mitesh Patel, Neel Navinkumar Patel, Shankargouda Patil, Apurba Patra, Shrikant Pawar, Shubhadarshini Pawar, Paolo Pedersini, Prince Peprah, Gavin Pereira, Maria Odete Pereira, Pablo Perez-Lopez, Simone Perna, Pavlo Petakh, Hoang Nhat Pham, Nhat Truong Pham, David M Pigott, Julian David Pillay, Luane Pinheiro Pinheiro Rocha, Zahra Zahid Piracha, Dietrich Plass, Peter Pollner, Ramesh Poluru, Arjun Pon Avudaiappan, Maarten J Postma, Sajjad Pourasghary, Mohsen Poursadeqiyani, Naeimeh Pourtaheri, Attur Ravindra Prabhu, Sergio I Prada, Jalandhar Pradhan, Elton Junio Sady Prates, Natalie Pritchett, Harsh Priya, Jagadeesh Puvvula, Nameer Hashim Qasim, Xiang Qi, Zahiruddin Syed Quazi, Navid Rabiee, Venkatraman Radhakrishnan, Hadi Raeesi Shahraki, Pankaja Raghav, Pracheth Raghuvier, Leila Rahbarnia, Fakher Rahim, Hawbash Mohammed-Amin Rahim, Sajjad Rahimi, Afarin Rahimi-Movaghar, Vafa Rahimi-Movaghar, Mohammad Meshbahur Rahman, Masoud Rahmati, Ghasem Rahmatpour Rokni, Diego Raimondo, Sunil Kumar Raina, Jeffrey Pradeep Raj, Adarsh Raja, Sandesh Raja, Sathish Rajaa, Erta Rajabi, Judah Rajendran, Mahmoud Mohammed Ramadan, Kadar Ramadhan, Chitra Ramasamy, Shakthi Kumaran Ramasamy, Sheena Ramazanu, Chhabi Lal Ranabhat, Nemanja Rancic, Smitha Rani, Chythra R Rao, Kumuda Rao, Mithun Rao, Sowmya J Rao, Vahid Rashedi, Mohammad Aziz Rasouli, Prateek Rastogi, Santosh Kumar Rauniyar, Ilari Rautalin, David Laith Rawaf, Salman Rawaf, Reza Rawassizadeh, Ramu Rawat, Ayita Ray, Iman Razeghian, Christian Razo, Filippo Recenti, Wajiha Rehman, Andre M N Renzaho, Serge Resnikoff, Mina

Rezaei, Nima Rezaei, Taeho Gregory Rhee, Mavra A Riaz, Antonio Luiz P Ribeiro, Moattar Raza Rizvi, Hermano Alexandre Lima Rocha, João Rocha Rocha-Gomes, Mónica Rodrigues, Leonardo Roever, Peter Rohloff, David Rojas-Rueda, Debby Syahru Romadlon, Michele Romoli, Marina Romozzi, Luca Ronfani, Amirhossein Roshanshad, Kunle Rotimi, Hanieh Rouzbahani, Reza Rouzbahani, Shiva Rouzbahani, Poulami Roy, Priyanka Roy, Sharmistha Roy, Shubhanjali Roy, Parameswari Royapuram Parthasarathy, Enrico Rubagotti, Susan Fred Rumisha, Michele Russo, Godfrey Mutashambara Rwegerera, Aly M A Saad, Cameron John Sabet, Siamak Sabour, Kabir P Sadarangani, Seyed Kiarash Sadat Rafiei, Basema Ahmad Saddik, Bashdar Abuzed Sadee, Tarannom Sadegh, Ehsan Sadeghi, Mohd Saeed, Umar Saeed, Maryam Saeedi, Mehdi Safari, Sher Zaman Safi, Rajesh Sagar, Mastrooreh Sagharichi, Fatemeh Saheb Sharif-Askari, Narjes Saheb Sharif-Askari, Pragyan Monalisa Sahoo, Kirti Sundar Sahu, Zahra Saif, S Mohammad Sajadi, Mirza Rizwan Sajid, Morteza Saki, Leili Salehi, Mahdi Salehi, Marwa Rashad Salem, Malik Sallam, Giovanni A Salum, Sundeep Santosh Salvi, Hossein Samadi Kafil, Waqas Sami, Vijaya Paul Samuel, Abdallah M Samy, Elaheh Sanjari, Sathish Sankar, Francesca Sanna, Damian F Santomauro, Milena M Santric-Milicevic, Mohammad Sarmadi, Brijesh Sathian, Paul A Saunders, Monika Sawhney, Mete Saylan, Christophe Schinckus, Ione Jayce Ceola Schneider, David C Schwebel, Falk Schwendicke, Saravanan Sekaran, Muthamizh Selvamani, Vimalraj Selvaraj, Yigit Can Senol, Subramanian Senthilkumaran, Edson Serván-Mori, Yashendra Sethi, Allen Seylani, Jamileh Shadid, Muhammad Shahbaz, Samiah Shahid, Endrit Shahini, Masood Ali Shaikh, Ali Shakerimoghaddam, Sunder Sham, Muhammad Aaqib Shamim, Mehran Shams-Beyranvand, Anas Shamsi, Alfiya Shamsutdinova, Dan Shan, Abhishek Shankar, Mohammed Shannawaz, Xian Shao, Amin Sharifan, Javad Sharifi Rad, Avimanu Sharma, Vishal Sharma, Rajesh P Shastry, Shamee Shastry, Ramzi Shawahna, Maryam Shayan, Ali Sheidaei, Suchitra M Shenoy, Samendra P Sherchan, Lin-Hong Shi, Md Monir Hossain Shimul, Jae Il Shin, Aminu Shittu, Ivy Shiue, Nathan A Shlobin, Shayan Shojaei, Zahra Shokati Eshkiki, Gambhir Shrestha, Sunil Shrestha, Mohammad Sidiq, Juan Carlos Silva, Luís Manuel Lopes Rodrigues Silva, Noah Joseph Bernard Silva de Leonardi, Padam Prasad Simkhada, Abhinav Singh, Ambrish Singh, Baljinder Singh, Bhim Pratap Singh, Harmanjit Singh, Harpreet Singh, Jasvinder A Singh, Kalpana Singh, Lucky Singh, Narinder Pal Singh, Paramdeep Singh, Prashant Kumar Singh, Rakesh K Singh, Samer Singh, Surendra Singh, Mukesh Kumar Sinha, Ratnesh Sinha, David A Sleet, Md.Salman Sohel, Balamrit Singh Sokhal, Solikhah Solikhah, Younseong Song, Aayushi Sood, Soroush Soraneh, Reed J D Sorensen, Fernando Sousa, Michael Spartalis, Sandra Spearman, Chandrashekhar T Sreeramareddy, Shyamkumar Sriram, Lauryn K Stafford, Jeffrey D Stanaway, Antonina V Starodubova, Caroline Stein, Timothy J Steiner, Jaimie D Steinmetz, Leo Stockfelt, Lars Jacob Stovner, Muhammad Suleman, Anusha Sultan Meo, Haitong Zhe Sun, Xiaodong Sun, Zhuanlan Sun, Suraj Sundaragiri, Thanigaivel Sundaram, Johan Sundström, David Sunkersing, Chandan Kumar Swain, Dayinta Annisa Syaiful, Lukasz Szarpak, Mindy D Szeto, Sree Sudha T Y, Rafael Tabarés-Seisdedos, Shima Tabatabai, Celine Tabche, Ramin Tabibi, Yasaman Taheri Abkenar, Amir Taherkhani, Jabeen Taiba, Stella Talic, Mircea Tampa, Jianye Tan, Ker-Kan Tan, Shynar Tanabayeva, Haosu Tang, Jay Tewari, Pugazhenthan Thangaraju, Nihal Thomas, Geethika P Thota, Madi Tleshev, Musliu Adetola Tolani, Roman Topor-Madry, Mathilde Touvier, Marcos Roberto Tovani-Palone, Mai Thi Ngoc Tran, Quynh Thuy Huong Tran, Tam Quoc Minh Tran, Nguyen Tran Minh Duc, Domenico Trico, Indang Trihandini, Quynh Xuan Nguyen Truong, Gary Tse, Munkhtuya Tumurkhuu, Sok Cin Tye, Himayat Ullah, Irfan Ullah, Muhammad Umair, Muhammad Umar, Dinesh Upadhya, Era Upadhyay, Dilber Uzun Ozsahin, sara Vahdati, Jef Van den Eynde, Aaron van Donkelaar, Tommi Juhani Vasankari, Sampara Vasishta, Srivatsa Surya Vasudevan, Ashleigh S Vella, Balachandar Vellingiri, Narayanaswamy Venketasubramanian, Georgios-Ioannis Verras, David Villarreal-Zegarra, Sharath Chaitanya Vipparthy,

Luciano Magalhães Vitorino, Vasily Vlassov, Martin Vojtek, Theo Vos, Mehdi Vosoughi, Linh Vu, Yasir Waheed, Megha Walia, Agnes Wamuyu Wamai, Jin-Yi Wan, Liang Wang, Shu Wang, Xing Wang, Yichen Wang, Tanveer A. Wani, Daniel J Weiss, Andrea Werdecker, Ronny Westerman, Joanna L Whisnant, Harvey A Whiteford, Taweewat Wiangkham, Angga Wilandika, Peter Willeit, Andrew Awuah Wireko, Gemechu Kumera Wirtu, Charles Shey Wiysonge, Axel Walter Wolf, Tewodros Eshete Wonde, Yohannes Chemere Wondmeneh, Daniel Tarekegn Worede, Minichil Chanie Worku, Nigus Kassie Worku, Ai-Min Wu, Felicia Wu, Jiayuan Wu, Zenghong Wu, Hong Xiao, Na Xiao, Hongquan Xing, Site Xu, Suowen Xu, Wanqing Xu, Sajad Yaghoubi, Kazumasa Yamagishi, Weiguang Yang, Haiqiang Yao, Laiang Yao, Amir Yarahmadi, Haya Yasin, Sanni Yaya, Pengpeng Ye, Mohammad Hossein YektaKooshali, Subah Abderehim Yesuf, Siyan Yi, Muluken Yigezu, Yulai Yin, Malede Berihun Yismaw, Naohiro Yonemoto, Mustafa Z Younis, Abdilahi Yousuf, Chuanhua Yu, Yong Yu, Siddhesh Zadey, Vesna Zadnik, Mubashir Zafar, Emilia Zainal Abidin, Burhan Abdullah Zaman, Kourosh Zarea, Sebastian Zensen, Beijian Zhang, Jingya Zhang, Xiaoyi Zhang, Jianhui Zhao, Zhongyi Zhao, Claire Chenwen Zhong, Juexiao Zhou, Maigeng Zhou, Abzal Zhumagaliuly, Magdalena Zielińska, Liu Zihao, Liesl J Zuhlke, Alimuddin Zumla, and Ahed H Zyoud.

Developing methods or computational machinery

Robert W Aldridge, Aleksandr Y Aravkin, Michael Brauer, Jack Cagney, Austin Carter, Kelly M Cercy, Catherine S Chen, Emma Johnson Cowart, Jessica A Cruz, Garland T Culbreth, Xiaochen Dai, Nicole K DeCleene, Lisa M Force, William M Gardner, Nora M Gilbertson, Demewoz Haile, Erin B Hamilton, Hannah Han, Cassandra L Harding, Simon I Hay, Jiawei He, Austin Heuer, Kyle Matthew Humphrey, Catherine O Johnson, Jonathan M Kocarnik, Madeline E Moberg, Ali H Mokdad, Jonathan F Mosser, Vincent Mougin, Christopher J L Murray, Mohsen Naghavi, Paul Nam, Doori Oh, Erik J Olson, Kanyin Liane Ong, Christian Razo, Gregory A Roth, Austin E Schumacher, Reed J D Sorensen, Sandra Spearman, Lauryn K Stafford, Jeffrey D Stanaway, Caitlyn Steiner, Jaimie D Steinmetz, Vivianne M Swart, Corey Teply, Megan Verma, Theo Vos, Eli J Weiss, Joanna L Whisnant, Shadrach Wilson, Faith H Yuh, Meixin Zhang, and Peng Zheng.

Providing critical feedback on methods or results

Bhoomadevi A, Ahmed A.J. Jabbar, Mohammad Amin Aalipour, Hazim S Ababneh, Ukachukwu O Abaraogu, Biruk Beletew Abate, Cristiana Abbafati, Nasir Abbas, Mitra Abbasifard, Samar Abd ElHafeez, Mohammed Altigani Abdalla, Emad M. Abdallah, Barkhad Aden Abdeeq, Nadin M. I. Abdel Razeq, Reda Abdel-Hameed, Michael Abdelmasseh, Mahmoud Abdelnabi, Wael M Abdel-Rahman, Sherief Abd-El salam, Sepideh Abdi, Meriem Abdoun, Arman Abdous, Jeza Muhamad Abdul Aziz, Deldar Morad Abdulah, Rizwan Suliankatchi Abdulkader, Adam Abdullahi, Auwal Abdullahi, Toufik Abdul-Rahman, Kulmira Abdykerimova, Habtamu Abebe Getahun, Armita Abedi, Asrat Agalu Abejew, Roberto Ariel Abeldaño Zuñiga, E S Abhilash, Syed Hani Abidi, Alemwork Abie, Olugbenga Olusola Abiodun, Richard Gyan Aboagye, Shady Abohashem, Hassan Abolhassani, Ulric Sena Abonie, Nagah M. Abourashed, Mohamed Abouzid, Lucas Guimarães Abreu, Dariush Abtahi, Rana Kamal Abu Farha, Fuad Hamdi A. Abuadas, Bilyaminu Abubakar, Eman Abu-Gharbieh, Sawsan Abuhammad, Ahmad Y Abuhelwa, Hana J Abukhadajah, Niveen ME Abu-Rmeileh, Salahdein Aburuz, Dina Abushanab, Raghu Ram Achar, Anirudh Balakrishna Acharya, Apurba Acharya, Ilana N Ackerman, Juan Manuel Acuna, Ousman Adal, Lisa C Adams, Lawan Hassan Adamu, Mesafint Molla Adane, Zenaw Debasu Addisu, Isaac Yeboah Addo, Oluwafemi Atanda Adeagbo, Tajudeen Adesanmi Adebisi, Isaac Akinkunmi Adedeji, David Adedia, Kamoru Ademola Adedokun, Rufus Adesoji Adedoyin, Oluwatobi E Adegbile, Oyelola A Adegboye, Nurudeen A Adegoke, Olumide Thomas Adeleke, Isaac Ayodeji Adesina, Miracle Ayomikun Adesina,

Habeeb Omoponle Adewuyi, Temitayo Esther Adeyeoluwa, Kishor Adhikari, Ripon Kumar Adhikary, Mohd Adnan, Qorinah Estiningtyas Sakilah Adnani, Leticia Akua Adzigbli, David Adzrago, Giuseppina Affinito, Ahmed M Afifi, Aanuoluwapo Adeyimika Afolabi, Rotimi Felix Afolabi, Saira Afzal, Gizachew Beykaso Agafari, Suneth Buddhika Agampodi, Temesgen Anjulo Ageru, Navidha Aggarwal, Mahdi Aghaalkhani, Sepehr Aghajanian, Seyed Mohammad Kazem Aghamir, César Agostinis Sobrinho, Anurag Agrawal, Williams Agyemang-Duah, Mahsa Ahadi, Bright Opoku Ahinkorah, Aqeel Ahmad, Danish Ahmad, Faisal Ahmad, Khabir Ahmad, Khurshid Ahmad, Muayyad M Ahmad, Rabbiya Ahmad, Sajjad Ahmad, Tauseef Ahmad, Waqas Ahmad, Negar Sadat Ahmadi, Amir Mahmoud Ahmadzade, Mohadese Ahmadzade, Akeem Olayiwola Ahmed, Anisuddin Ahmed, Ayman Ahmed, Gasha Salih Ahmed, Haroon Ahmed, Junaid Ahmed, Luai A Ahmed, Mehrunnisha Sharif Ahmed, Muktar Beshir Ahmed, Mushood Ahmed, Oli Ahmed, Shabbir Ahmed, Sindew Mahmud Ahmed, Dolapo Emmanuel Ajala, Hossein Akbarialiabad, Saeid Akbarifard, Oluwasefunmi Akeju, Roland Eghoghosoa Akhigbe, Olufemi Ambrose Akinkuotu, Karolina Akinosoglou, Sreelatha Akkala, Wole Akosile, Hammad Akram, Ashley E Akrami, Ralph Kwame Akyea, Alaa Al Amiry, Salah Al Awaidy, Syed Mahfuz Al Hasan, Omar Al Omari, Mohammad Al Qadire, Omar Al Ta'ani, Wasan A. M. Al Taie, Yazan Al Thaher, Omar Ali Mohammed Al Zaabi, Mousa Ali Al-Abbadi, Yazan Al-Ajlouni, Ziyad Al-Aly, Khurshid Alam, Manjurul Alam, Mohammad Khursheed Alam, Mostafa Alam, Rasmieh Mustafa Al-Amer, Abebaw Alamrew, Amani Alansari, Turki M Alanzi, Fahmi Y Al-Ashwal, Rahmeh Al-Asmar, Seyed Mohammad Amin Alavi, Mohammed Albashtawy, Astefanos Al-Dalakta, Khalifah A Aldawsari, Robert W Aldridge, Shereen M Aleidi, Bezawit Abeje Alemayehu, Tekletsadik Tekleslassie Alemayehu, Fentahun Alemnew, Melaku Birhanu Alemu, Ali M Alfalki, Fahad D Algahtani, Abdelazeem M Algammal, Mohammed Ridha Algethami, Adel Ali Saeed Al-Gheethi, Khairat Al-Habbal, Khalid F Alhabib, Nma Bida Alhaji, Mohammed Khaled Al-Hanawi, Aminu Alhassan Ibrahim, Ashraf Alhumaidi, Fahad A. Alhumaydhi, Dari Alhuwail, Abid Ali, Haroon Muhammad Ali, Irfan Ali, Maratab Ali, Mohammad Daud Ali, Mohammed Usman Ali, Rafat Ali, Shahid Ali, Syed Shujait Ali, Syed Yusuf Ali, Waad Ali, Akram Al-Ibraheem, Gianfranco Alicandro, Montaha Al-Iede, Sheikh Mohammad Alif, Morteza Alipour, Samah W Al-Jabi, Mohammad A Aljasir, Mohamad Aljofan, Adel Al-Jumaily, Syed Mohamed Aljunid, Mayson H. Alkhatib, Mustafa Alkhawam, Atefeh Allahbakhshian, Khaled S. Allemailem, Mohammed Z. Allouh, Wesam Taher Almagharbeh, Wael Almahmeed, Sabah Al-Marwani, Joseph Uy Almazan, Hesham M Al-Mekhlafi, Omar Almidani, Amr Almobayed, Khaldoon Aied Alnawafleh, Hasan Yaser Alniss, Margret Beaula Alocious Sukumar, Mahmoud A Alomari, Mohammad R Alost, Jaber S Alqahtani, Saleh A Alqahtani, Mohammad R Alqudimat, Ahmad Alrawashdeh, Intima Alrimawi, Salman Khalifah Al-Sabah, Mohammed A Alsabri, Najim Z. Alshahrani, Mansour Abdullah Alshehri, Zaid Altaany, Awais Altaf, Alaa B Al-Tammemi, Jaffar A Al-Tawfiq, Malik A Althobiani, Khalid A Altirkawi, Javier Alvarez-Galvez, Nelson Alvis-Guzman, Nelson J Alvis-Zakzuk, Hassan Alwafi, Mohammad Al-Wardat, Yaser Mohammed Al-Worafi, Hany Aly, Mohammad Sharif Ibrahim Alyahya, Amal AlZahmi, Hosam Alzahrani, Karem H Alzoubi, Md. Akib Al-Zubayer, Ekiyor Joseph Amafah, Joy Amafah, Masoud Aman Mohammadi, Reza Amani-Beni, Adeladza Kofi Amegah, Faten Amer, Amr Amin, Tarek Tawfik Amin, Alireza Amindarolzarbi, Saeed Amini, Ehsan Amini-Salehi, Nafiu Aminu, Majid Aminzare, Sohrab Amiri, Dickson A Amugsi, Jimoh Amzat, Filippos Anagnostakis, Roshan A Ananda, Robert Ancuceanu, Deanna Anderlini, David B Anderson, Susan C Anenberg, Song Peng Ang, Colin Angus, Nguyen Hoang Anh, Samuel Egyakwa Ankomah, Kabilan Annadurai, Amir Anoushiravani, Sumbul Ansari, Umair Ansari, Rahel Mulatie Anteneh, Josep M Antó, Ernoiz Antriyandarti, Boluwatife Stephen Anuoluwa, Saleha Anwar, Sumadi Lukman Anwar, Raziq Anwer, Shahnawaz Anwer, Anayochukwu Edward Anyasodor, Geminn Louis Carace Apostol, Juan Pablo Arab, Jalal Arabloo, Mosab Arafat, Demelash Areda, Jorge

Arias de la Torre, Hany Ariffin, Benedetta Armocida, Jesu Arockiaraj, Mahwish Arooj, Anton A Artamonov, Raphael Taiwo Aruleba, Deepavalli Arumuganainar, Mahsa Asadi Anar, Muhammad Asaduzzaman, Syed Mohammed Basheeruddin Asdaq, Shewatatek Melaku Asefa, Mulu Tiruneh Asemu, Saeed Asgary, Mohammad Asghari-Jafarabadi, Charlie Ashbaugh, Syed Amir Ashraf, Tahira Ashraf, Mitra Ashrafi, Milad Ashrafizadeh, Bernard Kwadwo Yeboah Asiamah-Asare, Muhammad Shahzad Aslam, Saeed Aslani, Yuni Asri, Batyrbek Assembekov, Thomas Astell-Burt, Mahshid Ataei, Mirbahador Athari, Seyyed Shamsadin Athari, Maha Moh'd Wahbi Atout, Sachin R Atre, Alok Atreya, Julie Alaere Atta, Zaure Maratovna Aumoldaeva, Marcel Ausloos, Abolfazl Avan, Nbia Carelli Pereira Avelar, Sana Javaid Awan, Babafela B Awosile, Adedapo Wasiu Awotidebe, Lemessa Assefa A Ayana, Seyyed HamidReza Ayatizadeh, Davood Azadi, Sina Azadnajafabad, Alireza Azarboo, Ali Azargoonjahromi, Masood Azhar, Farya Azimi, Mohd Yusmaidie Aziz, Sadat Abdulla Aziz, Amin Azizan, Ahmed Y Azzam, Domenico Azzolino, Zaharaddeen Shuaibu Babandi, Rasha Babiker, Giridhara Rathnaiah Babu, Israel Tadesse Bacha, Muhammad Badar, Alaa Aboelnour Badran, Youngoh Bae, Arvind Bagga, Nasser Bagheri, Sara Bagheri, Elahe Baghizadeh, Fereshteh Baghizadeh, Sana Baghizadeh, Khlood K Baghlaf, Najmeh Bahmanziari, Mohammad Amin Bahrami, Razieh Bahreini, Ruhai Bai, Atif Amin Baig, Abdulaziz T Bako, Senthilkumar Balakrishnan, Wondu Feyisa Balcha, Maher Balkis, Jose Balmori-de-la-Miyar, Mohammadreza Balooch Hasankhani, Ovidiu Constantin Baltatu, Shatha Bamashmous, Maciej Banach, Morteza Banakar, Palash Chandra Banik, Rajon Banik, Noel C Barengo, Hiba Jawdat Barqawi, Amadou Barrow, Sandra Barteit, Lingkan Barua, MD Abu Bashar, Zarrin Basharat, Shahid Bashir, Guido Basile, Pritish Baskaran, Rehana Basri, Quique Bassat, Mohammad-Mahdi Bastan, Sanjay Basu, Saurav Basu, Kavita Batra, Bernhard T Baune, Mahdis Bayat, Mohammad Amin Bayat Tork, Mulat Tirfie Bayih, Feyisa Shasho Bayisa, Nebiyou Simegnew Bayleyegn, Thomas Beaney, Narasimha M Beeraka, Priyamadhaba Behera, Jina Behjati, Babak Behnam, Amir Hossein Behnoush, Bezawit K Bekele, Asnake Gashaw Belayneh, Melesse Belayneh, Abel Cherkos Belete, Gokce Belge Bilgin, Michael Belingheri, Olorunjuwon Omolaja Bello, Apostolos Beloukas, Salaheddine Bendak, Derrick A Bennett, Isabela M Bensor, Samiun Nazrin Bente Kamal Tune, Habib Benzian, Zombor Berezvai, Maria Bergami, Alemshet Yirga Berhie, Abiye Assefa Berihun, Amiel Nazer C Bermudez, Eduardo Bernabe, Robert S Bernstein, Paulo J G Bettencourt, Ajeet Singh Bhadoria, Akshaya Srikanth Bhagavathula, Neeraj Bhala, Jeetendra Bhandari, Kayleigh Bhangdia, Ravi Bharadwaj, Sonu Bhaskar, Ajay Nagesh Bhat, Anup Bhat, Vivek Bhat, Priyadarshini Bhattacharjee, Shuvarthi Bhattacharjee, Gurjit Kaur Bhatti, Jasvinder Singh Bhatti, Manpreet Singh Bhatti, Rajbir Bhatti, Soumitra S Bhuyan, Sibhatu Kassa Biadgilign, Raluca Bievel-Radulescu, Can Bilgin, Cem Bilgin, Saeed Biroudian, Bijit Biswas, Raaj Kishore Biswas, Ahmad Naoras Bitar, Molalegne Bitew, Bruno Bizzozero-Peroni, Espen Bjertness, Trupti Bodhare, Virginia Bodolica, Lucimere Bohn, Obasanjo Afolabi Bolarinwa, Paria Bolourinejad, Aime Bonny, Sri Harsha Boppana, Sanaz Bordbar, Hamed Borhany, Alejandro Botero Carvajal, Souad Bouaoud, Rupert R A Bourne, Christopher Boxe, Marija M Bozic, Jyoti Brahmaiah, Dejana Braithwaite, Michael Brauer, Nicholas J K Breitborde, Hermann Brenner, Gabrielle Britton, Julie Brown, Annie J Browne, Traolach Brugha, Claudia Buchweitz, Raffaele Bugiardini, Linh Phuong Bui, Norma B Bulamu, Tsion Samuel Bunare, Danilo Buonsenso, Asmat Burhan, Katrin Burkart, Richard A Burns, Felix Busch, Yasser Bustanji, Zahid A Butt, Channa Buxbaum, Sanjay C J, Jack Cagney, Tianji Cai, Rose Cairns, Mehtap akmak Barsbay, Luis Alberto Cmera, Luciana Aparecida Campos, Ismael Campos-Nonato, Fan Cao, Yuchen Cao, Angelo Capodici, Rosario Crdenas, Sinclair Carr, Juan Jesus Carrero, Andre F Carvalho, Ana Paula Carvalho-e-Silva, Joao Mauricio Castaldelli-Maia, Giulio Castelpietra, Christopher R Cederroth, Luca Cegolon, Francieli Cembranel, Muthia Cenderadewi, Ester Cerin, Sonia Cerrai, Muge Cevik, Madhu Chakkere Shivamadhu, Chiranjib Chakraborty, Promit Ananyo Chakraborty, Joht Singh Chandan, Rama

Mohan Chandika, Eeshwar K Chandrasekar, Jung-Chen Chang, Vijay Kumar Chattu, Victoria Chatzimavridou-Grigoriadou, Lam Duc Chau, Sirshendu Chaudhuri, Akhilanand Chaurasia, Galmesa Bekana Chemedha, An-Tian Chen, Guangjin Chen, Hana Chen, Haowei Chen, Hui Chen, Meng Xuan Chen, Shanquan Chen, Xiang Chen, Yifan Chen, Haojin Cheng, Nicholas WS Chew, Gerald Chi, Odgerel Chimed-Ochir, Jesus Lorenzo Chirinos-Caceres, William C S Cho, Bryan Chong, Yuen Yu Chong, Hou In Chou, Enayet Karim Chowdhury, Mohiuddin Ahsanul Kabir Chowdhury, Hanne Christensen, Dinh-Toi Chu, Isaac Sunday Chukwu, Eric Chung, Erin Chung, Sheng-Chia Chung, Sunghyun Chung, Muhammad Chutiyami, Arrigo Francesco Giuseppe Cicero, Liliana G Ciobanu, Aaron J Cohen, Alyssa Columbus, Joao Conde, Nathalie Conrad, Sara Conti, Mariana Oliveira Corda, Alexandru Corlateanu, Samuele Cortese, Paolo Angelo Cortesi, Ewerton Cousin, Michael H Criqui, Natalia Cruz-Martins, Xiaolin Cui, Garland T Culbreth, Nour Dababo, Ali Dabbagh, Omid Dadras, Tukur Dahiru, Xiaochen Dai, Zhaoli Dai, Mayank Dalakoti, Koustuv Dalal, Gloria Dalla Costa, Giovanni Damiani, Yohannes Tefera Damtew, Roy Arokiam Daniel, Lucio D'Anna, Pojsakorn Danpanichkul, Samuel Demissie Darcho, Latefa Ali Dardas, Bahar Darouei, Reza Darvishi Cheshmeh Soltani, Anna Dastiridou, Gail Davey, Dimash Davletov, Kairat Davletov, Elham Davoudi, Fernando Pio De la Hoz, Edward Christopher Dee, Orla Deegan, Sindhura Deekonda, Louisa Degenhardt, Paria Dehesh, Tadesse Asmamaw Dejenie, Pouria Delbari, Mohammad Delsoz, Dessalegn Demeke, Andreas K Demetriades, Desalegn Getnet Demsie, Tadios Niguss Derese, Ismail Dergaa, Hunegnaw Almaz Derseh, Emina Dervišević, Abraham Aregay Desta, Vinoth Gnana Chellaiyan Devanbu, Pradeep Kumar Devarakonda, Syed Masudur Rahman Dewan, Arkadeep Dhali, Kuldeep Dhama, Rajinder K Dhamija, Amol S Dhane, Narender K. Dhania, Mandira Lamichhane Dhimal, Meghnath Dhimal, Bibha Dhungel, Marcello Di Pumpo, Diana Dias da Silva, Daniel Diaz, Kimia Didehvar, Lauren K Dillard, Adriana Dima, Xueting Ding, Temesgien Ergetie Dinkayehu, Huyen Phuc Do, Thao Huynh Phuong Do, Klara Georgieva Dokova, Christiane Dolecek, Mario D'Oria, Fariba Dorostkar, Ojas Prakashbhai Doshi, Robert Kokou Dowou, Tim Robert Driscoll, Viola Savy Dsouza, Jiang Du, Emeka W Dumbili, Jennifer Dunne, Senbagam Duraisamy, Oyewole Christopher Durojaiye, Ashit Kumar Dutta, Arkadiusz Marian Dziedzic, Abdel Rahman E'mar, Osamudiamen Ebohon, Ejemai Eboime, Lamiaa Labieb Mahmoud Ebraheim, Alireza Ebrahimi, Mohammad Hossein Ebrahimi, Sara Ebrahimi, Abdelaziz Ed-Dra, Kristina Edvardsson, Ferry Efendi, Foolad Eghbali, Fatemeh Ehsani, Ashkan Eighaei Sedeh, Terje Andreas Eikemo, Ebrahim Eini, Michael Ekholuenetale, Temitope Cyrus Ekundayo, Rabie Adel El Arab, Abdelfatteh EL Omri, Maysaa El Sayed Zaki, Mohamed Ahmed Eladl, Reza Elahi, Said El-Ashker, Rana Elbeshbeishy, Noha Mousaad Elemam, Muhammed Elhadi, Mohamed Elhoumed, Waseem El-Huneidi, Sherif Elkannishy, Omar Abdelsadek Abdou Elmeligy, Rami Elmorsi, Adel B Elmoselhi, Mohamed Hassan Elnaem, Gihan ELNahas, Mohammed Elshaer, Ibrahim Elsohaby, Abdelgawad Salah Eltahawy, Tadele Emagneneh, Theophilus I Emeto, Destaw Endeshaw, Misganu Endriyas, Holly E Erskine, Derese Eshetu, Habitu Birhan Eshetu, Gilbert Eshun, Sharareh Eskandarieh, Majid Eslami, Rafaela Cavalheiro do Espírito Santo, Crystal Amiel M Estrada, Fahima Nasrin Eva, Elochukwu Ezenwankwo, Adewale Oluwaseun Fadaka, Heidar Fadavian, Adeniyi Francis Fagbamigbe, Ayesha Fahim, Ildar Ravisovich Fakhriyev, Aliasghar Fakhri-Demeshghieh, Qiping Fan, Mohammad Farahmand, Emerito Jose Aquino Faraon, Mohammad Fareed, Zaki Farhana, Carla Sofia e Sá Farinha, Andre Faro, Syed Muhammad Yousaf Farooq, Umar Farooque, Hossein Farrokhpour, Fatemeh Farshad, Farima Farsi, Md. Omar Faruk, Emmanuel Toluwani Fasusi, Ali Fatehizadeh, Davood Fathi, Zareen Fatima, Mehdi Fazlzadeh, Li Fei, Valery L Feigin, Alireza Feizkhah, Ginenus Fekadu, Berhanu Eflu Feleke, Dechao Feng, Xiaoqi Feng, Talukdar Raian Ferdous, Seyed-Mohammad Fereshtehnejad, Rodrigo Fernandez-Jimenez, Pietro Ferrara, Alize J Ferrari, André Ferreira, Natan Feter, Alexander Finnemore, Florian Fischer, Ida Fitriana, Luisa S Flor, Federica Fogacci, Morenike

Oluwatoyin Folayan, Lisa M Force, Arianna Fornari, Ingeborg Forthun, Matteo Foschi, Maryam Fotouhi, Kayode Raphael Fowobaje, Juluis Visnel Foyet F, Richard Charles Franklin, Alberto Freitas, Nancy Fullman, Blima Fux, Sridevi G, Peter Andras Gaal, Márió Gajdács, Yaseen Galali, Dhanraj Ganapathy, Mohd Ashraf Ganie, Dingwei Gao, Xiang Gao, Bashiru Garba, Fernando Barroga Garcia, Miguel Garcia-Argibay, David Garcia-Azorin, William M Gardner, Jacopo Garlasco, Zisis Gatzoufas, Rupesh K Gautam, Federica Gazzelloni, Feven Sahle Gebre, Miglas Welay Gebregergis, Haftay Gebremedhin Gebreslassie, Stefano Gelibter, Nsikakabasi Samuel George, Ali Gerami Matin, Genanew K Getahun, Kalab Yigermal Gete, Delaram J Ghadimi, Amir Ghaffari Jolfayi, Arin Ghamkhar, Ali Ghandili, Moein Ghasemi, Mohammad-Reza Ghasemi, Shakiba Ghasemi Assl, Haniyeh Ghasrsaz, Ramy Mohamed Ghazy, Sailaja Ghimire, Nermin Ghith, Elena Ghotbi, Alessandro Gialluisi, Konstantinos Giannakis, Ruth Margaret Gibson, Gabriela Fernanda Gil, Syed Abdullah Gilani, Tiffany K Gill, Themba G Ginindza, Bikash Ranjan Giri, Alem Abera Girmay, Alessandro Girombelli, Elena V Gnedovskaya, Laszlo Göbölös, Kimiya Gohari, Mahaveer Golechha, Ali Golestani, Melika Golmohammadi, Wenping Gong, Yitayal Ayalew Goshu, Alessandra C Goulart, Aman Goyal, Ayman Grada, Simon Matthew Graham, Vittorio Grieco, Michal Grivna, Ashna Grover, Habtamu Alganah Guadie, Shi-Yang Guan, Zhongyang Guan, Mohammed Ibrahim Mohialdeen Gubari, Avirup Guha, Damitha Asanga Gunawardane, Xingzhi Guo, Zhaoyu Guo, Zheng Guo, Zhifeng Guo, Anish Kumar Gupta, Himanshu Gupta, Ishita Gupta, Lalit Gupta, Rajat Das Gupta, Rajeev Gupta, Sapna Gupta, Veer Bala Gupta, Vipin Gupta, Vivek Kumar Gupta, Yonas Deressa Guracho, Lami Gurmessa, Reyna Alma Gutiérrez, Roberth Steven Gutiérrez-Murillo, Parishma Guttoo, Jose Guzman-Esquivel, Adrina Habibzadeh, Abrham Tesfaye Habteyes, Awoke Derbie Habteyohannes, Tesfahun Simon Hadaro, Najah R Hadi, Zahra Hadian, Abdul Hafiz, Arian Haghtalab, Demewoz Haile, Haimanot Ewnetu Hailu, Pritam Halder, Aram Halimi, Sebastian Haller, Kosar Hikmat Hama Aziz, Islam M Hamad, Randah R Hamadeh, Nadia M Hamdy, Ahmad Hammoud, Mohammad Hamza, Umar Sabiu Hamza, Hannah Han, Didem Han Yekdeş, Asif Hanif, Nasrin Hanifi, Fahad Hanna, Ashanul Haque, Md Nuruzzaman Haque, Md. Aminul Haque, Harapan Harapan, Hilda L Harb, Cassandra L Harding, Arief Hargono, Eka Mishbahatul Marah Has, Ahmed I Hasaballah, Faizul Hasan, Md Kamrul Hasan, Hamidreza Hasani, Ali Hasanpour-Dehkordi, Arezou Hashem Zadeh, Mohammad Hashem Hashempur, Ammarah Hasnain, Ibrahim Nagmeldin Hassan, Ikrama Hassan, Mahgol Sadat Hassan Zadeh Tabatabaei, Shokoufeh Hassani, Mohammed Bheser Hassen, Lasanthi Wathsala Hathagoda, Rasmus J Havmoeller, Angie Hawat, Simon I Hay, Khezar Hayat, Youssef Hbid, Jue He, Jeffrey J Hebert, Mohammad Heidari, Mehdi Hemmati, Claudiu Herteliu, Austin Heuer, Sumudu Avanthi Hewage, Mojtaba Heydari, Zahra Heydarifard, Kamal Hezam, Yuta Hiraike, Ramesh Holla, Alamgir Hossain, Lubna Hossain, Md Belal Hossain, Md Mahbub Hossain, Md Sabbir Hossain, Mohammad Bellal Hossain, Hassan Hosseinzadeh, Mehdi Hosseinzadeh, Mihaela Hostiuc, Chengxi Hu, Yifei Hu, Weijun Huang, Yefei Huang, Mega Hasanul Huda, Atanesia Indriyani Human, Kyle Matthew Humphrey, Kiavash Hushmandi, Andreas Kattem Husøy, Javid Hussain, M Azhar Hussain, Salman Hussain, Dursa Hussein, Nawfal R Hussein, Mohamed Ibrahim Husseiny, Hong-Han Huynh, Bing-Fang Hwang, Luigi Francesco Iannone, Ahmed Ibrahim, Khalid S Ibrahim, Ramzi Ibrahim, Francisco Javier Idalsoaga, Jibrán Ikram, Olayinka Stephen Ilesanmi, Irena M Ilic, Milena D Ilic, Muhammad Hamza Ilyas, Mohammad Tarique Imam, Masoud Imani, Mustapha Immurana, Lucius Chidiebere Imoh, Leeberk Raja Inbaraj, Arit Inok, Mujahid Iqbal, Lalu Muhammad Irham, Mustafa Alhaji Isa, Md Rabiul Islam, Md Shariful Islam, Md. Shahinul Islam, Farhad Islami, Nahlah Elkudssiah Ismail, Gaetano Isola, Mosimah Charles Ituka, Masao Iwagami, Chinwe Juliana Iwu-Jaja, Ihoghosa Osamuyi Iyamu, Mahalaxmi Iyer, Veena J Iyer, Vinothini J, Jalil Jaafari, Louis Jacob, Kathryn H. Jacobsen, Ali Jadidi, Farhad Jadidi-Niaragh, Morteza Jafarinia, Shabbar Jaffar, Haitham Jahrami, Ammar Abdulrahman

Jairoun, Vikash Jaiswal, Mihajlo Jakovljevic, Ali Jaliliyan, Reza Jalilzadeh Yengejeh, Mohamed Jalloh, Armaan Jamal, Jerin James, Tyler G. James, Hasan Jamil, Safayet Jamil, Roland Dominic G Jamora, Masoud Jamshidi, Shaghayegh JamshidiRastabi, Rajiv Janardhanan, Esmail Jarrahi, Syed Sarmad Javaid, Anita Javanmardi, Javad Javidnia, Qassim Jawell Odah Abed, Ruwan Duminda Jayasinghe, Yovanthi Anurangi Jayasinghe, Achala Upendra Jayatilleke, Kimia Jazi, Felix K Jebasingh, Sun Ha Jee, Jayakumar Jeganathan, Tadesse Hailu Jember, Belayneh Hamdela Jena, Diptismita Jena, Seongsong Jeong, Bijay Mukesh Jeswani, Zixiang Ji, Min Jiang, Weiqiu Jin, Wenyi Jin, Catherine O Johnson, Emily Katherine Johnson, Mohammad Jokar, Jost B Jonas, Tamas Joo, Abu Jor, Abel Joseph, Alex Joseph, Nitin Joseph, Charity Ehimwenma Joshua, Farahnaz Joukar, George Joy, Jacek Jerzy Jozwiak, Mikk Jürisson, Malik E Juweid, Madhanraj K, Billingsley Kaambwa, Zubair Kabir, Dler H. Hussein Kadir, Ethan M Kahn, Ashish Kumar Kakkar, Leila R Kalankesh, Khalil Kalavani, Feroze Kaliyadan, Aidana Kaliyakparova, Md Moustafa Kamal, Mehnaz Kamal, Sivesh Kathir Kamarajah, Rajesh Kamath, Saltanat Kamenova, Ramat T. Kamorudeen, Oleksandr Kamyshnyi, Haidong Kan, Mona Kanaan, Jiseung Kang, Samuel Berchi Kankam, Kehinde Kazeem Kanmodi, Suthanthira Kannan S, Rami S Kantar, Sujita Kumar Kar, Paschalis Karakasis, Hanie Karimi, Arman Karimi Behnagh, Samad Karkhah, Mohmed Isaqali Karobari, Tomasz M Karpiński, Manoj Kumar Kashyap, Abdene Weya Kaso, Nigussie Assefa Kassaw, Adarsh Katamreddy, Patrick DMC Katoto, Gbenga A Kayode, Nastaran Kazemi Rad, Mohammad-Hosseini Keivanlou, Peter Njenga Keiyoro, Chukwudi Keke, John H Kempen, Vikash Ranjan Keshri, Kamyab Keshtkar, Emmanuelle Kesse-Guyot, Reza Khademi, Yousef Saleh Khader, Inn Kynn Khaing, Himanshu Khajuria, Sidra Khalid, Sumaira Khalid-Ariturk, Hazim O. Khalifa, Anas Husam Khalifeh, Anees Ahmed Khalil, Pantea Khalili, Ghazaleh Khalili-Tanha, Mohamed Khalis, Faham Khamesipour, Abdul Arif Khan, Ajmal Khan, Asaduzzaman Khan, Faiz Ullah Khan, Maseer Khan, Md Abdullah Saeed Khan, Mohammad Jobair Khan, Muhammad Hamza Khan, Muhammad Mueed Khan, Muhammad Umair Khan, Muhammad Umer Khan, Nusrat Khan, Ruby Khan, Salman Ali Khan, Serab Khan, Sumaiya Khan, Yusuf Saleem Khan, Zahid Khan, Srijana Khanal, Vishnu Khanal, Shaghayegh Khanmohammadi, Sameer Uttamaro Khasbage, Zenith Khashim, Khaled Khatab, Haitham Khatatbeh, Moawiah Mohammad Khatatbeh, Kavin Khatri, Afshin Khazaei, Peyman Kheirandish Zarandi, Sunil Kumar Khokhar, Mohammad Saeid Khonji, Najmaddin Salih Husen Khoshnaw, Atulya Aman Khosla, Farbod Khosravi, Mahmood Khosrowjerdi, P Ratan Khuman, Helda Khusun, Zemene Demelash Kifle, Hye Jun Kim, Jinho Kim, Min Seo Kim, Sungroul Kim, Ruth W Kimokoti, Yohannes Kinfu, Adnan Kisa, Sezer Kisa, Katarzyna Kissimova-Skarbek, Mika Kivimäki, Jessica Klusty, Abdul Basith KM, Shivakumar KM, Ann Kristin Skrindo Knudsen, Jonathan M Kocarnik, Sonali Kochhar, Michail Kokkorakis, Ali-Asghar Kolahi, Diana Gladys Kolioghu Tcheumeni, Farzad Kompani, Aida Kondybayeva, Anastasios Georgios Panagiotis Konstas, Isaac Koomson, Gerbrand Koren, Tapos Kormoker, Oleksii Korzh, Karel Kostev, Konstantinos Kotsis, Archana Koul, Sindhura Lakshmi Koulmane Laxminarayana, Irene Akwo Kretchy, James-Paul Kretchy, Kewal Krishan, Chong-Han Kua, Barthelémy Kuate Defo, Burcu Kucuk Bicer, Mohammed Kuddus, Ilari Kuitunen, Omar Kujan, Anit Kujur, Shweta Kulshreshtha, Dewesh Kumar, Dhasarathi Kumar, Jogender Kumar, Nitesh Kumar, Nithin Kumar, Tushar Kumar, Vijay Kumar, Subramanian Kumaran, Jibin Kunjavara, Setor K Kunutsor, Om P Kurmi, Maria Dyah Kurniasari, Krishna Prasad Kurpad, Pramod Kumar Kushawaha, Asep Kusnali, Christina Yeni Kustanti, Dian Kusuma, Tezer Kutluk, Michael Agyemang Kwarteng, Wai Hang Patrick Kwong, Evans F Kyei, Grace Kwakyewaa Kyei, Ville Kytö, Hmwe Hmwe Kyu, Pallavi L C, Adriano La Vecchia, Carlo La Vecchia, Muhammad Awwal Ladan, Chandrakant Lahariya, Daphne Teck Ching Lai, Anita Lakhani, Dharmesh Kumar Lal, Tea Lallukka, Judit Lám, Iván Landires, Ariane Laplante-Lévesque, Savita Lasrado, Kamaluddin Latief, Basira Kankia Lawal, Bilkisu Kankia Lawal, Saheed Akinmayowa Lawal, Aliyu Lawan, Harriet L S Lawford, Dai Quang Le,

Duc Huy Le, Huu-Hoai Le, Long Khanh Dao Le, Minh Huu Nhat Le, Nhi Huu Hanh Le, Thao Thi Thu Le, Trang Diep Thanh Le, Caterina Ledda, Seung Won Lee, Wei-Chen Lee, Yo Han Lee, James Leigh, Vasileios Leivaditis, Matthew J Lennon, Elvynna Leong, Chengcheng Li, Haobo Li, Hui Li, Jianan Li, Jiaying Li, Jie Li, Jinbo Li, Ming-Chieh Li, Peng li, Wang-Zhong Li, Wei Li#, Wei Li\$, Weilong Li, Wenjie Li, Xunliang Li, Yongze Li, Zhengrui Li, Zihui Li, Yanxue Lian, Xue-Zhen Liang, Stephen S Lim, Jialing Lin, Queran Lin, Ro-Ting Lin, Ya Lin, Daniel Lindholm, Yuewei Ling, Gang Liu, Haipeng Liu, Jue Liu, Xianliang Liu, Xiaofeng Liu, Xuefeng Liu, Yubo Liu, Yunfei Liu, Erand Llanaj, Valerie Lohner, José Francisco López-Gil, Stefan Lorkowski, Masoud Lotfizadeh, Shanjie Luan, Jailos Lubinda, Taraneh Lucas, Giancarlo Lucchetti, Peng Luo, Jay B Lusk, Angelina M Lutambi, Miltiadis D Lytras, Ellina Lytvyak, Hawraz Ibrahim M. Amin, Kevin Sheng-Kai Ma, Zheng Feei Ma, Mahmoud Mabrok, Firoozeh Madadi, Seyed Ataollah Madinejad, Christian Madsen, Aurea Marilia Madureira-Carvalho, Mohammed Magdy Abd El Razek, Azzam A Maghazachi, Sasikumar Mahalingam, Nozad Hussein Mahmood, Alireza Mahmoudi, Farhad Mahmoudi, My Tra Mai, Rituparna Maiti, Azeem Majeed, Konstantinos Christos C. Makris, Reza Malekzadeh, Hardeep Singh Malhotra, Ahmad Azam Malik, Farihah Malik, Tabarak Malik, Deborah Carvalho Malta, Abdullah A Mamun, Mustapha Mangdow, Lokesh Manjani, Yosef Manla, Kamaruddeen Mannethodi, Farheen Mansoor, Marjan Mansourian, Mohammad Ali Mansournia, Lorenzo Giovanni Mantovani, Changkun Mao, Tahir Maqbool, Sajid Maqsood, Hamid Reza Marateb, Joemer C Maravilla, Konstantinos Margetis, Mirko Marino, Adilson Marques, Randall V Martin, Bernardo Alfonso Martinez-Guerra, Ramon Martinez-Piedra, Daniela Martini, Francisco Rogerlândio Martins-Melo, Miquel Martorell, Winfried März, Roy Rillera Marzo, Sammer Marzouk, Stefano Masi, Clara N Matei, Yasith Mathangasinghe, Stephanie Mathieson, Alexander G Mathioudakis, Manu Raj Mathur, Medha Mathur, Fernanda Penido Matozinhos, Rita Mattiello, Khurshid A Mattoo, Richard James Maude, Mahsa Mayeli, Chioma Ngozichukwu Pauline Mbachu, Ikechukwu Innocent Mbachu, Martin McKee, Steven M McPhail, Enkeleint A Mechili, Rishi P Mediratta, Jitendra Meena, Elahe Meftah, Medhin Mehari, Asim Mehmood, Entezar Mehrabi Nasab, Kala M Mehta, Vini Mehta, Subhash Mehto, Toni Meier, Tesfahun Mekene Meto, Hadush Negash Meles, Endalkachew Belayneh Melese, Satish Melwani, Walter Mendoza, Godfred Antony Menezes, Ritesh G Menezes, Berihun Agegn Mengistie, Emiru Ayalew Mengistie, Sultan Ayoub Meo, Michelangelo Mercogliano, Atte Meretoja, Tuomo J Meretoja, Tomislav Mestrovic, Chamila Dinushi Kukulege Mettananda, Sachith Mettananda, Mohamed M. M. Metwally, Louise Mewton, Adquate Mhlanga, Andrea Michelerio, Ana Carolina Micheletti Gomide Nogueira de Sá, Hiwot Soboksa Mideksa, Paul Anthony Miller, Ted R Miller, Giuseppe Minervini, Wai-kit Ming, GK Mini, Erkin M Mirrakhimov, Seyed Ali Mirshahvalad, Mizan Kiros Mirutse, Yousef Mirzaei, Archana Mishra, Kumar Guru Mishra, Vinaytosh Mishra, Prasanna Mithra, Sayan Mitra, Manasi Murthy Murthy Mittinty, Mohammadreza Mobayen, Shivani Modi, Ashraf Mohamadkhani, Jama Mohamed, Mona Gamal Mohamed, Nouh Saad Mohamed, Khabab Abbasher Hussien Mohamed Ahmed, Taj Mohammad, Sakineh Mohammad-Alizadeh-Charandabi, Abdolreza Mohammadi, Mohammad Reza Mohammadi, Seyed Omid Mohammadi, Abdollah Mohammadian-Hafshejani, Ibrahim Mohammadzadeh, Ramin Mohammadzadeh, Ammas Siraj Mohammed, Omer Mohammed, Shafiu Mohammed, Suleiman Mohammed, Yahaya Mohammed, Syam Mohan, Yugal Kishore Mohanta, Mohammad Mohseni, Ali H Mokdad, Peyman Mokhtarzadehazar, Sabrina Molinaro, Amirabbas Mollaei, Shaher Momani, Lorenzo Monasta, Amirabbas Monazzami, Himel Mondal, Stefania Mondello, Ahmed Al Montasir, Catrin E Moore, Yousef Moradi, Maziar Moradi-Lakeh, Paula Moraga, Lidia Morawska, Rafael Silveira Moreira, Negar Morovatdar, Mahdis Morovvati, Mahmoud M Morsy, Reza Mosaddeghi Heris, Jonathan F Mosser, Nogol Motamedgorji, Simin Mouodi, Asma Mousavi, Seyede Zohre Mousavi, Amin Mousavi Khaneghah, Seyed Mohamad Sadegh Mousavi

Kiasary, Mohamed Awad Abdalaziz Mousnad, Hagar Lotfy Mowafy, Kimia Mozahheb Yousefi, Ahmed Msherghi, Rabia Mubarak, Sumaira Mubarik, Shiv K Mudgal, Syed Aun Muhammad, Muhammad Solihuddin Muhtar, Sukhes Mukherjee, Sumoni Mukherjee, Amartya Mukhopadhyay, Satinath Mukhopadhyay, M A Muktadir, Sileshi Mulatu, Francesk Mulita, Getaneh Baye Mulu, Chalie Mulugeta, Mulyadi Mulyadi, Muneeb Ahmad Muneer, Malaisamy Muniyandi, Kavita Munjal, Yanjinlkhram Munkhsaikhan, Javier Muñoz Laguna, Anjana Munshi, Pradeep Manohar Muragundi, Michio Murakami, Christopher J L Murray, Yahye Hassan Muse, Ali Mushtaq, Ghulam Mustafa, Sherzad Ibrahim Mustafa, Mubarak Taiwo Mustapha, Sathish Muthu, Saravanan Muthupandian, Claude Mambo Muvunyi, Muhammad Muzaffar, Woojae Myung, Amin Nabavi, Fatemehzahra Naddafi, Ahamarshan Jayaraman Nagarajan, Shankar Prasad Nagaraju, Mohsen Naghavi, Pirouz Naghavi, Ganesh R Naik, Gurudatta Naik, Hiten Naik, Firzan Nainu, Soroush Najdaghi, Paul Nam, Vinay Nangia, Jobert Richie Nansseu, Ibrahim A Naqid, Shumaila Nargus, Delaram Narimani Davani, Yvonne Nartey, Bruno Ramos Nascimento, Abdallah Y Naser, Mohammad Naser, Abdulqadir J Nashwan, Hamide Nasiri, Mahmoud Nassar, Zuhair S Natto, Javaid Nauman, Zakira Naureen, Samidi Nirasha Kumari Navaratna, Anum Nawaz, M. Omar Nawaz, Biswa Prakash Nayak, Shalini Ganesh Nayak, Javad Nazari, G. Takop Nchanji, Rawlance Ndejjo, Anthony Wainaina Ndungu, Amanuel Tebabal Nega, Abigia Ashenafi Negash, Ionut Negoii, Ruxandra Irina Negoii, Jalil Nejati, Chakib Nejjari, Henok Biresaw Netsere, Charles Richard James Newton, Marie Ng, Georges Nguefack-Tsague, Josephine W Ngunjiri, Cuong Tat Nguyen, Huong Lan Thi Nguyen, Nghia Phu Nguyen, Phat Tuan Nguyen, The Phuong Nguyen, Trang Nguyen, Tu Anh Nguyen, Van Thanh Nguyen, Ambe Marius Ngwa, Robina Khan Niazi, Jing Nie, Luciano Nieddu, Yeshambel T Nigatu, Ali Nikoobar, Dina Nur Anggraini Ningrum, Vikram Niranjana, Abebe Melis Nisro, Princess Afia Nkrumah-Boateng, Chukwudi A Nnaji, Efaq Ali Noman, Shuhei Nomura, Syed Toukir Ahmed Noor, Pardis Noormohammadpour, Mamoona Noreen, Masoud Noroozi, Jean Jacques Noubiap, Taylor Noyes, Valentine C Nriagu, Chisom Adaobi Nri-Ezedi, Jean Claude Nshimiyimana, Fred Nugen, Atoma Negera Nugusa, Mengistu H Nunemo, Aqsha Nur, Dieta Nurrika, Sylvester Dodzi Nyadanu, Felix Kwasi Nyande, Chimezie Igwegbe Nzopotam, Ogochukwu Janet Nzopotam, Bogdan Oancea, George Obaido, Adashi Margaret Odama, Ramez M Odat, Fabio Massimo Oddi, Ismail A Odetokun, Joseph Kojo Oduro, Michael Safo Oduro, Onome Bright Oghenetega, Oluwaseun Adeolu Ogundijo, Abiola Ogunkoya, James Odhiambo Oguta, Sarah Oh, Hassan Okati-Aliabad, Akinkunmi Paul Okekunle, Olalekan John Okesanya, Osaretin Christabel Okonji, John Olayemi Okunlola, Oluayemi Adewole Okunlola, Oluwaseyi Isaiah Olabisi, Andrew T Olagunju, Oladotun Victor Olalusi, Matthew Idowu Olatubi, Gláucia Maria Moraes Oliveira, Abdulhakeem Abayomi Olorukooba, Oluseye Olalekan Oludoye, Ronald Olum, Bolajoko Olubukunola Olusanya, Jacob Olusegun Olusanya, Oluwafemi G. Oluwole, Folorunsho Bright Oimage, Hany A Omar, Goran Latif Omer, Kanyin Liane Ong, Qi Chwen Ong, Obinna E Onwujekwe, Marcel Opitz, Michal Ordak, Atakan Orscelik, Samuel M Ostroff, John W Ostrominski, Uchechukwu Levi Osuagwu, Olayinka Osuolale, Godfred Otchere, Elham H Othman, Mostafa Monier Othman, Adrian Otoiu, Oche Joseph Otorkpa, 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, Kevin Pacheco-Barrios, Inderbir Padda, Alicia Padron-Monedero, Jagadish Rao Padubidri, Anton Pak, Pramod Kumar Pal, Tamás Palicz, Tejasri Paluvai, Feng Pan, Hai-Feng Pan, Parsa Panahi, Sujogya Kumar Panda, Songhomitra Panda-Jonas, Deepshikha Pande Katare, Ke Pang, Georgios D Panos, Leonidas D Panos, Ioannis Pantazopoulos, Giovanni Paolino, Mario Virgilio Papa, Ilias Papadimopoulos, Paraskevi Papadopoulou, Utsav Parekh, Peyvand Parhizkar Roudsari, Amrita Parida, Chulwoo Park, Eun-Kee Park, Seoyeon Park, Swapnil Parve, Ava Pashaei, Roberto Passera, Bhumi Hemal Patel, Hemal M Patel, Mitesh Patel, Neel Navinkumar Patel, Satyananda Patel, Ashlesh Patil,

Shankargouda Patil, Dimitrios Patoulis, Apurba Patra, Mohammad Hridoy Patwary, Shrikant Pawar, Shubhadarshini Pawar, Amy E Peden, Paolo Pedersini, Jarmila Pekarcikova, Prince Peprah, Gavin Pereira, Maria Odete Pereira, Pablo Perez-Lopez, Simone Perna, Konrad Pesudovs, Pavlo Petakh, Olumuyiwa James Peter, Fanny Emily Petermann-Rocha, Hoang Nhat Pham, Nhat Truong Pham, Tung Thanh Pham, Anil K Philip, Michael R Phillips, Zayar Phyo, David M Pigott, Julian David Pillay, Luane Pinheiro Pinheiro Rocha, Zahra Zahid Piracha, Michael A Piradov, Enrico Pisoni, Dietrich Plass, Evgenii Plotnikov, Roman V Polibin, Peter Pollner, Ramesh Poluru, Arjun Pon Avudaiappan, Constance Dimity Pond, Ville T Ponkilainen, Ion Popa, Svetlana Popova, Maarten J Postma, Sajjad Pourasghary, Reza Pourbabaki, Farzad Pourghazi, Mohsen Poursadeqiyani, Naeimeh Pourtaheri, Attur Ravindra Prabhu, Sergio I Prada, Jalandhar Pradhan, Pranil Man Singh Pradhan, Rifky Octavia Pradipta, Akila Prashant, Elton Junio Sady Prates, Tina Priscilla, Natalie Pritchett, Harsh Priya, Hery Purnobasuki, Bharathi M Purohit, Jagadeesh Puvvula, Nameer Hashim Qasim, Xiang Qi, Zhipeng Qi, Jia-Yong Qiu, Zahiruddin Syed Quazi, Shahazad Niwazi Qurashi, Deepthi R, Navid Rabiee, Basuki Rachmat, Raghu Anekal Radhakrishnan, Venkatraman Radhakrishnan, Maja R Radojčić, Hadi Raeisi Shahraki, Pankaja Raghav, Pracheth Raghuvier, Leila Rahbarnia, Fakher Rahim, Hawbash Mohammed-Amin Rahim, Sajjad Rahimi, Afarin Rahimi-Movaghar, Vafa Rahimi-Movaghar, Fryad Majeed Rahman, Mahbubur Rahman, Mahfuzur Rahman, Md. Mosfequr Rahman, Mohammad Meshbahur Rahman, Mosiur Rahman, Saeed Rahmani, Masoud Rahmati, Ghasem Rahmatpour Rokni, Hakim Rahmoune, Pramila Rai, Diego Raimondo, Sunil Kumar Raina, Jeffrey Pradeep Raj, Adarsh Raja, Sandesh Raja, Sathish Rajaa, Erta Rajabi, Gunaseelan Rajendran, Judah Rajendran, Vinoth Rajendran, Shaman Rajindrajith, Mohammad Amin Rajizadeh, Prashant Rajput, Mahmoud Mohammed Ramadan, Majed Ramadan, Kadar Ramadhan, Chitra Ramasamy, Shakthi Kumaran Ramasamy, Zahra Ramezani, Marzieh Ramezani Farani, Juwel Rana, Shailendra Singh Rana, Chhabi Lal Ranabhat, Nemanja Rancic, Smitha Rani, Chythra R Rao, Kumuda Rao, Mithun Rao, Sowmya J Rao, Vahid Rashedi, Mohammad-Mahdi Rashidi, Mohammad Aziz Rasouli, Ashkan Rasouli-Saravani, Prateek Rastogi, Azad Rasul, Devarajan Rathish, Abdur Rauf, Santosh Kumar Rauniyar, Ilari Rautalin, Ramin Ravangard, Dhvani Ravi, David Laith Rawaf, Salman Rawaf, Reza Rawassizadeh, Ramu Rawat, Ayita Ray, Mohammad Rayati, Iman Razeghian, Bahman Razi, Christian Razo, Filippo Recenti, Murali Mohan Rama Krishna Reddy, Elrashdy Redwan, Sanika Rege, Wajiha Rehman, Lennart Reifels, Longbing Ren, Andre M N Renzaho, Serge Resnikoff, Luis Felipe Reyes, Mina Rezaei, Nazila Rezaei, Negar Rezaei, Nima Rezaei, Mohsen Rezaeian, Taeho Gregory Rhee, Antonio Luiz P Ribeiro, Jennifer Rickard, Moattar Raza Rizvi, Hermano Alexandre Lima Rocha, João Rocha Rocha-Gomes, Mónica Rodrigues, Leonardo Roeber, Peter Rohloff, Iftitakhur Rohmah, Susanne Röhr, Megan L Rolfzen, Debby Syahru Romadlon, Marina Romozzi, Amirhossein Roshanshad, Gregory A Roth, Kunle Rotimi, Himanshu Sekhar Rout, Hanieh Rouzbahani, Reza Rouzbahani, Shiva Rouzbahani, Parimal Roy, Poulami Roy, Priyanka Roy, Sharmistha Roy, Shubhanjali Roy, Susovan Roy Chowdhury, Parameswari Royapuram Parthasarathy, Enrico Rubagotti, Michele Russo, Godfrey Mutashambara Rwegerera, Aly M A Saad, Adnan Saad Eddin, Zahra Saadatian, Maha Mohamed Saber-Ayad, Cameron John Sabet, Kabir P Sadarangani, Seyed Kiarash Sadat Rafiei, Basema Ahmad Saddik, Bashdar Abuzed Sadee, Tarannom Sadegh, Ehsan Sadeghi, Erfan Sadeghi, Fatemeh Sadeghi-Ghyassi, Mohd Saeed, Umar Saeed, Maryam Saeedi, Mehdi Safari, Sare Safi, Sher Zaman Safi, Rajesh Sagar, Mastooreh Sagharichi, Dominic Sagoe, Nondo Saha, Fatemeh Saheb Sharif-Askari, Narjes Saheb Sharif-Askari, Pragyan Monalisa Sahoo, Kirti Sundar Sahu, Muhammad Soaib Said, Zahra Saif, S Mohammad Sajadi, Md Refat Uz Zaman Sajib, Mirza Rizwan Sajid, Morteza Saki, Payman Salamati, Mohamed A Saleh, Leili Salehi, Mahdi Salehi, Marwa Rashad Salem, Sohrab Salimi, Malik Sallam, Jayami Eshana Samaranayake, Waqas Sami, Yoseph Leonardo Samodra, Vijaya Paul Samuel,

Abdallah M Samy, Sandeep G Sangle, Elaheh Sanjari, Sathish Sankar, Damian F Santomauro, Lucas H C C Santos, Milena M Santric-Milicevic, Krishna Prasad Sapkota, Sivan Yegnanarayana Iyer Saraswathy, Jacob Owusu Sarfo, Yaser Sarikhani, Hemen Sarma, Mohammad Sarmadi, Gargi Sachin Sarode, Sachin C Sarode, Satish Saroshe, Michele Sassano, Brijesh Sathian, Paul A Saunders, Mehrdad Savabi Far, Monika Sawhney, Sangeeta Gopal Saxena, Ganesh Kumar Saya, Abu Sayeed, Mete Saylan, Christophe Schinckus, Ione Jayce Ceola Schneider, Art Schuermans, Austin E Schumacher, Ghil Schwarz, David C Schwebel, Falk Schwendicke, Catherine Schwinger, Amin Sedigh, Saravanan Sekaran, Mario Šekerija, Muthamizh Selvamani, Vimalraj Selvaraj, Yuliya Semenova, Mohammad H Semreen, Fikadu Waltengus Sendeku, Yigit Can Senol, Subramanian Senthilkumaran, Sadaf G Sepanlou, Andreea Claudia Serban, Edson Serván-Mori, Yashendra Sethi, Seyed Mohammad Seyed Alshohadaei, Nilay S Shah, Sweni Shah, Shazlin Shaharudin, Muhammad Shahbaz, Samiah Shahid, Syed Ahsan Shahid, Wajeelah Shahid, Endrit Shahini, Fatemeh Shahrahmani, Hamid R Shahsavari, Masood Ali Shaikh, Ali Shakerimoghaddam, Ali S Shalash, Muhammad Aaqib Shamim, Farzane Shams, Mehran Shams-Beyranvand, Mohammad Ali Shamshirgaran, Anas Shamsi, Dan Shan, Abhishek Shankar, Mohammed Shannawaz, Xian Shao, Amin Sharifan, Javad Sharifi Rad, Avimanu Sharma, Bhoopesh Kumar Sharma, Buntty Sharma, Kamal Sharma, Sourabh Sharma, Ujjawal Sharma, Vishal Sharma, Rajesh P Shastry, Shamee Shastry, Armin Shavandi, Ramzi Shawahna, Maryam Shayan, Babangida Shehu Bappah, Ali Sheidaei, Suchitra M Shenoy, Samendra P Sherchan, Fang Shi, Lin-Hong Shi, Mosa Shibani, Belayneh Fentahun Shibesh, Kenji Shibuya, Desalegn Shiferaw, Md Monir Hossain Shimul, Min-Jeong Shin, Rahman Shiri, Aminu Shittu, Ivy Shiue, Nathan A Shlobin, Shayan Shojaei, Zahra Shokati Eshkiki, Sina Shool, Seyed Afshin Shorofi, Gambhir Shrestha, Sunil Shrestha, Kerem Shuval, Nicole Remaliah Samantha Sibuyi, Emmanuel Edwar Siddig, Mohammad Sidiq, Martin Siegel, Diego Augusto Santos Silva, Gustavo Correia Basto da Silva, Luís Manuel Lopes Rodrigues Silva, Padam Prasad Simkhada, Abhinav Singh, Ambrish Singh, Baljinder Singh, Bhim Pratap Singh, Harmanjit Singh, Harpreet Singh, Jasbir Singh, Jasvinder A Singh, Kalpana Singh, Lucky Singh, Narinder Pal Singh, Paramdeep Singh, Prashant Kumar Singh, Puneetpal Singh, Rakesh K Singh, Samer Singh, Satwinder Singh, Surendra Singh, Mukesh Kumar Sinha, Ratnesh Sinha, Søren T Skou, David A Sleet, Farrukh Sobia, Md.Salman Sohel, Balamrit Singh Sokhal, Solikhah Solikhah, Sameh S M Soliman, Weiyi Song, Younseong Song, Aayushi Sood, Prashant Sood, Soroush Soraneh, Reed J D Sorensen, Joan B Soriano, Michele Sorrentino, Fernando Sousa, Marco Aurelio Sousa, Ceren Soyly, Michael Spartalis, Manraj Singh Sra, Chandrashekhar T Sreeramareddy, Suresh Kumar Srinivasamurthy, Shyamkumar Sriram, Lauryn K Stafford, Jeffrey D Stanaway, Antonina V Starodubova, Simona Cătălina Ștefan, Caroline Stein, Timothy J Steiner, Jaimie D Steinmetz, Aleksandar Stevanović, Kurt Straif, Peter Stubbs, Omer Subasi, Claudia Kimie Suemoto, Alisha Suhag, Liang Sui, Thitiporn Sukaew, Muritala Suleiman Odidi, Muhammad Suleman, Desy Sulistiyorini, Mark J M Sullman, Anusha Sultan Meo, Haitong Zhe Sun, Jing Sun, Mao-ling Sun, Xiaodong Sun, Zhong Sun, Zhuanlan Sun, Suraj Sundaragiri, Thanigaivel Sundaram, Johan Sundström, David Sunkersing, Sumam Sunny, Vinay Suresh, Chandan Kumar Swain, Dayinta Annisa Syaiful, Lukasz Szarpak, Mindy D Szeto, Sree Sudha T Y, Payam Tabae Damavandi, Rafael Tabarés-Seisedos, Shima Tabatabai, Celine Tabche, Ramin Tabibi, Mohammad Tabish, Jyothi Tadakamadla, Santosh Kumar Tadakamadla, Buhari Abdullahi Tafida, Farzad Taghizadeh-Hesary, Yasaman Taheri Abkenar, Moslem Taheri Soodejani, Jabeen Taiba, Shima Tajabadi, Iman M Talaat, Stella Talic, Byomkesh Talukder, Mircea Tampa, Jacques Lukenze Tamuzi, Jianye Tan, Ker-Kan Tan, Shynar Tanabayeva, Haosu Tang, Ekamol Tantisattamo, Ingan Ukur Tarigan, Mengistie Kassahun Tariku, Saba Tariq, Md. Tariqujjaman, Razieh Tavakoli Oliaee, Rahele Tavakoly, Seyed Mohammad Tavangar, Mebrahtu G. Tedla, Amare Teshome Tefera, Mojtaba Teimoori, Mohamad-Hani Temsah, Corey Teply,

Masayuki Teramoto, Amensisa Hailu Tesfaye, Azimeraw Arega Tesfu, Jay Tewari, Alireza Teymouri, Pugazhenthan Thangaraju, Kavumpurathu Raman Thankappan, Rekha Thapar, Ismaeel Tharwat, Hadiza Theyra-Enias, Mehakpreet Kaur Thind, Arun James Thirunavukarasu, Muthu Thiruvengadam, Rekha Thiruvengadam, Arulmani Thiyagarajan, Nihal Thomas, Geethika P Thota, Wei Tian, Jansje Henny Vera Ticoalu, Tenaw Yimer Tiruye, Madi Tleshev, Marcello Tonelli, Roman Topor-Madry, Ali Torkashvand, Mathilde Touvier, Marcos Roberto Tovani-Palone, Khaled Trabelsi, Eugenio Traini, Mai Thi Ngoc Tran, Nghia Minh Tran, Ngoc Ha Tran, Quynh Thuy Huong Tran, Tam Quoc Minh Tran, Nguyen Tran Minh Duc, Domenico Trico, Indang Trihandini, Samuel Joseph Tromans, Quynh Xuan Nguyen Truong, Gary Tse, Evangelia Eirini Tsermpini, Lorainne Tudor Car, Mike Tuffour Amirikah, Munkhtuya Tumurkhuu, Zhouting Tuo, Sok Cin Tye, Aniefiok John Udoakang, Atta Ullah, Himayat Ullah, Irfan Ullah, Saeed Ullah, Muhammad Umair, Krishna Kishore Umapathi, Muhammad Umarﷺ, Muhammad Umar**, Shehu Salihu Umar, Dinesh Upadhyay, Era Upadhyay, Dipan Uppal, Jibrin Sammani Usman, Kelechi Julian Uzor, Dilber Uzun Ozsahin, Hande Uzunçibuk, sara Vahdati, Omid Vakili, Pascual R Valdez, Mario Valenti, Gelareh Valizadeh, Jef Van den Eynde, Priya Vart, Sampara Vasishtha, Srivatsa Surya Vasudevan, Prabhakar Veginadu, Ashleigh S Vella, Balachandar Vellingiri, Narayanaswamy Venketasubramanian, Baskar Venkidasamy, Megan Verma, Massimiliano Veroux, Georgios-Ioannis Verras, Dominique Vervoort, Simone Villa, Jorge Hugo Villafañe, David Villarreal-Zegarra, Francesco S Violante, Sharath Chaitanya Vipparthy, Rachel Visontay, Luciano Magalhães Vitorino, Martin Vojtek, Stein Emil Vollset, Theo Vos, Mehdi Vosoughi, Elpida Vounzoulaki, Linh Vu, Yasir Waheed, Mugi Wahidin, Megha Walia, Jin-Yi Wan, Cong Wang, Fang Wang, Liang Wang, Ruixuan Wang, Shaopan Wang, Shu Wang, Wei Wang, Xing Wang, Xuequan Wang, Yanzhong Wang, Yichen Wang, Yuan-Pang Wang, Zhihua Wang, Tanveer A. Wani, Mary Njeri Wanjau, Ahmed Bilal Waqar, Muhammad Waqas, Paul Ward, Toyiba Hiyaru Wassie, Kosala Gayan Weerakoon, Ishanka Weerasekara, Fei-Long Wei, Yi Feng Wen, Andrea Werdecker, Ronny Westerman, Joanna L Whisnant, Harvey A Whiteford, Taweewat Wiangkham, Yohanes Cakrapradipta Wibowo, Anggi Lukman Wicaksana, Dakshitha Praneeth Wickramasinghe, Nuwan Darshana 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, Yohannes Chemere Wondmeneh, Daniel Tarekegn Worede, Minichil Chanie Worku, Ai-Min Wu, Chenkai Wu, Felicia Wu, James Fan Wu, Jiayuan Wu, Jinyi Wu, Yihun Miskir Wubie, Zhijia Xia, Guangqin Xiao, Hong Xiao, Na Xiao, Wanqing Xie, Hongquan Xing, Site Xu, Suowen Xu, Wanqing Xu, Xiang Xu, Xiaoyue Xu, Mukesh Kumar Yadav, Vikas Yadav, Mahnaz Yadollahi, Saba Yahoo (Syed), Galal Yahya, Guangcan Yan, Haibo Yang, Weiguang Yang, Xinxin Yang, Yuichiro Yano, Haiqiang Yao, Laiang Yao, Amir Yarahmadi, Haya Yasin, Mohamed A Yassin, Sanni Yaya, Pengpeng Ye, Meghdad Yeganeh, Ali Cem Yekdes, Mohammad Hossein YektaKooshali, Kuanysh A. Yergaliyev, Renjulal Yesodharan, Subah Abderehim Yesuf, Saber Yezli, Siyan Yi, Muluken Yigezu, Zeamanuel Anteneh Yigzaw, Dehui Yin, Yulai Yin, Paul Yip, Malede Berihun Yismaw, Yazachew Engida Yismaw, Dong Keon Yon, Naohiro Yonemoto, Mustafa Z Younis, Abdilahi Yousuf, Chuanhua Yu, Jian Yu, Yong Yu, Ghazala Yunus, Umar Yunusa, Aminu Abba Yusuf, Monal Yuwanati, Siddhesh Zadey, Vesna Zadnik, Mubashir Zafar, Manijeh Zaghampour, Emilia Zainal Abidin, Fathiah Zakham, Nazar Zaki, Giulia Zamagni, Burhan Abdullah Zaman, Sojib Bin Zaman, Abu Sarwar Zamani, Heather J Zar, Kouros Zarea, Mohammed Zawiah, Mohammed G M Zeariya, Sebastian Zensen, Eyael M Zeru, Tiansong Zhan, Yongle Zhan, Beijian Zhang, Casper J P Zhang, Haijun Zhang, Jingya Zhang, Liqun Zhang, Xiaoyi Zhang, Yunquan Zhang, Zhiqiang Zhang, Jianhui Zhao, Zhongyi Zhao, Jinxin Zheng, Ming-Hua Zheng, Claire Chenwen Zhong, Jiayan Zhou, Juexiao Zhou, Maigeng Zhou, Bin Zhu, Zhengyang Zhu,

Magdalena Zielińska, Liu Zihao, Mohamed Ali Zoromba, Zhiyong Zou, Rafat Mohammad Zrieq, Liesl J Zuhlke, Lilik Zuhriyah, Alimuddin Zumla, Ahed H Zyoud, Sa'ed H Zyoud, and Shaher H Zyoud.

Drafting the work or revising it critically for important intellectual content

Bhoomadevi A, Ahmed A.J. Jabbar, Mohammad Amin Aalipour, Hasan Aalruz, Hazim S Ababneh, Ukachukwu O Abaraogu, Biruk Beletew Abate, Cristiana Abbafati, Mohsen Abbasi-Kangevari, Samar Abd ElHafeez, Ashraf Nabil Abdalla, Emad M. Abdallah, Nadin M. I. Abdel Razeq, Reda Abdel-Hameed, Michael Abdelmasseh, Sherief Abd-Elsalam, Mohammad Abdollahi, Arman Abdous, Jeza Muhamad Abdul Aziz, Auwal Abdullahi, Toufik Abdul-Rahman, Aidin Abedi, Armita Abedi, Roberto Ariel Abeldaño Zuñiga, Shehab Uddin Al Abid, Olugbenga Olusola Abiodun, Olumide Abiodun, Shady Abohashem, Hassan Abolhassani, Ulric Sena Abonie, Nagah M. Abourashed, Mohamed Abouzid, Dmitry Abramov, Lucas Guimarães Abreu, Rana Kamal Abu Farha, Fuad Hamdi A. Abuadas, Aminu Kende Abubakar, Bilyaminu Abubakar, Eman Abu-Gharbieh, Sawsan Abuhammad, Ahmad Y Abuhelwa, Hana J Abukhadajah, Niveen ME Abu-Rmeileh, Salahdein Aburuz, Dina Abushanab, Raghu Ram Achar, Anirudh Balakrishna Acharya, Apurba Acharya, Ilana N Ackerman, Juan Manuel Acuna, Lawan Hassan Adamu, Mesafint Molla Adane, Zenaw Debasu Addisu, Isaac Yeboah Addo, Oluwafemi Atanda Adeagbo, Tajudeen Adesanmi Adebisi, Isaac Akinkunmi Adedeji, Kamoru Ademola Adedokun, Rufus Adesoji Adedoyin, Oluwatobi E Adegbile, Nurudeen A Adegoke, Olumide Thomas Adeleke, Isaac Ayodeji Adesina, Habeeb Omoponle Adewuyi, Olorunsola Israel Adeyomoye, Usha Adiga, Mohd Adnan, Qorinah Estiningtyas Sakilah Adnani, Prince Owusu Adoma, David Adzrago, Ahmed M Afifi, Aanuoluwapo Adeyimika Afolabi, Rotimi Felix Afolabi, Saira Afzal, Gizachew Beykaso Agafari, Suneth Buddhika Agampodi, Mahdi Aghaalikhani, César Agostinis Sobrinho, Mahsa Ahadi, Bright Opoku Ahinkorah, Danish Ahmad, Khabir Ahmad, Muayyad M Ahmad, Rabbiya Ahmad, Tauseef Ahmad, Waqas Ahmad, Negar Sadat Ahmadi, Mohadese Ahmadzade, Akeem Olayiwola Ahmed, Ayman Ahmed, Gasha Salih Ahmed, Haroon Ahmed, Junaid Ahmed, Luai A Ahmed, Mehrunnisha Sharif Ahmed, Meqdad Saleh Ahmed, Muktar Beshir Ahmed, Mushood Ahmed, Oli Ahmed, Shabbir Ahmed, Sindew Mahmud Ahmed, Gulzhanat Aimagambetova, Dolapo Emmanuel Ajala, Marjan Ajami, Azeezat Oluwafunmilayo Ajose, Hossein Akbarialiabad, Roland Eghoghosoa Akhigbe, Mohammed Ahmed Akkaif, Wole Akosile, Hammad Akram, Ashley E Akrami, Alaa Al Amiry, Salah Al Awaidy, Omar Al Omari, Omar Al Ta'ani, Wasan A. M. Al Taie, Yazan Al Thaher, Omar Ali Mohammed Al Zaabi, Mohammad Ahmmad Mahmoud Al Zoubi, Yazan Al-Ajlouni, Tariq A Alalwan, Khurshid Alam, Mostafa Alam, Rasmieh Mustafa Al-Amer, Abebaw Alamrew, Amani Alansari, Fahmi Y Al-Ashwal, Seyed Mohammad Amin Alavi, Mohammed Albashtawy, Astefanos Al-Dalakta, Khalifah A Aldawsari, Wafa A Aldhaleei, Mohammed S Aldossary, Robert W Aldridge, Raouf Alebshehy, Tekletsadik Tekleslassie Alemayehu, Fentahun Alemnew, Ayman Al-Eyadhy, Fahad D Algahtani, Abdelazeem M Algammal, Khalid F Alhabib, Nma Bida Alhaji, Samar Al-Hajj, Fadwa Naji Alhalaiqa, Mohammed Khaled Al-Hanawi, Aminu Alhassan Ibrahim, Ashraf Alhumaidi, Fahad A. Alhumaydhi, Dari Alhuwail, Abid Ali, Mohammed Usman Ali, Shahid Ali, Syed Shujait Ali, Waad Ali, Akram Al-Ibraheem, Gianfranco Alicandro, Montaha Al-Iede, Morteza Alipour, Samah W Al-Jabi, Mohammad A Aljasir, Ahmad Alkhatib, Mayson H. Alkhatib, Mustafa Alkhawam, Atefeh Allahbakhshian, Khaled S. Allemailem, Mohammed Z. Allouh, Nihad A Almasri, Hesham M Al-Mekhlafi, Omar Almidani, Amr Almobayed, Khaldoon Aied Alnawafleh, Hasan Yaser Alniss, Mahmoud A Alomari, Mohammad R Alost, Jaber S Alqahtani, Saleh A Alqahtani, Ahmad Rajeh Al-Qudimat, Ahmad Alrawashdeh, Intima Alrimawi, Sahel Majed Alrousan, Najim Z. Alshahrani, Mansour Abdullah Alshehri, Zaid Altaany, Awais Altaf, Alaa B Al-Tammemi, Jaffar A Al-Tawfiq, Malik A Althobiani, Vera L Alves Carneiro, Nelson Alvis-Guzman, Nelson J Alvis-Zakzuk, Hassan Alwafi, Mohammad Al-Wardat, Yaser Mohammed Al-Worafi,

Hany Aly, Mohammad Sharif Ibrahim Alyahya, Amal AlZahmi, Hosam Alzahrani, Karem H Alzoubi, Uchenna Anderson Amaechi, Reza Amani-Beni, Adeldza Kofi Amegah, Faten Amer, Bardia Amidi, Amr Amin, Tarek Tawfik Amin, Alireza Amindarolzari, Saeed Amini, Ehsan Amini-Salehi, Nafiu Aminu, Majid Aminzare, Sohrab Amiri, Dickson A Amugsi, Jimoh Amzat, Filippas Anagnostakis, Roshan A Ananda, Robert Ancuceanu, Deanna Anderlini, David B Anderson, Song Peng Ang, Colin Angus, Nguyen Hoang Anh, Samuel Egyakwa Ankomah, Kabilan Annadurai, Amir Anoushiravani, Iman Ansari, Sumbul Ansari, Umair Ansari, Rahel Mulatie Anteneh, Josep M Antó, Ernoiz Antriyandarti, Boluwatife Stephen Anuoluwa, Saleha Anwar, Shahnawaz Anwer, Anayochukwu Edward Anyasodor, Geminn Louis Carace Apostol, Juan Pablo Arab, Hossein Arabi, Jalal Arabloo, Jorge Arias de la Torre, Hany Ariffin, Benedetta Armocida, Johan Ärnlov, Jesu Arockiaraj, Mahwish Arooj, Kurnia Dwi Artanti, Raphael Taiwo Aruleba, Deepavalli Arumuganainar, Mahsa Asadi Anar, Muhammad Asaduzzaman, Syed Mohammed Basheeruddin Asdaq, Shewatatek Melaku Asefa, Mulu Tiruneh Asemu, Saeed Asgary, Mitra Ashrafi, Bernard Kwadwo Yeboah Asiamah-Asare, Muhammad Shahzad Aslam, Yuni Asri, Seyyed Shamsadin Athari, Maha Moh'd Wahbi Atout, Alok Atreya, Zeenah A Atwan, Marcel Ausloos, Abolfazl Avan, Núbia Carelli Pereira Avelar, Adedapo Wasii Awotidebe, Seyyed HamidReza Ayatizadeh, Olatunde O Ayinde, Yusuf Oloruntoyin Ayipo, Seyed Mohammad Ayyoubzadeh, Davood Azadi, Sina Azadnajafabad, Alireza Azarboo, Farya Azimi, Sadat Abdulla Aziz, Ahmed Y Azzam, Domenico Azzolino, Giridhara Rathnaiah Babu, Israel Tadesse Bacha, Muhammad Badar, Ashish D Badiye, Alaa Aboelnour Badran, Youngoh Bae, Soroush Baghdadi, Elahe Baghizadeh, Fereshteh Baghizadeh, Khlood K Baghlaf, Atif Amin Baig, Vali Baigi, Shankar M Bakkannavar, Abdulaziz T Bako, Senthilkumar Balakrishnan, Mohammadreza Balooch Hasankhani, Ovidiu Constantin Baltatu, Shatha Bamashmous, Maciej Banach, Morteza Banakar, Palash Chandra Banik, Noel C Barengo, Suzanne Lyn Barker-Collo, Hiba Jawdat Barqawi, Amadou Barrow, Sandra Barteit, MD Abu Bashar, Shahid Bashir, Guido Basile, Pritish Baskaran, Quique Bassat, Mohammad-Mahdi Bastan, Sanjay Basu, Bernhard T Baune, Mahdis Bayat, Mulat Tirfie Bayih, Feyisa Shasho Bayisa, Thomas Beaney, Neeraj Bedi, Priyamadhaba Behera, Jina Behjati, Babak Behnam, Amir Hossein Behnoush, Bezawit K Bekele, Melesse Belayneh, Muhammad Bashir Bello, Olorunjuwon Omolaja Bello, Luis Belo, Apostolos Beloukas, Salaheddine Bendak, Riyad Bendardaf, Corina Benjet, Isabela M Bensenor, Samiun Nazrin Bente Kamal Tune, Habib Benzian, Maria Bergami, Paulo J G Bettencourt, Ajeet Singh Bhadoria, Akshaya Srikanth Bhagavathula, Neeraj Bhala, Jeetendra Bhandari, Ravi Bharadwaj, Sonu Bhaskar, Anup Bhat, Vivek Bhat, Priyadarshini Bhattacharjee, Shuvarthi Bhattacharjee, Gurjit Kaur Bhatti, Jasvinder Singh Bhatti, Raluca Bievel-Radulescu, Saeed Biroudian, Catherine Bisignano, Atanu Biswas, Bijit Biswas, Bruno Bizzozero-Peroni, Espen Bjertness, Fiona M Blyth, Virginia Bodolica, Mahmut Bodur, Lucimere Bohn, Rachael Bokota, Obasanjo Afolabi Bolarinwa, Srinivasa Rao Bolla, Paria Bolourinejad, Sri Harsha Boppana, Sanaz Bordbar, Hamed Borhany, Alejandro Botero Carvajal, Souad Bouaoud, Soufiane Boufous, Christopher Boxe, Marija M Bozic, Dejana Braithwaite, Michael Brauer, Nicholas J K Breitborde, Hermann Brenner, Gabrielle Britton, Julie Brown, Traolach Brugha, Raffaele Bugiardini, Norma B Bulamu, Danilo Buonsenso, Felix Busch, Reinhard Busse, Yasser Bustanji, Sanjay C J, Jack Cagney, Rose Cairns, Mehtap Çakmak Barsbay, Daniela Calina, Luciana Aparecida Campos, Ismael Campos-Nonato, Yuchen Cao, Angelo Capodici, Giulia Carreras, Juan Jesus Carrero, Andrea Carugno, Andre F Carvalho, Ana Paula Carvalho-e-Silva, Joao Mauricio Castaldelli-Maia, Carlos A Castañeda-Orjuela, Giulio Castelpietra, Alberico L Catapano, Maria Sofia Cattaruzza, Arthur Caye, Christopher R Cederroth, Luca Cegolon, Francieli Cembranel, Muthia Cenderadewi, Ester Cerin, Sonia Cerrai, Muge Cevik, Madhu Chakkere Shivamadhu, Chiranjib Chakraborty, Sandip Chakraborty, Joht Singh Chandan, Rama Mohan Chandika, Miyuru Chandradasa, Eeshwar K Chandrasekar, Vijay

Kumar Chattu, Victoria Chatzimavridou-Grigoriadou, Lam Duc Chau, Sirshendu Chaudhuri, Akhilanand Chaurasia, An-Tian Chen, Guangjin Chen, Hana Chen, Haowei Chen, Junhao Chen, Meng Xuan Chen, Simiao Chen, Haojin Cheng, Ka Ching Cheung, Nicholas WS Chew, Ju-Huei Chien, Patrick R Ching, Jesus Lorenzo Chirinos-Caceres, William C S Cho, Bryan Chong, Yuen Yu Chong, Hou In Chou, Hanne Christensen, Steffan Wittrup McPhee Christensen, Sunghyun Chung, Muhammad Chutiyami, Arrigo Francesco Giuseppe Cicero, Liliana G Ciobanu, Alyssa Columbus, Joao Conde, Stephen E Congly, Nathalie Conrad, Sara Conti, Mariana Oliveira Corda, Samuele Cortese, Paolo Angelo Cortesi, Claudia Cosma, Michael H Criqui, Natalia Cruz-Martins, Xiaolin Cui, Garland T Culbreth, Xiaochen Dai, Zhaoli Dai, Mayank Dalakoti, Koustuv Dalal, Gloria Dalla Costa, Emanuele D'Amico, Roy Arokiam Daniel, Lucio D'Anna, Samuel Demissie Darcho, Latefa Ali Dardas, Anna Dastiridou, Gail Davey, Claudio Alberto Dávila-Cervantes, Nicole Davis Weaver, Dimash Davletov, Katie de Luca, Edward Christopher Dee, Orla Deegan, Sindhura Deekonda, Louisa Degenhardt, Paria Dehesh, Andreas K Demetriades, Edgar Denova-Gutiérrez, Tadios Niguss Derese, Ismail Dergaa, Emina Dervišević, Abraham Aregay Desta, Pradeep Kumar Devarakonda, Syed Masudur Rahman Dewan, Arkadeep Dhali, Amol S Dhane, Narender K. Dhanial, Mandira Lamichhane Dhimal, Meghnath Dhimal, Sameer Dhingra, Marcello Di Pumpo, Diana Dias da Silva, Daniel Diaz, Luis Antonio Diaz, Kimia Didehvar, Lauren K Dillard, Adriana Dima, Xueting Ding, Huyen Phuc Do, Klara Georgieva Dokova, Christiane Dolecek, Francesco Dondi, Mario D'Oria, Ojas Prakashbhai Doshi, Paulo Magno Martins Dourado, Menayit Tamrat Dresse, Tim Robert Driscoll, Ashel Chelsea Dsouza, Viola Savy Dsouza, Jiang Du, John Dube, Emeka W Dumbili, Samuel C Dumith, Jennifer Dunne, Senbagam Duraisamy, Oyewole Christopher Durojaiye, Arkadiusz Marian Dziedzic, Abdel Rahman E'mar, Osamudiamen Ebohon, Lamiaa Labieb Mahmoud Ebraheim, Mohammad Hossein Ebrahimi, Sara Ebrahimi, Ekaette Godwin Edelduok, Ferry Efendi, Behrad Eftekhari, Foolad Eghbali, Fatemeh Ehsani, Ashkan Eighaei Sedeh, Ebrahim Eini, Michael Ekholuenetale, Rabie Adel El Arab, Abdelfatteh EL Omri, Maysaa El Sayed Zaki, Rana Elbeshbeishy, Noha Mousaad Elemam, Ghada Metwally Tawfik ElGohary, Muhammed Elhadi, Mohamed Elhoumed, Sherif Elkannishy, Omar Abdelsadek Abdou Elmeligy, Rami Elmorsi, Adel B Elmoselhi, Mohamed Hassan Elnaem, Mohammed Elshaer, Abdelgawad Salah Eltahawy, Theophilus I Emeto, Victor Oghenekparobo Emojevwe, Destaw Endeshaw, Holly E Erskine, Christopher Imokhuede Esezobor, Derese Eshetu, Sharareh Eskandarieh, Majid Eslami, Rafaela Cavalheiro do Espírito Santo, Francesco Esposito, Fahima Nasrin Eva, Elochukwu Ezenwankwo, Adewale Oluwaseun Fadaka, Heidar Fadavian, Adeniyi Francis Fagbamigbe, Ayesha Fahim, Ildar Ravisovich Fakhradiyev, Aliasghar Fakhri-Demeshghieh, Emerito Jose Aquino Faraon, Mohammad Fareed, Zaki Farhana, MoezAllIslam Ezzat Mahmoud Faris, Andre Faro, Hossein Farrokhpour, Fatemeh Farshad, Farima Farsi, Folorunso Oludayo Fasina, Modupe Margaret Fasina, Ali Fatehizadeh, Davood Fathi, Zareen Fatima, Li Fei, Berhanu Eflu Feleke, Kaixin Feng, Talukdar Raian Ferdous, Seyed-Mohammad Fereshtehnejad, Rodrigo Fernandez-Jimenez, Pietro Ferrara, Alize J Ferrari, André Ferreira, Nuno Ferreira, Natan Feter, Alexander Finnemore, Claudio Fiorilla, Florian Fischer, Ida Fitriana, Luisa S Flor, Federica Fogacci, Marco Fonzo, Lisa M Force, Carla Fornari, Ingeborg Forthun, Daniela Fortuna, Matteo Foschi, Maryam Fotouhi, Juluis Visnel Foyet F, Alberto Freitas, Jinming Fu, Blima Fux, Peter Andras Gaal, Dominic Dormenyo Gadeka, Márió Gajdács, Yaseen Galali, Silvano Gallus, Shivaprakash Gangachannaiah, Mohd Ashraf Ganie, Xiang Gao, Bashiru Garba, Fernando Barroga Garcia, Miguel Garcia-Argibay, David Garcia-Azorin, Jacopo Garlasco, Zisis Gatzioufas, Prem Gautam, Rupesh K Gautam, Miglas Welay Gebregergis, Haftay Gebremedhin Gebreslassie, Stefano Gelibter, Ali Gerami Matin, Kalab Yigermal Gete, Delaram J Ghadimi, Fataneh Ghadirian, Seyyed-Hadi Ghamari, Arin Ghamkhar, Moein Ghasemi, Mohammad-Reza Ghasemi, Shakiba Ghasemi Assl, Haniyeh Ghasrsaz, Ramy Mohamed Ghazy,

Sailaja Ghimire, Nermin Ghith, Nasim Gholizadeh, Elena Ghotbi, Alessandro Gialluisi, Ruth Margaret Gibson, Artyom Urievich Gil, Gabriela Fernanda Gil, Syed Abdullah Gilani, Tiffany K Gill, Alem Abera Girmay, Alessandro Girombelli, Elena V Gnedovskaya, Laszlo Göbölös, Ali Golestani, Davide Golinelli, Melika Golmohammadi, Wenping Gong, Sameer Vali Gopalani, Yitayal Ayalew Goshu, Alessandra C Goulart, Aman Goyal, Ayman Grada, Vittorio Grieco, Michal Grivna, Ashna Grover, Habtamu Alganah Guadie, Shi-Yang Guan, Giovanni Guarducci, Avirup Guha, Damitha Asanga Gunawardane, Zhaoyu Guo, Zheng Guo, Zhifeng Guo, Himanshu Gupta, Ishita Gupta, Lalit Gupta, Rajat Das Gupta, Rajeev Gupta, Sapna Gupta, Veer Bala Gupta, Vivek Kumar Gupta, Lami Gurmessa, Reyna Alma Gutiérrez, Roberth Steven Gutiérrez-Murillo, Adrina Habibzadeh, Awoke Derby Habteyohannes, Tesfahun Simon Hadaro, Najah R Hadi, Zahra Hadian, Abdul Hafiz, Faraidoon Haghdoost, Arian Haghtalab, Haimanot Ewnetu Hailu, Pritam Halder, Aram Halimi, Kosar Hikmat Hama Aziz, Islam M Hamad, Randah R Hamadeh, Sajid Hameed, Erin B Hamilton, Ahmad Hammoud, Mohammad Hamza, Umar Sabiu Hamza, Didem Han Yekdeş, Nasrin Hanifi, Graeme J Hankey, Fahad Hanna, Md. Aminul Haque, Harapan Harapan, Cassandra L Harding, Josep Maria Haro, Eka Mishbahatul Marah Has, Ahmed I Hasaballah, Faizul Hasan, Md Kamrul Hasan, Ali Hasanpour- Dehkordi, Arezou Hashem Zadeh, Mohammad Hashem Hashempur, Nada Tawfig Hashim, Amr Hassan, Ibrahim Nagmeldin Hassan, Nageeb Hassan, Mahgol Sadat Hassan Zadeh Tabatabaei, Lasanthi Wathsala Hathagoda, Rasmus J Havmoeller, Angie Hawat, Simon I Hay, Jue He, Jeffrey J Hebert, Mehdi Hemmati, Claudiu Herteliu, Austin Heuer, Sumudu Avanthi Hewage, Kamal Hezam, Yuta Hiraike, Ramesh Holla, Alamgir Hossain, Lubna Hossain, Md Mahbub Hossain, Md Sabbir Hossain, Mohammad Bellal Hossain, Mehdi Hosseinzadeh, Sorin Hostiuc, Mila Nu Nu Htay, Chengxi Hu, Junjie Huang, Weijun Huang, Yefei Huang, Atanesia Indriyani Human, M Azhar Hussain, Salman Hussain, Dursa Hussein, Nawfal R Hussein, Mohamed Ibrahim Hussein, Hong-Han Huynh, Luigi Francesco Iannone, Ahmed Ibrahim, Ramzi Ibrahim, Reem Ibrahim, Anel Ibrayeva, Francisco Javier Idalsoaga, Pulwasha Maria Iftikhar, Adalia Ikiroma, Jibran Ikram, Olayinka Stephen Ilesanmi, Irena M Ilic, Milena D Ilic, Muhammad Hamza Ilyas, Masoud Imani, Mustapha Immurana, Lucius Chidiebere Imoh, Arit Inok, Mujahid Iqbal, Lalu Muhammad Irham, Mustafa Alhaji Isa, Md Rabiul Islam, Farhad Islami, Faisal Ismail, Nahlah Elkudssiah Ismail, Yerlan Ismoldayev, Hiroyasu Iso, Gaetano Isola, Mosimah Charles Ituka, Chinwe Juliana Iwu-Jaja, Ihoghosa Osamuyi Iyamu, Mahalaxmi Iyer, Jalil Jaafari, Louis Jacob, Kathryn H. Jacobsen, Morteza Jafarina, Shabbar Jaffar, Haitham Jahrami, Vikash Jaiswal, Mihajlo Jakovljevic, Ali Jaliliyan, Mohamed Jalloh, Armaan Jamal, Qazi Mohammad Sajid Jamal, Jazlan Jamaluddin, Jerin James, Tyler G. James, Hasan Jamil, Safayet Jamil, Masoud Jamshidi, Shaghayegh JamshidiRastabi, Rajiv Janardhanan, Esmaeil Jarrahi, Syed Sarmad Javaid, Anita Javanmardi, Ruwan Duminda Jayasinghe, Yovanthi Anurangi Jayasinghe, Kimia Jazi, Felix K Jebasingh, Tadesse Hailu Jember, Belayneh Hamdela Jena, Seogsong Jeong, Mahsa Jessri, Bijay Mukesh Jeswani, Vivekanand Jha, Weiqiu Jin, Wenyi Jin, Jost B Jonas, Tamas Joo, Abel Joseph, Nitin Joseph, Charity Ehimwenma Joshua, George Joy, Jacek Jerzy Jozwiak, Mikk Jürisson, Malik E Juweid, Madhanraj K, Ashish Kumar Kakkar, Leila R Kalankesh, Khalil Kalavani, Feroze Kaliyadan, Sanjay Kalra, Md Moustafa Kamal, Sivesh Kathir Kamarajah, Rajesh Kamath, Saltanat Kamenova, Arun Kamireddy, Ramat T. Kamorudeen, Oleksandr Kamyshnyi, Mona Kanaan, Saddam Fuad Kanaan, Jiseung Kang, Samuel Berchi Kankam, Kehinde Kazeem Kanmodi, Sujitha Kannan, Suthanthira Kannan S, Rami S Kantar, Neeti Kapoor, Paschalis Karakasis, Reema A Karasneh, Samad Karkhah, Mohmed Isaqali Karobari, Tomasz M Karpiński, Manoj Kumar Kashyap, Abdene Weya Kaso, Hengameh Kasraei, Adarsh Katamreddy, Patrick DMC Katoto, Joonas H Kauppila, Gbenga A Kayode, Mohammad-Hosseini Keivanlou, Peter Njenga Keiyoro, Chukwudi Keke, John H Kempen, Salima Kerai, Vikash Ranjan Keshri, Emmanuelle Kesse-Guyot, Yousef Saleh Khader, Himanshu Khajuria, Hazim O.

Khalifa, Anas Husam Khalifeh, Anees Ahmed Khalil, Anita Khalili, Pantea Khalili, Ghazaleh Khalili-Tanha, Ajmal Khan, Faiz Ullah Khan, Maseer Khan, Md Abdullah Saeed Khan, Mohammad Jobair Khan, Muhammad Hamza Khan, Muhammad Mueed Khan, Muhammad Umair Khan, Muhammad Umer Khan, Nusrat Khan, Ruby Khan, Salman Ali Khan, Sumaiya Khan, Yusuf Saleem Khan, Zahid Khan, Vishnu Khanal, Shaghayegh Khanmohammadi, Sameer Uttamaro Khasbage, Zenith Khashim, Khaled Khatab, Haitham Khatatbeh, Moawiah Mohammad Khatatbeh, Hamid Reza Khayat Kashani, Afshin Khazaei, Sunil Kumar Khokhar, Atulya Aman Khosla, Mahmood Khosrowjerdi, Hye Jun Kim, Min Seo Kim, Adnan Kisa, Sezer Kisa, Katarzyna Kissimova-Skarbek, Mika Kivimäki, Jessica Klusty, Abdul Basith KM, Shivakumar KM, Ann Kristin Skringo Knudsen, Nazarii Kobyljak, Jonathan M Kocarnik, Sonali Kochhar, Michail Kokkorakis, Diana Gladys Kolioghu Tcheumeni, Aida Kondybayeva, Oleksii Korzh, Karel Kostev, Konstantinos Kotsis, Parvaiz A Koul, Sindhura Lakshmi Koulmane Laxminarayana, Irene Akwo Kretchy, James-Paul Kretchy, Kewal Krishan, Chong-Han Kua, Ananya Kuanar, Barthelemy Kuate Defo, Raja Amir Hassan Kuchay, Burcu Kucuk Bicer, Mohammed Kuddus, Ilari Kuitunen, Mukhtar Kulimbet, Vishnutheertha Kulkarni, Shweta Kulshreshtha, Dewesh Kumar, Jogender Kumar, Rakesh Kumar, Tushar Kumar, Setor K Kunutsor, Almagul Kurmanova, Om P Kurmi, Maria Dyah Kurniasari, Krishna Prasad Kurpad, Asep Kusnali, Christina Yeni Kustanti, Dian Kusuma, Tezer Kutluk, Ville Kytö, Pallavi L C, Adriano La Vecchia, Carlo La Vecchia, Muhammad Awwal Ladan, Lucie Laflamme, Chandrakant Lahariya, Daphne Teck Ching Lai, Anita Lakhani, Ratilal Laloo, Tea Lallukka, Judit Lám, Iván Landires, Berthold Langguth, Ariane Laplante-Lévesque, Savita Lasrado, Kamaluddin Latief, Kenney Ki Lee Lau, Basira Kankia Lawal, Saheed Akinmayowa Lawal, Aliyu Lawan, Harriet L S Lawford, Dai Quang Le, Huu-Hoai Le, Minh Huu Nhat Le, Nhi Huu Hanh Le, Thao Thi Thu Le, Caterina Ledda, Hye Ah Lee, James Leigh, Vasileios Leivaditis, Matthew J Lennon, Matilde Leonardi, Elvynna Leong, Janni Leung, Chengcheng Li, Hui Li, Jiaying Li, Jie Li, Shaojie Li, Wei Liš, Zhengrui Li, Zihui Li, Yanxue Lian, Queran Lin, Ya Lin, Daniel Lindholm, Christine Linehan, Yuewei Ling, Jue Liu, Xianliang Liu, Yubo Liu, Erand Llanaj, Michael J Loftus, Valerie Lohner, José Francisco López-Gil, Platon D Lopukhov, Stefan Lorkowski, Masoud Lotfizadeh, Giancarlo Lucchetti, Alessandra Lugo, Raimundas Lunevicius, Jay B Lusk, Angelina M Lutambi, Ricardo Lutzky Saute, Miltiadis D Lytras, Ellina Lytyvyak, Kevin Sheng-Kai Ma, Zheng Feei Ma, Mahmoud Mabrok, Isis E Machado, Seyed Ataollah Madinezad, Christian Madsen, Aurea Marilia Madureira-Carvalho, Mohammed Magdy Abd El Razek, Sasikumar Mahalingam, Mehrdad Mahalleh, Nozad Hussein Mahmood, Farhad Mahmoudi, My Tra Mai, Rituparna Maiti, Mohammad-Reza Malekpour, Reza Malekzadeh, Hardeep Singh Malhotra, Ahmad Azam Malik, Fariyah Malik, Tabarak Malik, Deborah Carvalho Malta, Abdullah A Mamun, Mustapha Mangdow, Lokesh Manjani, Kamaruddeen Mannethodi, Marjan Mansourian, Lorenzo Giovanni Mantovani, Changkun Mao, Tahir Maqbool, Sajid Maqsood, Hamid Reza Marateb, Konstantinos Margetis, Adilson Marques, Randall V Martin, Gabriel Martinez, Bernardo Alfonso Martinez-Guerra, Ramon Martinez-Piedra, Daniela Martini, Francisco Rogerlândio Martins-Melo, Miquel Martorell, Winfried März, Roy Rillera Marzo, Sammer Marzouk, Stefano Masi, Clara N Matei, Yasith Mathangasinghe, Stephanie Mathieson, Alexander G Mathioudakis, Medha Mathur, Fernanda Penido Matozinhos, Rita Mattiello, Khurshid A Mattoo, Pallab K Maulik, Mahsa Mayeli, Antonio Mazzotti, Chioma Ngozichukwu Pauline Mbachu, Ikechukwu Innocent Mbachu, Susan A McLaughlin, Steven M McPhail, Enkeleint A Mechili, Rishi P Mediratta, Elahe Meftah, Medhin Mehari, Asim Mehmood, Man Mohan Mehndiratta, Entezar Mehrabi Nasab, Kala M Mehta, Vini Mehta, Toni Meier, Hadush Negash Meles, Endalkachew Belayneh Melese, Satish Melwani, Walter Mendoza, Godfred Antony Menezes, Ritesh G Menezes, Sultan Ayoub Meo, Michelangelo Mercogliano, Atte Meretoja, Tuomo J Meretoja, Tomislav Mestrovic, Chamila Dinushi Kukulege Mettananda, Sachith Mettananda, Mohamed M. M.

Metwally, Louise Mewton, Andrea Michelerio, Ana Carolina Micheletti Gomide Nogueira de Sá, Ted R Miller, Wai-kit Ming, Mojgan Mirghafourvand, Seyed Ali Mirshahvalad, Yousef Mirzaei, Archana Mishra, Philip B Mitchell, Prasanna Mithra, Malihe Moazeni, Mona Gamal Mohamed, Nouh Saad Mohamed, Khabab Abbasher Hussien Mohamed Ahmed, Taj Mohammad, Sakineh Mohammad-Alizadeh-Charandabi, Abdollah Mohammadian-Hafshejani, Ramin Mohammadzadeh, Ammas Siraj Mohammed, Hussen Mohammed, Omer Mohammed, Shafiu Mohammed, Suleiman Mohammed, Yahaya Mohammed, Yugal Kishore Mohanta, Amin Mokari-Yamchi, Ali H Mokdad, Alexandr Mokhirev, Sabrina Molinaro, Amirabbas Mollaei, Lorenzo Monasta, Amirabbas Monazzami, Himel Mondal, Stefania Mondello, Ahmed Al Montasir, Catrin E Moore, Maziar Moradi-Lakeh, Paula Moraga, Rafael Silveira Moreira, Mahdis Morovvati, Mahmoud M Morsy, Jakub Morze, Reza Mosaddeghi Heris, Nogol Motamedgorji, Simin Mouodi, Asma Mousavi, Seyede Zohre Mousavi, Amin Mousavi Khaneghah, Mohamed Awad Abdalaziz Mousnad, Hagar Lotfy Mowafy, Kimia Mozahheb Yousefi, Matías Mrejen, Ahmed Msherghi, Shiv K Mudgal, Syed Aun Muhammad, Sukhes Mukherjee, Amartya Mukhopadhyay, Francesk Mulita, Getaneh Baye Mulu, Chalie Mulugeta, Muneeb Ahmad Muneer, Malaisamy Muniyandi, Yanjinlkham Munkhsaikhan, Javier Muñoz Laguna, Michio Murakami, Ali Mushtaq, Ghulam Mustafa, Sathish Muthu, Claude Mambo Muvunyi, Muhammad Muzaffar, Amin Nabavi, Ahamarshan Jayaraman Nagarajan, Shankar Prasad Nagaraju, Mohsen Naghavi, Hiten Naik, Sanjeev Nair, Soroush Najdaghi, Nouredin Nakhostin Ansari, Paul Nam, Jobert Richie Nansseu, Ibrahim A Naqid, Shumaila Nargus, Bruno Ramos Nascimento, Gustavo G Nascimento, Abdallah Y Naser, Mohammad Naser, Abdulqadir J Nashwan, Hamide Nasiri, Mahmoud Nassar, Zuhair S Natto, Javid Nauman, Samidi Nirasha Kumari Navaratna, Biswa Prakash Nayak, Shalini Ganesh Nayak, Javad Nazari, G. Takop Nchanji, Anthony Wainaina Ndungu, Ionut Negoii, Ruxandra Irina Negoii, Alina Gabriela Negru, Jalil Nejati, Samata Nepal, Charles Richard James Newton, Georges Nguefack-Tsague, Josephine W Ngunjiri, Cuong Tat Nguyen, Huong Lan Thi Nguyen, Huong-Dung Thi Nguyen, Nghia Phu Nguyen, Phat Tuan Nguyen, Trang Nguyen, Tu Anh Nguyen, Van Thanh Nguyen, Ambe Marius Ngwa, Robina Khan Niazi, Luciano Nieddu, Yeshambel T Nigatu, Dina Nur Anggraini Ningrum, Vikram Niranjana, Abebe Melis Nisro, Jan Rene Nkeck, Princess Afia Nkrumah-Boateng, Mohammadamin Noorafrooz, Pardis Noormohammadpour, Mamoona Noreen, Masoud Noroozi, Jean Jacques Noubiap, Valentine C Nriagu, Chisom Adaobi Nri-Ezedi, Jean Claude Nshimiyimana, Fred Nugen, Sylvester Dodzi Nyadanu, Chimezie Igwegbe Nzoputam, Ogochukwu Janet Nzoputam, Bogdan Oancea, Ramez M Odat, Ismail A Odetokun, Oluwakemi Ololade Odukoya, Onome Bright Oghenetega, Oluwaseun Adeolu Ogundijo, Abiola Ogunkoya, James Odhiambo Oguta, Sarah Oh, Edel T O'Hagan, Sylvester Reuben Okeke, Deborah Oluwatosin Okeke-Obayemi, Olalekan John Okesanya, Onyedika A Okoli, Osaretin Christabel Okonji, John Olayemi Okunlola, Oluoyemi Adewole Okunlola, Andrew T Olagunju, Oladotun Victor Olalusi, Matthew Idowu Olatubi, Arão Belitardo Oliveira, Abdulhakeem Abayomi Olorukooba, Oluseye Olalekan Oludoye, Bolajoko Olubukunola Olusanya, Jacob Olusegun Olusanya, Folorunsho Bright Oimage, Hany A Omar, Kanyin Liane Ong, Qi Chwen Ong, Sandersan Onie, Obinna E Onwujekwe, Franklyn Opara, Marcel Opitz, Michal Ordak, Verner N Orish, Raffaele Ornello, Atakan Orscelik, Alberto Ortiz, Esteban Ortiz-Prado, Augustus Osborne, Eric Osei, Samuel M Ostroff, John W Ostrominski, Uchechukwu Levi Osuagwu, Godfred Otchere, Elham H Othman, Mostafa Monier Othman, Adrian Otoiu, Oche Joseph Otorkpa, Jerry John Ouner, Amel Ouyahia, Guoqing Ouyang, Mayowa O Owolabi, Irene Amoakoh Owusu, Kolapo Oyebola, Tope Oyelade, Ilker Ozsahin, Mahesh P A, Kevin Pacheco-Barrios, Alicia Padron-Monedero, Jagadish Rao Padubidri, Anton Pak, Tamás Palicz, Raffaele Palladino, Raul Felipe Palma-Alvarez, Tejasri Paluvai, Feng Pan, Sujogya Kumar Panda, Songhomitra Panda-Jonas, Deepshikha Pande Katara, Helena Ulliyartha Pangaribuan, Leonidas D Panos,

Ioannis Pantazopoulos, Giovanni Paolino, Mario Virgilio Papa, Ilias Papadimopoulos, Paraskevi Papadopoulou, Amrita Parida, Arpit Parmar, Swapnil Parve, Roberto Passera, Mitesh Patel, Neel Navinkumar Patel, Satyananda Patel, Ashlesh Patil, Shankargouda Patil, Dimitrios Patoulas, Apurba Patra, Hilary Paul, Shrikant Pawar, Shubhadarshini Pawar, Hamidreza Pazoki Toroudi, Amy E Peden, Paolo Pedersini, Veincent Christian Filipino Pepito, João Perdigão, Gavin Pereira, Norberto Perico, Simone Perna, Konrad Pesudovs, Pavlo Petakh, Fanny Emily Petermann-Rocha, Hoang Nhat Pham, Nhat Truong Pham, Michael R Phillips, David M Pigott, Julian David Pillay, Luane Pinheiro Pinheiro Rocha, Zahra Zahid Piracha, Michael A Piradov, Edoardo Pirera, Dietrich Plass, Indrashis Podder, Dimitri Poddighe, Peter Pollner, Ville T Ponkilainen, Ion Popa, Svetlana Popova, Djordje S Popovic, Maarten J Postma, Sajjad Pourasghary, Reza Pourbabaki, Sergio I Prada, Jalandhar Pradhan, Pranil Man Singh Pradhan, Peralam Yegneswaran Prakash, Chandra P Prasad, Akila Prashant, Elton Junio Sady Prates, Tina Priscilla, Harsh Priya, Jagadeesh Puvvula, Xiang Qi, Zhipeng Qi, Jia-Yong Qiu, Zahiruddin Syed Quazi, Shahazad Niwazi Qurashi, Deepthi R, Navid Rabiee, Raghu Anekal Radhakrishnan, Venkatraman Radhakrishnan, Maja R Radojčić, Hadi Raeisi Shahraki, Ibrar Rafique, Pankaja Raghav, Hawbash Mohammed-Amin Rahim, Sajjad Rahimi, Afarin Rahimi-Movaghar, Vafa Rahimi-Movaghar, Mahbubur Rahman, Md. Mosfequr Rahman, Mohammad Hifz Ur Rahman, Mohammad Meshbahur Rahman, Masoud Rahmati, Ghasem Rahmatpour Rokni, Hakim Rahmoune, Diego Raimondo, Ivano Raimondo, Sunil Kumar Raina, Jeffrey Pradeep Raj, Sandesh Raja, Sathish Rajaa, Shahryar Rajai Firouzabadi, Gunaseelan Rajendran, Judah Rajendran, Vinoth Rajendran, Shaman Rajindrajith, Prashant Rajput, Mahmoud Mohammed Ramadan, Kadar Ramadhan, Chitra Ramasamy, Shakthi Kumaran Ramasamy, Zahra Ramezani, Pramod W Ramteke, Shailendra Singh Rana, Chhabi Lal Ranabhat, Nemanja Rancic, Smitha Rani, Fatemeh Ranjbar Noei, Chythra R Rao, Kumuda Rao, Mithun Rao, Sowmya J Rao, Davide Rasella, Vahid Rashedi, Mohammad-Mahdi Rashidi, Mohammad Aziz Rasouli, Ashkan Rasouli-Saravani, Devarajan Rathish, Ilari Rautalin, Ramin Ravangard, Dhwani Ravi, David Laith Rawaf, Salman Rawaf, Reza Rawassizadeh, Ayita Ray, Iman Razeghian, Bahman Razi, Filippo Recenti, Elrashdy Redwan, Sanika Rege, Wajiha Rehman, Giuseppe Remuzzi, Longbing Ren, Andre M N Renzaho, Luis Felipe Reyes, Mina Rezaei, Nima Rezaei, Mavra A Riaz, Antonio Luiz P Ribeiro, Jennifer Rickard, Moattar Raza Rizvi, Hermano Alexandre Lima Rocha, João Rocha Rocha-Gomes, Mónica Rodrigues, Leonardo Roever, Peter Rohloff, Susanne Röhr, David Rojas-Rueda, Megan L Rolfzen, Debby Syahru Romadlon, Michele Romoli, Marina Romozzi, Luca Ronfani, Amirhossein Roshanshad, Morteza Rostamian, Gregory A Roth, Kunle Rotimi, Hanieh Rouzbahani, Reza Rouzbahani, Shiva Rouzbahani, Bedanta Roy, Nitai Roy, Poulami Roy, Priyanka Roy, Sharmistha Roy, Shubhanjali Roy, Susovan Roy Chowdhury, Enrico Rubagotti, Guilherme de Andrade Ruela, Susan Fred Rumisha, Michele Russo, Godfrey Mutashambara Rwegerera, Manjula S, Chandan S N, Aly M A Saad, Adnan Saad Eddin, Maha Mohamed Saber-Ayad, Cameron John Sabet, Siamak Sabour, Kabir P Sadarangani, Seyed Kiarash Sadat Rafiei, Basema Ahmad Saddik, Bashdar Abuzed Sadee, Tarannom Sadegh, Umar Saeed, Maryam Saeedi, Mehdi Safari, Rajesh Sagar, Mastooreh Sagharichi, Dominic Sagoe, Fatemeh Saheb Sharif-Askari, Narjes Saheb Sharif-Askari, Amirhossein Sahebkar, Kirti Sundar Sahu, Zahra Saif, Md Refat Uz Zaman Sajib, Mirza Rizwan Sajid, Morteza Saki, Nasir Salam, Luciane B Salaroli, Leili Salehi, Mahdi Salehi, Marwa Rashad Salem, Mohammed Z Y Salem, Dauda Salihu, Malik Sallam, Giovanni A Salum, Sundeep Santosh Salvi, Waqas Sami, Vijaya Paul Samuel, Abdallah M Samy, Sandeep G Sangle, Elaheh Sanjari, Sathish Sankar, Francesco Sanmarchi, Damian F Santomauro, Lucas H C C Santos, Milena M Santric-Milicevic, Bruno Piassi Sao Jose, Jacob Owusu Sarfo, Yaser Sarikhani, Mohammad Sarmadi, Gargi Sachin Sarode, Sachin C Sarode, Michele Sassano, Mukesh Kumar Sathya Narayanan, Sangeeta Gopal Saxena, Ganesh Kumar Saya, Abu Sayeed, Mete Saylan, Ione

Jayce Ceola Schneider, Art Schuermans, Ghil Schwarz, David C Schwebel, Catherine Schwinger, Mario Šekerija, Muthamizh Selvamani, Vimalraj Selvaraj, Yuliya Semenova, Mohammad H Semreen, Yigit Can Senol, Sadaf G Sepanlou, Edson Serván-Mori, Yashendra Sethi, Christian Sewor, Seyed Mohammad Seyed Alshohadaei, Allen Seylani, Nilay S Shah, Sweni Shah, Shazlin Shahaudin, Muhammad Shahbaz, Samiah Shahid, Endrit Shahini, Fatemeh Shahrahmani, Moyad Jamal Shahwan, Alireza Shakeri, Ali Shakerimoghaddam, Ali S Shalash, Muhammad Aaqib Shamim, Farzane Shams, Mehran Shams-Beyranvand, Anas Shamsi, Alfiya Shamsutdinova, Dan Shan, Abhishek Shankar, Mohammed Shannawaz, Amin Sharifan, Javad Sharifi Rad, Avimanu Sharma, Bunty Sharma, Kamal Sharma, Manoj Sharma, Sourabh Sharma, Ujjawal Sharma, Vishal Sharma, Rajesh P Shastry, Shamee Shastry, Ramzi Shawahna, Babangida Shehu Bappah, Samendra P Sherchan, Suraj S Shetty, Fang Shi, Mosa Shibani, Kenji Shibuya, Md Monir Hossain Shimul, Reza Shirkoohi, Aminu Shittu, Abdul-karim Olayinka Shitu, Velizar Shivarov, Nathan A Shlobin, Azad Shokri, Sinegugu Nosipho Shongwe, Sina Shool, Seyed Afshin Shorofi, Gambhir Shrestha, Sunil Shrestha, Kerem Shuval, Emmanuel Edwar Siddig, Mohammad Sidiq, Martin Siegel, Diego Augusto Santos Silva, Gustavo Correia Basto da Silva, João Pedro Silva, Luís Manuel Lopes Rodrigues Silva, Padam Prasad Simkhada, Abhinav Singh, Akanksha Singh, Ambrish Singh, Harmanjit Singh, Jasbir Singh, Jasvinder A Singh, Kalpana Singh, Lucky Singh, Narinder Pal Singh, Paramdeep Singh, Poornima Suryanath Singh, Puneetpal Singh, Rakesh K Singh, Samer Singh, Satwinder Singh, Surendra Singh, Mukesh Kumar Sinha, Ratnesh Sinha, Robert Sinto, Søren T Skou, Farrukh Sobia, Somaye Sohrabi, Balamrit Singh Sokhal, Ranjan Solanki, Solikhah Solikhah, Prashant Sood, Soroush Soraneh, Joan B Soriano, Michele Sorrentino, Fernando Sousa, Marco Aurelio Sousa, Ceren Soyulu, Michael Spartalis, Manraj Singh Sra, Chandrashekar T Sreeramareddy, Bahadar S Srichawla, Shyamkumar Sriram, Antonina V Starodubova, Simona Cătălina Ștefan, Dan J Stein, Timothy J Steiner, Paschalis Steiropoulos, Aleksandar Stevanović, Leo Stockfelt, Peter Stubbs, Yu Su, Omer Subasi, Narayan Subedi, Claudia Kimie Suemoto, Alisha Suhag, Thitiporn Sukaew, Surajo Kamilu Sulaiman, Auwal Garba Suleiman, Muritala Suleiman Odidi, Muhammad Suleman, Mark J M Sullman, Anusha Sultan Meo, Haitong Zhe Sun, Mao-ling Sun, Xiaodong Sun, Zhuanlan Sun, Suraj Sundaragiri, Thanigaivel Sundaram, Johan Sundström, David Sunkersing, Chandan Kumar Swain, Lukasz Szarpak, Sree Sudha T Y, Payam Tabae Damavandi, Rafael Tabarés-Seisdedos, Seyed-Amir Tabatabaeizadeh, Shima Tabatabai, Celine Tabche, Jyothi Tadakamadla, Santosh Kumar Tadakamadla, Buhari Abdullahi Tafida, Farzad Taghizadeh-Hesary, Yasaman Taheri Abkenar, Iman M Talaat, Stella Talic, Mircea Tampa, Jacques Lukenze Tamuzi, Jianye Tan, Ker-Kan Tan, Saba Tariq, Nathan Y Tat, Razieh Tavakoli Oliaee, Rahele Tavakoly, Seyed Mohammad Tavangar, Mojtaba Teimoori, Mohamad-Hani Tamsah, Amensisa Hailu Tesfaye, Azimeraw Arega Tesfu, Alireza Teymouri, Omar Thaher, Pugazhenthan Thangaraju, Ismaeel Tharwat, Samar Tharwat, Mehakpreet Kaur Thind, Arun James Thirunavukarasu, Arulmani Thiyagarajan, Nihal Thomas, Tenaw Yimer Tiruye, Musliu Adetola Tolani, Sojit Tomo, Marcello Tonelli, Roman Topor-Madry, Ali Torkashvand, Mathilde Touvier, Marcos Roberto Tovani-Palone, Khaled Trabelsi, Mai Thi Ngoc Tran, Nghia Minh Tran, Ngoc Ha Tran, Tam Quoc Minh Tran, Thang Huu Tran, Nguyen Tran Minh Duc, Domenico Trico, Samuel Joseph Tromans, Thien Tan Tri Tai Truyen, Aristidis Tsatsakis, Gary Tse, Evangelia Eirini Tsermpini, Lorainne Tudor Car, Mike Tuffour Amirikah, Sok Cin Tye, Aniefiok John Udoakang, Himayat Ullah, Irfan Ullah, Muhammad Umair, Krishna Kishore Umapathi, Lawan Umar, Shehu Salihu Umar, Era Upadhyay, Dipan Uppal, Daniele Urso, Jibrin Sammani Usman, Dilber Uzun Ozsahin, Pratyusha Vadagam, sara Vahdati, Asokan Govindaraj Vaithinathan, Alireza Vakilian, Pascual R Valdez, Mario Valenti, Jef Van den Eynde, Giloume Van Der Walt, Javad Varasteh, Ravi Prasad Varma, Priya Vart, Tommi Juhani Vasankari, Sampara Vasishta, Srivatsa Surya Vasudevan, Ashleigh S Vella, Balachandar Vellingiri, Narayanaswamy

Venkatasubramanian, Poonam Verma, Massimiliano Veroux, Georgios-Ioannis Verras, Dominique Vervoort, Simone Vidale, Simone Villa, Jorge Hugo Villafañe, David Villarreal-Zegarra, Sharath Chaitanya Vipparthy, Rachel Visontay, Luciano Magalhães Vitorino, Vasily Vlassov, Martin Vojtek, Stein Emil Vollset, Theo Vos, Mehdi Vosoughi, Linh Vu, Yasir Waheed, Mugi Wahidin, Fang Wang, Lei Wang, Liang Wang, Shaopan Wang, Shu Wang, Wei Wang, Xing Wang, Xuequan Wang, Yanzhong Wang, Yichen Wang, Yuan-Pang Wang, Tanveer A. Wani, Ahmed Bilal Waqar, Paul Ward, Kosala Gayan Weerakoon, Ishanka Weerasekara, Fei-Long Wei, Xueying Wei, Robert G Weintraub, Andrea Werdecker, Ronny Westerman, Taweewat Wiangkham, Dakshitha Praneeth Wickramasinghe, Nuwan Darshana Wickramasinghe, Samuel Wiebe, Peter Willeit, Andrew Awuah Wireko, Gemechu Kumera Wirtu, Charles Shey Wiysonge, Abay Tadesse Woday, Marcin W Wojewodzic, Axel Walter Wolf, Tewodros Eshete Wonde, Yohannes Chemere Wondmeneh, Daniel Tarekegn Worede, Minichil Chanie Worku, Ai-Min Wu, James Fan Wu, Jinyi Wu, Shi-Nan Wu, Yanjie Xia, Na Xiao, Site Xu, Suowen Xu, Wanqing Xu, Mukesh Kumar Yadav, Vikas Yadav, Mahnaz Yadollahi, Saba Yahoo (Syed), Galal Yahya, Kazumasa Yamagishi, Haibo Yang, Weiguang Yang, Xinxin Yang, Laiang Yao, Amir Yarahmadi, Haya Yasin, Yuichi Yasufuku, Sanni Yaya, Pengpeng Ye, Meghdad Yeganeh, Ali Cem Yekdeş, Mohammad Hossein YektaKooshali, Kuanysh A. Yergaliyev, Saber Yezli, Muluken Yigezu, Yulai Yin, Malede Berihun Yismaw, Dong Keon Yon, Naohiro Yonemoto, Jian Yu, Yong Yu, Faith H Yuh, Ghazala Yunus, Umar Yunusa, Aminu Abba Yusuf, Monal Yuwanati, Mubashir Zafar, Manijeh Zaghampour, Emilia Zainal Abidin, Fathiah Zakham, Burhan Abdullah Zaman, Sojib Bin Zaman, Nelson Zamora, Aurora Zanghi, Heather J Zar, Kourosh Zarea, Mohammed Zawiah, Mohammed G M Zeariya, Abay Mulu Zenebe, Sebastian Zensen, Beijian Zhang, Casper J P Zhang, Haijun Zhang, Xiaoyi Zhang, Zhiqiang Zhang, Jianhui Zhao, Sheng Zhao, Zhongyi Zhao, Jiayan Zhou, Bin Zhu, Zhengyang Zhu, Abzal Zhumagaliuly, Magdalena Zielińska, Liu Zihao, Ghazal Zoghi, Mohamed Ali Zoromba, Rafat Mohammad Zrieq, Liesl J Zuhlke, Alimuddin Zumla, Ahed H Zyoud, and Sa'ed H Zyoud

[Managing the estimation or publications process](#)

Joanne O Amlag, Catherine M Antony, Charlie Ashbaugh, Catherine S Chen, Amanda Deen, Lisa M Force, Hailey Hagins, Erin B Hamilton, Ashley Ann Harris, Simon I Hay, Catherine O Johnson, Jonathan M Kocarnik, Hmwe Hmwe Kyu, Miranda L May, Madeline E Moberg, Ali H Mokdad, Amanda Movo, Mohsen Naghavi, Olivia D Nesbit, Erin M O'Connell, Erik J Olson, Samuel M Ostroff, Rachel D Schneider, Matthew Seymour, Jeffrey D Stanaway, Caitlyn Steiner, and Faith H Yuh.