



This is a repository copy of *Characterising acute and chronic care needs: insights from the Global Burden of Disease Study 2019*.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/226653/>

Version: Published Version

---

**Article:**

Anza-Ramirez, C., Miranda, J.J., Armocida, B. et al. (1444 more authors) (2025)  
Characterising acute and chronic care needs: insights from the Global Burden of Disease Study 2019. *Nature Communications*, 16. 4235. ISSN 2041-1723

<https://doi.org/10.1038/s41467-025-56910-x>

---

**Reuse**

This article is distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND) licence. This licence only allows you to download this work and share it with others as long as you credit the authors, but you can't change the article in any way or use it commercially. More information and the full terms of the licence here: <https://creativecommons.org/licenses/>

**Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing [eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk) including the URL of the record and the reason for the withdrawal request.



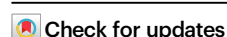
[eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk)  
<https://eprints.whiterose.ac.uk/>

# Characterising acute and chronic care needs: insights from the Global Burden of Disease Study 2019

Received: 16 June 2023

Accepted: 5 February 2025

Published online: 07 May 2025



GBD 2019 Acute and Chronic Care Collaborators\*

Chronic care manages long-term, progressive conditions, while acute care addresses short-term conditions. Chronic conditions increasingly strain health systems, which are often unprepared for these demands. This study examines the burden of conditions requiring acute versus chronic care, including sequelae. Conditions and sequelae from the Global Burden of Diseases Study 2019 were classified into acute or chronic care categories. Data were analysed by age, sex, and socio-demographic index, presenting total numbers and contributions to burden metrics such as Disability-Adjusted Life Years (DALYs), Years Lived with Disability (YLD), and Years of Life Lost (YLL). Approximately 68% of DALYs were attributed to chronic care, while 27% were due to acute care. Chronic care needs increased with age, representing 86% of YLDs and 71% of YLLs, and accounting for 93% of YLDs from sequelae. These findings highlight that chronic care needs far exceed acute care needs globally, necessitating health systems to adapt accordingly.

The provision of healthcare services involves addressing a wide range of medical needs, each requiring specific attention and resources. Among these needs, two distinct categories stand out: chronic care and acute care<sup>1</sup>. Chronic care focuses on the management and long-term treatment of medical conditions that are persistent, progressive despite treatment, and typically incurable. In contrast, acute care involves conditions that have a short, relatively severe course, and potentially curable or reversible<sup>2–6</sup>. Some chronic conditions, such as HIV/AIDS or Tuberculosis (TB), have an infectious origin, while others, like cardiovascular diseases, cancer and type 2 diabetes, are classified as non-communicable diseases (NCDs). Globally, these three NCDs account for around 50% of all deaths in 2016<sup>7</sup>. In the United States of America (USA), it is estimated that 100 million people have at least one chronic disease, and managing these diseases accounted for 75% of national health expenditure<sup>8</sup>. In Tanzania, Setel et al.<sup>5</sup> undertook a reclassification of the traditional categorization of diseases, namely communicable diseases, NCDs, and injuries, into acute or chronic groups. This reclassification aimed to align with the specific care needs associated with each condition, and found that 86% of disability-adjusted life years (DALYs)

could be attributed to chronic diseases. In addition, acute diseases and injuries can have non-fatal health outcomes, known as sequelae, and these must also be considered<sup>9,10</sup>.

With the increase in the prevalence of NCDs<sup>11</sup> and advancements in medical treatments that transform communicable diseases like HIV/AIDS into chronic conditions<sup>12</sup>, health systems need to integrate various factors to effectively plan, deliver, and sustain long-term healthcare. This includes primary, secondary and tertiary prevention. The management of chronic diseases poses a significant challenge for health systems worldwide<sup>13</sup>, spanning all the different World Health Organization (WHO)'s health system building blocks, including health policies, financing, delivery of care, access to medicines, leadership and governance, information management, and quality and safety<sup>13,14</sup>. There have been numerous calls, including from the WHO, for a shift in health systems from reactive acute care responses to proactive and preventive chronic care<sup>13,15–17</sup>.

The distinction between acute and chronic care in healthcare is crucial, as previously reported by the WHO Universal Health Coverage (UHC) compendium and the Disease Control Priorities Network (DCP-3). UHC aims to ensure that all individuals have access to essential healthcare services without encountering financial hardships,

\*A list of authors and their affiliations appears at the end of the paper.

emphasizing equitable access to both acute and chronic care<sup>18</sup>. DCP-3, on the other hand, provides a comprehensive understanding of disease burdens and interventions, shedding light on effective strategies for addressing chronic conditions and their associated care needs within healthcare systems<sup>19</sup>. DCP-3 also acknowledges that the pursuit of essential UHC will differ across countries based on unique cost structures, epidemiological needs, and national priorities<sup>20</sup>. Integrating the principles outlined in these frameworks allows for a more holistic approach to healthcare planning and delivery, emphasizing not only the treatment of acute conditions but also the management and prevention of chronic illnesses which, ultimately, has the overarching goal of improving health outcomes and promoting overall well-being. Understanding the dynamics and requirements of both acute and chronic care is therefore vital for creating robust healthcare systems capable of meeting the diverse and evolving needs of populations worldwide.

In this work we aim to characterise the burden of acute and chronic care needs using estimates from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2019.

## Results

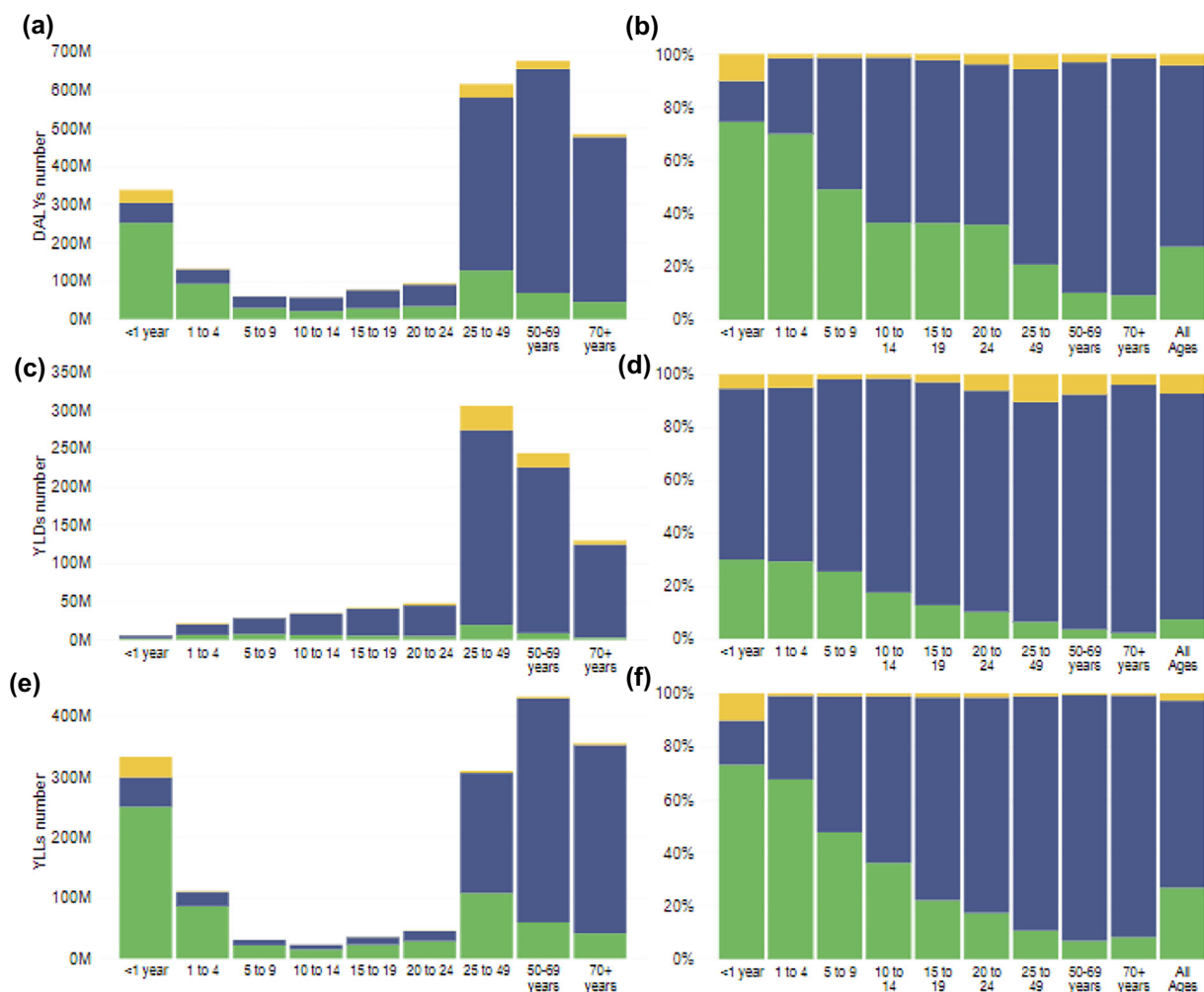
### Diseases and injuries

**Global DALYs, YLDs and YLLs attributed to acute and chronic care needs.** Globally, the leading cause of DALYs was ischemic heart disease (chronic care) followed by lower respiratory infections (acute

care). Six out of the ten top leading causes of DALYs were related to chronic care needs (Supplementary Figs. 1 and 2). Only around 27% of all-cause, all-age DALYs were attributable to conditions that required acute care, while around 68% were attributed to conditions that required chronic care. Around 5% of DALYs could not be attributed to acute or chronic needs (Fig. 1b and Supplementary Fig 1). Globally, 7% and 38% of YLDs and YLLs, respectively, were attributed to conditions requiring acute care across all age groups, whereas corresponding figures for conditions requiring chronic care were 86%, and 59%, respectively (Fig. 1).

Larger numbers and percentages of DALYs, YLDs, and YLLs were attributable to chronic care needs in people 25 years old and above. In contrast higher DALYs and YLLs attributed to acute care needs were observed in the first five years of life (Fig. 1). As a proportion, YLDs attributed to conditions requiring chronic care tended to be higher than the ones attributed to acute care needs while the contrary is observed for YLLs in people below 25 years old, where conditions requiring acute care needs represented a higher number and proportion of YLLs (Fig. 1d and 1f).

**DALYs, YLDs and YLLs by location.** When assessing metrics by country, a larger proportion of DALYs was attributed to chronic versus acute conditions across most countries and territories, except for certain countries in Central Africa (details for numbers and percentages of DALYs, YLDs, and YLLs attributed to acute



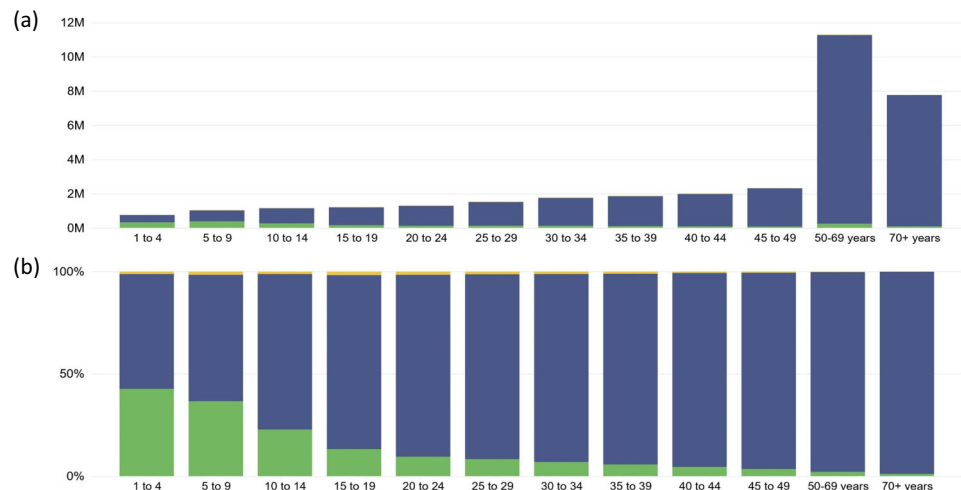
**Fig. 1 | Number and percentage of DALYs, YLDs, and YLLs attributed to acute and chronic care conditions.** Left figures show number and right figures show percentage of global (a, b) disability-adjusted life years (DALYs), (c, d) years lived

with disability (YLDs), and (e, f) years of life lost (YLLs) according to the care needs classification (i.e.: acute [green], chronic [blue], and undetermined [yellow]) by age group.



**Fig. 2 | All-age number and percentage of Dalys by socio-demographic Index using the care needs classification.** All-age number and percentage of disability-adjusted life years (DALYs) for 293 conditions classified according to their care

needs classification (i.e., acute [green], chronic [blue], and undetermined [yellow]) by Socio-Demographic Index (SDI).



**Fig. 3 | Number and percentage of YLDs for both sexes by age group using the care needs classification for sequelae.** Number (a) and percentage (b) of global years lived with disability (YLDs) according to the care needs classification (i.e.: acute [green], chronic [blue], and undetermined [yellow]) by age group.

and chronic care needs conditions by country are provided in Supplementary Tables 2 and 3). In some countries in Africa and Asia, DALYs attributed to conditions that required acute care were around or exceeded 50% of the total. Niger had the highest burden attributed to conditions that required acute care (72% of DALYs), and Italy had the lowest burden (6% of DALYs) (Supplementary Table 3).

When assessing the burden of care needs by SDI, a gradient was found in the proportion of DALYs attributed to conditions with acute care needs. Acute care needs were higher in low SDI locations (52%), decreasing (11%) as SDI increased for countries and territories characterized by a high SDI (Fig. 2). When assessing absolute numbers, middle SDI countries and territories had the highest DALYs attributable to chronic care needs (Fig. 2).

A higher burden of DALYs and YLLs of both types of care needs was observed in males when compared to females (Supplementary Fig. 3). In contrast, for YLDs, women showed a slightly higher burden (Supplementary Fig. 4). Of note, larger differences for DALYs and YLLs were observed between males and females for conditions requiring acute care (Supplementary Figs. 3, 5). For example, all-age DALYs and YLLs for men in high-middle SDI countries were almost double of what was found for women (Supplementary Figs. 3 and 5).

Most DALYs and YLDs attributed to chronic care needs increased with age across SDI country categories (Supplementary Figs. 6 and 7). In the age groups under 25 years old, YLLs attributed to conditions requiring acute care were higher than conditions requiring chronic care. This is the opposite for the age groups 25 years of age or older. (Supplementary Fig. 7).

### Sequelae

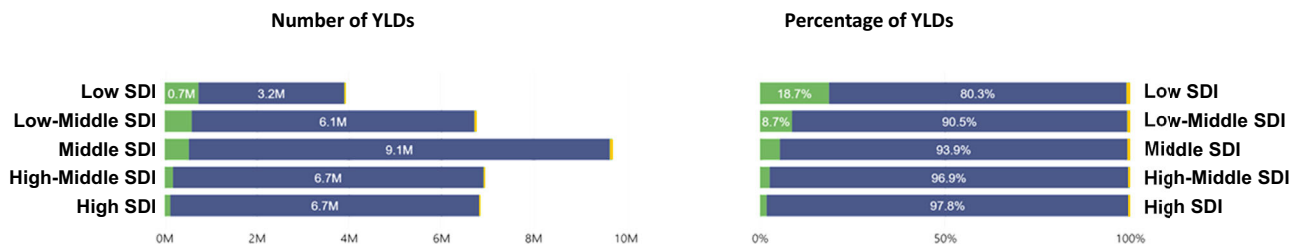
**Global YLDs attributed to sequelae requiring acute and chronic care.** In 2019, 93.1% of all-cause and all-age YLDs were attributed to sequelae that required chronic care, 6.3% were attributed to sequelae that required acute care, and 0.6% that could not be attributed to acute or chronic care needs (Supplementary Fig. 8). This pattern was found in most countries and territories, with some variation. (Supplementary Table 5).

Globally, the number of YLDs increased with age, being higher in people aged 50–59 years when compared to the other age categories. As age increased, the percentage of YLDs attributed to chronic (versus acute) sequelae also increased, ranging from 56% at 1 to 4 years of age to more than 90% in age groups older than 25 years. (Fig. 3).

The sequelae accounting for the greatest YLDs by acute, chronic and undetermined care needs are shown in Supplementary Figs. 8 and 9. Type 2 diabetes sequelae were associated with the largest number of YLDs, and chronic care needs accounted for 8 out of 10 conditions with disabling sequelae (Supplementary Fig. 9).

**YLDs attributed to acute and chronic sequelae by location.** The proportion of YLDs attributed to sequelae with chronic care needs ranged from 59% in Liberia, to 98% in the USA and Niue (Supplementary Table 5). When grouping the location by SDI, in low SDI countries and territories, YLDs attributed to sequelae with chronic care needs were slightly lower (80.3%) than the global proportion (93%). In high-SDI countries and territories this proportion was 98% (Fig. 4).

When disaggregating by sex, all-age YLDs attributed to sequelae requiring chronic care were slightly higher in women living in low and low-middle SDI countries and in men living in high SDI countries when compared to their counterparts (Supplementary Fig. 10). In contrast,



**Fig. 4 | All-age number and percentage of YLDs by care needs classification and SDI attributed to sequelae.** All-age number and percentage of years lived in disability for 379 sequelae classified by their care needs classification (i.e: acute [green], chronic [blue], and undetermined [yellow]) by Socio-demographic Index (SDI).

YLDs attributed to acute sequelae were slightly higher in women living in high SDI and in men living in low to middle SDI countries. Also, a higher number of YLDs were observed in older ages independently of SDI (Supplementary Fig. 11).

## Discussion

This study aimed to quantify the burden of acute and chronic care for diseases and injuries and sequelae. Worldwide, two-thirds of all-cause, all-age DALYs were attributed to conditions that required chronic care. The proportion of DALYs attributed to chronic care needs was low in early life but increased as age increased. Of the 10 conditions associated with the greatest DALYs across age groups, 6 required chronic care. This burden was also reflected in all-age YLDs and YLLs with 86% and 59% of the overall burden attributable to conditions with chronic care needs, respectively. For both, conditions having acute and chronic care needs, DALYs and YLLs were slightly and consistently higher in men than in women, while YLDs were higher in women. Additionally, there was a socioeconomic gradient, with low SDI countries having the greatest proportion of DALYs and YLLs from acute care conditions and high SDI countries the greatest proportion of DALYs and YLLs from chronic care conditions. Except for the low SDI countries, in the rest of the territories by SDI, the proportion of DALYs from chronic care conditions was above 60%. Eight out of the top 10 sequelae were linked to chronic care needs, with complications related to type 2 diabetes being the leading condition associated with the largest number of YLDs due to sequelae.

The analysis conducted in this study highlights the overwhelming global burden of chronic care needs. While acute care needs still outweigh those for chronic care in Africa, decreases in childhood mortality<sup>21</sup> and increasing life expectancy will translate to an increase in chronic and degenerative conditions<sup>22</sup>. Globally, health systems require a “paradigm shift”<sup>13</sup> theorized by Wagner et al.<sup>23</sup> with their Chronic Care Model, which the WHO further developed into the Innovative Care for Chronic Conditions Framework (ICCCF)<sup>13</sup>. The ICCCF highlights that policy, health system, community and individuals and their carers are all necessary to develop a propitious environment for chronic care management<sup>13</sup>. Different challenges exist at each of these levels, both globally and in low SDI countries. At a policy level, it is argued that one of the prerequisites for addressing chronic care is UHC, ensuring the absence of financial barriers to care<sup>24</sup>. All SDI groups face different challenges related to chronic diseases due to their cost.<sup>25</sup> For countries with low and middle SDI, in the process of implementing UHC, the challenge lies in integrating costly chronic diseases into their UHC packages<sup>26</sup>. In high SDI countries, given the overwhelming burden of chronic care needs, these represent a threat to UHC due to the cost of these diseases.

At a system level, various elements need to be put in place to ensure the continuity of care across ages as well as disease progression to not only prevent or delay the onset of chronic conditions, but also their sequelae<sup>27</sup>. The focus on primary health care (PHC) and health-care delivery structures alone, fails to recognize the complexity of the management of chronic diseases and the multifactorial determinants

of health, including household, neighborhood, community, economic, and societal factors. Many health systems, especially at the PHC level, do not have the tools to address this<sup>28</sup>. The ICCCF highlights the importance of health professionals serving as a links between the health system and the community, which is a key consideration for guaranteeing continuity of chronic care beyond the walls of the formal health system<sup>29</sup>. This is especially important as the onus of chronic care is on the individual and their caregivers<sup>30</sup>. Studies have shown the challenges chronic disease management for individuals within the community ranging from financial challenges, individuals feeling like a burden on their families or lacking the understanding to manage their condition<sup>31</sup>. Poorly managed chronic care can itself result in acute and downstream chronic sequelae, highlighting the self-perpetuating cycle that can result from inadequate systems to optimize care. As shown in this study, type 2 diabetes sequelae had the largest number of YLDs, confirming overall challenges in the management of such a condition both in low- and high-income settings resulting in poor control and resulting in complications and increased mortality<sup>32,33</sup>.

Amenable mortality, which measures deaths that can be avoided with timely and effective healthcare, can provide an insight into how access to and quality healthcare varies worldwide and over time<sup>34</sup>. Reports using this metric have shown a worldwide improvement in the quality of health systems<sup>35</sup>, although it should be mentioned that there is great heterogeneity in death patterns when assessing the healthcare systems across countries, regions, or globally<sup>35,36</sup>.

As previously reported, the conventional broad cause classification approach may be limited because it is based on an arbitrary list of conditions that depends on the medical definition used<sup>34</sup>. Acknowledging that this may vary not only among the definitions used but also among the scenarios assessed, a more overarching approach, like the one used in the present study, classifying all the conditions based on the type of care they require, either acute or chronic<sup>5</sup>, may be more useful when it comes to assessed and plan around the healthcare. The WHO within the ICCCF calls for integration of care. In many contexts such integration has happened for HIV/AIDS<sup>37</sup>, but is still failing for those with other chronic diseases. The result of integration of care is for the individual to have a continuum of care needs met across ages and conditions<sup>38</sup>. For health professionals, this integration requires coordination and cooperation with different medical specialties as well as actors outside the formal health system. Finally, for policy makers, it is the recognition of how different policies may impact health. This was especially true during the COVID-19 pandemic, when people with chronic diseases were not only at higher risk of complications from COVID-19 but are also vulnerable to the disruptions in care that were caused by the epidemic and required a range of supportive services from the government<sup>39,40</sup>. Beyond strengthening health systems to manage those already with chronic diseases, governments need to also invest in health prevention and promotion activities at a societal level.

On the other hand, certain health conditions, such as ischemic heart disease, stroke, and type 2 diabetes, among others, exhibit both chronic and acute manifestations. While our study primarily aimed to offer a comprehensive overview of chronic and acute care needs over



recent decades, many chronic conditions pose intricate challenges due to their acute manifestations that require different health system responses beyond chronic continuous care. Additionally, it must also be considered that people with chronic conditions must also deal with acute presentation conditions<sup>41</sup>. Recognizing the urgency associated with managing acute episodes within chronic diseases underscores further critical considerations for health system preparedness for more effective health planning and resource allocation. Understanding the interplay between major chronic diseases and their acute phases or acute infectious events is a crucial direction for future research.

Furthermore, the presence of multimorbidity, where patients experience multiple chronic conditions simultaneously, poses significant challenges for healthcare delivery and patient outcomes. However, GBD data does not allow the assessment of multimorbidity. Addressing multimorbidity requires comprehensive strategies considering patients' complex health needs, which is crucial for guiding efforts to enhance the preparedness of the health system<sup>42</sup>. Our study, despite the current data limitations, intrinsically underscores the importance of considering multimorbidity when evaluating chronic care requirements.

Previous studies have identified and described the overall limitations of the GBD data<sup>11,42,43</sup>. In our study and other studies using GBD Study data, we acknowledge a fundamental limitation in calculating YLDs. The current GBD methodology, especially since 2010, utilises a prevalence-based approach for YLD estimations<sup>9</sup>. This approach involves multiplying the prevalence of a sequela by the associated disability weight, without explicitly factoring in disease duration. Consequently, there is a risk of overestimating YLDs, especially for chronic conditions, particularly in settings where high treatment coverage can enable longer lifespans for affected individuals. Additionally, the accuracy of GBD estimates is highly dependent on the quality of the data sources<sup>43</sup>. Considering the vast scope of the study, covering 204 countries and territories, with numerous diseases, injuries, and sequelae, different locations may exhibit variations in data quality, particularly in resource-poor settings<sup>44</sup>. Furthermore, the GBD methodology itself has been subject to discussion due to its complex and evolving nature<sup>45</sup>. However, it is important to note that the GBD continually improves its statistical models and analysis, incorporating data and methodological updates to enhance the accuracy and timeliness of its results<sup>11</sup>. In this study, a limitation arises from the coding of acute versus chronic care needs for both conditions and sequelae. It is acknowledged that the chronicity of certain conditions may vary in different settings. Nevertheless, the option for "undetermined" was available to address such circumstances, with a relatively small percentage falling into this category (around 4% to 5%).

This study highlights the need for further research in various areas related to the burden of chronic conditions. These areas include examining gender differences in the burden, addressing the training needs of healthcare professionals, understanding the impact on caregivers, assessing the economic consequences for individuals, households, and health systems, implementing person-centered care approaches, evaluating policy environments in the context of Universal Health Coverage (UHC), considering psychological factors and their effects on individuals and families, exploring innovative service delivery models, examining the impact of COVID-19, and assessing how prevention and health promotion efforts can influence morbidity and mortality<sup>46</sup>.

Globally, many healthcare systems have been designed, and are still struggling, to respond to acute conditions. However, they are not adequately organized to address chronic conditions or sequelae. This study provides much needed information to develop national and global policies to address the actual and increasing burden of chronic diseases. Presenting the burden of disease in this way enhances the traditional view of the global burden of disease and sequelae which has been largely focused on single diseases or conditions. This current

approach is more suitable for our future health strategy where health services will be managed and delivered in a way making them more integrated and person-centered. Population-based strategies with a multidisciplinary approach for disease prevention and management aggressively pursued and promoted at the national and global level. This is possible through efficient community engagement, identifying structural and systemic determinants of health, and collective sharing and learning across countries. High-quality long-term care for chronic conditions and its sequelae is essential and health systems and societies must embrace this transformation as a priority.

## Methods

### Overview

The GBD 2019 estimates, among other health metrics, years lived with disability (YLDs), years of life lost (YLLs) and DALYs. All estimates generated and reported are in accordance with the Guidelines for Accurate and Transparent Health Estimates Reporting<sup>47</sup>. For this paper, 297 diseases and injuries, and 379 sequelae were classified according to whether these required chronic or acute care, adapting the approach used by Setel et al.<sup>5</sup> and is described in Section "Classification of conditions according to their care needs" of this paper.

### Data description

The GBD 2019 compiles burden of health metrics from 204 countries and territories that are grouped into 21 regions and seven super-regions<sup>11,46,48–51</sup>. Here, data are presented by location, which refers to countries and territories as well as to socio-demographic index (SDI, a composite average of income per capita, average educational attainment, and fertility rates in females categorized by low SDI, low-middle SDI, middle SDI, high-middle SDI, and high SDI).

The number of DALYs, YLDs, and YLLs by locations, age and sex categories were extracted using the GHDx (Global Health Data Exchange) tool (<http://ghdx.healthdata.org>) from the Institute for Health Metrics and Evaluation (IHME). For sequelae, only numbers of YLDs are available by request to IHME. These were requested and obtained by location, age, and sex.

Data were extracted for nine age categories for diseases and injuries (<1 year, 1 to 4, 5 to 9, 10 to 14, 15 to 19, 20 to 24, 25 to 49, 50 to 69, 70+ years), and for 12 age categories for sequelae (1 to 4, 5 to 9, 10 to 14, 15 to 19, 20 to 24, 25 to 29, 30 to 34, 35 to 39, 40 to 44, 45 to 49, 50 to 69, 70+ years), both aggregated and disaggregated by sex.

All visualisations and graphs presented in this study were created using Power BI (version 2.116.921.0), ensuring clarity and accessibility in data representation.

### Causes of diseases and injuries

The GBD 2019 list of diseases and injuries has a hierarchical organisation. Level 1 comprises three groups of conditions: communicable, maternal, neonatal, and nutritional diseases (Group A); non-communicable diseases (Group B); and injuries (Group C). These Level 1 aggregates are subdivided at Level 2 into 22 cause groupings, Group A is divided into seven sub-groups, Group B into twelve sub-groups, and Group C, in three. The disaggregation into Levels 3 and 4 contains the finest level of detail for causes captured in GBD 2019. For this study, the complete list of Levels 3 and 4 diseases and injuries (Supplementary Table 1) was extracted and classified based on the given care needs for the specific condition (see Section "Classification of conditions according to their care needs").

### Sequelae

The GBD 2019 Sequelae, defined as the direct consequences of diseases and injuries, do not have a hierarchical organisation. The complete list of sequelae, containing 379 items, were classified based on their care needs (see Section "Classification of conditions according to their care needs"). The full list is included in Supplementary Table 4.

### Classification of conditions according to their care needs

For each disease and sequelae, two physicians (BA and JC) ascertained if the care needs of the condition were acute or chronic, independently. To aid in this classification, the approach used by Setel et al.<sup>5</sup> was adapted and the definitions of the United States National Library of Medicine thesaurus Medical Subject Headings (MeSH) were used<sup>6</sup>. The definition used for conditions that require chronic care was: “Condition which has one or more of the following characteristics: they are permanent, leave residual disability, are caused by non-reversible pathological alteration, require special training of the patient for rehabilitation, or may be expected to require a long period of supervision, observation, or care. Additionally, the condition is either incurable or requires more than a month of appropriate treatment”<sup>5,6</sup>. For conditions requiring acute care, the definition used was: “Condition having a short and relatively severe course. Potentially curable within a month of current appropriate treatment”<sup>5,6</sup>. The definitions were extended to include sequelae as well. Those, despite their association with chronic diseases, have been classified independently based on their unique care needs. This ensures a distinct classification, irrespective of their linkage to chronic conditions.

Any discrepancies or inconsistencies were thoroughly examined and resolved through discussions, involving a third party (CA-R), to reach a consensus. Additionally, the classifications made were reviewed and confirmed by colleagues at IHME, providing further validation to the decisions.

In line with Setel et al.<sup>5</sup>, injuries causing YLDs were classified as having chronic care needs, while injuries causing YLLs were classified as having acute care needs. This is the reason Injuries are classified as Chronic / Acute in Supplementary Table 1. The number of YLDs and YLLs was extracted for each condition and added to obtain the number of DALYs. Some conditions fall into the definition of both acute and chronic, depending on different factors. In this case the conditions were classified as undetermined, then fitted separate. (Supplementary Table 1 for diseases and injuries, and Supplementary Table 4, for sequelae).

### Reporting summary

Further information on research design is available in Nature Portfolio Reporting Summary linked to this article.

### Data availability

All data can be accessed at: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>. If any required data, such as specific categorised sequelae data, are not available, requests can be sent to [engage@healthdata.org](mailto:engage@healthdata.org), and they will respond in the coming days to assist with the request.

### References

- Fact sheet: Quality health services. Accessed May 21. <https://www.who.int/news-room/fact-sheets/detail/quality-health-services> (2023).
- Clark, N. M. Management of chronic disease by patients. *Annu. Rev. Public Health* **24**, 289–313 (2003).
- WHO. Prevention and control of noncommunicable diseases: implementation of the global strategy-. Geneva: World Health Organization. 2008. Accessed May 12, 2021. [https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=Prevention+and+control+of+noncommunicable+diseases%3A+implementation+of+the+global+strategy&btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Prevention+and+control+of+noncommunicable+diseases%3A+implementation+of+the+global+strategy&btnG=)
- McKee, M. & Nolte, E. Responding to the challenge of chronic diseases: Ideas from Europe. *Clin. Med. J. R. Coll. Phys. Lond.* **4**, 336–342 (2004).
- Setel, P. W. et al. Is it time to reassess the categorization of disease burdens in low-income countries. *Am. J. Public Health* **94**, 384–388 (2004).
- National Library of Medicine. Medical Subjects Headings. 2020. Accessed December 10, 2021. <https://www.ncbi.nlm.nih.gov/mesh>
- Organization W. H. *Noncommunicable Diseases Country Profiles 2018*. World Health Organization
- Bodenheimer, T., Wagner, E. H. & Grumbach, K. Improving primary care for patients with chronic illness. *J. Am. Med. Assoc.* **288**, 1775–1779 (2002).
- Vos, T. et al. Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* **380**, 2163–2196 (2012).
- Tollman, S. M. et al. Implications of mortality transition for primary health care in rural South Africa: a population-based surveillance study. *Lancet* **372**, 893–901 (2008).
- Abbasfati, C. et al. 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* **396**, 1204–1222 (2020).
- Scandlyn, J. When AIDS became a chronic disease. *West J. Med.* **172**, 130–133 (2000).
- WHO. Innovative Care for Chronic Conditions: Building Blocks for Action. Geneva, Switzerland: WHO; Geneva: World Health Organization. Published online 2002.
- WHO The World Health Report 2000 – Health systems: improving performance. *Bull. World Health Organ* **78**, 1064–1064 (2000).
- WHO. Preventing chronic diseases: A vital investment! **2**:113 (2006).
- Yach, D., Hawkes, C., Gould, C. L. & Hofman, K. J. The global burden of chronic diseases: Overcoming impediments to prevention and control. *J. Am. Med. Assoc.* **291**, 2616–2622 (2004).
- Beaglehole, R. et al. Improving the prevention and management of chronic disease in low-income and middle-income countries: a priority for primary health care. *Lancet* **372**, 940–949 (2008).
- The World Health Report 2010. Accessed December 22, 2023. <https://www.who.int/publications/i/item/9789241564021>
- Das, P. & Horton, R. Disease Control Priorities, 3rd edition—from theory to practice. *Lancet* **391**, e9–e10 (2018).
- Jamison, D. T. et al. Universal health coverage and intersectoral action for health: key messages from Disease Control Priorities, 3rd edition. *Lancet* **391**, 1108–1120 (2018).
- Paulson, K. R. et al. Global, regional, and National Progress towards Sustainable Development Goal 3.2 for Neonatal and child health: all-cause and cause-specific Mortality Findings from the Global Burden of Disease Study 2019. *Lancet* **398**, 870–905 (2021).
- United Nations. United Nations, Department of Economic and Social Affairs, Population Division (2013). World Population Ageing 2013. ST/ESA/SER.A/348. ST/ESA/SER.A/348
- Wagner, E. H. Organizing care for patients with chronic illness revisited. *Milbank Q.* **97**, 659–664 (2019).
- Ham, C. The ten characteristics of the high-performing chronic care system. *Health Econ. Policy Law* **5**, 71–90 (2010).
- Bloom, D. E. et al. The global economic burden of non-communicable diseases. (World Economic Forum, Geneva, 2011).
- Beran, D., Pedersen H. B., Robertson J. Noncommunicable diseases, access to essential medicines and universal health coverage. *Glob. Health Action*. 12:<https://doi.org/10.1080/16549716.2019.1670014> (2019).
- van Servellen, G., Fongwa, M. & Mockus D'Errico, E. Continuity of care and quality care outcomes for people experiencing chronic conditions: A literature review. *Nurs. Health Sci.* **8**, 185–195 (2006).
- Cárdenas M. K. et al. Forty years after Alma-Ata: primary health-care preparedness for chronic diseases in Mozambique, Nepal and Peru. *Glob Health Action* **14**. <https://doi.org/10.1080/16549716.2021.1975920> (2021).

29. Greenhalgh T. Patient and public involvement in chronic illness: beyond the expert patient. *BMJ*; 338. <https://doi.org/10.1136/bmj.b49> (2009).
30. Nolte, E., McKee, M. Caring for people with chronic conditions: a health system perspective. *Int. J. Integr. Care*. 2009;**9**(1):Integration and chronic care: a review. In: Nolte:<https://doi.org/10.5334/ijic.298>
31. Pesantes, M. A. et al. Disruption, changes, and adaptation: Experiences with chronic conditions in Mozambique, Nepal and Peru. *Glob. Public Health* **15**, 372–383 (2020).
32. Guisasola, F. Á. et al. Glycaemic control among patients with type 2 diabetes mellitus in seven European countries: Findings from the Real-Life Effectiveness and Care Patterns of Diabetes Management (RECAP-DM) study. *Diab. Obes. Metab.* **10**, 8–15 (2008).
33. Manne-Goehler, J. et al. Health system performance for people with diabetes in 28 low- and middle-income countries: A cross-sectional study of nationally representative surveys. *PLoS Med* **16**, e1002751 (2019).
34. Nolte, E., McKee, M., Wyn, J., Cb, O. *Does Healthcare Save Lives?* The Nuffield Trust; 2004.
35. Barber, R. M. et al. Healthcare access and quality index based on mortality from causes amenable to personal health care in 195 countries and territories, 1990–2015: A novel analysis from the global burden of disease study 2015. *Lancet* **390**, 231–266 (2017).
36. Mullachery, P. H. et al. Mortality amenable to healthcare in Latin American cities: a cross-sectional study examining between-country variation in amenable mortality and the role of urban metrics. *Int J. Epidemiol.* Published online August 2 <https://doi.org/10.1093/IJE/DYAB137>
37. Birungi, J. et al. Integrating health services for HIV infection, diabetes and hypertension in sub-Saharan Africa: A cohort study. *BMJ Open*, 11. <https://doi.org/10.1136/bmjopen-2021-053412> (2021).
38. Hawkes, N. Integrated care. *BMJ* **338**, 1484 (2009).
39. Beran, D. et al. Beyond the virus: Ensuring continuity of care for people with diabetes during COVID-19. *Prim. Care Diab.* **15**, 16–17 (2021).
40. Pesantes, M. A. et al. Healthcare challenges for people with diabetes during the national state of emergency due to COVID-19 in Lima, Peru: primary healthcare recommendations. *Rev. Peru Med Exp. Salud. Publica* **37**, 541–546 (2020).
41. Anza-Ramirez, C. et al. Multimorbidity and acute infectious diseases in urban and semi-urban settings in Peru: A mixed-methods study. *J. Multimorbid. Comorbid.* **14**, <https://doi.org/10.1177/26335565241256826> (2024).
42. Skou, S. T. et al. Multimorbidity. *Nat. Rev. Dis. Prim.* **8**, 1–22 (2022).
43. El Bcheraoui, C. et al. Burden of disease in francophone Africa, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet Glob. Health* **8**, e341–e351 (2020).
44. Echouffo-Tcheugui, J. B., Yaya, S., Joshi, R., Narayan, K. M. V. & Kengne, A. P. Population surveillance of cardiovascular diseases in low-income to middle-income countries should leverage existing international collaborations. *BMJ Glob. Health* **3**, 866 (2018).
45. McLain, A. C., Frongillo, E. A., Hess, S. Y., Piwoz, E. G. *Comparison of Methods Used to Estimate the Global Burden of Disease Related to Undernutrition and Suboptimal Breastfeeding*. **10**, 2019:380–390 (2019).
46. Fitzmaurice, C. et al. Global, regional, and national cancer incidence, mortality, years of life lost, years lived with disability, and disability-adjusted life-years for 32 cancer groups, 1990 to 2015: A Systematic Analysis for the Global Burden of Disease Study. *Glob. Burd. JAMA Oncol.* **3**, 524–548 (2017).
47. GBD protocol | Institute for Health Metrics and Evaluation. Accessed December 11, 2021. <https://www.healthdata.org/gbd/about/protocol>.
48. Sampson, U. K. A. A. et al. Global and regional burden of death and disability from peripheral artery disease: 21 world regions, 1990 to 2010. *Glob. Heart* **9**, 145 (2014).
49. Naghavi, M. et al. Global, regional, and national age-sex specific mortality for 264 causes of death, 1980–2016: A systematic analysis for the Global Burden of Disease Study 2016. *Lancet* **390**, 1151–1210 (2017).
50. Ouyang, G. et al. The global, regional, and national burden of gallbladder and biliary tract cancer and its attributable risk factors in 195 countries and territories, 1990 to 2017: a systematic analysis for the Global Burden of Disease Study 2017. *Cancer* <https://doi.org/10.1002/cnccr.33476> (2021).
51. He, H. et al. Trends in the incidence and DALYs of schizophrenia at the global, regional and national levels: Results from the Global Burden of Disease Study 2017. *Epidemiol. Psychiatr. Sci.* <https://doi.org/10.1017/S2045796019000891> (2019).

## Acknowledgements

This research was funded by The Leona M. and Harry B. Helmsley Charitable Trust as part of the Addressing the Challenge and Constraints of Insulin Sources and Supply (ACCISS) Study. Statements and conclusions presented in this report are those of the authors alone and do not necessarily reflect the views of the Helmsley Charitable Trust. All references and conclusions are intended for educational and informative purposes and do not constitute an endorsement or recommendation from the Helmsley Charitable Trust. O O Adetokunboh acknowledges support from the Department of Science and Innovation at the National Research Foundation, the Centre of Excellence in Epidemiological Modeling and Analysis, Stellenbosch University, South Africa. J M Acuna acknowledges support from American University of Antigua. A Ahmad acknowledges support from Shaqra University. K Ahmadi acknowledges support from the National Institute for Health and Care Research (NIHR), Applied Research Collaboration (ARC), Northwest London (the views expressed are those of the author and not necessarily those of the NIHR or the Department of Health and Social Care). S Alian Samakkhah acknowledges support from the Department of Food Hygiene, Faculty of Veterinary Medicine, Amol University of Special Modern Technologies. S M Alif acknowledges support from The University of Melbourne and Monash University. S M Aljunid acknowledges support from the Department of Community Medicine, School of Medicine, International Medical University, Malaysia and International Centre for Casemix and Clinical Coding, Faculty of Medicine, National University of Malaysia for the approval and support to participate in this research project. S Almustanyir acknowledges support from the Institute for Health Metrics and Evaluation (IHME) for the global health research initiatives at the University of Washington. J H Amuasi acknowledges support from Bernhard Nocht Institute of Tropical Medicine in Hamburg, Germany. A Badawi acknowledges support from the Public Health Agency of Canada. I Banerjee acknowledges support from Sir Seewoosagur Ramgoolam Medical College in Belle Rive, Mauritius. S Barteit acknowledges support from the Heidelberg Institute of Global Health (HIGH), Faculty of Medicine, University Hospital, Heidelberg University in Heidelberg, Germany. H Benzian acknowledges support from Stellenbosch Institute of Advanced Study (STIAS), in Stellenbosch, South Africa. A N Bhat, J R Padubidi, A Shetty, B S K Shetty, and B Unnikrishnan acknowledge support from Kasturba Medical College, Mangalore and Manipal Academy of Higher Education, Manipal. M K Boachie acknowledges support from the Discipline of Public Health Medicine, University of KwaZulu-Natal in Durban, South Africa. L C Brant acknowledges support from CNPq (307329/2022-4). T Brugha acknowledges support from The University of Leicester Department of Population Health Sciences and the Leicestershire Partnership NHS Trust, United Kingdom. L A Cámara acknowledges support from the Sociedad Argentina de Medicina. M Cross acknowledges support from the Global Alliance for Musculoskeletal Health. G Damiani



acknowledges support from the Italian Center of Precision Medicine and Chronic Inflammation. R P Dellavalle acknowledges support from the United States Department of Veterans Affairs, which in no way endorses the content of the manuscript. S Dey acknowledges support from the Indian Institute of Technology Delhi (IIT Delhi) for the Institute Chair Fellowship. G M T ElGohary acknowledges support from the Ain Shams University, Faculty Of Medicine, Internal Medicine, and Adult Hematology Department in Cairo, Egypt. W Etafa acknowledges support from the Institute of Health Sciences, Wallaga University. A Fatehizadeh acknowledges support from the Department of Environmental Health Engineering of Isfahan University of Medical Sciences in Isfahan, Iran. V L Feigin acknowledges support from Auckland University of Technology. J C Glasbey acknowledges support from a UK National Institute of Health Research (NIHR) Academic Clinical Lectureship. A Halimi acknowledges support from the Research Institute for Endocrine Sciences in Tehran, Iran. N E Ismail acknowledges institutional support from Asian Institute of Medicine, Science and Technology (AIMST University), Malaysia. J S Ji acknowledges support from Tsinghua University International Cooperation Special Project of Initiative Scientific Research Program. N Joseph acknowledges support from the Department of Community Medicine at Kasturba Medical College, Mangalore, and Manipal Academy of Higher Education in Manipal, India. H Kandel acknowledges support from the Kornhauser Research Fellowship at The University of Sydney. M N Khatib acknowledges support from the Global Consortium for Public Health Research, Datta Meghe Institute of Higher Education and Research. S L Koulmane Laxminarayana acknowledges support from Manipal Academy of Higher Education. M Kumar acknowledges support from K43 TW010716-05s1. I Landires acknowledges support from the Sistema Nacional de Investigación (SNI) which is supported by Panamá's Secretaría Nacional de Ciencia, Tecnología e Innovación (SENACYT). K Latief acknowledges support from Taipei Medical University during the conduct of this review. G Liu acknowledges support from the Lung Foundation Australia. M A Mahmoud acknowledges support from Taibah University to participate in this research project. P Maulik acknowledges support from the George Institute for Global Health and University of New South Wales. S Mohammed acknowledges support from the Alexander von Humboldt (AvH) Foundation. M Molkhia acknowledges support from the National Institute for Health Research (NIHR) Biomedical Research Center at Guy's and St Thomas' National Health Service Foundation Trust, King's College London, and NIHR grant NIHR202769. A R Pathan acknowledges support from Author Gates Publications. P Pedersini acknowledges support from the Italian Ministry of Health, Ricerca Corrente 2023. V C Pepito acknowledges support from Ateneo de Manila University. Z Z Piracha acknowledges support from the International Center of Medical Sciences Research (ICMSR), Islamabad (44000) Pakistan. R V Polibin acknowledges support from the Department of Epidemiology and Evidence-Based Medicine, F. Erismann Institute of Public Health, I.M. Sechenov First Moscow State Medical University (Sechenov University). I Qatteea acknowledges support from the Nassau University Medical Center. Z Quazi Syed acknowledges support from Datta Meghe Institute of Higher Education and Research. A Rahman acknowledges support from the Data Science Research Unit at Charles Sturt University. E M M Redwan acknowledges support from King Abdulaziz University (DSR) in Jeddah, and King Abdulaziz City for Science & Technology (KACSAT) in Saudi Arabia, Science and Technology Development Fund (STDF), and US-Egypt Science & Technology Joint Fund, and The Academy of Scientific Research and Technology (ASRT), in Egypt. B Reshmi acknowledges support from Manipal College of Health Professions, Manipal Academy of Higher Education. U Saeed acknowledges support from the International Center of Medical Sciences Research (ICMSR) in Islamabad, Pakistan. A M Samy acknowledges support from Ain Shams University and the Egyptian Fulbright Mission Program. R K Saroj acknowledges support from the School of Computational and Integrative Sciences (SC&IS), Jawaharlal Nehru University in New Delhi, India. H R Shahsavari acknowledges

support from the Institute for Advanced Studies in Basic Sciences (IASBS) Research Council. K S Shaji acknowledges support from Kerala University of Health Sciences in Kerala, India. M Shanawaz acknowledges support from Jazan University. P H Shetty acknowledges support from the Department of Forensic Medicine and Toxicology, Kasturba Medical College, Mangalore, Manipal Academy Of Higher Education, Manipal, India. A Sheikh acknowledges support from Health Data Research UK. A Singh acknowledges support from the International Graduate Research Scholarship, University of Tasmania. D A Sleet acknowledges support from Bizzell Global, LLC. M Tabish acknowledges support from the Scientific Research Unit at Shaqra University, Saudi Arabia. M Taheri acknowledges support from the Medical Ethics and Law Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. G W Tesema acknowledges support from the Institute for Health Metrics and Evaluation (IHME). Nih Thomas acknowledges support from the Christian Medical College Vellore. M R Tovani-Palone acknowledges support from the Saveetha Institute of Medical and Technical Sciences and SRM Institute of Science and Technology. Sai Ullah acknowledges support from the University of Agriculture, Faisalabad. J H Villafañe acknowledges support and funding from the Italian Ministry of Health, Ricerca Corrente 2023. H Xiao acknowledges support from the Public Health Sciences Division of Fred Hutchinson Cancer Center. S Yaghoubi acknowledges support from the Department of Basic Medical Sciences, Neyshabur University of Medical Sciences in Neyshabur, Iran.

## Author contributions

Please see the Supplementary Information 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, cataloging, 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.

## Competing interests

A M Abdel-Azeem reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Arab Society for Fungal Conservation as the President, the International Mycological Association on the Executive Committee, and the African Mycological Association as the President; outside the submitted work. M R M Abrigo reports stock or stock options from Diliman Doctors' Hospital; outside the submitted work. G Addolorato reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Study of Alcohol-related Liver Disease in Europe, as a committee member; outside the submitted work. S Afzal reports support for the present manuscript from King Edward Medical University for study materials, library facilities, internet, journals and e-books and other learning; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from King Edward Medical University and collaborative partners including the University of Johns Hopkins, University of California, University of Massachusetts, and University of Lahore; support for attending meetings and/or travel from King Edward Medical University; participation on a Data Safety Monitoring Board or Advisory Board with National Bioethics Committee Pakistan, King Edward Medical University Institutional Ethical Review Board, Ethical Review Board Fatima Jinnah Medical University and Sir Ganga Ram Hospital; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Pakistan Association of Medical Editors, Fellow of Faculty of Public Health Royal Colleges UK (FFPH), Society of Prevention, Advocacy and Research, King

Edward Medical University (SPARK), member of Pakistan Society of Infectious Diseases; and other support from King Edward Medical University. J Alonso reports support for the present manuscript from Departament de Recerca i Universitats of the Generalitat de Catalunya (AGAUR 2021 SGR 00624). H Amare reports stock or stock options from GSK; outside the submitted work. R Ancuceanu reports consulting fees from Abbvie; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Abbvie, Sandoz, B. Braun, and Laropharm; outside the submitted work. M H Antwi reports support for the present manuscript from the Bill and Melinda Gates Foundation. The funders of the study had no role in study design; collection, analysis and interpretation of data, or writing of the report. H Ariffin reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Amgen; outside the submitted work. J Ärnlov reports payment or honoraria for lectures from AstraZeneca and Novartis; participation on a Data Safety Monitoring Board or Advisory Board with AstraZeneca, Boehringer Ingelheim, and Astella; outside the submitted work. A A Asadi-Pooya reports royalties or licenses from Oxford University Press; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Cobel Daru; outside the submitted work. T Astell-Burt reports grants or contracts from ARC Future Fellowship, Medical Research Futures Fund, and the National Health and Medical Research Council; outside the submitted work. P Atorkey reports support for the present manuscript from the Australian College of Applied Professions and Hunter Medical Research Institute. O O Ayinde reports grants or contracts from a research grant from Medical Research Council; support for attending meetings and/or travel from the British Medical Journal Global Health Grant; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the ASIDO Foundation as the Director of Policy and Research; outside the submitted work. T W Bärnighausen reports grants or contracts from the European Union (Horizon 2020 and EIT Health), German Research Foundation (DFG), US National Institutes of Health, German Ministry of Education and Research, Alexander von Humboldt Foundation, Else-Kroner-Fresenius-Foundation, Wellcome Trust, Bill and Melinda Gates Foundation, KfW, UNAIDS, WHO; consulting fees for KfW on the OSCAR initiative in Viet Nam; participation on a Data Safety Monitoring Board or Advisory Board with the NIH-funded study “Health Options”, German National Committee on the “Future of Public Health Research and Education”, EDCTP Evaluation, UNAIDS Evaluation Expert Advisory Committee, National Institute of Health Study section member on Population and Public Health Approaches to HIV/AIDS (PPAH), US National Academies of Sciences, Engineering, and Medicine’s Committee for the “Evaluation of Human Resources for Health in the Republic of Rwanda under the President’s Emergency Plan for AIDS Relief (PEPFAR)”, University of Pennsylvania (UPenn) Population Aging Researching Center (PARC); leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Global Health Hub Germany as a Co-chair; outside the submitted work. J L Baker reports grants or contracts from Novo Nordisk Foundation, World Cancer Research Fund, and the Independent Research Council Denmark; consulting fees from Novo Nordisk Denmark; support for attending meetings and/or travel from the European Association for the Study of Obesity; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the European Association for the Study of Obesity; outside the submitted work. O C Baltatu reports support for the present manuscript from the National Council for Scientific and Technological Development (CNPq, 304224/2022-7), and Anima Institute; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with Technology Park São José dos Campos – Center for Innovation in Health Technologies (CITS) and Afya- UNINOVAFAP. S L Barker-Collo payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Auckland University of Technology; participation on a Data Safety Monitoring Board or

Advisory Board with Auckland University of Technology’s National Institute of Stroke and Applied Neurorehabilitation; outside the submitted work. B T Baune reports royalties or licenses from Elsevier, Springer; consulting fees from LivaNova, Janssen, Boehringer-Ingelheim, Otsuka/Lundbeck; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from LivaNova, Janssen, Boehringer-Ingelheim, Otsuka/Lundbeck; support for attending meetings and/or travel from LivaNova, Janssen, Otsuka/Lundbeck; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Network of Pharmacogenomics and Transcriptomics at the ECNP as a Chair; outside the submitted work. M L Bell reports support for the present manuscript from the National Institutes of Health (NIH); grants or contracts from US EPA, National Institutes of Health (NIH), High Tide Foundation, Health Effects Institute, Yale Women Faculty Forum, Environmental Defense Fund, Wellcome Trust Foundation, Yale Climate Change and Health Center, Robert Wood Johnson Foundation; consulting fees from Clinique; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Colorado School of Public Health, Duke University, University of Texas, Data4Justice, Korea University, Organization of Teratology Information Specialist, University of Pennsylvania, Boston University, IOP Publishing, National Institutes of Health (NIH), Health Canada, PAC-10, UKRI, AXA Research Fund Fellowship, Harvard University, and University of Montana; support for attending meetings and/or travel from Colorado School of Public Health, University of Texas, Duke University, Boston University, University of Pennsylvania, and Harvard University; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with Fifth National Climate Assessment, Lancet Countdown, US EPA Clean Air Scientific Advisory Committee (CASAC), Johns Hopkins EHE Advisory Board, Harvard University on an external advisory committee for training grant, WHO Global Air Pollution and Health Technical on an advisory group, and National Academies as a panel/committee member. L Belo reports support from Fundação para a Ciência e Tecnologia (FCT) project UIDP/04378/2020 and UIDB/04378/2020 of UCIBIO and project LA/P/0140/2020 of i4HB; outside the submitted work. B Bikbov reports grants or contracts from European Commission and Lombardy Region; support for attending meetings and/or travel from the European Renal Association; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the International Society of Nephrology as a member of the advocacy working group; outside the submitted work. A Biswas reports consulting fees from INTAS Pharmaceuticals, Lupin Limited; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Roche Diagnostics India Private Limited; support for attending meetings and/or travel from Sun Pharmaceuticals; outside the submitted work. G Britton reports grants or contracts from Sistema Nacional de Investigación (063-2023), Secretaría Nacional de Ciencia, Tecnología e Innovación (FID-228-2022); outside the submitted work. J Brown reports grants or contracts from the National Health and Medical Research Council, Australian Research Council; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from University of Adelaide; outside the submitted work. R Buchbinder reports grants or contracts from the Australian National Health and Medical Research Council (NHMRC), Arthritis Australia, Australian Medical Research Future Fund (MRFF), Cabrini Foundation, HCF Foundation; royalties or licenses from UpToDate; outside the submitted work. M Carvalho reports support from Fundação para a Ciência e Tecnologia (FCT) project UIDP/04378/2020 and UIDB/04378/2020 of UCIBIO and project LA/P/0140/2020 of i4HB; outside the submitted work. J M Castaldelli-Maia reports grants or contracts from the French National Institute for Cancer, Pfizer, and Sanofi; consulting fees from L’Oreal; outside the submitted work. A L Catapano reports grants or contracts from Sanofi, Eli Lilly, Mylan, Sanofi Regeneron, and Amgen; payment or honoraria for lectures, presentations, speakers bureaus, manuscript

writing or educational events from Amgen, Astrazeneca, Aegerion, Amryt, Amarin, Daiichi Sankyo, Esperion, Inoio Pharmaceutical, Medscape, Kowa, Mylan, Merck, Menarini, Novartis, Peer Voice, Pfizer, Recordati, Regeneron, Sanoz, Sanofi, and The Corpus; outside the submitted work. C R Cederroth reports grants or contracts from GENDER-NET GNP-182; outside the submitted work. H Christensen payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from BMI, Bayer, Boehringer Ingelheim, University of Bern; participation on a Data Safety Monitoring Board or Advisory Board with Bayer and PHRI; outside the submitted work. S W M Christensen reports support for the present manuscript from Leona M. and Harry B. Helmsley Charitable Trust via the Addressing the Challenge and Constraints of Insulin Sources and Supply study. D J Christopher reports grants or contracts from the Department of Biotechnology in India, Translational Health Science and Technology Institute (THSTI), National Institutes of Health (NIH), UK R&I Global Challenges Research Fund via the Institute of Global Innovation, University of Birmingham, UK, German Centre for Infectious Disease Research (DZIF), The Regents of the University of California (UCSF); payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Cipla, Zydus, Lupin, Abbot, Astra, Pfizer; support for attending meetings and/or travel from Lupin, Cipla, Zydus; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with CMC, IRB, and the Indian Council of Medical Research; outside the submitted work. J Conde reports grants or contracts from the European Research Council starting grant; patents planned, issued, or pending from functionalized nanoparticles and compositions for cancer treatment and methods, and TRPV2 Antagonists; outside the submitted work. X Dai reports support for the present manuscript from the Institute for Health Metrics and Evaluation (IHME). S Das reports grants or contracts from the Bureau of Intelligence and Research (INR) Department of Science and Technology; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the American Association of Clinical Chemistry as a personalized medicine division member HEA division member, and member of women in global health; outside the submitted work. A K Demetriades payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Stryker, Integra, and Safe Orthopedics; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the European Association of Neurosurgical Societies (EANS) as a board member, the Global Neuro Foundation as a board member, and the AO Spine Knowledge Forum Degenerative Spine conditions as a steering committee member; outside the submitted work. M Derese reports support for the present manuscript from Leona M. and Harry B. Helmsley Charitable Trust via the Addressing the Challenge and Constraints of Insulin Sources and Supply study. D Dias da Silva reports grants or contracts from the Faculty of Pharmacy of University of Porto, Escola Superior de Saúde Instituto Politécnico de Leiria, and Instituto Universitário de Ciências da Saúde (IUCS); consulting fees from Albert Labs, Eurox Pharma; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from the Faculty of Pharmacy of University of Porto, Escola Superior de Saúde Instituto Politécnico de Leiria, and Instituto Universitário de Ciências da Saúde (IUCS); support for attending meetings and/or travel from Eurox Pharma; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Portuguese Association of Forensic Sciences (APCF) as a member of the board; receipt of equipment, materials, drugs, medical writing, gifts or other services from Albert Labs and Eurox Pharma; outside the submitted work. H L Esayas reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Arba Minch University; outside the submitted work. S Farhang Dehghan reports support for the present manuscript from Leona M. and Harry B. Helmsley Charitable Trust via the Addressing the Challenge and Constraints of

Insulin Sources and Supply study. A Faro reports support for the present manuscript from the National Council for Scientific and Technological Development (CNPq, Brazil). X Feng reports grants or contracts from NHMRC Career Development Fellowship, Medical Research Futures Fund, National Health and Medical Research Council (NHMRC); outside the submitted work. I Filip reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Avicenna Medical and Clinical Research Institute; outside the submitted work. D Flood reports grants or contracts from the National Institute of Health (NIH); consulting fees from the World Health Organization (WHO); leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with Maya Health Alliance as an unpaid staff physician; outside the submitted work. M Freitas reports grants or contracts from CEEC (Individual 2020.04126.CEE-CIND/CP1596/CT0006) and LAQV/REQUIMTE under the reference LA/P/0008/2020; outside the submitted work. P A Gaal reports support for the present manuscript 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). S Gaihre reports support for the present manuscript from the Institute of Applied Health Sciences (IAHS), School of Medicine, Medical Sciences and Nutrition (SMMSN), University of Aberdeen, UK. L Göbölös reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from the Asian Society for Cardiovascular and Thoracic Surgery (ASCVTS 2023) in Busan, Korea; outside the submitted work. N G M Gomes reports grants or contracts from Fundação para a Ciência e Tecnologia (FCT); outside the submitted work. B N G Goulart reports stock or stock options in Pfizer and Takeda at NYSE; outside the submitted work. A Guha reports grants or contracts from the American Heart Association-Strategically Focused Research Network Grant in Disparities in Cardio-Oncology (#847740, #863620) and the Department of Defense Prostate Cancer Research Program's Physician Research Award (#HT94252310158); consulting fees from Novartis, Pfizer, and Myovant; outside the submitted work. V K Gupta reports grants or contracts from the National Health and Medical Research Council (NHMRC) of Australia; outside the submitted work. Amr Hassan reports consulting fees from Novartis, Sanofi Genzyme, Biologix, Merck, Hikma Pharma, Janssen, Inspire Pharma, Future Pharma, Elixir Pharma; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Novartis, Allergan, Merck, Biologix, Janssen, Roche, Sanofi Genzyme, Bayer, Hikma Pharma, Al Andalus, Chemipharm, Lundbeck, Inspire Pharma, Future Pharma and Habib Scientific Office, and Everpharma; support for attending meetings and/or travel from Novartis, Allergan, Merck, Biologix, Janssen, Roche, Sanofi Genzyme, Bayer, Hikma Pharma, Al Andalus, Chemipharm, Inspire Pharma, Habib Scientific Office, and Everpharma; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Indian Health Service (IHS) as a board member; outside the submitted work. I M Ilic reports support for the present manuscript from the Ministry of Education, Science and Technological Development, Republic of Serbia (project 175042, 2011-2023). M D Ilic reports support for the present manuscript from the Ministry of Education, Science and Technological Development, Republic of Serbia (project 451-03-47/2023-01/200111). S M S Islam reports support for the present manuscript from the National Health and Medical Research Council (NHMRC) of Australia and the National Heart Foundation of Australia; grants or contracts from the NHMRC and the National Heart Foundation of Australia; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the ESC Heart Failure Association as a committee member, and the WHO-ITU Global Initiative on AI for Health as a group leader. N E Ismail reports leadership or fiduciary roles in board, society, committee or advocacy groups, unpaid with the Malaysian Academy of Pharmacy as a council member and the Bursar; outside the submitted work. I O Iyamu reports grants or contracts from the Canadian Institute for Health Research and



the University of British Columbia (UBC) fellowship; support for attending meetings and/or travel from the University of British Columbia (UBC) Designing for People research cluster; outside the submitted work. M Jakovljevic reports grants or contracts through the Grant OI 175 014 of the Ministry of Education Science and Technological Development of the Republic of Serbia. V Jha reports consulting fees from GSK, Boehringer Ingelheim, Travere, Vera, Otsuka, Baxter Healthcare; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Bayer and GSK; participation on a Data Safety Monitoring Board or Advisory Board with Zydus Lifesciences; outside the submitted work. T Joo reports support for the present manuscript from the National Research, Development and Innovation Office in Hungary (RRF- 2.3.1-21-2022-00006, Data-Driven Division of National Laboratory for Health Security). A Joseph reports grants or contracts from American College of Gastroenterology; outside the submitted work. J J Jozwiak payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Novartis and Adamed; outside the submitted work. J H Kempen reports support for the present manuscript from the National Eye Institute, Massachusetts Eye and Ear Global Surgery Program, Sight for Souls, Research to Prevent Blindness; grants or contracts from USAID/ American Schools and Hospitals Abroad; participation on a Data Safety Monitoring Board or Advisory Board with Gilead; stock or stock options from Betaliq and Tarsier Pharma. J Khubchandani reports grants or contracts from Teva Pharmaceuticals; outside the submitted work. M Kivimäki reports grants or contracts from Wellcome Trust (221854/Z/20/Z), Medical Research Council (R024227), National Institute on Aging (R01AG062553) and Academy of Finland, Finland (350426); outside the submitted work. P Kolkhir reports consulting fees from ValenzaBio; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Novartis; support for attending meetings and/or travel from Takeda; outside the submitted work. K Krishan reports other non-financial support from UGC Centre of Advanced Study, CAS II, Department of Anthropology, Panjab University, Chandigarh, India; outside the submitted work. B Lacey reports support for the present manuscript from UK Biobank, funded largely by the UK Medical Research Council and Wellcome. T Lallukka reports support for the present manuscript from Academy of Finland (Grant #330527) and Social Insurance Institution of Finland (Grant 29/26/2020); grants or contracts from Finnish Centre for Pensions and The Juho Vainio Foundation. J Lám reports support for the present manuscript from the National Research, Development and Innovation Office in Hungary (RRF-2.3.1-21-2022-00006, Data-Driven Health Division of National Laboratory for Health Security). B Langguth reports grants or contracts from Bayhost, the German Research Foundation, the German Bundesministerium für Bildung und Forschung, Neuromod, the European Union's Horizon 2020 research and innovation programme (European School for Interdisciplinary Tinnitus Research (ESIT), Grant agreement number 722046; Unification of Treatments and Interventions for Tinnitus Patients (UNITI) Grant Agreement Number 848261); royalties or licenses from Springer; consulting fees from Neuromod, Schwabe, Rovi; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Medical Tribune, Schwabe, Rovi; payment for expert testimony; participation on a Data Safety Monitoring Board or Advisory Board with Neuromod and Rovi; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with Neuromod, Retex, Morpheus, DGHP, HSN; stock or stock options in Sea Pharma; outside the submitted work. M B Laurens reports grants or contracts from UM1A148689 Infectious Diseases Clinical Research Consortium 7/1/21-11/30/23: Exposure-response evaluation of IV artesunate in children with severe malaria; DMID 19-0007 DON in Pediatric Cerebral Malaria: A Phase 1 Dose-Escalation Safety Study NIH 1U01AI155300-01A1; BioNTech 2/23-11/24, Safety, Tolerability, and Immunogenicity of an investigational mRNA-based vaccine for malaria; A Phase 3, Randomized, Stratified, Observer-Blind, Placebo-Controlled

Study to Evaluate the Efficacy, Safety, and Immunogenicity of mRNA-1273 SARS-CoV-2 Vaccine in Adults Aged 18 Years and Older, NIH HHSN272201300022I, Vaccine and Treatment Evaluation Units 2 12/13/2021; Development of a CRISPR-based Rapid Diagnostic Test for Point of Care Diagnosis of Malaria, University of Maryland Medical Center Innovation Challenge; A Phase 1 Challenge Study to Evaluate Safety, Immunogenicity and Efficacy of a Malaria Vaccine (rCSP adjuvanted with GLA-LSQ), in Healthy Adults, DMID 13-0088; NIH HHSN272201300022I, Vaccine and Treatment Evaluation Units Accelerating Availability and Access to Typhoid Conjugate Vaccines (TyVAC 2.0) The Bill & Melinda Gates Foundation, INV-030857; outside the submitted work. M-C Li reports grants or contracts from the National Science and Technology Council, Taiwan (NSTC 112-2410-H-003-031); outside the submitted work. L-L Lim reports grants or contracts from Boehringer Ingelheim, Abbott, Zuellig Pharma, Novartis; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from AstraZeneca, Abbott, Boehringer Ingelheim, Novo Nordisk, Roche, Zuellig Pharma, and Servier; outside the submitted work. G Liu reports support for the present manuscript from the Lung Foundation Australia. G Lopes reports grants or contracts from the Portuguese Foundation for Science and Technology (FCT) under the Scientific Employment Stimulus-Individual Call (CEECIND/01768/2021); outside the submitted work. G Lucchetti reports support for the present manuscript as a Grantee of the Research Productivity Scholarship – Level 1D (Medicine) - Brazilian National Council for Scientific and Technological Development (CNPq), Brazil. P W Mahasha reports support for attending meetings and/or travel from the South African Medical Research Council, Department of Nuclear Medicine, School of Medicine, University of Pretoria, Discipline of Traditional Medicine, School of Nursing and Public Health, University of KwaZulu Natal; participation on a Data Safety Monitoring Board or Advisory Board as a member of International Community Advisory Group for STANDING Together, an editorial board member of the Journal Current Research in Public Health (CRPH), and an associate editorial board member of the Journal of Frontiers in Reproductive Health section HIV and STIs; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Federation of Infectious Diseases Societies of Southern Africa (FIDSSA) as a member, the International Society for Infectious Diseases (ISID) as a member, the COVID-19 Clinical Research Coalition as a member, the Global Burden of Disease Collaborator Network as a member, the Scholars Academic and Scientific Society (SAS) (FSASS) as a fellow member, and the South African Council for Natural Scientific Professions (SACNASP) as a member; outside the submitted work. M A Mahmood reports grants or contracts from the Deputyship for Research and Innovation, Ministry of Education in Saudi Arabia (project 445-5-133). J N Malagón-Rojas reports support for attending meetings and/or travel from the PIMENTO COST Project; outside the submitted work. L G Mantovani reports support for the present manuscript from the Italian Ministry of Health to Istituto di Ricovero e Cura a Carattere Scientifico (IRCCS), Istituto Auxologico Italiano, Milano, Italy. S Martini reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Faculty of Public Health Universitas, Airlangga, Surabaya, Indonesia as the Dean; outside the submitted work. E Mathews reports grants or contracts from Wellcome DBT India Alliance funding; outside the submitted work. A G Mathioudakis reports grant or contracts from the National Institute for Health and Care Research (NIHR, UK) clinical lectureship, and NIHR Manchester Biomedical Research Centre. R J Maude reports support for the present manuscript from Wellcome Trust (grant 220211) as it provides core funding for Mahidol Oxford Tropical Medicine Research. A-F A Mentis reports funding from MilkSafe: a novel pipeline to enrich formula milk using omics technologies, a research co-financed by the European Regional Development Fund of the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH - CREATE - INNOVATE (project



code: T2EDK-02222), as well as from ELIDEK (Hellenic Foundation for Research and Innovation, MIMS-860); payment or expert testimony as an external peer-reviewer for Fondazione Cariplo, Italy; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with Systematic Reviews journal as an editorial board member, *Annals of Epidemiology* journal and *Translational Psychiatry* Journal as Associate Editor; other support as a scientific officer at the BGI Group; outside the submitted work. T R Miller reports grants or contracts from AB InBev Foundation, National Institute of Mental Health (NIMH), National Institute of Health (NIH) and the National Cancer Institute (NCI); payment for expert testimony from Mobile, Alabama County Board of Health, New Mexico, Nevada, and Michigan; outside the submitted work. J J Miranda reports grants or contracts from the Alliance for Health Policy and Systems Research (HQHSR1206660), Bloomberg Philanthropies (grant 46129, via University of North Carolina at Grant support, Chapel Hill School of Public Health), FONDECYT via CIENCIACTIVA/CONCYTE C, British Council, British Embassy and the Newton-Paulet Fund (223-2018, 224-2018), DFID/MRC/Wellcome Global Health Trials (MR/MO07405/1), Fogarty International Center (R21TW009982, D71TW010877, R21TW011740), Grand Challenges Canada (0335-04), International Development Research Center Canada (IDRC 106887, 108167), Inter- American Institute for Global Change Research (IAI CRN3036), National Cancer Institute (1P20CA217231), National Heart, Lung and Blood Institute (HHSN268200900033C, 5U01HL114180, 1UM1HL134590), National Institute of Mental Health (1U19MH098780), Swiss National Science Foundation (40P740-160366), UKRI BBSRC (BB/T009004/1), UKRI EPSRC (EP/V043102/1), UKRI MRC (MR/P008984/1, MR/P024408/1, MR/P02386X/1), Wellcome (074833/Z/04/Z, 093541/Z/10/Z, 103994/Z/14/Z, 107435/Z/15/Z, 205177/Z/16/Z, 214185/Z/18/Z, 218743/Z/19/Z) and the World Diabetes Foundation (WDF15-1224), and Health Action International; participation on a Data Safety Monitoring Board or Advisory Board with DSMB, Nigeria Sodium Study (NaSS) Trial Steering Committee, INTensive care bundle with blood pressure Reduction in Acute Cerebral hemorrhage Trial (INTERACT 3) Unpaid International Advisory Board, Latin American Brain Health institute (BrainLat), Universidad Adolfo Ibáñez (Chile) Unpaid Consultative Board, Programa de Gastronomía, Facultad de Estudios Unpaid Inter-disciplinarios, Pontificia Universidad Católica del Perú Advisory Board, InterAmerican Heart Foundation (IAHF); leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid as a co-Chair of the Independent Group of Scientists (IGS), 2023 Global Sustainable Development Report, United Nations; member of the Scientific Expert Committee, Global Data Collaborative for CV Population Health, World Health Federation, Microsoft, and Novartis Foundation; member of the Scientific and Technical Advisory Committee (STAC), Alliance for Health Policy and Systems Research, World Health Organization; member of the WHO Technical Advisory Group on NCD-related Research and Innovation (TAG/RI), Noncommunicable Diseases Department, World Health Organization; member of the Advisory Scientific Committee, Instituto de Investigación Nutricional (Peru). S Mohammed reports support for the present manuscript from the Bill and Melinda Gates Foundation. N Moka reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Kentucky Society of Clinical Oncology as a treasurer; outside the submitted work. L Monasta reports support for the present manuscript from the Italian Ministry of Health to the Institute for Maternal and Child Health IRCCS Burlo Garofolo, Trieste, Italia (RC 34/2017). R S Moreira reports grants or contracts from the National Council for Scientific and Technological Development, CNPq Research Productivity Scholarship 316607/2021-5. M E Morris reports grants or contracts from the National Health and Medical Research Council Australia (NHMRC GNT1152853 2019-2023) Partnership Grant, “A public-private partnership to reduce falls in Australian hospitals”; outside the submitted work. S D Morrison reports grants or contracts from the Seattle Children’s Academic Enrichment Fund; payment or honoraria for lectures, presentations,

speakers bureaus, manuscript writing or educational events from Swedish Hospital CME honoraria; outside the submitted work. U O Mueller reports grants or contracts from the German National Cohort Study (grant #10ER2301C); outside the submitted work. B R Nascimento reports grants or contracts from CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico Research Productivity Grant number 312382/2019-7), Edwards Lifesciences Foundation Research Grant for Global Health (Improving the Prevention and Detection of Heart Valve Disease Across the Lifespan, 2023) FAPEMIG (Fundação de Amparo a Pesquisa do Estado de Minas Gerais Research Grant number APQ-000627-20; outside the submitted work. G Natarajan reports grants or contracts from the project, “Study of prevalence of chronic kidney disease of Unknown etiology among Agricultural workers of Tamilnadu”, funded by Tamilnadu Health System Reform Programme, and DRAKI (Dialysis requiring Acute Kidney injury) follow-up study, funded by Indian Council of Medical research (ICMR); leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Indian Society of Nephrology as a chairman on the scientific committee; outside the submitted work. S Nomura reports support for the present manuscript from the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT). B Norrving participation on a Data Safety Monitoring Board or Advisory Board with Simbec-Orion; outside the submitted work. F C A Obi reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with Health Systems Global as a board member, and the African Health Economics and Policy Association as an executive team member; outside the submitted work. O O Odukoya reports grants or contracts from Fogarty International Center of the National Institutes of Health under award number K43TW010704; outside the submitted work. A Ojagbemi reports grants or contracts from the National Institute for Health and Care Research (NIHR) and Wellcome Global Health Research Partnership International Intermediate Fellowship (ref: 220684/Z/20/Z); outside the submitted work. A P Okekunle reports grants or contracts from the National Research Foundation of Korea (2020H1D3A1A04081265); outside the submitted work. O O Oladunjoye reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Pri-Med; outside the submitted work. A B Oliveira reports support for attending meetings and/or travel from the International Headache Society; outside the submitted work. A Ortiz reports grants or contracts from IIS-Fundacion Jimenez Diaz UAM; grants from Sanofi and consultancy or speaker fees or travel support from Advicciene, Astellas, Astrazeneca, Amicus, Amgen, Boehringer Ingelheim, Fresenius Medical Care, GSK, Bayer, Sanofi-Genzyme, Menarini, Mundipharma, Kyowa Kirin, Lilly, Alexion, Freeline, Idorsia, Chiesi, Otsuka, Novo-Nordisk, Sysmex and Vifor Fresenius Medical Care Renal Pharma and is Director of the Catedra Mundipharma-UAM of diabetic kidney disease and the Catedra Astrazeneca-UAM of chronic kidney disease and electrolytes; outside the submitted work. A Otoiu reports grants or contracts from Bucharest University for Economic Studies and the European Commission: Horizon 2020; support for attending meetings and/or travel from Bucharest University for Economic Studies; outside the submitted work. P K Pal reports grants or contracts from the 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 as Faculty/Speaker/Author from the International Parkinson and Movement Disorder Society, and Movement Disorder Societies of Korea, Taiwan and Bangladesh; support for attending meetings and/or travel from the International Parkinson and Movement Disorder Society, and Movement Disorder Societies of Korea, Taiwan and Bangladesh; leadership or fiduciary roles in board,

society, committee or advocacy groups, paid or unpaid as the past President of Indian Academy of Neurology, the past Secretary of Asian and Oceanian subsection of International Parkinson and Movement Disorder Society (MDS-AOS), Editor-in-Chief of Annals of Indian Academy of Neurology, Co-Chair of the Education Committee of International Parkinson and Movement Disorder Society (IPMDS), President of the Parkinson Society of Karnataka, Chair of Infection Related Movement Disorders Study Group of MDS, member of Rare Movement Disorders Study Group of International Parkinson and Movement Disorder Society (IPMDS), member of Education Committee of IPMDS & IAPRD, member of Rating Scales Education and Training Program Committee of IPMDS, member of Neurophysiology Task Force of IPMDS, member of Movement Disorders in Asia Study Group, member of Post-Stroke Movement Disorders, member of Ataxia Study Group of IPMDS, member of Ataxia Global Initiative; outside the submitted work. T Palicz reports support for the present manuscript from the National Research, Development and Innovation Office in Hungary (RRF-2.3.1-21-2022-00006, Data-Driven Health Division of National Laboratory for Health Security). R Palladino reports grants or contracts from UK MS Society; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Sanofi and MSD; outside the submitted work. S R Pandi-Perumal reports royalties or licenses from Springer; outside the submitted work. A E Peden reports support for the present manuscript from the Australian National Health and Medical Research Council (NHMRC) Emerging Leadership Fellowship (APPID: APP2009306). J Perdigão reports support for the present manuscript from Fundação para a Ciência e Tecnologia (FCT) researching funding. R G Pestell reports grants or contracts from the National Institute of Health (NIH) (grant 1R43HL164131-01A1); support for attendance at research meetings by parent institution (Baruch S. Blumberg Institute) June 12, 2023 Melbourne Australia Immune Oncology Therapy for Breast Cancer July 20, 2023 8th World Congress on cancer research and therapy., Frankfurt, Germany AACR Annual Meeting, 2023, San Antonio breast Cancer meeting 2022; the following patents planned, issued, or pending: WO2004037983 US patent number 8,076,318; EP2399129, EU patent application no. 10744303.8 (issued in France, Germany and the UK under patent number EP2399129); US Patent application 14/090,538 (publication number 20,160,139,132; US 2012-00398-05A1; AU 2012225232 Australian issued Patent No. 2012225232; US Patent issued 9,453,836; US 10,952,415; US 16/363,981; JP 7003083; EP 2683643; US Patent 13/520,759 US Provisional Application No. 61/292,749; US Provisional Patent Application 62/183,08; US Provisional Patent Application 62/035,929; Publication Number US 20120039805 Appl no. 13/202,318; Provisional Application No. 62/948,301; Provisional Application No 63093772; Provisional Patent Application Serial No. 63/178,633; EP3947431A1; Application No. 62/286,533 U.S. Provisional Patent Application Serial No. 63/178,633; U.S. Application No. 17/167,578; U.S. Application No. 15/275,050; U.S. Application No. 16/363,981; outside the submitted work. M R Phillips reports grants or contracts from Global Alliance for Chronic Diseases- National Natural Science Foundation of China (NSFC, No. 81761128031), Global Alliance of Chronic Diseases/ Chinese National Natural Science Foundation of China (NSFC, No. 81761128031), National Institute of Mental Health (grant MH108385 R01), National Institutes of Health (5R01MH127631); outside the submitted work. C D Pond reports grants or contracts from the Valley to Coast Charitable research grants; consulting fees from the University of Sydney; Latrobe University; University of Melbourne, NSW Health, Sydney North Primary Health Network, Hunter New England Central Coast Primary Health Network, Brisbane North Primary Care Network, Royal Australian College of General Practitioners; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Dementia Training Australia, Health Education Training Institute, Roche, Biogen, Palliative Care Australia; payment for expert testimony from Legal Aid NSW; support for attending meetings and/or travel from Palliative Care Australia for the WONCA Conference

2023; participation in a data safety monitoring board or advisory board with the Happi Mind Project; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with a special interest group in ageing and health, WONCA World GP Organization as a chair; outside the submitted work. M J Postma reports stock or stock options with PAG BV and Health=Ecore; outside the submitted work. N Prasad reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the International Society and Indian Society of Nephrology; outside the submitted work. A Radfar reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Avicenna Medical and Clinical Research Institute; outside the submitted work. V Radhakrishnan reports grants or contracts from the Conquer Cancer Foundation and St Jude Children's Research Hospital; outside the submitted work. A Rahman reports support for the present manuscript from Charles Sturt University; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Australia New Zealand Regional Science Association International Inc (ANZRSAI) as the secretary of the executive council; outside the submitted work. A Riad reports support for the present manuscript from the Ministry of Education, Youth and Sports of the Czech Republic, NPO "Systemic Risk Institute" (project LX22NPO5101). A L P Ribeiro reports support for the present manuscript from Brazilian public research agencies, CNPq (310790/2021-2 and 465518/2014-1) and by FAPEMIG (PPM-00428-17 and RED-00081-16). Funders did not influence the content of the study. M Rodrigues reports support for the present manuscript from the Centre of Studies in Geography and Spatial Planning, funded by national funds through the Foundation for Science and Technology (FCT) under the reference UIDB/04084/2020. L Ronfani reports support for the present manuscript from the Italian Ministry of Health, funding received by the Institute for Maternal and Child Health IRCCS Burlo Garofolo (project "Ricerca Corrente 34/2017"). M Sabbatucci reports support for attending meetings and/or travel from Travel Grant Programme 2022 for Editorial Board Members from the Journal of Clinical Medicine (JCM) for conference participation; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Editorial Board of Journal of Clinical Medicine (JCM) as an unpaid member, the Board of the Global AMR R&D hub as an unpaid member, and GHSA (action package AMR and action package Surveillance) as an unpaid national representative; outside the submitted work. S Sacco reports grants or contracts from Novartis and Uriach; consulting fees from Novartis, Allergan-Abbvie, Teva, Lilly, Lundbeck, Pfizer, NovoNordisk, Abbott, AstraZeneca; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Novartis, Allergan-Abbvie, Teva, Lilly, Lundbeck, Pfizer, NovoNordisk, Abbott, AstraZeneca; support for attending meetings/travel from Lilly, Novartis, Teva, and Lundbeck; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the European Stroke Organization as the president elect, and the European Headache Federation as the second vice-president; receipt of equipment, materials, drugs, medical writing, gifts or other services from Allergan-Abbvie and NovoNordisk; outside the submitted work. P S Sachdev reports grants or contract from the National Health and Medical Research Council of Australia and the National Institutes of Health (NIH) USA; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Biogen Australia and Roche Australia; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with VASCOG Society on the executive committee; outside the submitted work. J Sanabria reports support for attending meetings and/or travel from the National Institute of Health (NIH) and the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); participation on a Data Safety Monitoring Board or Advisory Board with Quality Assessment and Assurance Department of Surgery; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with ASTS, IHPBA, AASLD, and SSAT;

outside the submitted work. N Scarmeas reports grants or contracts from NovoNordisc - Local PI of recruiting site for multinational, multi-center industry sponsored phase III treatment trial for Alzheimer's disease; participation on a Data Safety Monitoring Board or Advisory Board with Albert Einstein College of Medicine (NIH funded study) as the Chair of Data Safety Monitoring Board; outside the submitted work. M P Schlaich reports grants or contracts from National Health and Medical Research Council of Australia (NHMRC) and the Medical Research Foundation RPH; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Medtronic and Abbott; support for travel from Medtronic and Abbott; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with Hypertension Australia as the president; outside the submitted work. A S Shalash payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Movement Disorders Society; outside the submitted work. S Sharma reports grants or contracts from the International Association for the Study of Pain John J Bonica Postdoctoral Fellowship; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from the International Association for the Study of Pain (IASP) Congress in Toronto in 2022; support for attending meetings and/or travel from the International Association for the Study of Pain (IASP) Congress in Toronto in 2022; participation on a Data Safety Monitoring Board or Advisory Board with METEOR-2 Trial; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the IASP Pain Mind and Movement Special Interest Group as an unpaid board member, and the Global Alliance of Partners for Pain Advocacy as a board member; all outside the submitted work. V Shivarov reports other financial support from ICON plc; outside the submitted work. S Shrestha reports other financial or non-financial support from School of Pharmacy, Monash University Malaysia and awarded with the Graduate Research Merit Scholarship to pursue doctoral studies; outside the submitted work. L M L R Silva reports grants or contracts from project CENTRO-04-3559-FSE-000162, Fundo Social Europeu (FSE); outside the submitted work. J A Singh reports consulting fees from Crealta/Horizon, Medisys, Fidia, PK Med, Two labs Inc., Adept Field Solutions, Clinical Care options, Clearview Healthcare Partners, Putnam associates, Focus Forward, Navigant consulting, Spherix, MedIQ, Jupiter Life Science, UBM LLC, Trio Health, Medscape, WebMD, and Practice Point Communications, and the National Institutes of Health and the American College of Rheumatology; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from the speaker's bureau of Simply Speaking; support for attending meetings and/or travel from the steering committee of OMERACT; participation on a Data Safety Monitoring Board or Advisory Board as a member of the FDA Arthritis Advisory Committee; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid as a steering committee member of the OMERACT, with the Veteran Affairs Rheumatology Field Advisory Committee as a Chair, and with the UAB Cochrane Musculoskeletal Group Satellite Center on Network Meta-analysis as an Editor; 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., 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 the European Research Council, European Union's Horizon 2020 research innovation program, and Region Zealand; royalties or licenses from Munksgaard and TrustMe-Ed; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Nestlé Health Science; other support as the co-founder of GLA:D; outside the submitted work. R Somayaji reports grants or contracts from Cystic Fibrosis Foundation, Canadian Institutes of Health Research, University

of Calgary, and Vertex Pharmaceuticals; consulting fees from Phase I trial for Clarametix Inc; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Vertex Pharmaceuticals; participation on a Data Safety Monitoring Board or Advisory Board for Oncovir Inc and Cystic Fibrosis Foundation; outside the submitted work. S Song reports grants or contracts from the University of Georgia and Georgia Clinical and Translational Science Awards (CTSA) program; outside the submitted work. D J Stein reports other financial or non-financial support from Discovery Vitality, Johnson & Johnson, Kanna, L'Oreal, Lundbeck, Orion, Sanofi, Servier, Takeda and Vistagen; outside the submitted work. M A Stokes reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Stanford Neurodiversity Summit 2022 and SIKON 2022; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with The Australasian Society for Autism Research as President, Kidsafe Victoria as Vice President, and the Council of the Aged as Director; outside the submitted work. P S Suchdev reports grants or contracts from the Centers for Disease Control and Prevention and the Bill and Melinda Gates Foundation; outside the submitted work. J Sundström reports stock or stock options in Anagram kommunikation AB and Symptoms Europe AB; outside the submitted work. M Szócska report support for the present manuscript from the National Research, Development and Innovation office in Hungary (grant RRF-2.3.1-21-2022-00006). R Tabarés-Seisdedos reports grants or contracts from Spanish Ministry of Science and Innovation, Institute of Health Carlos III (PID2021-129099OB-I00) and the GENERALITAT VALENCIANA (CIPROM/2022/58); outside the submitted work. S K Tadakamadla reports grants or contracts from the National Health and Medical Research Council Early Career Fellowship; outside the submitted work. M Tonelli reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the International Society of Nephrology; outside the submitted work. D R Uezono reports other financial or non-financial support from Roche (Philippines) Inc; outside the submitted work. E Upadhyay reports published patents for a system and method of reusable filters for anti-pollution mask, a system and method for electricity generation through crop stubble by using microbial fuel cells, a system for disposed personal protection equipment (PPE) into biofuel through pyrolysis and method, and a novel herbal pharmaceutical aid for formulation of gel and method thereof; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Indian Meteorological Society, Jaipur Chapter (India) as joint secretary and DSTPURSE Program as member secretary; outside the submitted work. H G C Van Spall reports support for the present manuscript from the Canadian Institute of Health Research. D Vervoort reports leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Global Alliance for Rheumatic and Congenital Hearts as an unpaid board member; other financial or non-financial support from the Canadian Institutes of Health Research (Vanier Canada Graduate Scholarship); outside the submitted work. Z Wang reports grants or contracts from The Fred Hollows Foundation, McGill University Global Health Scholars Program, Fonds de recherche du Québec – Santé, and the China Scholarship Council; consulting fees from The Fred Hollows Foundations; support for attending meetings and/or travel from the Graduate Mobility Award from McGill University, and The Fred Hollows Foundations; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Consortium of Universities for Global Health Trainee Advisory Committee; outside the submitted work. A Waris reports support for the present manuscript from Leona M. and Harry B. Helmsley Charitable Trust via the Addressing the Challenge and Constraints of Insulin Sources and Supply study. M Y Wei reports grants or contracts from the National Institutes of Health; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Society of General Internal Medicine on the research committee as a chair; outside the submitted work. A D Woolf reports



leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the Global Alliance for Musculoskeletal Health as a co-chair; outside the submitted work. H Xu reports support for the present manuscript from National Institute on Minority Health and Health Disparities (NIMHD) U54MD012530; grants or contracts from the National Institute on Aging (NIA) (R21AG075228); support for attending meetings and/or travel from the National Institute on Aging (NIA) (R13AG054139). X Xu reports support for the present manuscript from the National Heart Foundation of Australia and the Scientia Program, University of New South Wales, Australia; outside the submitted work. S Zadey payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Think Global Health, Harvard Public Health; support for attending meetings and/or travel from Gates Foundation for IDM Symposium 2023, Lancet Commission for Commission meeting 2023, MoHFW for G-20 Youth Health Meet, New Delhi 2023 Duke University for KCMC Fieldwork 2023; participation on a Data Safety Monitoring Board or Advisory Board with Nivarana, India; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with ASAR India as a board member and G4 Alliance as a council member; outside the submitted work. F Zakaryaei reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Kurdistan University of Medical Science in 2021, the 11th International Virtual Seminar On COVID-19- Part II (SciTech CentralCOVID-19); patents planned, issued or pending: a composite fixator of nasogastric tube and Foley catheter, Iran (Patent No.104989); outside the submitted work. J-D Zeitoun reports consulting fees from Takeda and AbbVie; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from Boehringer Ingelheim; leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with Posos; stock or stock options in Allurion; other financial or non-financial support as a founding partner at Inato; outside the submitted work. B Ziaieian reports support for the present manuscript from NHLBI grant funding and the American Heart Association (AHA); leadership or fiduciary roles in board, society, committee or advocacy groups, paid or unpaid with the AHA Guideline Committee on Performance Measures and the AHA Guideline Committee on Clinical Practice. L J Zuhlke reports support for the present manuscript from the National Research Foundation of South Africa (NRFSA), as well as the UK Medical Research Council (MRC) and the UK Department for International Development (DFID) under the MRC/DFID Concordat agreement, via the African Research Leader Award (MR/S005242/1), the South African Medical Research Council (SAMRC) through its Division of Research Capacity Development under the Mid-Career Scientist Programme from funding received from the South African National Treasury (the content hereof is the sole responsibility of the authors and do not necessarily represent the official views of the SAMRC); leadership or fiduciary roles

in board, society, committee or advocacy groups, paid or unpaid with the World Heart Federation, The Non-Communicable Disease Alliance, Food Forward South Africa and the Human Frontier Science Program. A Zumla reports other financial or non-financial support from the Pan African Network for Rapid Research, Response, and Preparedness for Infectious Diseases Epidemics Consortium (PANDORA-ID-NET), European and Developing Countries Clinical Trials Partnership the EU Horizon 2020 Framework Programme (EDCTP-RIA2016E-1609); outside the submitted work.

## Additional information

**Supplementary information** The online version contains supplementary material available at <https://doi.org/10.1038/s41467-025-56910-x>.

**Correspondence** and requests for materials should be addressed to Cecilia Anza-Ramirez.

**Peer review information** *Nature Communications* thanks Paolo (A) Cortesi, and Kjell (A) Johansson for their contribution to the peer review of this work. A peer review file is available.

**Reprints and permissions information** is available at <http://www.nature.com/reprints>

**Publisher's note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

**Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

© The Author(s) 2025

## GBD 2019 Acute and Chronic Care Collaborators

Cecilia Anza-Ramirez<sup>1,1691</sup> ✉, J. Jaime Miranda<sup>1,2,3,4,1691</sup>, Benedetta Armocida<sup>5,6</sup>, Jorge César Correia<sup>7</sup>, Harriette Gillian Christine Van Spall<sup>8,9,10</sup>, David Beran<sup>11</sup>, Amiral Aali<sup>12</sup>, Kalkidan Hassen Abate<sup>13</sup>, Semagn Mekonnen Abate<sup>14</sup>, Cristiana Abbafati<sup>15</sup>, Mohsen Abbasi-Kangevari<sup>16</sup>, Zeinab Abbasi-Kangevari<sup>16,17</sup>, Hedayat Abbastabar<sup>18</sup>, Ahmed M. Abdel-Azeem<sup>19</sup>, Michael Abdelmasseh<sup>20</sup>, Sherief Abd-Elsalam<sup>21</sup>, Ahmed Abdelwahab<sup>22</sup>, Gholamreza Abdoli<sup>23</sup>, Mohammad Abdollahi<sup>24,25</sup>, Meriem Abdoun<sup>26</sup>, Deldar Morad Abdulah<sup>27</sup>, Abu Yousuf Md Abdullah<sup>28</sup>, Ame Mehadi Abdurehman<sup>29</sup>, Getachew Abebe<sup>30</sup>, Aidin Abedi<sup>31,32</sup>, Vida Abedi<sup>33,34</sup>, Hassan Abidi<sup>35</sup>, Richard Gyan Aboagye<sup>36</sup>, Hassan Abolhassani<sup>37,38</sup>, Lucas Guimarães Abreu<sup>39</sup>, Michael R. M. Abrigo<sup>40</sup>, Yonas Derso Abtew<sup>41</sup>, Hiwa Abubaker Ali<sup>42</sup>, Eman Abu-Gharbieh<sup>43</sup>, Ahmed Abu-Zaid<sup>44,45</sup>, Manfred Mario Kokou Accrombessi<sup>46,47</sup>, Juan Manuel Acuna<sup>48,49</sup>, Denberu Eshetie Adane<sup>50</sup>, Tigist Demssew Adane<sup>51</sup>, Isaac Yeboah Addo<sup>52,53</sup>, Giovanni Addolorato<sup>54</sup>, Oluwafemi Atanda Adeagbo<sup>55,56</sup>, Victor Adekanmbi<sup>57</sup>,



Miracle Ayomikun Adesina<sup>58,59</sup>, Olatunji O. Adetokunboh<sup>60,61</sup>, Daniel Adedayo Adeyinka<sup>62,63</sup>,  
 Qorinah Estiningtyas Sakilah Adnani<sup>64</sup>, Aanuoluwapo Adeyimika Afolabi<sup>65</sup>, Muhammad Sohail Afzal<sup>66</sup>, Saira Afzal<sup>67,68</sup>,  
 Gina Agarwal<sup>69</sup>, Prerna Agarwal<sup>70</sup>, Pradyumna Agasthi<sup>71</sup>, Anurag Agrawal<sup>72,73</sup>, Marcela Agudelo-Botero<sup>74</sup>,  
 Bright Opoku Ahinkorah<sup>75</sup>, Aqeel Ahmad<sup>76</sup>, Sajjad Ahmad<sup>77,78</sup>, Sohail Ahmad<sup>79</sup>, Tauseef Ahmad<sup>80</sup>, Ali Ahmadi<sup>81,82</sup>,  
 Keivan Ahmadi<sup>83</sup>, Sepideh Ahmadi<sup>84</sup>, Ali Ahmed<sup>85,86</sup>, Ayman Ahmed<sup>87,88</sup>, Haroon Ahmed<sup>89</sup>, Jivan Qasim Ahmed<sup>90</sup>,  
 Luai A. Ahmed<sup>91</sup>, Janardhana P. Aithala<sup>92</sup>, Marjan Ajami<sup>93,94</sup>, Budi Aji<sup>95</sup>, Hossein Akbarialiabad<sup>96</sup>, Yibeltal Akelew<sup>97</sup>,  
 Meisam Akhlaghdoust<sup>98,99</sup>, Addis Aklilu<sup>100</sup>, Maxwell Akonde<sup>101</sup>, Hanadi Al Hamad<sup>102,103</sup>, Fares Alahdab<sup>104</sup>, Ziyad Al-  
 Aly<sup>105,106</sup>, Khurshid Alam<sup>107</sup>, Manjurul Alam<sup>108</sup>, Nazmul Alam<sup>109,110</sup>, Samiah Alam<sup>111</sup>, Fahad Mashhour Alanezi<sup>112</sup>,  
 Turki M. Alanzi<sup>113</sup>, Jacqueline Elizabeth Alcalde-Rabanal<sup>114</sup>, Astawus Alemayehu<sup>115,116</sup>,  
 Birhanu Alamirew Alamirew Alemu<sup>117</sup>, Kefyalew Addis Alene<sup>118,119</sup>, Abdelazeem M. Algamal<sup>120</sup>, Khalid F. Alhabib<sup>121</sup>,  
 Noora Alhajri<sup>122</sup>, Mohammed Khaled Al-Hanawi<sup>123,124</sup>, Robert Kaba Alhassan<sup>125</sup>, Liaqat Ali<sup>126</sup>, Muhammad Ali<sup>127,128</sup>,  
 Syed Shujait Ali<sup>129</sup>, Shohreh Alian Samakkhah<sup>130</sup>, Gianfranco Alicandro<sup>131,132</sup>, Sheikh Mohammad Alif<sup>133</sup>,  
 Yousef Alimohamadi<sup>134</sup>, Adel Al-Jumaily<sup>135,136</sup>, Syed Mohamed Aljunid<sup>137,138</sup>, François Alla<sup>139</sup>, Mohammed J. Almalki<sup>140,141</sup>,  
 Sadeq Al-Maweri<sup>142</sup>, Sami Almoustanyir<sup>143,144</sup>, Mahmoud A. Alomari<sup>145,146</sup>, Jordi Alonso<sup>147,148</sup>, Nivaldo Alonso<sup>149</sup>,  
 Rajaa M. Al-Raddadi<sup>150</sup>, Salman Khalifah Al-Sabah<sup>151,152</sup>, Ala'a B. Al-Tammemi<sup>153,154</sup>, Khalid A. Altirkawi<sup>155</sup>, Nelson Alvis-  
 Guzman<sup>156,157</sup>, Nelson J. Alvis-Zakzuk<sup>158,159</sup>, Azmeraw T. Amare<sup>160,161</sup>, Hiwot Amare<sup>162</sup>, Edward Kwabena Ameyaw<sup>163</sup>,  
 Tarek Tawfik Amin<sup>164</sup>, Javad Aminian Dehkordi<sup>165,166</sup>, Afreenish Amir<sup>167</sup>, Hoda Amiri<sup>168</sup>, Sohrab Amiri<sup>169</sup>, Hubert Amu<sup>170</sup>,  
 John H. Amuasi<sup>171,172</sup>, Dickson A. Amugsi<sup>173</sup>, Ganiyu Adeniyi Amusa<sup>174,175</sup>, Tadele Fentabil Anagaw<sup>176</sup>, Julio Ancochea<sup>177,178</sup>,  
 Robert Ancuceanu<sup>179</sup>, Deanna Anderlini<sup>180,181</sup>, Catalina Liliana Andrei<sup>182</sup>, Tudorel Andrei<sup>183</sup>, Sofia Androudi<sup>184</sup>,  
 Ranjit Mohan Anjana<sup>185</sup>, Amir Anoushiravani<sup>186</sup>, Adnan Ansar<sup>187,188</sup>, Alireza Ansari-Moghaddam<sup>189</sup>, Benny Antony<sup>190</sup>,  
 Ernoiz Antriyandarti<sup>191</sup>, Maxwell Hubert Antwi<sup>192</sup>, Davood Anvari<sup>193,194</sup>, Razique Anwer<sup>195</sup>,  
 Anayochukwu Edward Anyasodor<sup>196</sup>, Stella Apostolaki<sup>197</sup>, Francis Appiah<sup>198,199</sup>, Jalal Arabloo<sup>200</sup>, Morteza Arab-Zozani<sup>201</sup>,  
 Demelash Areda<sup>202,203</sup>, Hany Mohamed Amin Aref<sup>204</sup>, Zeleke Gebru Argaw<sup>205</sup>, Hany Ariffin<sup>206,207</sup>, Johan Ärnlov<sup>208,209</sup>,  
 Renato Arruda<sup>210,211</sup>, Muhammad Arshad<sup>212</sup>, Al Artaman<sup>213</sup>, Anton A. Artamonov<sup>214</sup>, Kurnia Dwi Artanti<sup>215</sup>,  
 Judie Arulappan<sup>216</sup>, Raphael Taiwo Aruleba<sup>217</sup>, Ashokan Arumugam<sup>218,219</sup>, Krishna K. Aryal<sup>220</sup>, Zahra Aryan<sup>16,221</sup>,  
 Ali A. Asadi-Pooya<sup>222,223</sup>, Zatollah Asemi<sup>224</sup>, Saeed Asgary<sup>225,226</sup>, Mohammad Asghari-Jafarabadi<sup>227</sup>, Tahira Ashraf<sup>228</sup>,  
 Ashagre Molla Assaye<sup>161,229</sup>, Thomas Astell-Burt<sup>230,231</sup>, Mahshid Ataei<sup>232,233</sup>, Zahra Atafar<sup>234</sup>, Mohammad Athar<sup>235,236</sup>,  
 Seyyed Shamsadin Athari<sup>237</sup>, Prince Atorkey<sup>238,239</sup>, Alok Atreya<sup>240</sup>, Madhu Sudhan Atteraya<sup>241</sup>, Sameh Attia<sup>242</sup>,  
 Avinash Aujayeb<sup>243</sup>, Marcel Ausloos<sup>183,244</sup>, Abolfazl Avan<sup>245</sup>, Beatriz Paulina Ayala Quintanilla<sup>246,247</sup>,  
 Tegegn Mulatu Ayana<sup>117</sup>, Alemu Degu Ayele<sup>248</sup>, Meshesha Tsegazeab Ayele<sup>249</sup>, Birhanu Ayelign<sup>250</sup>,  
 Olatunde O. Ayinde<sup>251,252</sup>, Jose L. Ayuso-Mateos<sup>253,254</sup>, Sina Azadnajafabad<sup>16</sup>, Mohammadreza Azangou-Khyavy<sup>16,17</sup>,  
 Amirhossein Azari Jafari<sup>255</sup>, Ahmed Y. Azzam<sup>256,257</sup>, Amirhesam Babajani<sup>258</sup>, Abraham Samuel Babu<sup>259,260</sup>,  
 Muhammad Badar<sup>261</sup>, Alaa Badawi<sup>262,263</sup>, Ashish D. Badiye<sup>264</sup>, Nayereh Baghchehgi<sup>265</sup>, Nasser Bagheri<sup>266,267</sup>,  
 Sara Bagherieh<sup>268</sup>, Saeed Bahadory<sup>269,270</sup>, Atif Amin Baig<sup>271</sup>, Mohan Bairwa<sup>272</sup>, Jennifer L. Baker<sup>273</sup>,  
 Shankar M. Bakkannavar<sup>274</sup>, Asaminew Birhanu Balta<sup>275</sup>, Ovidiu Constantin Baltatu<sup>276,277</sup>, Amitava Banerjee<sup>278</sup>,  
 Indrajit Banerjee<sup>279</sup>, Palash Chandra Banik<sup>280</sup>, Hansi Bansal<sup>264</sup>, Abere Tilahun Bantie<sup>281</sup>, Mainak Bardhan<sup>282</sup>,  
 Suzanne Lyn Barker-Collo<sup>283</sup>, Till Winfried Bärnighausen<sup>284,285</sup>, Mark Thomaz Ugliara Barone<sup>286,287</sup>, Francesco Barone-  
 Adesi<sup>288</sup>, Hiba Jawdat Barqawi<sup>43</sup>, Fabio Barra<sup>289</sup>, Amadou Barrow<sup>290,291</sup>, Sandra Barteit<sup>284</sup>, Lingkan Barua<sup>280</sup>,  
 Azadeh Bashiri<sup>292</sup>, Pritish Baskaran<sup>293</sup>, Sanjay Basu<sup>83,294</sup>, Saurav Basu<sup>295</sup>, Abdul-Monim Mohammad Batiha<sup>296</sup>,  
 Bernhard T. Baune<sup>297,298</sup>, Neeraj Bedi<sup>299,300</sup>, Tahmina Begum<sup>301,302</sup>, Diana Fernanda Bejarano Ramirez<sup>303,304</sup>,  
 Hailu B. Y. Belay<sup>305</sup>, Moges Mareg Belay<sup>306</sup>, Uzma Iqbal Belgaumi<sup>307</sup>, Michelle L. Bell<sup>308</sup>, Luis Belo<sup>309,310</sup>,  
 Salaheddine Bendak<sup>311</sup>, Derrick A. Bennett<sup>312</sup>, Isabela M. Bensenor<sup>313</sup>, Habib Benzian<sup>314</sup>, Alemshet Yirga Berhie<sup>315</sup>,  
 Adam E. Berman<sup>316</sup>, Robert S. Bernstein<sup>317,318</sup>, Akshaya Srikanth Bhagavathula<sup>319</sup>, Dinesh Bhandari<sup>320,321</sup>,  
 Nikha Bhardwaj<sup>322</sup>, Pankaj Bhardwaj<sup>293,323</sup>, Sonu Bhaskar<sup>324,325</sup>, Ajay Nagesh Bhat<sup>326</sup>, Vivek Bhat<sup>327</sup>, Suraj Bhattarai<sup>328,329</sup>,  
 Vijayalakshmi S. Bhojaraja<sup>330</sup>, Boris Bikbov<sup>331</sup>, Corey B. Bills<sup>332,333</sup>, Antonio Biondi<sup>334</sup>, Setognal Birara<sup>335</sup>, Atanu Biswas<sup>336</sup>,  
 Raaj Kishore Biswas<sup>337</sup>, Saeid Bitaraf<sup>338</sup>, Oleg Blyuss<sup>339,340</sup>, Micheal Kofi Boachie<sup>341,342</sup>, Belay Boda Abule Bodicha<sup>343</sup>,  
 Virginia Bodolica<sup>344</sup>, Hunduma Amensisa Bojia<sup>345</sup>, Archith Boloor<sup>346</sup>, João Silva Botelho<sup>347</sup>, Souad Bouaoud<sup>348,349</sup>,  
 Rupert Bourne<sup>350</sup>, Nicola Luigi Bragazzi<sup>351</sup>, Dejana Braithwaite<sup>352,353</sup>, Luisa C. Brant<sup>354</sup>, Nicholas J. K. Breitborde<sup>355,356</sup>,  
 Hermann Brenner<sup>357</sup>, Corstiaan Breugem<sup>358</sup>, Nikolay Ivanovich Briko<sup>359</sup>, Gabrielle Britton<sup>360,361</sup>, Julie Brown<sup>362,363</sup>,  
 Traolach Brugha<sup>364</sup>, Andre R. Brunoni<sup>313,365</sup>, Rachelle Buchbinder<sup>366,367</sup>, Norma B. Bulamu<sup>368</sup>, Danilo Buonsenso<sup>369,370</sup>,  
 Katrin Burkart<sup>371,372</sup>, Richard A. Burns<sup>266</sup>, Sharath Burugina Nagaraja<sup>373</sup>, Muhammad Hammad Butt<sup>374</sup>,  
 Nadeem Shafique Butt<sup>375</sup>, Zahid A. Butt<sup>376,377</sup>, Tianji Cai<sup>378</sup>, Daniela Calina<sup>379</sup>, Luis Alberto Cámara<sup>380,381</sup>,  
 Luciana Aparecida Campos<sup>382,383</sup>, Chao Cao<sup>384</sup>, Vera L. A. Carneiro<sup>385,386</sup>, Giulia Carreras<sup>387</sup>, Andre F. Carvalho<sup>388</sup>,  
 Márcia Carvalho<sup>310,389</sup>, Joao Mauricio Castaldelli-Maia<sup>365</sup>, Giulio Castelpietra<sup>390,391</sup>, Alberico L. Catapano<sup>392,393</sup>,

Maria Sofia Cattaruzza<sup>394</sup>, Christopher R. Cederroth<sup>395,396</sup>, Francieli Cembranel<sup>397</sup>, Ester Cerin<sup>398,399</sup>, Promit Ananyo Chakraborty<sup>400</sup>, Eeshwar K. Chandrasekar<sup>401</sup>, Jung-Chen Chang<sup>402,403</sup>, Gashaw Sisay Chanie<sup>404</sup>, Periklis Charalampous<sup>405</sup>, Vijay Kumar Chattu<sup>406,407</sup>, Sarika Chaturvedi<sup>408</sup>, Akhilanand Chaurasia<sup>409</sup>, Meng Xuan Chen<sup>410</sup>, Simiao Chen<sup>284</sup>, Nicolas Cherbuin<sup>266</sup>, Patrick R. Ching<sup>411</sup>, Abdulaal Chitheer<sup>412</sup>, William C. S. Cho<sup>413</sup>, Yuen Yu Chong<sup>414</sup>, Hitesh Chopra<sup>415</sup>, Tzu-Chieh Chou<sup>416</sup>, Sonali Gajanan Choudhari<sup>417</sup>, Enayet Karim Chowdhury<sup>418,419</sup>, Rajiv Chowdhury<sup>420,421</sup>, Hanne Christensen<sup>422</sup>, Steffan Wittrup McPhee Christensen<sup>423,424</sup>, Devasahayam J. Christopher<sup>425</sup>, Dinh-Toi Chu<sup>426</sup>, Isaac Sunday Chukwu<sup>427</sup>, Sheng-Chia Chung<sup>428,429</sup>, Raffaella Ciuffreda<sup>430</sup>, Scott Richard Clark<sup>431</sup>, Rafael M. Claro<sup>432</sup>, Kaleb Coberly<sup>371</sup>, Joao Conde<sup>433</sup>, Barbara Corso<sup>434</sup>, Michael H. Criquei<sup>435</sup>, Marita Cross<sup>436,437</sup>, Natália Cruz-Martins<sup>438,439</sup>, Omid Dadras<sup>440,441</sup>, Xiaochen Dai<sup>371,372</sup>, Albertino Antonio Moura Damasceno<sup>442</sup>, Giovanni Damiani<sup>443,444</sup>, Hadi A. Danawi<sup>445</sup>, Jai K. Das<sup>446</sup>, Saswati Das<sup>447</sup>, Ana Maria Dascalu<sup>448,449</sup>, Anna Dastiridou<sup>450,451</sup>, Claudio Alberto Dávila-Cervantes<sup>452</sup>, Kairat Davletov<sup>453</sup>, Fernando Pio De la Hoz<sup>454</sup>, Maia De Luca<sup>455</sup>, Sisay Abebe Debela<sup>456</sup>, Natanim Degefu<sup>457</sup>, Amin Dehghan<sup>268</sup>, Azizallah Dehghan<sup>458</sup>, Hiwot Dejene<sup>459</sup>, Robert Paul Dellavalle<sup>460,461</sup>, Andreas K. Demetriades<sup>462,463</sup>, Biniyam Demisse<sup>117</sup>, Fitsum Wolde Demisse<sup>464</sup>, Solomon Demissie<sup>249</sup>, Edgar Denova-Gutiérrez<sup>465</sup>, Diriba Dereje<sup>466</sup>, Mrganaw Derese<sup>467</sup>, Nikolaos Dervenis<sup>468,469</sup>, Hardik Dineshbhai Desai<sup>470</sup>, Rupak Desai<sup>471</sup>, Fikadu Nugusu Dessalegn<sup>472</sup>, Gashaw Dessie<sup>473</sup>, Abebaw Alemayehu Desta<sup>474</sup>, Keshab Deuba<sup>475,476</sup>, Sagnik Dey<sup>477</sup>, Arkadeep Dhali<sup>478</sup>, Meghnath Dhimal<sup>479</sup>, Sameer Dhingra<sup>480</sup>, Nancy Diao<sup>481</sup>, Diana Dias da Silva<sup>310,482</sup>, Diriba Tolesa Dibaba<sup>472</sup>, Lankamo Ena Digesa<sup>483</sup>, Mengistie Diress<sup>484</sup>, Abhinav Dixit<sup>485</sup>, Shilpi Gupta Dixit<sup>322</sup>, Shirin Djalalinia<sup>486</sup>, Saeid Doaei<sup>487,488</sup>, Milad Dodangeh<sup>489</sup>, Mohamed Fahmy Doheim<sup>490</sup>, Paul Narh Doku<sup>491</sup>, Deepa Dongarwar<sup>492</sup>, Bezabih Terefe Dora<sup>464</sup>, Fariba Dorostkar<sup>493</sup>, Wendel Mombahe dos Santos<sup>494,495</sup>, Chirag P. Doshi<sup>32</sup>, Rajkumar Doshi<sup>496</sup>, Leila Doshmangir<sup>497</sup>, Abdel Douiri<sup>498</sup>, Haneil Larson Dsouza<sup>499,500</sup>, John Dube<sup>501</sup>, Andre Rodrigues Duraes<sup>502,503</sup>, Oyewole Christopher Durojaiye<sup>504</sup>, Hisham Atan Edinur<sup>505</sup>, David Edvardsson<sup>187,506</sup>, Kristina Edvardsson<sup>507</sup>, Ferry Efendi<sup>187,508</sup>, Elham Ehsani-Chimeh<sup>509</sup>, Ebrahim Eini<sup>510</sup>, Michael Ekholuenetale<sup>511,512</sup>, Temitope Cyrus Ekundayo<sup>513</sup>, Nevine El Nahas<sup>204</sup>, Iman El Sayed<sup>514</sup>, Maha El Tantawi<sup>515</sup>, Hassan El-Abid<sup>516</sup>, Iffat Elbarazi<sup>91</sup>, Teshome Bekele Elema<sup>517,518</sup>, Frank J. Elgar<sup>519</sup>, Islam Y. Elgendy<sup>520,521</sup>, Ghada Metwally Tawfik ElGohary<sup>522,523</sup>, Hala Rashad Elhabashy<sup>524</sup>, Muhammed Elhadi<sup>525</sup>, Mohamed A. Elmonem<sup>526</sup>, Luchuo Engelbert Bain<sup>527</sup>, Ryenchindorj Erkhembayar<sup>528</sup>, Hawi Leul Esayas<sup>464</sup>, Christopher Imokhuede Esezobor<sup>529,530</sup>, Babak Eshtrati<sup>531</sup>, Sharareh Eskandarieh<sup>532</sup>, Juan Espinosa-Montero<sup>533</sup>, Francesco Esposito<sup>534</sup>, Farshid Etaee<sup>535</sup>, Werku Etafa<sup>536</sup>, Sayeh Ezzikouri<sup>537</sup>, Adeniyi Francis Fagbamigbe<sup>511,538</sup>, Shahriar Faghani<sup>539</sup>, Luca Falzone<sup>540,541</sup>, Emerito Jose A. Faraon<sup>542</sup>, Somayeh Farhang Dehghan<sup>543</sup>, Carla Sofia e. Sá Farinha<sup>544,545</sup>, Andre Faro<sup>546</sup>, Umar Farooq<sup>547</sup>, Md Omar Faruk<sup>548,549</sup>, Abidemi Omolara Fasanmi<sup>550,551</sup>, Akinlolu O. Fasanmi<sup>552,553</sup>, Ali Fatehizadeh<sup>554</sup>, Nazir Fattahi<sup>555</sup>, Nelsensius Klau Fauk<sup>556,557</sup>, Valery L. Feigin<sup>371,558,559</sup>, Ginenus Fekadu<sup>560,561</sup>, Xiaoqi Feng<sup>562,563</sup>, Seyed-Mohammad Fereshtehnejad<sup>208,564</sup>, Abdullah Hamid Feroze<sup>221,565</sup>, Pietro Ferrara<sup>566</sup>, Allegra Ferrari<sup>567</sup>, Simone Ferrero<sup>568</sup>, Getahun Fetensa<sup>569</sup>, Bikila Regassa Feyisa<sup>570</sup>, Irina Filip<sup>571,572</sup>, Florian Fischer<sup>573</sup>, Joanne Flavel<sup>574</sup>, David Flood<sup>575,576</sup>, Morenike Oluwatoyin Folayan<sup>577,578</sup>, Ana Catarina Fonseca<sup>579,580</sup>, Arianna Fornari<sup>581</sup>, Behzad Foroutan<sup>582</sup>, Kayode Raphael Fowobaje<sup>511,583</sup>, Alberto Freitas<sup>584,585</sup>, Marisa Freitas<sup>586</sup>, Sara D. Friedman<sup>587</sup>, Takeshi Fukumoto<sup>588</sup>, Peter Andras Gaal<sup>589,590</sup>, Muktar A. Gadanya<sup>591,592</sup>, Abhay Motiramji Gaidhane<sup>417</sup>, Santosh Gaihre<sup>538</sup>, Yaseen Galali<sup>593,594</sup>, Nasrin Galehdar<sup>595</sup>, Silvano Gallus<sup>596</sup>, Balasankar Ganesan<sup>597,598</sup>, M. A. Garcia-Gordillo<sup>599</sup>, Priyanka Garg<sup>600</sup>, Mariana Gaspar Fonseca<sup>601</sup>, Federica Gazzelloni<sup>602</sup>, Semiu Olatunde Gbadamosi<sup>603</sup>, Mesfin Gebrehiwot<sup>604</sup>, Kahsu Gebrekirstos Gebrekidan<sup>605</sup>, Teferi Gebru Gebremeskel<sup>606,607</sup>, Yibeltal Yismaw Gela<sup>484</sup>, Leta Adugna Geleta<sup>608</sup>, Urge Gerema<sup>609</sup>, Lemma Getacher<sup>610</sup>, Tamirat Getachew<sup>611</sup>, Keyghobad Ghadiri<sup>612,613</sup>, Fariborz Ghaffarpasand<sup>614</sup>, Mansour Ghafourifard<sup>615</sup>, Sulmaz Ghahramani<sup>616</sup>, Seyyed-Hadi Ghamari<sup>16,17</sup>, Reza Ghanbari<sup>617</sup>, Mohammad Ghasemi Nour<sup>618</sup>, Ahmad Ghashghaee<sup>619</sup>, Farzaneh Ghazi Sherbaf<sup>620</sup>, Zahra Ghodsi<sup>621,622</sup>, Maryam Gholamalizadeh<sup>623</sup>, Ali Gholami<sup>624,625</sup>, Ali Gholamrezanezhad<sup>626</sup>, Ghozali Ghozali<sup>627</sup>, Sherief Ghozy<sup>628</sup>, Tiffany K. Gill<sup>629</sup>, Themba G. Ginindza<sup>630</sup>, James C. Glasbey<sup>631</sup>, Laszlo Göbölös<sup>632,633</sup>, Amit Goel<sup>634</sup>, Mahaveer Golechha<sup>635</sup>, Pouya Goleij<sup>636</sup>, Davide Golinelli<sup>637</sup>, Nelson G. M. Gomes<sup>586,638</sup>, Sameer Vali Gopalani<sup>639,640</sup>, Giuseppe Gorini<sup>641</sup>, Houman Goudarzi<sup>642,643</sup>, Alessandra C. Goulart<sup>313,644</sup>, Bárbara Niegia Garcia Goulart<sup>645</sup>, Michal Grivna<sup>646,647</sup>, Jenny S. Guadamuz<sup>648</sup>, Habtamu Alganah Guadie<sup>649</sup>, Mohammed Ibrahim Mohialdeen Gubari<sup>650</sup>, Zewdie Gudisa<sup>651</sup>, Avirup Guha<sup>652,653</sup>, Rafael Alves Guimarães<sup>654</sup>, Bhawna Gupta<sup>655</sup>, Rajeev Gupta<sup>656,657</sup>, Sapna Gupta<sup>658</sup>, Veer Bala Gupta<sup>659</sup>, Vijai Kumar Gupta<sup>660</sup>, Vivek Kumar Gupta<sup>661</sup>, Alemu Guta<sup>662</sup>, Wilmer Cristobal Guzman-Vilca<sup>663</sup>, Mojtaba Habibi Asgarabad<sup>664,665</sup>, Parham Habibzadeh<sup>666</sup>, Vladimir Hachinski<sup>667,668</sup>, Mostafa Hadei<sup>669</sup>, Nima Hafezi-Nejad<sup>670,671</sup>, Adel Hajj Ali<sup>672</sup>, Arvin Haj-Mirzaian<sup>673,674</sup>, Esam S. Halboub<sup>675,676</sup>, Aram Halimi<sup>677</sup>, Brian J. Hall<sup>678</sup>, Rabih Halwani<sup>43,679</sup>, Randah R. Hamadeh<sup>680</sup>, Mitiku Teshome Hambisa<sup>238,681</sup>, Sajid Hameed<sup>271</sup>, Samer Hamidi<sup>682</sup>, Mohammad Hamiduzzaman<sup>683</sup>, Asif Hanif<sup>271</sup>, Graeme J. Hankey<sup>684,685</sup>, Md Abdul Hannan<sup>686,687</sup>, Md Nuruzzaman Haque<sup>688</sup>, Harapan Harapan<sup>689</sup>, Arief Hargono<sup>215</sup>, Ninuk Hariyani<sup>690,691</sup>, Josep Maria Haro<sup>692,693</sup>,

Mehdi Harorani<sup>694</sup>, Risky Kusuma Hartono<sup>695</sup>, Ahmed I. Hasaballah<sup>696</sup>, Faizul Hasan<sup>697</sup>, M. Tasdik Hasan<sup>698</sup>, Md Mehedi Hasan<sup>699,700</sup>, Hamidreza Hasani<sup>701</sup>, Abbas M. Hassan<sup>702</sup>, Amr Hassan<sup>703</sup>, Shoaib Hassan<sup>704,705</sup>, Hossein Hassanian-Moghaddam<sup>706</sup>, Soheil Hassanipour<sup>707,708</sup>, Hadi Hassankhani<sup>709,710</sup>, Rasmus J. Havmoeller<sup>711</sup>, Khezhar Hayat<sup>712,713</sup>, Jeffrey J. Hebert<sup>714,715</sup>, Khedidja Hedna<sup>716,717</sup>, Mohammad Heidari<sup>718</sup>, Reza Heidari-Soureshjani<sup>719</sup>, Delia Hendrie<sup>418</sup>, Brenda Yuliana Herrera-Serna<sup>720</sup>, Demisu Zenbaba Heyi<sup>721</sup>, Kamal Hezam<sup>722,723</sup>, Yuta Hiraike<sup>724</sup>, Ramesh Holla<sup>725</sup>, Nobuyuki Horita<sup>726,727</sup>, Md Mahbub Hossain<sup>728,729</sup>, Sahadat Hossain<sup>730,731</sup>, Mehdi Hosseinzadeh<sup>732,733</sup>, Mihaela Hostiuc<sup>734</sup>, Sorin Hostiuc<sup>735,736</sup>, Soodabeh Hoveidamanesh<sup>737</sup>, Mohamed Hsairi<sup>738</sup>, Alexander Kevin Hsiao<sup>739</sup>, Junjie Huang<sup>740</sup>, Irene Lena Hudson<sup>741,742</sup>, Salman Hussain<sup>743,744</sup>, Zakir Hussain<sup>745,746</sup>, Nawfal R. Hussein<sup>747</sup>, Foziya Mohammed Hussien<sup>748</sup>, Bing-Fang Hwang<sup>749,750</sup>, Segun Emmanuel Ibitoye<sup>751</sup>, Olayinka Stephen Ilesanmi<sup>65,752</sup>, Irena M. Ilic<sup>753</sup>, Milena D. Ilic<sup>754</sup>, Mustapha Immurana<sup>125</sup>, Leeberk Raja Inbaraj<sup>755</sup>, Lalu Muhammad Irham<sup>756</sup>, Md Rafiqul Islam<sup>688</sup>, Mohammad Mainul Islam<sup>757</sup>, Rubana Islam<sup>758</sup>, Sheikh Mohammed Shariful Islam<sup>759,760</sup>, Farhad Islami<sup>761</sup>, Nahlah Elkudssiah Ismail<sup>762,763</sup>, Hiroyasu Iso<sup>764</sup>, Gaetano Isola<sup>334</sup>, Ademola Joshua Itiola<sup>765</sup>, Masao Iwagami<sup>766,767</sup>, Chidozie C. D. Iwu<sup>768</sup>, Chinwe Juliana Iwu-Jaja<sup>769,770</sup>, Ihoghosa Osamuyi Iyamu<sup>400,771</sup>, Linda Merin J<sup>772</sup>, Jalil Jaafari<sup>773</sup>, Louis Jacob<sup>774,775</sup>, Farhad Jadidi-Niaragh<sup>776</sup>, Haitham Jahrami<sup>777,778</sup>, Rajesh Jain<sup>779,780</sup>, Abhishek Jaiswal<sup>272</sup>, Mihajlo Jakovljevic<sup>781,782</sup>, Elham Jamshidi<sup>98,783</sup>, Chinmay T. Jani<sup>784</sup>, Manthan Dilipkumar Janodia<sup>785</sup>, Tahereh Javaheri<sup>786</sup>, Krishnamurthy Jayanna<sup>787,788</sup>, Sathish Kumar Jayapal<sup>789</sup>, Umesh Jayarajah<sup>790,791</sup>, Shubha Jayaram<sup>792</sup>, Seyed Behzad Jazayeri<sup>793</sup>, Rime Jebai<sup>603</sup>, Jayakumar Jeganathan<sup>326</sup>, Digisie Mequanint Jemere<sup>794</sup>, Angeline Jeyakumar<sup>795,796</sup>, Vivekanand Jha<sup>797,798</sup>, John S. Ji<sup>799</sup>, Olatunji Johnson<sup>800</sup>, Jost B. Jonas<sup>801,802</sup>, Tamas Joo<sup>589,803</sup>, Abel Joseph<sup>804</sup>, Nitin Joseph<sup>805</sup>, Vasna Joshua<sup>806</sup>, Farahnaz Joukar<sup>707,708</sup>, Jacek Jerzy Jozwiak<sup>807</sup>, Mikk Jürisson<sup>808</sup>, Billingsley Kaambwa<sup>809,810</sup>, Ali Kabir<sup>811</sup>, Zubair Kabir<sup>812</sup>, Vidya Kadashetti<sup>813</sup>, Dler Hussein Kadir<sup>814</sup>, Pradnya Vishal Kakodkar<sup>815</sup>, Rizwan Kalani<sup>816</sup>, Laleh R. Kalankesh<sup>817</sup>, Leila R. Kalankesh<sup>818</sup>, Rohollah Kalhor<sup>819,820</sup>, Feroze Kaliyadan<sup>821</sup>, Vineet Kumar Kamal<sup>822,823</sup>, Ashwin Kamath<sup>725,798</sup>, Rajesh Kamath<sup>824,825</sup>, Zahra Kamiab<sup>826,827</sup>, Naser Kamyari<sup>828</sup>, Tanuj Kanchan<sup>829</sup>, Himal Kandel<sup>830,831</sup>, Rami S. Kantar<sup>832,833</sup>, Neeti Kapoor<sup>264</sup>, Hassan Karami<sup>834,835</sup>, Shama D. Karanth<sup>836</sup>, Ibraheem M. Karaye<sup>837</sup>, Salah Eddin Karimi<sup>838</sup>, Samad Karkhah<sup>839</sup>, Faizan Zaffar Kashoo<sup>840</sup>, Gizat M. Kassie<sup>841</sup>, Patrick D. M. C. Katoto<sup>770,842</sup>, Mohammad Obadah Kattea<sup>843</sup>, Joonas H. Kauppila<sup>844,845</sup>, Gbenga A. Kayode<sup>846,847</sup>, Leila Keikavoosi-Arani<sup>848</sup>, Gemechu Gemechu Kejela<sup>849</sup>, John H. Kempen<sup>850,851</sup>, Jessica A. Kerr<sup>852,853</sup>, Cumali Keskin<sup>854</sup>, Mohammad Keykhaei<sup>16,855</sup>, Yousef Saleh Khader<sup>856</sup>, Himanshu Khajuria<sup>857</sup>, Mohammad Khalafi<sup>858</sup>, Nauman Khalid<sup>859</sup>, Mohammad Khammarnia<sup>860</sup>, Asaduzzaman Khan<sup>861</sup>, Atif A. Khan<sup>862</sup>, Ejaz Ahmad Khan<sup>863</sup>, Imteyaz A. Khan<sup>864</sup>, Maseer Khan<sup>865</sup>, Md Jobair Khan<sup>866</sup>, Moien A. B. Khan<sup>867,868</sup>, M. Nuruzzaman Khan<sup>869,870</sup>, Yusra H. Khan<sup>871</sup>, Javad Khanali<sup>16,17</sup>, Khaled Khatab<sup>872,873</sup>, Moawiah Mohammad Khatatbeh<sup>874</sup>, Mona M. Khater<sup>875</sup>, Sorour Khateri<sup>876</sup>, Mahalaqua Nazli Khatib<sup>877</sup>, Hamid Reza Khayat Kashani<sup>878</sup>, Zahra Khazaeipour<sup>879</sup>, Ahmad Khosravi<sup>880</sup>, Jagdish Khubchandani<sup>881</sup>, Gyu Ri Kim<sup>882</sup>, Jihee Kim<sup>883</sup>, Yun Jin Kim<sup>884</sup>, Ruth W. Kimokoti<sup>885</sup>, Adnan Kisa<sup>886,887</sup>, Sezer Kisa<sup>888</sup>, Mika Kivimäki<sup>889,890</sup>, Cameron J. Kneib<sup>891</sup>, Sonali Kochhar<sup>892,893</sup>, David S. Q. Koh<sup>894,895</sup>, Ali-Asghar Kolahi<sup>17</sup>, Pavel Kolkhir<sup>896,897</sup>, Kamrun Nahar Koly<sup>898</sup>, Farzad Kompani<sup>899</sup>, Hamid Reza Koohestani<sup>900</sup>, Vladimir Andreevich Korshunov<sup>359</sup>, Oleksii Korzh<sup>901</sup>, Soewarta Kosen<sup>902</sup>, Parvaiz A. Koul<sup>903</sup>, Sindhura Lakshmi Koulmane Laxminarayana<sup>904</sup>, Ai Koyanagi<sup>905</sup>, Kewal Krishan<sup>906</sup>, Vijay Krishnamoorthy<sup>907,908</sup>, Estie Kruger<sup>909</sup>, Barthelemy Kuate Defo<sup>910,911</sup>, Burcu Kucuk Bicer<sup>912</sup>, Mohammed Kuddus<sup>913</sup>, Nuworza Kugbey<sup>914</sup>, Akshay Kumar<sup>915,916</sup>, Manasi Kumar<sup>917,918</sup>, Narinder Kumar<sup>919</sup>, Naveen Kumar<sup>920</sup>, Nithin Kumar<sup>805</sup>, Om P. Kurmi<sup>921,922</sup>, Dian Kusuma<sup>923,924</sup>, Ambily Kuttikkattu<sup>925</sup>, Carlo La Vecchia<sup>926</sup>, Ben Lacey<sup>312,927</sup>, Lucie Laflamme<sup>928,929</sup>, Dharmesh Kumar Lal<sup>930</sup>, Ratilal Laloo<sup>931</sup>, Tea Lallukka<sup>890</sup>, Judit Lám<sup>589,932</sup>, Faris Hasan Lami<sup>933</sup>, Qing Lan<sup>934</sup>, Iván Landires<sup>935,936</sup>, Justin J. Lang<sup>937</sup>, Berthold Langguth<sup>938</sup>, Bagher Larijani<sup>939</sup>, Anders O. Larsson<sup>940,941</sup>, Kamaluddin Latief<sup>942,943</sup>, Sum Yuet Joyce Lau<sup>944</sup>, Matthew B. Laurens<sup>666</sup>, Paolo Lauriola<sup>945</sup>, Habib Layoun<sup>672</sup>, Doo Woong Lee<sup>882,946</sup>, Paul H. Lee<sup>364</sup>, Sang-woong Lee<sup>947</sup>, Seung Won Lee<sup>948</sup>, Shaun Wen Huey Lee<sup>85,949</sup>, Wei-Chen Lee<sup>950</sup>, Yo Han Lee<sup>883</sup>, Samson Mideksa Legesse<sup>951</sup>, James Leigh<sup>952</sup>, Matilde Leonardi<sup>953</sup>, Elvynna Leong<sup>954</sup>, An Li<sup>955,956</sup>, Ming-Chieh Li<sup>957</sup>, Massimo Libra<sup>541</sup>, Andrew Tiyamike Makhiringa Likaka<sup>958</sup>, David Lim Lim<sup>959,960</sup>, Lee-Ling Lim<sup>961,962</sup>, Stephen S. Lim<sup>371,372</sup>, Ro-Ting Lin<sup>416,963</sup>, Christine Linehan<sup>964</sup>, Shai Linn<sup>965</sup>, Gang Liu<sup>966,967</sup>, Jue Liu<sup>968</sup>, Shiwei Liu<sup>969</sup>, Wei Liu<sup>970</sup>, Chun-Han Lo<sup>971</sup>, Graciliana Lopes<sup>972</sup>, Platon D. Lopukhov<sup>359</sup>, Arianna Maeve Loreche<sup>973,974</sup>, László Lorenzovici<sup>975,976</sup>, Mojgan Lotfi<sup>615,977</sup>, Joana A. Loureiro<sup>978,979</sup>, Giancarlo Lucchetti<sup>980</sup>, Raimundas Lunevicius<sup>981,982</sup>, Vanessa Sintra Machado<sup>983</sup>, Farzan Madadzadeh<sup>984</sup>, Ralph Maddison<sup>985</sup>, Hassan Magdy Abd El Razek<sup>986</sup>, D. R. Mahadeshwara Prasad<sup>987,988</sup>, Preetam Bhalchandra Mahajan<sup>989</sup>, Phetole Walter Mahasha<sup>990</sup>, Soleiman Mahjoub<sup>991,992</sup>, Mansour Adam Mahmoud<sup>993</sup>, Razzagh Mahmoudi<sup>994</sup>, Marzieh Mahmoudimanesh<sup>995</sup>, Azeem Majeed<sup>996</sup>, Jeadran N. Malagón-Rojas<sup>997,998</sup>, Elaheh Malakan Rad<sup>999</sup>, Ahmad Azam Malik<sup>271,1000</sup>, Tauqeer Hussain Mallhi<sup>871</sup>, Yosef Manla<sup>1001</sup>, Ali Mansour<sup>1002,1003</sup>, Borhan Mansouri<sup>1004</sup>, Mohammad Ali Mansournia<sup>1005</sup>, Lorenzo Giovanni Mantovani<sup>1006,1007</sup>, Abdoljalal Marjani<sup>1008</sup>, Carlos Alberto Marrugo Arnedo<sup>157,1009</sup>, Ramon Martinez-Piedra<sup>1010</sup>, Adolfo Martinez-Valle<sup>74,1011</sup>, Santi Martini<sup>1012,1013</sup>,

Francisco Rogerlândio Martins-Melo<sup>1014</sup>, Miquel Martorell<sup>1015,1016</sup>, Sahar Masoudi<sup>186</sup>, Elezebeth Mathews<sup>1017</sup>, Alexander G. Mathioudakis<sup>1018,1019</sup>, Richard James Maude<sup>1020,1021</sup>, Pallab K. Maulik<sup>1022,1023</sup>, Sazan Qadir Maulud<sup>1024</sup>, Enkeleint A. Mechili<sup>1025,1026</sup>, Jitendra Kumar Meena<sup>1027</sup>, Salima Meherali Meherali<sup>1028</sup>, Khalid Mehmood<sup>1029</sup>, Man Mohan Mehndiratta<sup>1030,1031</sup>, Entezar Mehrabi Nasab<sup>1032</sup>, Kala M. Mehta<sup>1033</sup>, Laychiluh Bantie Mekonnen<sup>161,1034</sup>, Ziad A. Memish<sup>143,1035</sup>, Walter Mendoza<sup>1036</sup>, Oliver Mendoza-Cano<sup>1037</sup>, Ritesh G. Menezes<sup>1038</sup>, Alexios-Fotios A. Mentis<sup>1039</sup>, Atte Meretoja<sup>1040,1041</sup>, Tuomo J. Meretoja<sup>1042,1043</sup>, Belsity Temesgen Meselu<sup>1044</sup>, Bezawit Afework Mesfin<sup>464</sup>, Tomislav Mestrovic<sup>371,1045</sup>, Tomasz Miazgowski<sup>1046</sup>, Georgia Micha<sup>1047</sup>, Irmia Maria Michalek<sup>1048,1049</sup>, Ana Carolina Micheletti Gomide Nogueira de Sá<sup>1050</sup>, Gedefaye Nibret Mihrtie<sup>248</sup>, Ted R. Miller<sup>418,1051</sup>, Seyed Peyman Mirghaderi<sup>855</sup>, Mojgan Mirghafourvand<sup>1052</sup>, Andreea Mirica<sup>183</sup>, Antonio Mirijello<sup>1053</sup>, Seyyedmohammadsadeq Mirmoeeni<sup>255</sup>, Erkin M. Mirrahimov<sup>1054,1055</sup>, Moonis Mirza<sup>1056</sup>, Maryam Mirzaei<sup>1057</sup>, Roya Mirzaei<sup>1058,1059</sup>, Awoke Misganaw<sup>372,1060</sup>, Sanjeev Misra<sup>1061</sup>, Prasanna Mithra<sup>805</sup>, Chaitanya Mittal<sup>1062</sup>, Javad Moghadas<sup>1063</sup>, Ashraf Mohamadkhani<sup>186</sup>, Abdalla Z. Mohamed<sup>1064</sup>, Karzan Abdulmuhsin Mohammad<sup>1024</sup>, Sakineh Mohammad-Alizadeh-Charandabi<sup>838,1065</sup>, Esmaeil Mohammadi<sup>719,1066</sup>, Soheil Mohammadi<sup>671</sup>, Hussien Mohammed<sup>1067</sup>, Shafiu Mohammed<sup>1068,1069</sup>, Syam Mohan<sup>1070,1071</sup>, Nagabhishek Moka<sup>1072,1073</sup>, Ali H. Mokdad<sup>371,372</sup>, Mariam Molokhia<sup>1074</sup>, Sara Momtazmanesh<sup>16,671</sup>, Lorenzo Monasta<sup>1075</sup>, T. J. Robinson T. Moncater<sup>542</sup>, Stefania Mondello<sup>1076</sup>, Mohammad Ali Moni<sup>861</sup>, Md Moniruzzaman<sup>1077</sup>, Fateme Montazeri<sup>16,1078</sup>, Delaram Moosavi<sup>489</sup>, Yousef Moradi<sup>1079</sup>, Maziar Moradi-Lakeh<sup>531</sup>, Paula Moraga<sup>1080</sup>, Rafael Silveira Moreira<sup>1081,1082</sup>, Joana Morgado-da-Costa<sup>1083</sup>, Negar Morovatdar<sup>1084</sup>, Meg E. Morris<sup>1085,1086</sup>, Shane Douglas Morrison<sup>1087</sup>, Elias Mossialos<sup>1088,1089</sup>, Ebrahim Mostafavi<sup>1090,1091</sup>, Majid Motaghinejad<sup>1092</sup>, Simin Mouodi<sup>1093</sup>, Amin Mousavi Khaneghah<sup>1094</sup>, Sumaira Mubarik<sup>1095</sup>, Lorenzo Muccioli<sup>637</sup>, Ulrich Otto Mueller<sup>1096,1097</sup>, Soumyadeep Mukherjee<sup>1098</sup>, Francesk Mulita<sup>1099,1100</sup>, Getaneh Baye Mulu<sup>1101</sup>, Daniel Munblit<sup>1102,1103</sup>, Efrén Murillo-Zamora<sup>1104,1105</sup>, Shruti Murthy<sup>1106</sup>, Ana-Maria Musina<sup>1107,1108</sup>, Ghulam Mustafa<sup>1109,1110</sup>, Saravanan Muthupandian<sup>407,1111</sup>, Julius C. Mwita<sup>1112</sup>, Ashraf F. Nabhan<sup>1113,1114</sup>, Ahamarshan Jayaraman Nagarajan<sup>1115,1116</sup>, Mukhammad David Naimzada<sup>1117,1118</sup>, Tapas Sadasivan Nair<sup>1119</sup>, Zhila Najafpour<sup>1120</sup>, Luigi Naldi<sup>1121,1122</sup>, Vinay Nangia<sup>1123</sup>, Atta Abbas Naqvi<sup>1124</sup>, Sreenivas Narasimha Swamy<sup>1125</sup>, Aparna Ichalangod Narayana<sup>1126</sup>, Bruno Ramos Nascimento<sup>1127,1128</sup>, Gopalakrishnan Natarajan<sup>1129</sup>, Zuhair S. Natto<sup>1130,1131</sup>, Biswa Prakash Nayak<sup>857</sup>, Vinod C. Nayak<sup>274</sup>, Rawlance Ndejo<sup>1132</sup>, Sabina Onyinye Nduaguba<sup>1133</sup>, Ionut Nego<sup>1134,1135</sup>, Ruxandra Irina Nego<sup>1136,1137</sup>, Seyed Aria Nejadghaderi<sup>1078,1138</sup>, Evangelia Nena<sup>1139</sup>, Samata Nepal<sup>1140</sup>, Henok Biresaw Netsere<sup>1141,1142</sup>, Georges Nguefack-Tsague<sup>1143</sup>, Josephine W. Ngunjiri<sup>1144</sup>, Che Henry Ngwa<sup>1145</sup>, Robina Khan Niazi<sup>1146</sup>, Solomon Gedlu Nigatu<sup>1147</sup>, Ali Nikoobar<sup>17</sup>, Amin Reza Nikpoor<sup>1148</sup>, Muhammad A. Nizam<sup>1149</sup>, Chukwudi A. Nnaji<sup>1150,1151</sup>, Shuhei Nomura<sup>1152,1153</sup>, Nurulamin M. Noor<sup>1154,1155</sup>, Nafise Noroozi<sup>1156</sup>, Bo Norrving<sup>1157</sup>, Jean Jacques Noubiap<sup>1158</sup>, Hasti Nouraei<sup>1159</sup>, George Ntaios<sup>1160</sup>, Mpiko Ntsekhe<sup>1161,1162</sup>, Dieta Nurrika<sup>1163,1164</sup>, Jerry John Nutor<sup>1165</sup>, Chimezie Igwegbe Nzoputam<sup>1166</sup>, Ogochukwu Janet Nzoputam<sup>1167,1168</sup>, Felix Chukwudi Abrahams Obi<sup>1169,1170</sup>, Oluwakemi Ololade Odukoya<sup>1171,1172</sup>, Onome Bright Oghenetega<sup>1173</sup>, Abiola Ogunkoya<sup>751</sup>, In-Hwan Oh<sup>1174</sup>, Akin Ojagbemi<sup>1175,1176</sup>, Hassan Okati-Aliabad<sup>860</sup>, Akinkunmi Paul Okekunle<sup>1177,1178</sup>, Osaretin Christabel Okonji<sup>1179</sup>, Adeolu Olufunso Oladunjoye<sup>1180,1181</sup>, Olubunmi Omotola Oladunjoye<sup>1184</sup>, Andrew T. Olagunju<sup>1182,1183</sup>, Antonio Olivas-Martinez<sup>1184,1185</sup>, Arão Belitardo Oliveira<sup>644,1186</sup>, Gláucia Maria Moraes Oliveira<sup>1187</sup>, Isaac Iyinoluwa Olufadewa<sup>58,512</sup>, Bolajoko Olubukunola Olusanya<sup>1188</sup>, Jacob Olusegun Olusanya<sup>1188</sup>, Ahmed Omar Bali<sup>1189</sup>, Sokking Ong<sup>1190,1191</sup>, Obinna E. Onwujekwe<sup>1192</sup>, Doris V. Ortega-Altamirano<sup>1193</sup>, Alberto Ortiz<sup>178,1194</sup>, Adrian Otoiu<sup>183</sup>, Nikita Otstavnov<sup>1117</sup>, Stanislav S. Otstavnov<sup>1117,1195</sup>, Abderrahim Oulhaj<sup>1196</sup>, Amel Ouyahia<sup>1197,1198</sup>, Simon Øverland<sup>1199</sup>, Mayowa O. Owolabi<sup>1200,1201</sup>, Mahesh P. A<sup>1202</sup>, Kevin Pacheco-Barrios<sup>1203,1204</sup>, Alicia Padron-Monedero<sup>1205</sup>, Jagadish Rao Padubidri<sup>1206</sup>, Pramod Kumar Pal<sup>1207</sup>, Tamás Palicz<sup>589,803</sup>, Raffaele Palladino<sup>996,1208</sup>, Songhomitra Panda-Jonas<sup>1209</sup>, Seithikurippu R. Pandi-Perumal<sup>1210,1211</sup>, Helena Ullayrtha Pangaribuan<sup>1212</sup>, Suman Pant<sup>1213</sup>, Paraskevi Papadopoulou<sup>197,1214</sup>, Shahina Pardhan<sup>350</sup>, Eun-Cheol Park<sup>882,1215</sup>, Eun-Kee Park<sup>1216</sup>, Seoyeon Park<sup>1217</sup>, Deepak Kumar Pasupula<sup>1218</sup>, Jay Patel<sup>1219,1220</sup>, Jenil R. Patel<sup>1221,1222</sup>, Rikinkumar S. Patel<sup>1223,1224</sup>, Urvis K. Patel<sup>1225</sup>, Aslam Ramjan Pathan<sup>1226,1227</sup>, Ronit Patnaik Patnaik<sup>1228</sup>, Uttam Paudel<sup>1229,1230</sup>, Shrikant Pawar<sup>1231</sup>, Hamidreza Pazoki Toroudi<sup>1232,1233</sup>, Amy E. Peden<sup>758,1234</sup>, Paolo Pedersini<sup>1235</sup>, Minjin Peng<sup>1236,1237</sup>, Umberto Pensato<sup>1238</sup>, Veincent Christian Filipino Pepito<sup>1239</sup>, Emmanuel K. Peprah<sup>587</sup>, João Perdigão<sup>1240</sup>, Marcos Pereira<sup>1241</sup>, Renato B. Pereira<sup>638</sup>, Norberto Perico<sup>1242</sup>, Simone Perna<sup>1243</sup>, Richard G. Pestell<sup>1244,1245</sup>, Konrad Pesudovs<sup>1246</sup>, Ionela-Roxana Petcu<sup>183</sup>, Raffaele Pezzani<sup>1247,1248</sup>, Michael R. Phillips<sup>1249,1250</sup>, Cristiano Piccinelli<sup>1251</sup>, David M. Pigott<sup>371,372</sup>, Julian David Pillay<sup>1252</sup>, Zahra Zahid Piracha<sup>1253</sup>, Saeed Pirouzpanah<sup>1254</sup>, Meghdad Pirsaeheb<sup>555</sup>, Evgenii Plotnikov<sup>1255,1256</sup>, Indrashis Podder<sup>1257</sup>, Vivek Podder<sup>1258,1259</sup>, Riccardo Pofi<sup>1260</sup>, Roman V. Polibin<sup>359</sup>, Kevan R. Polkinghorne<sup>1261</sup>, Ramesh Poluru<sup>1262</sup>, Constance Dimity Pond<sup>1263</sup>, Fabio Porru<sup>405</sup>, Maarten J. Postma<sup>1264,1265</sup>, Naeimeh Pourtaheri<sup>1266</sup>, Sergio I. Prada<sup>1267,1268</sup>, Pranil Man Singh Pradhan<sup>1269,1270</sup>, V. Prakash<sup>1271</sup>, Narayan Prasad<sup>1272</sup>, Luís Proença<sup>1273</sup>, Ibrahim Qattee<sup>1274</sup>,



Zahiruddin Quazi Syed<sup>417</sup>, Navid Rabiee<sup>1275,1276</sup>, Amir Radfar<sup>1277</sup>, Raghu Anekal Radhakrishnan<sup>1126</sup>, Venkatraman Radhakrishnan<sup>1278</sup>, Ata Rafiee<sup>1279</sup>, Alberto Raggi<sup>953</sup>, Pankaja Raghav Raghav<sup>293</sup>, Fakher Rahim<sup>1280</sup>, Majid Rahimi<sup>1281</sup>, Vafa Rahimi-Movaghar<sup>621</sup>, Azizur Rahman<sup>1282</sup>, Md Obaidur Rahman<sup>1283,1284</sup>, Mohammad Hifz Ur Rahman<sup>1285</sup>, Mosiur Rahman<sup>688</sup>, Muhammad Aziz Rahman<sup>187,1286</sup>, Amir Masoud Rahmani<sup>1287</sup>, Shayan Rahmani<sup>16,1078</sup>, Vahid Rahmanian<sup>1288</sup>, Diego Raimondo<sup>1289</sup>, Ivano Raimondo<sup>1290,1291</sup>, Sheetal Raj Moolambally<sup>1292</sup>, Prashant Rajput<sup>1293</sup>, Sasa Rajsic<sup>1294</sup>, Sree Bhushan Raju<sup>1295</sup>, Pradhum Ram<sup>1296</sup>, Sheena Ramazanu<sup>1297</sup>, Juwel Rana<sup>1298,1299</sup>, Chhabhi Lal Ranabhat<sup>1300,1301</sup>, Chythra R. Rao<sup>1302</sup>, Sowmya J. Rao<sup>1303</sup>, Temam Beshir Raru<sup>457</sup>, Sina Rashedi<sup>1138,1304</sup>, Mohammad-Mahdi Rashidi<sup>16,17</sup>, Prateek Rastogi<sup>499</sup>, Azad Rasul<sup>1305</sup>, Zubair Ahmed Ratan<sup>230,1306</sup>, Ramin Ravangard<sup>1307</sup>, David Laith Rawaf<sup>1308,1309</sup>, Reza Rawassizadeh<sup>1310</sup>, Rabail Zehra Raza<sup>126</sup>, Iman Razeghian-Jahromi<sup>1311</sup>, Elrashdy Moustafa Mohamed Redwan<sup>1312,1313</sup>, Giuseppe Remuzzi<sup>1242</sup>, Andre M. N. Renzaho<sup>1314,1315</sup>, Bhageerathy Reshmi<sup>798,1316</sup>, Nazila Rezaei<sup>16</sup>, Negar Rezaei<sup>16,939</sup>, Nima Rezaei<sup>37,1317</sup>, Zahed Rezaei<sup>1318</sup>, Mohsen Rezaeian<sup>1319</sup>, Abanoub Riad<sup>1320,1321</sup>, Mavra A. Riaz<sup>1322</sup>, Muhammad Riaz<sup>1323</sup>, Antonio Luiz P. Ribeiro<sup>354,1324</sup>, Daniel Cury Ribeiro<sup>1325</sup>, Daniela Ribeiro<sup>586,1326</sup>, Tércia Moreira Ribeiro da Silva<sup>1327</sup>, Jennifer Rickard<sup>1328,1329</sup>, Mónica Rodrigues<sup>1330</sup>, Jefferson Antonio Buendia Rodriguez<sup>1331,1332</sup>, Leonardo Roeber<sup>1333</sup>, Esperanza Romero-Rodríguez<sup>1334</sup>, Michele Romoli<sup>1335</sup>, Luca Ronfani<sup>1075</sup>, Betty Roosierhermatie<sup>1212</sup>, Victor Daniel Rosenthal<sup>1336</sup>, Morteza Rostamian<sup>1337</sup>, Bedanta Roy<sup>1338</sup>, Enrico Rubagotti<sup>1339,1340</sup>, Susan Fred Rumisha<sup>1341,1342</sup>, Godfrey M. Rwegerera<sup>1112</sup>, Manjula S<sup>1343</sup>, Chandan S. N<sup>1343</sup>, Aly M. A. Saad<sup>1344</sup>, Michela Sabbatucci<sup>1345,1346</sup>, Maha Mohamed Saber-Ayad<sup>43,1347</sup>, Siamak Sabour<sup>82</sup>, Simona Sacco<sup>1348</sup>, Perminder S. Sachdev<sup>1349,1350</sup>, Rajesh Sachdeva<sup>1351,1352</sup>, Basema Saddik<sup>1353</sup>, Erfan Sadeghi<sup>1354</sup>, Malihe Sadeghi<sup>1355</sup>, Masoumeh Sadeghi<sup>1356</sup>, Saeid Sadeghian<sup>1357</sup>, Mohammad Reza Saeb<sup>1358</sup>, Umar Saeed<sup>1359,1360</sup>, Sahar Saeedi Moghaddam<sup>16</sup>, Muhammad Aamir Safdar Safdar<sup>1361</sup>, Mahdi Safdarian<sup>1362,1363</sup>, Sher Zaman Safi<sup>1364,1365</sup>, Rajesh Sagar<sup>1366</sup>, Dominic Sagoe<sup>1367</sup>, Amirhossein Sahebkar<sup>1368,1369</sup>, Harihar Sahoo<sup>1370</sup>, Mohammad Ali Sahraian<sup>532</sup>, K. M. Saif-Ur-Rahman<sup>1371</sup>, Mirza Rizwan Sajid<sup>1372</sup>, Sateesh Sakhamuri<sup>1373,1374</sup>, Rehab Salah<sup>1375,1376</sup>, Saina Salahi<sup>1377</sup>, Sarvenaz Salahi<sup>811,1378</sup>, Nasir Salam<sup>1379</sup>, Payman Salamat<sup>621</sup>, Marwa Rashad Salem<sup>1380</sup>, Hossein Samadi Kafil<sup>1381</sup>, Yoseph Leonardo Samodra<sup>1382</sup>, Abdallah M. Samy<sup>1383,1384</sup>, Juan Sanabria<sup>20,1385</sup>, Francesco Sanmarchi<sup>637</sup>, Itamar S. Santos<sup>313,644</sup>, Milena M. Santric-Milicevic<sup>753,1386</sup>, Bruno Piassi Sao Jose<sup>1387</sup>, Muhammad Arif Nadeem Saqib<sup>1388,1389</sup>, Sivan Yegnanarayana Iyer Saraswathy<sup>1390</sup>, Yaser Sarikhani<sup>616,1391</sup>, Rakesh Kumar Saroj<sup>1392</sup>, Nizal Sarrafzadegan<sup>400,1393</sup>, Arash Sarveazad<sup>1394</sup>, Brijesh Sathian<sup>102,1395</sup>, Thirunavukkarasu Sathish<sup>1396</sup>, Maheswar Satpathy<sup>1397,1398</sup>, Davide Sattin<sup>1399</sup>, Monika Sawhney<sup>1400</sup>, Ganesh Kumar Saya<sup>1401</sup>, Nicolas Sayegh<sup>1402</sup>, Nikolaos Scarmeas<sup>1403,1404</sup>, Markus P. Schlaich<sup>1405,1406</sup>, Winfried Schlee<sup>1407</sup>, Ione Jayce Ceola Schneider<sup>1408</sup>, David C. Schwebel<sup>1409</sup>, Abdul-Aziz Seidu<sup>1410</sup>, Subramanian Senthilkumaran<sup>1411</sup>, Dragos Serban<sup>1134,1412</sup>, Edson Serván-Mori<sup>114</sup>, SeyedAhmad SeyedAlinaghi<sup>1413</sup>, Allen Seylani<sup>1414</sup>, Melika Shafeghat<sup>671</sup>, Zahra Shaghaghhi<sup>1415</sup>, Syed Mahboob Shah<sup>91,1416</sup>, Saeed Shahabi<sup>616</sup>, Ataollah Shahbani<sup>1417</sup>, Amira A. Shaheen<sup>1418</sup>, Fariba Shahraki-Sanavi<sup>860</sup>, Hamid R. Shahsavari<sup>1419</sup>, Masood Ali Shaikh<sup>1420</sup>, KS Shaji<sup>1421</sup>, Reza Shakaib<sup>1422</sup>, Ali S. Shalash<sup>204</sup>, Mohd Shanawaz<sup>1423</sup>, Mequannent Melaku Sharew<sup>1424</sup>, Nigussie Tadesse Sharew<sup>1425,1426</sup>, Azam Sharifi<sup>1427</sup>, Sakineh Sharifian<sup>1428</sup>, Javad Sharifi-Rad<sup>1429</sup>, Purva Sharma<sup>1430</sup>, Saurab Sharma<sup>1431,1432</sup>, Vishal Sharma<sup>1433</sup>, Bereket Beyene Shashamo<sup>117</sup>, Amin Amin Shavandi<sup>1434</sup>, Maryam Shayan<sup>1435,1436</sup>, Blerta Shehaj<sup>1437,1438</sup>, Aziz Sheikh<sup>1439,1440</sup>, Rahim Ali Sheikh<sup>1441</sup>, Abbas Sheikhtaheri<sup>1442</sup>, Shashank Shekhar<sup>1443</sup>, Adithi Shetty<sup>1444</sup>, B. Suresh Kumar Shetty<sup>499</sup>, Jeevan K. Shetty<sup>1445</sup>, Pavanchand H. Shetty<sup>499</sup>, Peilin Shi<sup>1446</sup>, Yi Shi<sup>1447</sup>, Amir Shiani<sup>1448</sup>, Mika Shigematsu<sup>1449</sup>, Jae Il Shin<sup>1450</sup>, Rahman Shiri<sup>1451</sup>, maryam Shirvani Shiri<sup>1452</sup>, Kawkab Shishani<sup>1453</sup>, K. M. Shivakumar<sup>1454</sup>, Velizar Shivarov<sup>1455,1456</sup>, Parnian Shobeiri<sup>1066,1457</sup>, Seyed Afshin Shorofi<sup>1458,1459</sup>, Dhan Bahadur Dhan Shrestha<sup>1460</sup>, Sunil Shrestha<sup>1461</sup>, Kanwar Hamza Shuja<sup>1462</sup>, Kerem Shuval<sup>1463</sup>, Inga Dora Sigfusdottir<sup>1464,1465</sup>, Luís Manuel Lopes Rodrigues Silva<sup>1466,1467</sup>, Ali Reza Sima<sup>186,1468</sup>, Wudneh Simegn<sup>1469</sup>, Biagio Simonetti<sup>430,1470</sup>, Ehsan Sinaei<sup>1471</sup>, Anjali Singal<sup>1472</sup>, Ambrish Singh<sup>190</sup>, Balbir Bagicha Singh<sup>1473,1474</sup>, Garima Singh<sup>1475,1476</sup>, Harpreet Singh<sup>1477</sup>, Jasvinder A. Singh<sup>1478,1479</sup>, Kuldeep Singh<sup>1480</sup>, Narinder Pal Singh<sup>1481</sup>, Paramdeep Singh<sup>1482</sup>, Surjit Singh<sup>1483</sup>, Robert Sinto<sup>1484,1485</sup>, Md Shahjahan Siraj<sup>1486</sup>, Søren T. Skou<sup>1487,1488</sup>, Valentin Yurievich Skryabin<sup>1489,1490</sup>, Anna Aleksandrovna Skryabina<sup>1491</sup>, David A. Sleet<sup>553,1492</sup>, Bogdan Socea<sup>1134,1493</sup>, Yonatan Solomon<sup>1494</sup>, Mohammad Sadegh Soltani-Zangbar<sup>776</sup>, Ranjani Somayaji<sup>1495,1496</sup>, Suhang Song<sup>1497</sup>, Yimeng Song<sup>308</sup>, Prashant Sood<sup>1498</sup>, Joan B. Soriano<sup>1499,1500</sup>, Raúl A. R. C. Sousa<sup>1501</sup>, Ireneous N. Soyiri<sup>1502</sup>, Chandrashekhar T. Sreeramareddy<sup>1503</sup>, Antonina V. Starodubova<sup>1504,1505</sup>, Nicholas Steel<sup>1506,1507</sup>, Simona Catalina Stefan<sup>1508</sup>, Dan J. Stein<sup>1509</sup>, Paschalis Steiropoulos<sup>1139</sup>, Jacqueline H. Stephens<sup>960</sup>, Mark A. Stokes<sup>1510</sup>, Konstantinos Stroumpoulis<sup>1511</sup>, Parminder S. Suchdev<sup>1512</sup>, Muhammad Suleman<sup>1513</sup>, Abida Sultana<sup>1514,1515</sup>, Jing Sun<sup>1516,1517</sup>, Johan Sundström<sup>940,1518</sup>, Mindy D. Szeto<sup>460</sup>, Miklós Szócska<sup>1519</sup>, Seidamir Pasha Tabaeian<sup>1520</sup>, Rafael Tabarés-Seisdedos<sup>1521,1522</sup>, Seyed-Amir Tabatabaeizadeh<sup>1523</sup>, Shima Tabatabai<sup>1524</sup>, Karen M. Tabb<sup>1525</sup>, Mohammad Tabish<sup>1226</sup>, Takahiro Tabuchi<sup>1526</sup>, Santosh Kumar Tadakamadla<sup>1527</sup>, Majid Taheri<sup>1528,1529</sup>, Yasaman Taheri Abkenar<sup>1530</sup>, Moslem Taheri Soodejani<sup>1531</sup>

Iman M. Talaat<sup>43,1532</sup>, Mircea Tampa<sup>1533,1534</sup>, Ker-Kan Tan<sup>1535</sup>, Ingan Ukur Tarigan<sup>1212</sup>, Elvis Enowbeyang Tarkang<sup>170,1536</sup>, Nathan Y. Tat<sup>1537,1538</sup>, Vivian Y. Tat<sup>1539</sup>, Yibekal Manaye Tefera<sup>1545</sup>, Hadi Tehrani<sup>1540</sup>, Worku Animaw Temesgen<sup>1541</sup>, Mohamad-Hani Tamsah<sup>155</sup>, Masayuki Teramoto<sup>1542</sup>, Getaye Worku Tesema<sup>1543</sup>, Azene Tesfaye<sup>100</sup>, Pugazhenthann Thangaraju<sup>1544</sup>, Kavumpurathu Raman Thankappan<sup>1545</sup>, Rekha Thapar<sup>805</sup>, Friedrich Thienemann<sup>1546,1547</sup>, Nihal Thomas<sup>1548</sup>, Nikhil Kenny Thomas<sup>1549</sup>, James Douglas Thornton<sup>1550,1551</sup>, Ales Tichopad<sup>1552</sup>, Jansje Henny Vera Ticoalu<sup>1553</sup>, Marius Belmondo Tincho<sup>1554,1555</sup>, Marcello Tonelli<sup>1495</sup>, Roman Topor-Madry<sup>1556,1557</sup>, Marcos Roberto Tovani-Palone<sup>1558,1559</sup>, Mai Thi Ngoc Tran<sup>1560,1561</sup>, Manjari Tripathi<sup>1562</sup>, Niharika Tripathi<sup>1563</sup>, Jaya Prasad Tripathy<sup>1564</sup>, Thomas Clement Truelsen<sup>1565</sup>, Nikolaos Tsilimparis<sup>1566</sup>, Lorainne Tudor Car<sup>1567</sup>, Derara Girma Tufa<sup>1568</sup>, Biruk Shalmeno Tusa<sup>1569</sup>, Deinzel Robles Uezono<sup>1570</sup>, Saif Ullah<sup>1571</sup>, Sana Ullah<sup>1572,1573</sup>, Srikanth Umakanthan<sup>1574</sup>, Krishna Kishore Umapathi<sup>1575</sup>, Chukwuma David Umeokunkwo<sup>1576</sup>, Brigid Unim<sup>1577</sup>, Bhaskaran Unnikrishnan<sup>1578</sup>, Era Upadhyay<sup>920</sup>, Marco Vacante<sup>334</sup>, Alireza Vakilian<sup>1579,1580</sup>, Sahel Valadan Tahbaz<sup>1581,1582</sup>, Pascual R. Valdez<sup>1583,1584</sup>, Rohollah Valizadeh<sup>1585</sup>, Jef Van den Eynde<sup>1586</sup>, Constantine Vardavas<sup>1587</sup>, Ravi Prasad Varma<sup>1588</sup>, Priya Vart<sup>1589</sup>, Santosh Varughese<sup>1590</sup>, Tommi Juhani Vasankari<sup>1591,1592</sup>, Milena Vasic<sup>1593</sup>, Siavash Vaziri<sup>1594</sup>, Narayanaswamy Venketasubramanian<sup>1595,1596</sup>, Madhur Verma<sup>1597</sup>, Massimiliano Veroux<sup>1598</sup>, Dominique Vervoort<sup>1599</sup>, Jorge Hugo Villafañe<sup>1235</sup>, Francesco S. Violante<sup>1600,1601</sup>, Prashant M. Vishwanath<sup>1602</sup>, Vasily Vlassov<sup>1603</sup>, Bay Vo<sup>1604</sup>, Victor Volovic<sup>1605,1606</sup>, Linh Gia Vu<sup>1607,1608</sup>, Yanzhong Wang<sup>1609</sup>, Yu Wang<sup>1610</sup>, Yuan-Pang Wang<sup>365</sup>, Ziyue Wang<sup>1611,1612</sup>, Paul Ward<sup>1613</sup>, Abdul Waris<sup>1614</sup>, Melissa Y. Wei<sup>1615,1616</sup>, Yi Feng Wen<sup>1617</sup>, Ronny Westerman<sup>1618</sup>, Taweewat Wiangkham<sup>1619</sup>, Nuwan Darshana Wickramasinghe<sup>1620</sup>, Abay Tadesse Woday<sup>335</sup>, Daniel Sisay Wolde Tsadik<sup>1621</sup>, Melat Woldemariam<sup>100</sup>, Charles D. A. Wolfe<sup>1609,1622</sup>, Anthony D. Woolf<sup>1623,1624</sup>, Ai-Min Wu<sup>1625</sup>, Gedif Ashebir Wubetie<sup>1626</sup>, Ratna D. W. I. Wulandari<sup>1627</sup>, Hong Xiao<sup>1628,1629</sup>, Yang Xie<sup>1630</sup>, Hanzhang Xu<sup>1631</sup>, Suowen Xu<sup>1632,1633</sup>, Xiaoyue Xu<sup>562,1634</sup>, Sajad Yaghoubi<sup>1635</sup>, Gahin Abdulraheem Tayib Yahya Yahya<sup>90</sup>, Seyed Hossein Yahyazadeh Jabbari<sup>1581</sup>, Tomohide Yamada<sup>1636</sup>, Kazumasa Yamagishi<sup>1637,1638</sup>, Lin Yang<sup>1639,1640</sup>, Yuichiro Yano<sup>1641</sup>, Sanni Yaya<sup>1642,1643</sup>, Fereshteh Yazdanpanah<sup>1644,1645</sup>, Pengpeng Ye<sup>1646,1647</sup>, Siyan Yi<sup>895,1648</sup>, Arzu Yiğit<sup>1649</sup>, Vahit Yiğit<sup>1649</sup>, Paul Yip<sup>1650,1651</sup>, Eshetu Yisihak<sup>464</sup>, Dong Keon Yon<sup>1652</sup>, Naohiro Yonemoto<sup>1653,1654</sup>, Yuyi You<sup>830,1655</sup>, Mustafa Z. Younis<sup>1656,1657</sup>, Zabihollah Yousefi<sup>1658</sup>, Taraneh Yousefinezhadi<sup>1659</sup>, Hossein Yusefi<sup>1660</sup>, Siddhesh Zadey<sup>1661</sup>, Vesna Zadnik<sup>1662</sup>, Farbod Zahedi Tajrishi<sup>1663</sup>, Mazyar Zahir<sup>1664</sup>, Farima Zakaryaei<sup>1665</sup>, Nazar Zaki<sup>1666</sup>, Sojib Bin Zaman<sup>1667</sup>, Nelson Zamora<sup>1668</sup>, Alireza Zangeneh<sup>234</sup>, Moein Zangiabadian<sup>1078</sup>, Iman Zare<sup>1669</sup>, Ali Zare Dehnavi<sup>1670</sup>, Kourosh Zarea<sup>1671</sup>, Zahra Zareshahrabadi<sup>1159</sup>, Mikhail Sergeevich Zastrozhin<sup>1672,1673</sup>, Zelalem Banjaw Zegeye<sup>466</sup>, Jean-David Zeitoun<sup>1674,1675</sup>, Getachew Assefa Zenebe<sup>1676</sup>, Nejimu Biza Zepro<sup>1677,1678</sup>, Jianrong Zhang<sup>1679,1680</sup>, Zhi-Jiang Zhang<sup>1681</sup>, Xiu-Ju George Zhao<sup>1682,1683</sup>, Chenwen Zhong<sup>740</sup>, Boback Ziaieian<sup>1684</sup>, Mohammad Zoladl<sup>1685</sup>, Liesl J. Zuhlke<sup>1546,1686</sup>, Alimuddin Zumla<sup>1687,1688</sup> & Yves Miel H. Zuniga<sup>1689,1690</sup>

<sup>1</sup>CRONICAS Center of Excellence in Chronic Diseases, Universidad Peruana Cayetano Heredia, Lima, Peru. <sup>2</sup>School of Medicine, Universidad Peruana Cayetano Heredia, Lima, Peru. <sup>3</sup>Sydney School of Public Health, Faculty of Medicine and Health, University of Sydney, Sydney, NSW, Australia. <sup>4</sup>Faculty of Epidemiology and Population Health, London School of Hygiene & Tropical Medicine, London, UK. <sup>5</sup>Division of Tropical and Humanitarian Medicine, University of Geneva, Geneva, Switzerland. <sup>6</sup>Department of Cardiovascular, Endocrine-metabolic Diseases and Aging, Istituto Superiore di Sanità, Rome, Italy. <sup>7</sup>Division of Endocrinology, Diabetology, Nutrition and Therapeutic Patient Education, Department of Medicine, Geneva University Hospitals, Geneva, Switzerland. <sup>8</sup>Department of Medicine and Department of Health Research, Evidence, and Impact, McMaster University, Hamilton, ON, Canada. <sup>9</sup>Research Institute of St. Joe's, Hamilton, ON, Canada. <sup>10</sup>Population Health Research Institute, Hamilton, Canada. <sup>11</sup>Geneva University Hospitals, Geneva, Switzerland. <sup>12</sup>Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>13</sup>Department of Nutrition and Dietetics, Jimma University, Jimma, Ethiopia. <sup>14</sup>Anesthesiology Department, Dilla University, Addis Ababa, Ethiopia. <sup>15</sup>Department of Juridical and Economic Studies, La Sapienza University, Rome, Italy. <sup>16</sup>Non-Communicable Diseases Research Center, Tehran University of Medical Sciences, Tehran, Iran. <sup>17</sup>Social Determinants of Health Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>18</sup>Advanced Diagnostic and Interventional Radiology Research Center, Tehran University of Medical Sciences, Tehran, Iran. <sup>19</sup>Faculty of Science, Botany and Microbiology Department, Suez Canal University, Ismailia, Egypt. <sup>20</sup>Department of Surgery, Marshall University, Huntington, WV, USA. <sup>21</sup>Tropical Medicine Department, Tanta University, Tanta, Egypt. <sup>22</sup>Department of Internal Medicine, Baylor College of Medicine, Houston, FL, USA. <sup>23</sup>Department of Epidemiology, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>24</sup>The Institute of Pharmaceutical Sciences (TIPS), Tehran University of Medical Sciences, Tehran, Iran. <sup>25</sup>School of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran. <sup>26</sup>Department of Medicine, University of Sétif Algeria, Sétif, Algeria. <sup>27</sup>Community and Maternity Nursing Unit, University of Duhok, Duhok, Iraq. <sup>28</sup>School of Planning, University of Waterloo, Waterloo, ON, Canada. <sup>29</sup>Department of Emergency and Critical Care Nursing, Haramaya University, Harar, Ethiopia. <sup>30</sup>Department of Medical Anatomy, Arba Minch University, Arba Minch, Ethiopia. <sup>31</sup>Department of Neurosurgery, University of Southern California, Los Angeles, CA, USA. <sup>32</sup>Keck School of Medicine, University of Southern California, Los Angeles, CA, USA. <sup>33</sup>Department of Public Health Sciences, Pennsylvania State University, Hershey, PA, USA. <sup>34</sup>Biocomplexity Institute, Virginia Tech, Blacksburg, VA, USA. <sup>35</sup>Laboratory Technology Sciences Department, Yasuj University of Medical Sciences, Yasuj, Iran. <sup>36</sup>Department of Family and Community Health, University of Health and Allied Sciences, Ho, Ghana. <sup>37</sup>Research Center for Immunodeficiencies, Tehran University of Medical Sciences, Tehran, Iran. <sup>38</sup>Department of Biosciences and Nutrition, Karolinska University Hospital, Huddinge, Sweden. <sup>39</sup>Department of Pediatric Dentistry, Federal University of Minas Gerais, Belo Horizonte, Brazil. <sup>40</sup>Department of Research, Philippine Institute for Development Studies, Quezon City, Philippines. <sup>41</sup>Department of Biomedical Science, Arba minch, Ethiopia. <sup>42</sup>Department of Banking and Finance, University of Human Development, Sulaymaniyah, Iraq. <sup>43</sup>Clinical Sciences Department, University of Sharjah, Sharjah, United Arab Emirates. <sup>44</sup>Department of Surgery, Alfaisal University, Riyadh, Saudi Arabia. <sup>45</sup>College of Graduate Health Sciences, University of Tennessee, Memphis, TN, USA.

<sup>46</sup>Department of Disease Control, London School of Hygiene and Tropical Medicine, London, UK. <sup>47</sup>Department of Clinical Research, Clinical Research Institute of Benin (IRCB), Abomey-Calavi, Benin. <sup>48</sup>Department of Clinical Medicine, American University of Antigua, Osbourn, Antigua and Barbuda. <sup>49</sup>FIU Robert Stempel College of Public Health and Social Work, Florida International University, Miami, FL, USA. <sup>50</sup>Department of Anesthesia and Critical Care, Debre Tabor University, Debre Tabor, Ethiopia. <sup>51</sup>Department of Clinical and Psychosocial Epidemiology, University of Groningen, Groningen, Netherlands. <sup>52</sup>Centre for Social Research in Health, University of New South Wales, Sydney, NSW, Australia. <sup>53</sup>Quality and Systems Performance Unit, Cancer Institute NSW, Sydney, NSW, Australia. <sup>54</sup>Department of Internal Medicine, Catholic University of Rome, Rome, Italy. <sup>55</sup>Department of Health Promotion, Education and Behavior, University of South Carolina, Columbia, SC, USA. <sup>56</sup>Department of Public Health, University of KwaZulu-Natal, Durban, South Africa. <sup>57</sup>Department of Obstetrics and Gynecology, University of Texas, Galveston, TX, USA. <sup>58</sup>Slum and Rural Health Initiative Research Academy, Slum and Rural Health Initiative, Ibadan, Nigeria. <sup>59</sup>Department of Physiotherapy, University of Ibadan, Ibadan, Nigeria. <sup>60</sup>DSI-NRF Centre of Excellence for Epidemiological Modelling and Analysis (SACEMA), Stellenbosch University, Stellenbosch, South Africa. <sup>61</sup>Division of Epidemiology and Biostatistics, Stellenbosch University, Cape Town, South Africa. <sup>62</sup>Department of Community Health and Epidemiology, University of Saskatchewan, Saskatoon, SK, Canada. <sup>63</sup>Department of Public Health, Federal Ministry of Health, Abuja, Nigeria. <sup>64</sup>Faculty of Medicine, Universitas Padjadjaran (Padjadjaran University), Bandung, Indonesia. <sup>65</sup>Department of Community Medicine, University of Ibadan, Ibadan, Nigeria. <sup>66</sup>Department of Life Sciences, University of Management and Technology, Lahore, Pakistan. <sup>67</sup>Department of Community Medicine, King Edward Memorial Hospital, Lahore, Pakistan. <sup>68</sup>Department of Public Health, Public Health Institute, Lahore, Pakistan. <sup>69</sup>Department of Family Medicine, McMaster University, Hamilton, ON, Canada. <sup>70</sup>Department of Physiology, Government Medical College, Greater Noida, India. <sup>71</sup>Department of Cardiovascular Medicine, Mayo Clinic, Scottsdale, AZ, USA. <sup>72</sup>Trivedi School of Biosciences, Ashoka University, Sonapat, India. <sup>73</sup>Section of General Internal Medicine, Baylor College of Medicine, Houston, TX, USA. <sup>74</sup>Health Policy and Population Research Center (CIPPS), National Autonomous University of Mexico, Mexico City, Mexico. <sup>75</sup>School of Public Health, University of Technology Sydney, Sydney, NSW, Australia. <sup>76</sup>Department of Medical Biochemistry, Shaqra University, Shaqra, Saudi Arabia. <sup>77</sup>Department of Health and Biological Sciences, Abasyn University, Peshawar, Pakistan. <sup>78</sup>Department of Natural Sciences, Labanese American University, Beirut, Lebanon. <sup>79</sup>Faculty of Pharmacy, MAHSA University, Kuala Langat, Malaysia. <sup>80</sup>Department of Epidemiology and Health Statistics, Southeast University, Nanjing, China. <sup>81</sup>Department of Epidemiology and Biostatistics, Shahrekord University of Medical Sciences, Shahrekord, Iran. <sup>82</sup>Department of Epidemiology, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>83</sup>School of Public Health, Imperial College London, London, UK. <sup>84</sup>School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>85</sup>School of Pharmacy, Monash University, Bandar Sunway, Malaysia. <sup>86</sup>Department of Pharmacy, Qauid I Azam University Islamabad, Islamabad, Pakistan. <sup>87</sup>Institute of Endemic Diseases, University of Khartoum, Khartoum, Sudan. <sup>88</sup>Swiss Tropical and Public Health Institute, University of Basel, Basel, Switzerland. <sup>89</sup>Department of Biosciences, COMSATS Institute of Information Technology, Islamabad, Pakistan. <sup>90</sup>Department of Pathology and Microbiology, University of Duhok, Duhok, Iraq. <sup>91</sup>Institute of Public Health, United Arab Emirates University, Al Ain, United Arab Emirates. <sup>92</sup>Department of Orthopedics, Yenepoya Medical College, Mangalore, India. <sup>93</sup>Department of Food and Nutrition Policy and Planning Research, National Institute of Nutrition, Tehran, Iran. <sup>94</sup>National Nutrition and Food Technology Research Institute, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>95</sup>Faculty of Medicine and Public Health, Jenderal Soedirman University, Purwokerto, Indonesia. <sup>96</sup>Trauma Research Center, Shiraz University of Medical Sciences, Shiraz, Iran. <sup>97</sup>Medical Laboratory Sciences, Debre Markos University, Debre Markos, Ethiopia. <sup>98</sup>Functional Neurosurgery Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>99</sup>USERN Office, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>100</sup>Department of Medical Laboratory Sciences, Arba Minch University, Arba Minch, Ethiopia. <sup>101</sup>Department of Epidemiology and Biostatistics, University of South Carolina, Columbia, SC, USA. <sup>102</sup>Geriatric and Long Term Care Department, Hamad Medical Corporation, Doha, Qatar. <sup>103</sup>Rumailah Hospital, Hamad Medical Corporation, Doha, Qatar. <sup>104</sup>Evidence-Based Practice Center, Mayo Clinic Foundation for Medical Education and Research, Rochester, MN, USA. <sup>105</sup>John T. Milliken Department of Internal Medicine, Washington University in St. Louis, St. Louis, MO, USA. <sup>106</sup>Clinical Epidemiology Center, US Department of Veterans Affairs (VA), St Louis, MO, USA. <sup>107</sup>Murdoch Business School, Murdoch University, Perth, WA, Australia. <sup>108</sup>Department of Bioengineering, George Mason University, Fairfax, VA, USA. <sup>109</sup>Department of Public Health, Asian University for Women, Chittagong, Bangladesh. <sup>110</sup>Asian University for Women, McGill University, Chittagong, Bangladesh. <sup>111</sup>Department of Community Health and Epidemiology, Dalhousie University, Halifax, NS, Canada. <sup>112</sup>Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia. <sup>113</sup>Health Information Management and Technology Department, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia. <sup>114</sup>Center for Health System Research, National Institute of Public Health, Cuernavaca, Mexico. <sup>115</sup>Department of Public Health, Harar Health Science College, Harar, Ethiopia. <sup>116</sup>Department of Public Health, Rift Valley University, Harar, Ethiopia. <sup>117</sup>Department of Nursing, Arba Minch University, Arba Minch, Ethiopia. <sup>118</sup>Faculty of Health Sciences, Curtin University, Perth, WA, Australia. <sup>119</sup>Wesfarmers Centre of Vaccines and Infectious Diseases, Telethon Kids Institute, Perth, WA, Australia. <sup>120</sup>Department of Bacteriology, Immunology, and Mycology, Suez Canal University, Ismailia, Egypt. <sup>121</sup>Department of Cardiac Sciences, King Saud University, Riyadh, Saudi Arabia. <sup>122</sup>Epidemiology and Population Health, Johns Hopkins University, Baltimore, MD, USA. <sup>123</sup>Department of Health Services and Hospital Administration, King Abdulaziz University, Jeddah, Saudi Arabia. <sup>124</sup>Health Economics Research Group, King Abdulaziz University, Jeddah, Saudi Arabia. <sup>125</sup>Institute of Health Research, University of Health and Allied Sciences, Ho, Ghana. <sup>126</sup>Department of Biological Sciences, National University of Medical Sciences (NUMS), Rawalpindi, Pakistan. <sup>127</sup>Department of Biotechnology, Qauid-i-Azam University, Islamabad, Pakistan. <sup>128</sup>Member, Pakistan Academy of Sciences, Islamabad, Pakistan. <sup>129</sup>Centre for Biotechnology and Microbiology, University of Swat, Swat, Pakistan. <sup>130</sup>Department of Food Hygiene, Amol University of Special Modern Technologies, Amol, Iran. <sup>131</sup>Department of Pathophysiology and Transplantation, Università degli Studi di Milano (University of Milan), Milan, Italy. <sup>132</sup>Cystic Fibrosis Center, Fondazione IRCCS Ospedale Maggiore Policlinico (IRCCS “Ca’ Granda Maggiore Policlinico” Hospital Foundation), Milan, Italy. <sup>133</sup>School of Public Health and Preventive Medicine, Monash University, Melbourne, VIC, Australia. <sup>134</sup>Pars Advanced and Minimally Invasive Medical Manners Research Center, Iran University of Medical Sciences, Tehran, Iran. <sup>135</sup>School of Computing, Mathematics and Engineering, Charles Sturt University, Wagga Wagga, NSW, Australia. <sup>136</sup>Information and Communication Technology Research Lab, ENSTA Bretagne, Brest, France. <sup>137</sup>Department of Health Policy and Management, Kuwait University, Kuwait, Kuwait. <sup>138</sup>International Centre for Casemix and Clinical Coding, National University of Malaysia, Bandar Tun Razak, Malaysia. <sup>139</sup>Bordeaux School of Public Health, University of Bordeaux, Bordeaux, France. <sup>140</sup>Public Health and Tropical Medicine Department, Jazan University, Jazan, Saudi Arabia. <sup>141</sup>Jazan University, Jazan, Saudi Arabia. <sup>142</sup>College of Dental Medicine, Qatar University, Doha, Qatar. <sup>143</sup>College of Medicine, Alfaisal University, Riyadh, Saudi Arabia. <sup>144</sup>Ministry of Health, Riyadh, Saudi Arabia. <sup>145</sup>Department of Physical Education, Qatar University, Doha, Qatar. <sup>146</sup>Department of Rehabilitation Sciences and Physical Therapy, Jordan University of Science and Technology, Irbid, Jordan. <sup>147</sup>Research Program of Epidemiology and Public Health, Pompeu Fabra University, Barcelona, Spain. <sup>148</sup>Department of Experimental and Health Sciences, Biomedical Research Networking Center in Epidemiology and Public Health (CiberESP), Madrid, Spain. <sup>149</sup>Department of Surgery, University of São Paulo, São Paulo, Brazil. <sup>150</sup>Department of Community Medicine, King Abdulaziz University, Jeddah, Saudi Arabia. <sup>151</sup>Department of Surgery, Kuwait University, Kuwait, Kuwait. <sup>152</sup>Chairman of Surgery, Ministry of Health, Kuwait, Kuwait. <sup>153</sup>Applied Science Research Center, Applied Science Private University, Amman, Jordan. <sup>154</sup>Migration Health Division, International Organization for Migration, Amman, Jordan. <sup>155</sup>Pediatric Intensive Care Unit, King Saud University, Riyadh, Saudi Arabia. <sup>156</sup>Research Group in Hospital Management and Health



Policies, Universidad de la Costa (University of the Coast), Barranquilla, Colombia. <sup>157</sup>Research Group in Health Economics, University of Cartagena, Cartagena, Colombia. <sup>158</sup>Department of Economic Sciences, Universidad de la Costa (University of the Coast), Barranquilla, Colombia. <sup>159</sup>National Health Observatory, National Institute of Health, Bogota, Colombia. <sup>160</sup>School of Medicine, University of Adelaide, Adelaide, SA, Australia. <sup>161</sup>College of Medicine and Health Science, Bahir Dar University, Bahir Dar, Ethiopia. <sup>162</sup>Department of Internal Medicine, Jimma University, Jimma, Ethiopia. <sup>163</sup>School of Graduate Studies, Lingnan University, Hong Kong, China. <sup>164</sup>Public Health Department, Cairo University, Cairo, Egypt. <sup>165</sup>Department of Applied Science and Technology, University of California Berkeley, Berkeley, CA, USA. <sup>166</sup>Chemical Engineering Department, Tarbiat Modares University, Tehran, Iran. <sup>167</sup>Public Health Laboratories, National Institute of Health, Islamabad, Pakistan. <sup>168</sup>Department of Environmental Health, Kerman University of Medical Sciences, Kerman, Iran. <sup>169</sup>Medicine, Quran and Hadith Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran. <sup>170</sup>Department of Population and Behavioural Sciences, University of Health and Allied Sciences, Ho, Ghana. <sup>171</sup>Department of Global Health, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. <sup>172</sup>Department of Global Health and Infectious Diseases, Kumasi Center for Collaborative Research in Tropical Medicine, Kumasi, Ghana. <sup>173</sup>Maternal and Child Wellbeing, African Population and Health Research Center, Nairobi, Kenya. <sup>174</sup>Department of Medicine, University of Jos, Jos, Nigeria. <sup>175</sup>Department of Internal Medicine, Jos University Teaching Hospital, Jos, Nigeria. <sup>176</sup>Department of Health Promotion, Bahir Dar University, Bahir Dar, Ethiopia. <sup>177</sup>Department of Pneumology Service, Autonomous University of Madrid, Madrid, Spain. <sup>178</sup>Department of Medicine, Autonomous University of Madrid, Madrid, Spain. <sup>179</sup>Faculty of Pharmacy, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania. <sup>180</sup>Centre for Sensorimotor Performance, The University of Queensland, Brisbane, QLD, Australia. <sup>181</sup>Neurology Department, Royal Brisbane and Women's Hospital, Brisbane, QLD, Australia. <sup>182</sup>Cardiology Department, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania. <sup>183</sup>Department of Statistics and Econometrics, Bucharest University of Economic Studies, Bucharest, Romania. <sup>184</sup>Department of Medicine, University of Thessaly, Volos, Greece. <sup>185</sup>Department of Diabetology, Madras Diabetes Research Foundation, Chennai, India. <sup>186</sup>Digestive Diseases Research Institute, Tehran University of Medical Sciences, Tehran, Iran. <sup>187</sup>School of Nursing and Midwifery, La Trobe University, Melbourne, VIC, Australia. <sup>188</sup>Special Interest Group International Health, Public Health Association of Australia, Canberra, ACT, Australia. <sup>189</sup>Department of Epidemiology and Biostatistics, Zahedan University of Medical Sciences, Zahedan, Iran. <sup>190</sup>Menzies Institute for Medical Research, University of Tasmania, Hobart, TAS, Australia. <sup>191</sup>Agribusiness Study Program, Sebelas Maret University, Surakarta, Indonesia. <sup>192</sup>Department of Medical Laboratory Science, Koforidua Technical University, Koforidua, Ghana. <sup>193</sup>Department of Parasitology, Mazandaran University of Medical Sciences, Sari, Iran. <sup>194</sup>Department of Parasitology, Iranshahr University of Medical Sciences, Iranshahr, Iran. <sup>195</sup>Department of Pathology, Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia. <sup>196</sup>School of Dentistry and Medical Sciences, Charles Sturt University, Orange, NSW, Australia. <sup>197</sup>Department of Science and Mathematics, The American College of Greece, Athens, Greece. <sup>198</sup>Department of Social Sciences, Bereken College of Education, Bereken, Ghana. <sup>199</sup>School of Public Health, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. <sup>200</sup>Health Management and Economics Research Center, Iran University of Medical Sciences, Tehran, Iran. <sup>201</sup>Social Determinants of Health Research Center, Birjand University of Medical Sciences, Birjand, Iran. <sup>202</sup>College of Art and Science, Ottawa University, Surprise, AZ, USA. <sup>203</sup>College of Liberal Arts and Sciences, Arizona State University, Tempe, AZ, USA. <sup>204</sup>Neurology Department, Ain Shams University, Cairo, Egypt. <sup>205</sup>Department of Public Health, Arba Minch University, Arba Minch, Ethiopia. <sup>206</sup>Department of Paediatrics, University of Malaya, Kuala Lumpur, Malaysia. <sup>207</sup>University of Malaya Medical Centre, University of Malaya, Kuala Lumpur, Malaysia. <sup>208</sup>Department of Neurobiology, Care Sciences, and Society, Karolinska Institute, Stockholm, Sweden. <sup>209</sup>School of Health and Social Studies, Dalarna University, Falun, Sweden. <sup>210</sup>Neuroscience and Behavioral Sciences, University of São Paulo, Ribeirão Preto, Brazil. <sup>211</sup>Department of Neuroscience, Glia Institute, Ribeirão Preto, Brazil. <sup>212</sup>Center of Biotechnology and Microbiology, University of Peshawar, Peshawar, Pakistan. <sup>213</sup>Department of Health Sciences, Zayed University, Dubai, United Arab Emirates. <sup>214</sup>Department of Biophysics, Russian Academy of Sciences, Moscow, Russia. <sup>215</sup>Department of Epidemiology, Universitas Airlangga (Airlangga University), Surabaya, Indonesia. <sup>216</sup>Department of Maternal and Child Health, Sultan Qaboos University, Muscat, Oman. <sup>217</sup>Department of Molecular and Cell Biology, University of Cape Town, Cape Town, South Africa. <sup>218</sup>Department of Physiotherapy, University of Sharjah, Sharjah, United Arab Emirates. <sup>219</sup>Community Medicine and Rehabilitation - Physiotherapy Section, Umeå University, Umeå, Sweden. <sup>220</sup>Monitoring Evaluation and Operational Research Project, Abt Associates Nepal, Lalitpur, Nepal. <sup>221</sup>Brigham and Women's Hospital, Harvard University, Boston, MA, USA. <sup>222</sup>Epilepsy Research Center, Shiraz University of Medical Sciences, Shiraz, Iran. <sup>223</sup>Neurology Department, Thomas Jefferson University, Philadelphia, PA, USA. <sup>224</sup>Research Center for Biochemistry and Nutrition in Metabolic Diseases, Kashan University of Medical Sciences, Kashan, Iran. <sup>225</sup>Research Institute of Dental Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>226</sup>National Agency for Strategic Research in Medical Education (SRME), Ministry of Health and Medical Education, Tehran, Iran. <sup>227</sup>Cabrini Research, Cabrini Health, Malvern, VIC, Australia. <sup>228</sup>University Institute of Radiological Sciences and Medical Imaging Technology, The University of Lahore, Lahore, Pakistan. <sup>229</sup>Adelaide School of Nursing, University of Adelaide, Adelaide, SA, Australia. <sup>230</sup>School of Health and Society, University of Wollongong, Wollongong, NSW, Australia. <sup>231</sup>Menzies Centre for Health Policy, University of Sydney, Sydney, NSW, Australia. <sup>232</sup>Department of Toxicology and Pharmacology, Tehran University of Medical Sciences, Tehran, Iran. <sup>233</sup>Birjand University of Medical Sciences, Birjand University of Medical Sciences, Birjand, Iran. <sup>234</sup>Social Development and Health Promotion Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>235</sup>Department of Medical Genetics, Umm Al-Qura University, Makkah, Saudi Arabia. <sup>236</sup>Science and Technology Unit, Umm Al-Qura University, Makkah, Saudi Arabia. <sup>237</sup>Department of Immunology, Zanjan University of Medical Sciences, Zanjan, Iran. <sup>238</sup>School of Medicine and Public Health, University of Newcastle, Newcastle, NSW, Australia. <sup>239</sup>Hunter New England Population Health, Wallsend, NSW, Australia. <sup>240</sup>Department of Forensic Medicine, Lumbini Medical College, Palpa, Nepal. <sup>241</sup>Department of Social Welfare, Keimyung University, Daegu, South Korea. <sup>242</sup>Department of Oral and Maxillofacial Surgery, Justus Liebig University of Giessen, Giessen, Germany. <sup>243</sup>Northumbria HealthCare NHS Foundation Trust, Newcastle upon Tyne, UK. <sup>244</sup>School of Business, Leicester, UK. <sup>245</sup>Department of Public Health, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>246</sup>The Judith Lumley Centre, La Trobe University, Melbourne, VIC, Australia. <sup>247</sup>San Martín de Porres University, Lima, Peru. <sup>248</sup>Department of Midwifery, Debre Tabor University, Debre Tabor, Ethiopia. <sup>249</sup>Department of Anatomy, Arba Minch University, Arba Minch, Ethiopia. <sup>250</sup>Department of Immunology and Molecular Biology, University of Gondar, Gondar, Ethiopia. <sup>251</sup>Psychiatry Department, University College Hospital, Ibadan, Ibadan, Nigeria. <sup>252</sup>University College Hospital, Ibadan, Ibadan, Nigeria. <sup>253</sup>Department of Psychiatry, Universidad Autónoma de Madrid (Autonomous University of Madrid), Madrid, Spain. <sup>254</sup>Biomedical Research Networking Center for Mental Health Network (CiberSAM), Institute of Health Carlos III, Madrid, Spain. <sup>255</sup>School of Medicine, Shahrood University of Medical Sciences, Shahrood, Iran. <sup>256</sup>Department of Neurovascular Research, Nested Knowledge, Inc., Saint Paul, MN, USA. <sup>257</sup>Faculty of Medicine, October 6 University, 6th of October City, Egypt. <sup>258</sup>Department of Pharmacology, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>259</sup>Department of Physiotherapy, Manipal Academy of Higher Education, Manipal, India. <sup>260</sup>Department of Medicine, University of Melbourne, Melbourne, VIC, Australia. <sup>261</sup>Gomal Center of Biochemistry and Biotechnology, Gomal University, Dera Ismail Khan, Pakistan. <sup>262</sup>Public Health Risk Sciences Division, Public Health Agency of Canada, Toronto, ON, Canada. <sup>263</sup>Department of Nutritional Sciences, University of Toronto, Toronto, ON, Canada. <sup>264</sup>Department of Forensic Science, Government Institute of Forensic Science, Nagpur, India. <sup>265</sup>Department of Nursing, Saveh University of Medical Sciences, Saveh, Iran. <sup>266</sup>Research School of Population Health, Australian National University, Canberra, ACT, Australia. <sup>267</sup>Health Research Institute, University of Canberra, Canberra, ACT, Australia. <sup>268</sup>School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran. <sup>269</sup>Department of Parasitology, Tarbiat Modares University,



Tehran, Iran. <sup>270</sup>Department of Parasitology, Alborz University of Medical Sciences, Karaj, Iran. <sup>271</sup>University Institute of Public Health, The University of Lahore, Lahore, Pakistan. <sup>272</sup>Centre for Community Medicine, All India Institute of Medical Sciences, New Delhi, India. <sup>273</sup>Center for Clinical Research and Prevention, Bispebjerg University Hospital, Frederiksberg, Denmark. <sup>274</sup>Department of Forensic Medicine and Toxicology, Manipal Academy of Higher Education, Manipal, India. <sup>275</sup>Department of Clinical Anatomy, Arba Minch University, Arba Minch, Ethiopia. <sup>276</sup>Department of Pharmacology and Therapeutics, Khalifa University, Abu Dhabi, United Arab Emirates. <sup>277</sup>Center of Innovation, Technology and Education (CITE), Anhembi Morumbi University, Sao Jose dos Campos, Brazil. <sup>278</sup>Institute of Health Informatics, University College London, London, UK. <sup>279</sup>Department of Pharmacology, Sir Seewoosagar Ramgoolam Medical College, Mauritius, Belle Rive, Mauritius. <sup>280</sup>Department of Non-communicable Diseases, Bangladesh University of Health Sciences, Dhaka, Bangladesh. <sup>281</sup>Department of Anesthesiology, Adigrat University, Adigrat, Ethiopia. <sup>282</sup>Miami Cancer Institute, Baptist Health South Florida, Miami, FL, USA. <sup>283</sup>School of Psychology, University of Auckland, Auckland, New Zealand. <sup>284</sup>Heidelberg Institute of Global Health (HIGH), Heidelberg University Hospital, Heidelberg, Germany. <sup>285</sup>T.H. Chan School of Public Health, Harvard University, Boston, MA, USA. <sup>286</sup>Department of Programs, Partnerships, Research and Education, International Diabetes Federation, São Paulo, Brazil. <sup>287</sup>International Diabetes Federation, Brussels, Belgium. <sup>288</sup>Department of Translational Medicine, University of Eastern Piedmont, Novara, Italy. <sup>289</sup>Academic Unit of Obstetrics and Gynecology, University of Genoa, Genoa, Italy. <sup>290</sup>Department of Public and Environmental Health, University of The Gambia, Brikama, The Gambia. <sup>291</sup>Epidemiology and Disease Control Unit, Ministry of Health, Kotu, The Gambia. <sup>292</sup>Health Information Management, Shiraz University of Medical Sciences, Shiraz, Iran. <sup>293</sup>Department of Community and Family Medicine, All India Institute of Medical Sciences, Jodhpur, India. <sup>294</sup>Center for Primary Care, Harvard University, Boston, MA, USA. <sup>295</sup>Department of Academics, Indian Institute of Public Health, Gurgaon, India. <sup>296</sup>Faculty of Nursing, Philadelphia University, Amman, Jordan. <sup>297</sup>Department of Psychiatry, University of Münster, Münster, Germany. <sup>298</sup>Department of Psychiatry, Melbourne Medical School, Melbourne, VIC, Australia. <sup>299</sup>School of Public Health, Dr. D. Y. Patil University, Mumbai, India. <sup>300</sup>Jazan University, Jazan, Saudi Arabia. <sup>301</sup>Center of Research Excellence in Stillbirth, The University of Queensland, Brisbane, QLD, Australia. <sup>302</sup>Health System and Population Studies Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh. <sup>303</sup>Department of Medicine, El Bosque University, Bogota, Colombia. <sup>304</sup>Transplant Service, University Hospital Foundation Santa Fe de Bogotá, Bogotá, Colombia. <sup>305</sup>College of Medicine and Health Science, Adigrat University, Adigrat, Ethiopia. <sup>306</sup>Department of Reproductive Health, Dilla University, Dilla, Ethiopia. <sup>307</sup>Department of Oral Pathology and Microbiology, Krishna Institute of Medical Sciences Deemed To Be University, Karad, India. <sup>308</sup>School of the Environment, Yale University, New Haven, CT, USA. <sup>309</sup>Biological Sciences Department, University of Porto, Porto, Portugal. <sup>310</sup>Research Unit on Applied Molecular Biosciences (UCIBIO), University of Porto, Porto, Portugal. <sup>311</sup>Department of Industrial Engineering, Haliç University, İstanbul, Türkiye. <sup>312</sup>Nuffield Department of Population Health, University of Oxford, Oxford, UK. <sup>313</sup>Department of Internal Medicine, University of São Paulo, São Paulo, Brazil. <sup>314</sup>Department of Epidemiology and Health Promotion, New York University, New York, NY, USA. <sup>315</sup>School of Health Science, Bahir Dar University, Bahir Dar, Ethiopia. <sup>316</sup>Department of Medicine, Medical College of Georgia at Augusta University, Augusta, GA, USA. <sup>317</sup>Hubert Department of Global Health, Emory University, Atlanta, GA, USA. <sup>318</sup>Butte County Department of Public Health, Chico, CA, USA. <sup>319</sup>Department of Health, Human Performance and Recreation, University of Arkansas, Fayetteville, AR, USA. <sup>320</sup>School of Nursing and Midwifery, Monash University, Clayton, VIC, Australia. <sup>321</sup>Public Health Research Laboratory, Tribhuvan University, Kathmandu, Nepal. <sup>322</sup>Department of Anatomy, All India Institute of Medical Sciences, Jodhpur, India. <sup>323</sup>School of Public Health, All India Institute of Medical Sciences, Jodhpur, India. <sup>324</sup>Global Health Neurology Lab, NSW Brain Clot Bank, Sydney, NSW, Australia. <sup>325</sup>Department of Neurology and Neurophysiology, South West Sydney Local Health District and Liverpool Hospital, Sydney, NSW, Australia. <sup>326</sup>Department of General Medicine, Manipal Academy of Higher Education, Mangalore, India. <sup>327</sup>Department of Internal Medicine, St. John's National Academy of Health Sciences, Bangalore, India. <sup>328</sup>Global Health Division, Global Health Research and Medical Interventions for Development, Kathmandu, Nepal. <sup>329</sup>Department of Clinical Research, London School of Hygiene and Tropical Medicine, London, UK. <sup>330</sup>Department of Anatomy, Royal College of Surgeons in Ireland Medical University of Bahrain, Busaiteen, Bahrain. <sup>331</sup>Scientific-Tools, Bergamo, Italy. <sup>332</sup>Department of Emergency Medicine, University of Colorado, Aurora, CO, USA. <sup>333</sup>Department of Emergency Medicine, University of California San Francisco, San Francisco, CA, USA. <sup>334</sup>Department of General Surgery and Medical-Surgical Specialties, University of Catania, Catania, Italy. <sup>335</sup>Department of Public Health, Samara University, Samara, Ethiopia. <sup>336</sup>Department of Neurology, Institute of Post-Graduate Medical Education and Research and Seth Sukhlal Karnani Memorial Hospital, Kolkata, India. <sup>337</sup>University of Sydney, Sydney, NSW, Australia. <sup>338</sup>Department of Biostatistics and Epidemiology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. <sup>339</sup>Wolfson Institute of Population Health, Queen Mary University of London, London, UK. <sup>340</sup>Department of Pediatrics and Pediatric Infectious Diseases, I.M. Sechenov First Moscow State Medical University, Moscow, Russia. <sup>341</sup>Department of Health Policy Planning and Management, University of Health and Allied Sciences, Ho, Ghana. <sup>342</sup>SAMRC/Wits Centre for Health Economics and Decision Science (PRICELESS SA), University of the Witwatersrand, Johannesburg, South Africa. <sup>343</sup>Department of Biomedical Sciences, Arba Minch University, Arba Minch, Ethiopia. <sup>344</sup>School of Business Administration, American University of Sharjah, Sharjah, United Arab Emirates. <sup>345</sup>School of Pharmacy, Haramaya University, Harar, Ethiopia. <sup>346</sup>Department of Internal Medicine, Manipal Academy of Higher Education, Mangalore, India. <sup>347</sup>Clinical Research Unit, Centro de Investigação Interdisciplinar Egas Moniz (Egas Moniz Interdisciplinary Research Center), Almada, Portugal. <sup>348</sup>Department of Medicine, University Ferhat Abbas of Sétif, Sétif, Algeria. <sup>349</sup>Department of Epidemiology and Preventive Medicine, University Hospital Saadna Abdenour, Sétif, Algeria. <sup>350</sup>Vision and Eye Research Institute, Anglia Ruskin University, Cambridge, UK. <sup>351</sup>University of Genoa, Genoa, Italy. <sup>352</sup>Department of Epidemiology, University of Florida, Gainesville, FL, USA. <sup>353</sup>Cancer Population Sciences Program, University of Florida Health Cancer Center, Gainesville, FL, USA. <sup>354</sup>Department of Internal Medicine, Federal University of Minas Gerais, Belo Horizonte, Brazil. <sup>355</sup>Psychiatry and Behavioral Health Department, Ohio State University, Columbus, OH, USA. <sup>356</sup>Department of Psychology, Ohio State University, Columbus, OH, USA. <sup>357</sup>Division of Clinical Epidemiology and Aging Research, German Cancer Research Center, Heidelberg, Germany. <sup>358</sup>Department of Plastic and Reconstructive Surgery, University of Amsterdam, Amsterdam, Netherlands. <sup>359</sup>Department of Epidemiology and Evidence-Based Medicine, I.M. Sechenov First Moscow State Medical University, Moscow, Russia. <sup>360</sup>Department of Neuroscience, Institute for Scientific Research and High Technology Services, Panama, Panama. <sup>361</sup>Department of Infectious Diseases, Gorgas Memorial Institute for Health Studies, Panama, Panama. <sup>362</sup>Department of Injury, The George Institute for Global Health, Newtown, NSW, Australia. <sup>363</sup>Faculty of Medicine, University of New South Wales, Kensington, NSW, Australia. <sup>364</sup>Department of Health Sciences, University of Leicester, Leicester, UK. <sup>365</sup>Department of Psychiatry, University of São Paulo, São Paulo, Brazil. <sup>366</sup>Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, VIC, Australia. <sup>367</sup>Monash Department of Clinical Epidemiology, Cabrini Institute, Melbourne, VIC, Australia. <sup>368</sup>Flinders Health and Medical Research Institute, Flinders University, Adelaide, SA, Australia. <sup>369</sup>Department of Woman and Child Health and Public Health, Fondazione Policlinico Universitario A. Gemelli IRCCS (Agostino Gemelli University Polyclinic), Roma, Italy. <sup>370</sup>Global Health Research Institute, Università Cattolica del Sacro Cuore (Catholic University of Sacred Heart), Roma, Italy. <sup>371</sup>Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA, USA. <sup>372</sup>Department of Health Metrics Sciences, School of Medicine, University of Washington, Seattle, WA, USA. <sup>373</sup>Department of Community Medicine, Employee State Insurance Post Graduate Institute of Medical Sciences and Research, Bangalore, India. <sup>374</sup>Faculty of Pharmacy, University of Central Punjab, Lahore, Pakistan. <sup>375</sup>Department of Family and Community Medicine, King Abdulaziz University, Jeddah, Saudi Arabia. <sup>376</sup>School of Public Health and Health Systems, University of Waterloo, Waterloo, ON, Canada. <sup>377</sup>Al Shifa School of Public Health, Al Shifa Trust Eye Hospital, Rawalpindi, Pakistan.

<sup>378</sup>Department of Sociology, University of Macau, Macau, China. <sup>379</sup>Department of Clinical Pharmacy, University of Medicine and Pharmacy of Craiova, Craiova, Romania. <sup>380</sup>Internal Medicine Department, Hospital Italiano de Buenos Aires (Italian Hospital of Buenos Aires), Buenos Aires, Argentina. <sup>381</sup>Board of Directors, Argentine Society of Medicine, Buenos Aires, Argentina. <sup>382</sup>Center of Innovation, Anhembi Morumbi University, Sao Jose dos Campos, Brazil. <sup>383</sup>College of Health Sciences, Abu Dhabi University, Abu Dhabi, United Arab Emirates. <sup>384</sup>Dana-Farber Cancer Institute, Boston, MA, USA. <sup>385</sup>School of Sciences, University of Minho, Braga, Portugal. <sup>386</sup>Association of Licensed Optometry Professionals, Linda-a-Velha, Portugal. <sup>387</sup>Institute for Cancer Research, Prevention and Clinical Network, Florence, Italy. <sup>388</sup>IMPACT Strategic Research Center (the Institute for Mental and Physical Health and Clinical Translation), Deakin University, Geelong, VIC, Australia. <sup>389</sup>Faculty of Health Sciences, University Fernando Pessoa, Porto, Portugal. <sup>390</sup>Department of Medicine, University of Udine, Udine, Italy. <sup>391</sup>Department of Mental Health, Healthcare Agency "Friuli Occidentale", Pordenone, Italy. <sup>392</sup>Department of Pharmacological and Biomolecular Sciences, Università degli Studi di Milano (University of Milan), Milan, Italy. <sup>393</sup>MultiMedica, Istituto di Ricovero e Cura a Carattere Scientifico (IRCCS), Sesto San Giovanni, Italy. <sup>394</sup>Department of Public Health and Infectious Diseases, La Sapienza University, Rome, Italy. <sup>395</sup>Department of Physiology and Pharmacology, Karolinska Institute, Stockholm, Sweden. <sup>396</sup>National Institute of Health Research Nottingham Biomedical Research Centre, University of Nottingham, Nottingham, UK. <sup>397</sup>Department of Nutrition, Federal University of Santa Catarina, Florianópolis, Brazil. <sup>398</sup>Mary MacKillop Institute for Health Research, Australian Catholic University, Melbourne, VIC, Australia. <sup>399</sup>School of Public Health, University of Hong Kong, Hong Kong, China. <sup>400</sup>School of Population and Public Health, University of British Columbia, Vancouver, BC, Canada. <sup>401</sup>Department of Anesthesiology and Perioperative Medicine, University of Rochester, Rochester, NY, USA. <sup>402</sup>College of Medicine, National Taiwan University, Taipei, Taiwan. <sup>403</sup>Department of Nursing, National Taiwan University Hospital, Taipei, Taiwan. <sup>404</sup>Department of Clinical Pharmacy, University of Gondar, Gondar, Ethiopia. <sup>405</sup>Department of Public Health, Erasmus University Medical Center, Rotterdam, Netherlands. <sup>406</sup>Temerty Faculty of Medicine, University of Toronto, Toronto, ON, Canada. <sup>407</sup>Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai, India. <sup>408</sup>Research Department, Dr. D. Y. Patil University, Pune, India. <sup>409</sup>Department of Oral Medicine and Radiology, King George's Medical University, Lucknow, India. <sup>410</sup>Department of Oral Biological and Medical Sciences, University of British Columbia, Vancouver, BC, Canada. <sup>411</sup>Division of Infectious Diseases, Washington University in St. Louis, St. Louis, MO, USA. <sup>412</sup>Iraq Field Epidemiology Training Program (I-FETP), Ministry of Health, Baghdad, Iraq. <sup>413</sup>Department of Clinical Oncology, Queen Elizabeth Hospital, Hong Kong, China. <sup>414</sup>The Nettersole School of Nursing, The Chinese University of Hong Kong, Hong Kong, China. <sup>415</sup>Chitkara College of Pharmacy, Chitkara University, Chandigarh, Punjab, India. <sup>416</sup>Department of Public Health, China Medical University, Taichung, Taiwan. <sup>417</sup>Department of Community Medicine, Datta Meghe Institute of Medical Sciences, Wardha, India. <sup>418</sup>School of Public Health, Curtin University, Perth, WA, Australia. <sup>419</sup>Department of Epidemiology and Preventative Medicine, Monash University, Melbourne, VIC, Australia. <sup>420</sup>Florida International University, Florida International University, Miami, FL, USA. <sup>421</sup>Department of Epidemiology, University of Bern, Bern, Switzerland. <sup>422</sup>Bispebjerg Hospital, University of Copenhagen, Copenhagen, Denmark. <sup>423</sup>Department of Health Science and Technology, Aalborg University, Aalborg, Denmark. <sup>424</sup>Department of Physiotherapy, University College of Northern Denmark, Aalborg, Denmark. <sup>425</sup>Department of Pulmonary Medicine, Christian Medical College and Hospital (CMC), Vellore, India. <sup>426</sup>Center for Biomedicine and Community Health, VNU-International School, Hanoi, Viet Nam. <sup>427</sup>Department of Paediatric Surgery, Federal Medical Centre, Umuahia, Nigeria. <sup>428</sup>Department of Health Informatics, University College London, London, UK. <sup>429</sup>Health Data Research UK, London, UK. <sup>430</sup>Department of Law, Economics, Management and Quantitative Methods, University of Sannio, Benevento, Italy. <sup>431</sup>Discipline of Psychiatry, University of Adelaide, Adelaide, SA, Australia. <sup>432</sup>Department of Nutrition, Federal University of Minas Gerais, Belo Horizonte, Brazil. <sup>433</sup>Nova Medical School, Nova University of Lisbon, Lisbon, Portugal. <sup>434</sup>Institute of Neuroscience, National Research Council, Pisa, Italy. <sup>435</sup>Department of Family Medicine and Public Health, University of California San Diego, La Jolla, CA, USA. <sup>436</sup>Faculty of Medicine and Health, University of Sydney, Sydney, NSW, Australia. <sup>437</sup>Global Alliance for Musculoskeletal Health, Sydney, NSW, Australia. <sup>438</sup>Therapeutic and Diagnostic Technologies, Cooperativa de Ensino Superior Politécnico e Universitário (CESPU) (University Polytechnic Higher Education Cooperative), Gandra, Portugal. <sup>439</sup>Institute for Research and Innovation in Health, University of Porto, Porto, Portugal. <sup>440</sup>Section Global Health and Rehabilitation, Western Norway University of Applied Sciences, Bergen, Norway. <sup>441</sup>Department of Global Public Health and Primary Care, University of Bergen, Bergen, Norway. <sup>442</sup>Faculty of Medicine, Eduardo Mondlane University, Maputo, Mozambique. <sup>443</sup>IRCCS Istituto Ortopedico Galeazzi, Università degli Studi di Milano (University of Milan), Milan, Italy. <sup>444</sup>Department of Dermatology, Case Western Reserve University, Cleveland, OH, USA. <sup>445</sup>Walden University, Minneapolis, MN, USA. <sup>446</sup>Division of Women and Child Health, Aga Khan University, Karachi, Pakistan. <sup>447</sup>Department of Biochemistry, Ministry of Health and Welfare, New Delhi, India. <sup>448</sup>Ophthalmology Department, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania. <sup>449</sup>Ophthalmology Department, Emergency University Hospital Bucharest, Bucuresti, Romania. <sup>450</sup>dummy2nd University Ophthalmology Department, Aristotle University of Thessaloniki, Thessaloniki, Greece. <sup>451</sup>Ophthalmology Department, University of Thessaly, Larissa, Greece. <sup>452</sup>Department of Population and Development, Latin American Faculty of Social Sciences Mexico, Mexico City, Mexico. <sup>453</sup>Health Research Institute, Asfendiyaev Kazakh National Medical University, Almaty, Kazakhstan. <sup>454</sup>Department of Public Health, National University of Colombia, Bogota, Colombia. <sup>455</sup>Academic Department of Pediatrics (DPUO), Bambino Gesù Children's Hospital, IRCCS, Rome, Italy. <sup>456</sup>School of Public Health, Salale University, Fiche, Ethiopia. <sup>457</sup>College of Health and Medical Sciences, Haramaya University, Harar, Ethiopia. <sup>458</sup>Department of Epidemiology and Community Medicine, Fasa University of Medical Sciences, Fasa, Iran. <sup>459</sup>Public Health Department, Salale University, Fitcha, Ethiopia. <sup>460</sup>Department of Dermatology, University of Colorado, Aurora, CO, USA. <sup>461</sup>Department of Dermatology Services, Department of Veterans Affairs, Aurora, CO, USA. <sup>462</sup>Department of Neurosurgery, University of Edinburgh, Edinburgh, UK. <sup>463</sup>Department of Neurosurgery, National Health Service (NHS) Scotland, Edinburgh, UK. <sup>464</sup>Department of Midwifery, Arba Minch University, Arba Minch, Ethiopia. <sup>465</sup>Center for Nutrition and Health Research, National Institute of Public Health, Cuernavaca, Mexico. <sup>466</sup>Department of Biomedical Science, Jimma University, Jimma, Ethiopia. <sup>467</sup>Department of Nursing, Mizan-Tepi University, Mizan-Aman, Ethiopia. <sup>468</sup>St Paul's Eye Unit, Royal Liverpool University Hospital, Liverpool, UK. <sup>469</sup>Department of Ophthalmology, Aristotle University of Thessaloniki, Thessaloniki, Greece. <sup>470</sup>Graduate Medical Education, Gujarat Adani Institute of Medical Sciences, Bhuj, India. <sup>471</sup>Division of Cardiology, Atlanta Veterans Affairs Medical Center, Decatur, GA, USA. <sup>472</sup>Department of Public Health, Madda Walabu University, Bale Goba, Ethiopia. <sup>473</sup>Biochemistry Department, University of Gondar, Gondar, Ethiopia. <sup>474</sup>Department of Surgical Nursing, University of Gondar, Gondar, Ethiopia. <sup>475</sup>National Centre for AIDS and STD Control, Save the Children, Kathmandu, Nepal. <sup>476</sup>Department of Global Public Health, Karolinska Institute, Stockholm, Sweden. <sup>477</sup>Centre for Atmospheric Sciences, Indian Institute of Technology Delhi, New Delhi, India. <sup>478</sup>Department of GI Surgery, Institute of Post-Graduate Medical Education and Research and Seth Sukhlal Karnani Memorial Hospital, Kolkata, India. <sup>479</sup>Health Research Section, Nepal Health Research Council, Kathmandu, Nepal. <sup>480</sup>Department of Pharmacy Practice, National Institute of Pharmaceutical Education and Research, Hajipur, India. <sup>481</sup>Department of Environmental Health, Harvard University, Boston, MA, USA. <sup>482</sup>Toxicology Research Unit (TOXRUN), Cooperativa de Ensino Superior Politécnico e Universitário (CESPU) (University Polytechnic Higher Education Cooperative), Gandra, Portugal. <sup>483</sup>Department of Comprehensive Nursing, Arba Minch University, Arba Minch, Ethiopia. <sup>484</sup>Department of Human Physiology, University of Gondar, Gondar, Ethiopia. <sup>485</sup>Department of Physiology, All India Institute of Medical Sciences, Jodhpur, India. <sup>486</sup>Development of Research and Technology Center, Ministry of Health and Medical Education, Tehran, Iran. <sup>487</sup>School of Health, Guilan University of Medical Sciences, Rasht, Iran. <sup>488</sup>Department of Community Nutrition, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>489</sup>School of Medicine, Iran University of

Medical Sciences, Tehran, Iran. <sup>490</sup>Neurology Department, Alexandria University, Alexandria, Egypt. <sup>491</sup>School of Nursing and Midwifery, University of Cape Coast, Cape Coast, Ghana. <sup>492</sup>Health Science Center, University of Texas, Houston, TX, USA. <sup>493</sup>Department of Medical Laboratory Sciences, Iran University of Medical Sciences, Tehran, Iran. <sup>494</sup>Responsabilidade Social, Oswaldo Cruz German Hospital, São Paulo, Brazil. <sup>495</sup>Brazilian Centre for Evidence-based Healthcare, Joanna Briggs Institute, São Paulo, Brazil. <sup>496</sup>Department of Cardiology, St. Joseph's University Medical Center, Paterson, NJ, USA. <sup>497</sup>Department of Health Policy and Management, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>498</sup>Department of Population Health Sciences, King's College London, London, UK. <sup>499</sup>Department of Forensic Medicine and Toxicology, Manipal Academy of Higher Education, Mangalore, India. <sup>500</sup>Department of Forensic Medicine and Toxicology, Kasturba Medical College Mangalore, Mangalore, India. <sup>501</sup>Office of Institutional Analysis, University of Windsor, Windsor, ON, Canada. <sup>502</sup>School of Medicine, Federal University of Bahia, Salvador, Brazil. <sup>503</sup>Department of Internal Medicine, Escola Bahiana de Medicina e Saúde Pública (Bahiana School of Medicine and Public Health), Salvador, Brazil. <sup>504</sup>Department of Infection and Tropical Medicine, University of Sheffield, Sheffield, UK. <sup>505</sup>School of Health Sciences, Universiti Sains Malaysia (University of Science Malaysia), Kubang Kerian, Malaysia. <sup>506</sup>Department of Nursing, Umeå University, Umeå, Sweden. <sup>507</sup>College of Science, Health and Engineering, La Trobe University, Bundoora, VIC, Australia. <sup>508</sup>Department of Community Health Nursing, Universitas Airlangga (Airlangga University), Surabaya, Indonesia. <sup>509</sup>National Institute for Health Research, Tehran University of Medical Sciences, Tehran, Iran. <sup>510</sup>Department of Orthodontics, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. <sup>511</sup>Department of Epidemiology and Medical Statistics, University of Ibadan, Ibadan, Nigeria. <sup>512</sup>Faculty of Public Health, University of Ibadan, Ibadan, Nigeria. <sup>513</sup>Department of Biological Sciences, University of Medical Sciences, Ondo, Ondo, Nigeria. <sup>514</sup>Biomedical Informatics and Medical Statistics Department, Alexandria University, Alexandria, Egypt. <sup>515</sup>Pediatric Dentistry and Dental Public Health Department, Alexandria University, Alexandria, Egypt. <sup>516</sup>Direction de L'épidémiologie et la Lutte Contre les Maladies (Directorate of Epidemiology and Diseases Control), Ministry of Health, Rabat, Morocco. <sup>517</sup>Department of Food Science and Nutrition, Arsi University, Asella, Ethiopia. <sup>518</sup>Center for Food Science and Nutrition, Addis Ababa University, Addis Ababa, Ethiopia. <sup>519</sup>School of Population and Global Health, McGill University, Montreal, QC, Canada. <sup>520</sup>Division of Cardiology, Massachusetts General Hospital, Boston, MA, USA. <sup>521</sup>Division of Cardiology, Harvard University, Boston, MA, USA. <sup>522</sup>Department of Internal Medicine and Hematology Unit, Ain Shams University, Cairo, Egypt. <sup>523</sup>Section of Adult Hematology, King Saud University, Riyadh, Saudi Arabia. <sup>524</sup>Neurophysiology Department, Cairo University, Cairo, Egypt. <sup>525</sup>Faculty of Medicine, University of Tripoli, Tripoli, Libya. <sup>526</sup>Egypt Center for Research and Regenerative Medicine (ECRRM), Cairo, Egypt. <sup>527</sup>Lincoln International Institute for Rural Health, University of Lincoln, Lincoln, UK. <sup>528</sup>Department of International Cyber Education, Mongolian National University of Medical Sciences, Ulaanbaatar, Mongolia. <sup>529</sup>Department of Paediatrics, University of Lagos, Lagos, Nigeria. <sup>530</sup>Department of Paediatrics, Lagos University Teaching Hospital, Lagos, Nigeria. <sup>531</sup>Preventive Medicine and Public Health Research Center, Iran University of Medical Sciences, Tehran, Iran. <sup>532</sup>Multiple Sclerosis Research Center, Tehran University of Medical Sciences, Tehran, Iran. <sup>533</sup>Department of Obesity, Diabetes and Cardiovascular risk, National Institute of Public Health, Cuernavaca, Mexico. <sup>534</sup>Dipartimento di Scienze Biomediche e Neuromotorie, University of Bologna, Bologna, Italy. <sup>535</sup>Department of Internal Medicine, Yale University, New Haven, CT, USA. <sup>536</sup>Department of Pediatrics and Child Health Nursing, Wollega University, Nekemte, Ethiopia. <sup>537</sup>Department of Virology, Pasteur Institute of Morocco, Casablanca, Morocco. <sup>538</sup>Institute of Applied Health Sciences, University of Aberdeen, Aberdeen, UK. <sup>539</sup>Interdisciplinary Neuroscience Research Program, Tehran University of Medical Sciences, Tehran, Iran. <sup>540</sup>Epidemiology and Biostatistics Unit, National Cancer Institute IRCCS Fondazione G. Pascale, Naples, Italy. <sup>541</sup>Department of Biomedical and Biotechnological Sciences, University of Catania, Catania, Italy. <sup>542</sup>Department of Health Policy and Administration, University of the Philippines Manila, Manila, Philippines. <sup>543</sup>Department of Occupational Health and Safety, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>544</sup>Dissemination Division, National Institute of Statistics, Lisbon, Portugal. <sup>545</sup>Activity Planning and Control Unit, Directorate-General of Health (DGS), Lisbon, Portugal. <sup>546</sup>Department of Psychology, Federal University of Sergipe, São Cristóvão, Brazil. <sup>547</sup>Department of Nutrition and Dietetics, National University of Medical Sciences (NUMS), Rawalpindi, Pakistan. <sup>548</sup>Department of Clinical Psychology, University of Dhaka, Dhaka, Bangladesh. <sup>549</sup>Community-Based Inclusive Mental Health Department, Centre for Disability in Development (CDD), Bangladesh, Dhaka, Bangladesh. <sup>550</sup>Satcher Health Leadership Institute, Morehouse School of Medicine, Atlanta, GA, USA. <sup>551</sup>School of Medicine, Emory University, Atlanta, GA, USA. <sup>552</sup>Clinical Trials Office, Emory University, Atlanta, GA, USA. <sup>553</sup>Rollins School of Public Health, Emory University, Atlanta, GA, USA. <sup>554</sup>Department of Environmental Health Engineering, Isfahan University of Medical Sciences, Isfahan, Iran. <sup>555</sup>Research Center for Environmental Determinants of Health, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>556</sup>Torrens University Australia, Adelaide, SA, Australia. <sup>557</sup>Institute of Resource Governance and Social Change, Kupang, Indonesia. <sup>558</sup>National Institute for Stroke and Applied Neurosciences, Auckland University of Technology, Auckland, New Zealand. <sup>559</sup>Research Center of Neurology, Moscow, Russia. <sup>560</sup>School of Pharmacy, The Chinese University of Hong Kong, Hong Kong, China. <sup>561</sup>Department of Pharmacy, Wollega University, Nekemte, Ethiopia. <sup>562</sup>School of Population Health, University of New South Wales, Sydney, NSW, Australia. <sup>563</sup>National Institute of Environmental Health, Chinese Center for Disease Control and Prevention, Beijing, China. <sup>564</sup>Division of Neurology, University of Ottawa, Ottawa, ON, Canada. <sup>565</sup>city>, USA. <sup>566</sup>Research Center on Public Health, University of Milan Bicocca, Monza, Italy. <sup>567</sup>Department of Health Sciences (DISSAL), University of Genoa, Genoa, Italy. <sup>568</sup>Academic Unit of Obstetrics and Gynecology, IRCCS Ospedale Policlinico San Martino, Genoa, Italy. <sup>569</sup>Department of Nursing, Wollega University, Nekemte, Ethiopia. <sup>570</sup>Institute of Health Sciences, Wollega University, Nekemte, Ethiopia. <sup>571</sup>Psychiatry Department, Kaiser Permanente, Fontana, CA, USA. <sup>572</sup>School of Health Sciences, A.T. Still University, Mesa, AZ, USA. <sup>573</sup>Institute of Public Health, Charité Universitätsmedizin Berlin (Charité Medical University Berlin), Berlin, Germany. <sup>574</sup>School of Social Sciences, Stretton Health Equity, Adelaide, SA, Australia. <sup>575</sup>Center for Research in Indigenous Health, Maya Health Alliance, Tecpán, Guatemala. <sup>576</sup>Department of Internal Medicine, University of Michigan, Ann Arbor, MI, USA. <sup>577</sup>Department of Child Dental Health, Ile-Ife, Nigeria. <sup>578</sup>Department of Clinical Science, Nigerian Institute of Medical Research, Yaba, Nigeria. <sup>579</sup>Department of Neurology, University of Lisbon, Lisbon, Portugal. <sup>580</sup>Neurology Department, Hospital de Santa Maria, Lisbon, Portugal. <sup>581</sup>Neurology, Public Health, Disability Unit, Beijing Neurosurgical Institute, Milano, Italy. <sup>582</sup>Department of Pharmacology, Iranshahr University of Medical Sciences, Iranshahr, Iran. <sup>583</sup>Child Survival Unit, Centre for African Newborn Health and Nutrition, Ibadan, Nigeria. <sup>584</sup>Department of Community Medicine, Information and Health Decision Sciences, University of Porto, Porto, Portugal. <sup>585</sup>Center for Health Technology and Services Research (CINTESIS), Porto, Portugal. <sup>586</sup>Associated Laboratory for Green Chemistry (LAQV), University of Porto, Porto, Portugal. <sup>587</sup>School of Global Public Health, New York University, New York, NY, USA. <sup>588</sup>Department of Dermatology, Kobe University, Kobe, Japan. <sup>589</sup>Health Services Management Training Centre, Semmelweis University, Budapest, Hungary. <sup>590</sup>Department of Applied Social Sciences, Sapientia Hungarian University of Transylvania, Târgu-Mureș, Romania. <sup>591</sup>Community Medicine Department, Bayero University, Kano, Kano, Nigeria. <sup>592</sup>Department of Community Medicine, Aminu Kano Teaching Hospital, Kano, Nigeria. <sup>593</sup>Food Technology Department, Salahaddin University-Erbil, Erbil, Iraq. <sup>594</sup>Department of Nutrition and Dietetics, Cihan University-Erbil, Erbil, Iraq. <sup>595</sup>Faculty of Paramedical, Lorestan University of Medical Sciences, Khorramabad, Iran. <sup>596</sup>Department of Environmental Health Sciences, Mario Negri Institute for Pharmacological Research, Milan, Italy. <sup>597</sup>School of Global Health, Institute of Health and Management, Melbourne, VIC, Australia. <sup>598</sup>Department of Occupational Therapy, Mahatma Gandhi Occupational Therapy College, Jaipur, India. <sup>599</sup>Faculty of Business and Management, Universidad Autónoma de Chile (Autonomous University of Chile), Talca, Chile. <sup>600</sup>Department of Obstetrics and Gynecology, All India Institute of Medical Sciences, Bathinda, India. <sup>601</sup>National Health Service, London, UK. <sup>602</sup>Pension Research Subcommittee, Institute and Faculty of Actuaries, London, UK. <sup>603</sup>Department of Epidemiology, Florida



International University, Miami, FL, USA. <sup>604</sup>Department of Environmental Health, Wollo University, Dessie, Ethiopia. <sup>605</sup>Department of Nursing, Mekelle University, Mekelle, Ethiopia. <sup>606</sup>Discipline of Population Health, Flinders University, Adelaide, SA, Australia. <sup>607</sup>Department of Reproductive Health, Aksum University, Aksum, Ethiopia. <sup>608</sup>Department of Public Health, Salale University, Fitcha, Ethiopia. <sup>609</sup>Department of Public Health, Jimma University, Jimma, Ethiopia. <sup>610</sup>Department of Public Health, Debre Berhan University, Debre Berhan, Ethiopia. <sup>611</sup>School of Nursing and Midwifery, Haramaya University, Harar, Ethiopia. <sup>612</sup>Infectious Disease Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>613</sup>Pediatric Department, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>614</sup>Department of Neurosurgery, Shiraz University of Medical Sciences, Shiraz, Iran. <sup>615</sup>Department of Medical Surgical Nursing, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>616</sup>Health Policy Research Center, Shiraz University of Medical Sciences, Shiraz, Iran. <sup>617</sup>Department of Environmental Health Engineering, Qazvin University of Medical Sciences, Qazvin, Iran. <sup>618</sup>E-Learning Center, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>619</sup>School of Public Health, Qazvin University of Medical Sciences, Qazvin, Iran. <sup>620</sup>Neuroradiology Division, Johns Hopkins University, Baltimore, MD, USA. <sup>621</sup>Sina Trauma and Surgery Research Center, Tehran University of Medical Sciences, Tehran, Iran. <sup>622</sup>Department of Midwifery, Islamic Azad University, Tuyserkan, Iran. <sup>623</sup>Cancer Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>624</sup>Department of Epidemiology and Biostatistics, Neyshabur University of Medical Sciences, Neyshabur, Iran. <sup>625</sup>Non-Communicable Diseases Research Center, Neyshabur University of Medical Sciences, Neyshabur, Iran. <sup>626</sup>Department of Radiology, University of Southern California, Los Angeles, CA, USA. <sup>627</sup>Department of Public Health, University of Muhammadiyah Kalimantan Timur, Samarinda, Indonesia. <sup>628</sup>Department of Radiology, Mayo Clinic, Rochester, MN, USA. <sup>629</sup>Adelaide Medical School, University of Adelaide, Adelaide, SA, Australia. <sup>630</sup>Discipline of Public Health Medicine, University of KwaZulu-Natal, Durban, South Africa. <sup>631</sup>NIHR Global Health Research Unit on Global Surgery, University of Birmingham, Birmingham, UK. <sup>632</sup>Department of Cardiac Surgery, Cleveland Clinic Abu Dhabi, Abu Dhabi, United Arab Emirates. <sup>633</sup>Lerner College of Medicine, Case Western Reserve University, Cleveland, USA. <sup>634</sup>Department of Hepatology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India. <sup>635</sup>Health Systems and Policy Research Department, Indian Institute of Public Health, Gandhinagar, India. <sup>636</sup>Department of Genetics, Sana Institute of Higher Education, Sari, Iran. <sup>637</sup>Department of Biomedical and Neuromotor Sciences, University of Bologna, Bologna, Italy. <sup>638</sup>Department of Chemistry, University of Porto, Porto, Portugal. <sup>639</sup>Hudson College of Public Health, University of Oklahoma Health Sciences Center, Oklahoma City, OK, USA. <sup>640</sup>Department of Health and Social Affairs, Government of the Federated States of Micronesia, Palikir, Federated States of Micronesia. <sup>641</sup>Oncological Network, Prevention and Research Institute, Institute for Cancer Research, Prevention and Clinical Network, Florence, Italy. <sup>642</sup>Department of Respiratory Medicine, Hokkaido University, Sapporo, Japan. <sup>643</sup>Center for Environmental and Health Sciences, Hokkaido University, Sapporo, Japan. <sup>644</sup>Center for Clinical and Epidemiological Research, University of São Paulo, São Paulo, Brazil. <sup>645</sup>Postgraduate Program in Epidemiology, Federal University of Rio Grande do Sul, Porto Alegre, Brazil. <sup>646</sup>College of Medicine and Health Sciences, United Arab Emirates University, Al Ain, United Arab Emirates. <sup>647</sup>Department of Public Health and Preventive Medicine, Charles University, Prague, Czech Republic. <sup>648</sup>Department of Pharmacy Systems, Outcomes, and Policy, University of Illinois at Chicago, Chicago, IL, USA. <sup>649</sup>Department of Health Informatics, Bahir Dar University, Bahir Dar, Ethiopia. <sup>650</sup>Department of Family and Community Medicine, University Of Sulaimani, Sulaimani, Iraq. <sup>651</sup>Department of Anesthesia, Madda Walabu University, Goba, Ethiopia. <sup>652</sup>Harrington Heart and Vascular Institute, Case Western Reserve University, Cleveland, OH, USA. <sup>653</sup>Division of Cardiovascular Medicine, Ohio State University, Columbus, OH, USA. <sup>654</sup>Faculty of Nursing, Federal University of Goiás, Goiânia, Brazil. <sup>655</sup>Department of Public Health, Torrens University Australia, Melbourne, VIC, Australia. <sup>656</sup>Department of Preventive Cardiology, Eternal Heart Care Centre and Research Institute, Jaipur, India. <sup>657</sup>Department of Medicine, Mahatma Gandhi University Medical Sciences, Jaipur, India. <sup>658</sup>Toxicology Department, Shriram Institute for Industrial Research, Delhi, India. <sup>659</sup>School of Medicine, Deakin University, Geelong, VIC, Australia. <sup>660</sup>Biorefining and Advanced Materials Research Center, Scotland's Rural College (SRUC), Edinburgh, UK. <sup>661</sup>Faculty of Medicine Health and Human Sciences, Macquarie University, Sydney, NSW, Australia. <sup>662</sup>Department of Midwifery, Dire Dawa University, Dire Dawa, Ethiopia. <sup>663</sup>School of Medicine "Alberto Hurtado", Cayetano Heredia University, Lima, Peru. <sup>664</sup>Department of Psychology, Norwegian University of Science and Technology, Trondheim, Norway. <sup>665</sup>Department of Health Psychology, Iran University of Medical Sciences, Tehran, Iran. <sup>666</sup>School of Medicine, University of Maryland, Baltimore, MD, USA. <sup>667</sup>Department of Clinical Neurological Sciences, The University of Western Ontario, London, ON, Canada. <sup>668</sup>Lawson Health Research Institute, London, ON, Canada. <sup>669</sup>Department of Health in Emergencies and Disasters, Tehran University of Medical Sciences, Tehran, Iran. <sup>670</sup>Department of Radiology and Radiological Science, Johns Hopkins University, Baltimore, MD, USA. <sup>671</sup>School of Medicine, Tehran University of Medical Sciences, Tehran, Iran. <sup>672</sup>Heart, Vascular and Thoracic Institute, Cleveland Clinic, Cleveland, OH, USA. <sup>673</sup>Department of Radiology, Massachusetts General Hospital, Boston, MA, USA. <sup>674</sup>Obesity Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>675</sup>College of Dentistry, Jazan University, Jazan, Saudi Arabia. <sup>676</sup>School of Dentistry, Sana'a University, Sana'a, Yemen. <sup>677</sup>Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>678</sup>NYU Shanghai, Shanghai, China. <sup>679</sup>College of Medicine, University of Sharjah, Sharjah, United Arab Emirates. <sup>680</sup>Department of Family and Community Medicine, Arabian Gulf University, Manama, Bahrain. <sup>681</sup>School of Public Health, Haramaya University, Harar, Ethiopia. <sup>682</sup>School of Health and Environmental Studies, Hamdan Bin Mohammed Smart University, Dubai, United Arab Emirates. <sup>683</sup>Faculty of Health, Southern Cross University, Bilinga, QLD, Australia. <sup>684</sup>Medical School, University of Western Australia, Perth, WA, Australia. <sup>685</sup>Perron Institute for Neurological and Translational Science, Perth, WA, Australia. <sup>686</sup>Department of Biochemistry and Molecular Biology, Bangladesh Agricultural University, Mymensingh, Bangladesh. <sup>687</sup>Department of Anatomy, Dongguk University, Gyeongju, South Korea. <sup>688</sup>Department of Population Science and Human Resource Development, University of Rajshahi, Rajshahi, Bangladesh. <sup>689</sup>Medical Research Unit, Universitas Syiah Kuala (Syiah Kuala University), Banda Aceh, Indonesia. <sup>690</sup>Department of Dental Public Health, Universitas Airlangga (Airlangga University), Surabaya, Indonesia. <sup>691</sup>Australian Research Centre for Population Oral Health, University of Adelaide, Adelaide, SA, Australia. <sup>692</sup>Research Unit, University of Barcelona, Barcelona, Spain. <sup>693</sup>Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain. <sup>694</sup>Department of Nursing, Arak University of Medical Sciences, Arak, Iran. <sup>695</sup>Sekolah Tinggi Ilmu Kesehatan Indonesia Maju (Indonesian Advanced College of Health Sciences), Institution of Public Health Sciences, Jakarta, Indonesia. <sup>696</sup>Department of Zoology and Entomology, Al Azhar University, Cairo, Egypt. <sup>697</sup>Department of Nursing, Taipei Medical University, Taipei, Taiwan. <sup>698</sup>Department of Human Centred Computing, Monash University, Melbourne, VIC, Australia. <sup>699</sup>Institute for Social Science Research, The University of Queensland, Indooroopilly, QLD, Australia. <sup>700</sup>ARC Centre of Excellence for Children and Families over the Life Course, The University of Queensland, Indooroopilly, QLD, Australia. <sup>701</sup>Department of Ophthalmology, Iran University of Medical Sciences, Karaj, Iran. <sup>702</sup>Department of Plastic Surgery, University of Texas, Houston, TX, USA. <sup>703</sup>Department of Neurology, Cairo University, Cairo, Egypt. <sup>704</sup>Center for International Health (CIH), University of Bergen, Bergen, Norway. <sup>705</sup>Bergen Center for Ethics and Priority Setting (BCEPS), University of Bergen, Bergen, Norway. <sup>706</sup>Chapter of Addiction Medicine, University of Sydney, Sydney, NSW, Australia. <sup>707</sup>Gastrointestinal and Liver Diseases Research Center, Guilan University of Medical Sciences, Rasht, Iran. <sup>708</sup>Caspian Digestive Disease Research Center, Guilan University of Medical Sciences, Rasht, Iran. <sup>709</sup>School of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>710</sup>Independent Consultant, Tabriz, Iran. <sup>711</sup>Skaane University Hospital, Skaane County Council, Malmö, Sweden. <sup>712</sup>Institute of Pharmaceutical Sciences, University of Veterinary and Animal Sciences, Lahore, Pakistan. <sup>713</sup>Department of Pharmacy Administration and Clinical Pharmacy, Xian Jiaotong University, Xian, China. <sup>714</sup>Faculty of Kinesiology, University of New Brunswick, Fredericton, NB, Canada. <sup>715</sup>School of Psychology and Exercise Science, Murdoch University, Murdoch, WA, Australia.



<sup>716</sup>Department of Neuropsychiatric Epidemiology, University of Gothenburg, Gothenburg, Sweden. <sup>717</sup>Department of Statistics, Statistikkonsulterna, Sweden, United Arab Emirates. <sup>718</sup>Community-Oriented Nursing Midwifery Research Center, Shahrekord University of Medical Sciences, Shahrekord, Iran. <sup>719</sup>Tehran University of Medical Sciences, Tehran, Iran. <sup>720</sup>Departamento de Salud Oral (Department of Oral Health), Universidad Autónoma de Manizales (Autonomous University of Manizales), Manizales, Colombia. <sup>721</sup>Department of Public Health, Madda Walabu University, Robe, Ethiopia. <sup>722</sup>Department of Microbiology, Taiz University, Taiz, Yemen. <sup>723</sup>School of Medicine, Nankai University, Tianjin, China. <sup>724</sup>Division for Health Service Promotion, University of Tokyo, Tokyo, Japan. <sup>725</sup>Kasturba Medical College, Mangalore, Manipal Academy of Higher Education, Manipal, India. <sup>726</sup>Department of Pulmonology, Yokohama City University, Yokohama, Japan. <sup>727</sup>National Human Genome Research Institute (NHGRI), National Institutes of Health, Bethesda, MD, USA. <sup>728</sup>Social and Environmental Health Research, Nature Study Society of Bangladesh, Khulna, Bangladesh. <sup>729</sup>Department of Health Promotion and Community Health Sciences, Texas A&M University, College Station, TX, USA. <sup>730</sup>Department of Behavioural Science and Health, University College London, London, UK. <sup>731</sup>Department of Public Health and Informatics, Jahangirnagar University, Dhaka, Bangladesh. <sup>732</sup>Institute of Research and Development, Duy Tan University, Da Nang, Viet Nam. <sup>733</sup>Department of Computer Science, University of Human Development, Sulaymaniyah, Iraq. <sup>734</sup>Internal Medicine Department, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania. <sup>735</sup>Department of Legal Medicine and Bioethics, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania. <sup>736</sup>Clinical Legal Medicine Department, National Institute of Legal Medicine Mina Minovici, Bucharest, Romania. <sup>737</sup>Burn Research Center, Shahid Motahari Hospital, Tehran, Iran. <sup>738</sup>Faculty of Medicine of Tunis, University Tunis El Manar, Tunis, Tunisia. <sup>739</sup>Department of Outpatient Rehabilitation, Southcoast Health: Tobey Hospital, Wareham, MA, USA. <sup>740</sup>Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong, Hong Kong, China. <sup>741</sup>Department of Mathematical Sciences, Royal Melbourne Institute of Technology (RMIT) University, Melbourne, VIC, Australia. <sup>742</sup>School of Mathematical and Physical Sciences, University of Newcastle, Newcastle, NSW, Australia. <sup>743</sup>Czech National Centre for Evidence-Based Healthcare and Knowledge Translation, Masaryk University, Brno, Czech Republic. <sup>744</sup>Institute of Biostatistics and Analyses, Masaryk University, Brno, Czech Republic. <sup>745</sup>Tephinet USA, Field Epidemiology and Laboratory Training Program Pakistan, Islamabad, Pakistan. <sup>746</sup>Division of Field Epidemiology, National Institute of Health, Islamabad, Pakistan. <sup>747</sup>Department of Biomolecular Sciences, University of Zakho, Zakho, Iraq. <sup>748</sup>Department of Public Health, Wollo University, Dessie, Ethiopia. <sup>749</sup>Department of Occupational Safety and Health, China Medical University, Taichung, Taiwan. <sup>750</sup>Department of Occupational Therapy, Asia University, Taichung, Taiwan. <sup>751</sup>Department of Health Promotion and Education, University of Ibadan, Ibadan, Nigeria. <sup>752</sup>Department of Community Medicine, University College Hospital, Ibadan, Ibadan, Nigeria. <sup>753</sup>Faculty of Medicine, University of Belgrade, Belgrade, Serbia. <sup>754</sup>Department of Epidemiology, University of Kragujevac, Kragujevac, Serbia. <sup>755</sup>Department of Health Research, ICMR National Institute for Research in Tuberculosis, Chennai, India. <sup>756</sup>Faculty of Pharmacy, University of Ahmad Dahlan, Yogyakarta, Indonesia. <sup>757</sup>Department of Population Sciences, University of Dhaka, Dhaka, Bangladesh. <sup>758</sup>School of Public Health and Community Medicine, University of New South Wales, Sydney, NSW, Australia. <sup>759</sup>Institute for Physical Activity and Nutrition, Deakin University, Burwood, VIC, Australia. <sup>760</sup>Sydney Medical School, University of Sydney, Sydney, NSW, Australia. <sup>761</sup>Surveillance and Health Services Research, American Cancer Society, Atlanta, GA, USA. <sup>762</sup>Department of Clinical Pharmacy and Pharmacy Practice, Asian Institute of Medicine, Science and Technology, Kedah, Malaysia. <sup>763</sup>Malaysian Academy of Pharmacy, Puchong, Malaysia. <sup>764</sup>Public Health Department of Social Medicine, Osaka University, Suita, Japan. <sup>765</sup>Centre for Health Services and Policy Research, University of British Columbia, Vancouver, BC, Canada. <sup>766</sup>Department of Health Services Research, University of Tsukuba, Tsukuba, Japan. <sup>767</sup>Department of Non-Communicable Disease Epidemiology, London School of Hygiene and Tropical Medicine, London, UK. <sup>768</sup>School of Health Systems and Public Health, University of Pretoria, Pretoria, South Africa. <sup>769</sup>Department of Global Health, South African Medical Research Council, Cape Town, South Africa. <sup>770</sup>Department of Global Health, Stellenbosch University, Cape Town, South Africa. <sup>771</sup>Knowledge Translation Program, Centre for Health Evaluation and Outcome Sciences, Vancouver, BC, Canada. <sup>772</sup>Department of Orthodontics and Dentofacial Orthopedics, Dr. D. Y. Patil University, Pune, India. <sup>773</sup>Department of Environmental Health Engineering, Guilan University of Medical Sciences, Rasht, Iran. <sup>774</sup>Research and Development Unit, Biomedical Research Networking Center for Mental Health Network (CiberSAM), Sant Boi de Llobregat, Spain. <sup>775</sup>Faculty of Medicine, University of Versailles Saint-Quentin-en-Yvelines, Montigny-le Bretonneux, France. <sup>776</sup>Department of Immunology, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>777</sup>College of Medicine and Medical Sciences, Arabian Gulf University, Manama, Bahrain. <sup>778</sup>Ministry of Health, Ministry of Health, Manama, Bahrain. <sup>779</sup>Non-Communicable Disease Department, National Health Mission, Lucknow, India. <sup>780</sup>Department of Medicine, Mahavir Sikshan Sansthan, Kanpur, India. <sup>781</sup>Institute of Advanced Manufacturing Technologies, Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia. <sup>782</sup>Institute of Comparative Economic Studies, Hosei University, Tokyo, Japan. <sup>783</sup>Division of Pulmonary Medicine, Lausanne University Hospital (CHUV), Lausanne, Switzerland. <sup>784</sup>Department of Internal Medicine, Harvard University, Cambridge, MA, USA. <sup>785</sup>Manipal College of Pharmaceutical Sciences, Manipal Academy of Higher Education, Manipal, India. <sup>786</sup>Health Informatic Lab, Boston University, Boston, MA, USA. <sup>787</sup>Department of Public Health, M S Ramaiah University of Applied Sciences, Bangalore, India. <sup>788</sup>Community Health Sciences Department, University of Manitoba, Winnipeg, MB, Canada. <sup>789</sup>Centre of Studies and Research, Ministry of Health, Muscat, Oman. <sup>790</sup>Postgraduate Institute of Medicine, University of Colombo, Colombo, Sri Lanka. <sup>791</sup>Department of Surgery, National Hospital, Colombo, Sri Lanka. <sup>792</sup>Department of Biochemistry, Government Medical College, Mysuru, India. <sup>793</sup>Urology Department, University of Florida, Jacksonville, FL, USA. <sup>794</sup>Caring Futures Institute, Flinders University, Adelaide, SA, Australia. <sup>795</sup>Interdisciplinary School of Health sciences, Savitribai Phule Pune University, Pune, India. <sup>796</sup>Food Evolution Research Laboratory, College of Business and Economics School of Tourism and Hospitality Management, Johannesburg, South Africa. <sup>797</sup>The George Institute for Global Health, New Delhi, India. <sup>798</sup>Manipal Academy of Higher Education, Manipal, India. <sup>799</sup>Vanke School of Public Health, Tsinghua University, Beijing, China. <sup>800</sup>Department of Mathematics, University of Manchester, Manchester, UK. <sup>801</sup>Institute of Molecular and Clinical Ophthalmology Basel, Basel, Switzerland. <sup>802</sup>Department of Ophthalmology, Heidelberg University, Mannheim, Germany. <sup>803</sup>Hungarian Health Management Association, Budapest, Hungary. <sup>804</sup>Department of Gastroenterology and Hepatology, Stanford University, Stanford, CA, USA. <sup>805</sup>Department of Community Medicine, Manipal Academy of Higher Education, Mangalore, India. <sup>806</sup>National Institute of Epidemiology, Indian Council of Medical Research, Chennai, India. <sup>807</sup>Department of Family Medicine and Public Health, University of Opole, Opole, Poland. <sup>808</sup>Institute of Family Medicine and Public Health, University of Tartu, Tartu, Estonia. <sup>809</sup>Health Economics Unit, Flinders University, Adelaide, SA, Australia. <sup>810</sup>College of Medicine and Public Health, Flinders University, Adelaide, SA, Australia. <sup>811</sup>Minimally Invasive Surgery Research Center, Iran University of Medical Sciences, Tehran, Iran. <sup>812</sup>School of Public Health, University College Cork, Cork, Ireland. <sup>813</sup>Department of Oral and Maxillofacial Pathology, Krishna Institute of Medical Sciences Deemed to be University, Karad, India. <sup>814</sup>Department of Statistics, Salahaddin University, Erbil, Iraq. <sup>815</sup>Independent Consultant, Pune, India. <sup>816</sup>Department of Neurology, University of Washington, Seattle, WA, USA. <sup>817</sup>Social Determinants of Health Research Center, Gonabad University of Medical Sciences, Gonabad, Iran. <sup>818</sup>School of Management and Medical Informatics, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>819</sup>Institute for Prevention of Non-communicable Diseases, Qazvin University of Medical Sciences, Qazvin, Iran. <sup>820</sup>Health Services Management Department, Qazvin University of Medical Sciences, Qazvin, Iran. <sup>821</sup>Dermatology Department, King Faisal University, Hofuf, Saudi Arabia. <sup>822</sup>Division of Epidemiology and Biostatistics, National Institute of Epidemiology, Chennai, India. <sup>823</sup>Department of Biostatistics, Indian Council of Medical Research, New Delhi, India. <sup>824</sup>Prasanna School of Public health, Manipal Academy of Higher Education, Manipal, India. <sup>825</sup>Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, Netherlands. <sup>826</sup>Family Medicine Department, Rafsanjan University of Medical Sciences, Rafsanjan, Iran. <sup>827</sup>Clinical Research

Development Unit, Rafsanjan University of Medical Sciences, Rafsanjan, Iran. <sup>828</sup>Department of Public Health, Abadan University of Medical Sciences, Abadan, Iran. <sup>829</sup>Department of Forensic Medicine and Toxicology, All India Institute of Medical Sciences, Jodhpur, India. <sup>830</sup>Save Sight Institute, University of Sydney, Sydney, NSW, Australia. <sup>831</sup>Sydney Eye Hospital, South Eastern Sydney Local Health District, Sydney, NSW, Australia. <sup>832</sup>The Hansjörg Wyss Department of Plastic and Reconstructive Surgery, Nab' al-Al-Hayat Foundation for Medical Sciences and Health Care, New York, NY, USA. <sup>833</sup>Department of Cleft Lip and Palate Surgery, Global Smile Foundation, Norwood, MA, USA. <sup>834</sup>Department of Health Economics, Iran University of Medical Sciences, Tehran, Iran. <sup>835</sup>Healthcare Network, Shiraz University of Medical Sciences, Farashband, Iran. <sup>836</sup>UF Health Cancer Center, University of Florida, Gainesville, FL, USA. <sup>837</sup>School of Health Professions and Human Services, Hofstra University, Hempstead, NY, USA. <sup>838</sup>Social Determinants of Health Research Center, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>839</sup>Department of Medical-Surgical Nursing, Guilan University of Medical Sciences, Rasht, Iran. <sup>840</sup>Department of Physical Therapy and Health Rehabilitation, Majmaah University, Majmaah, Saudi Arabia. <sup>841</sup>Quality Use of Medicines and Pharmacy Research Centre, University of South Australia, Adelaide, SA, Australia. <sup>842</sup>Centre for Tropical Diseases and Global Health, Catholic University of Bukavu, Bukavu, Democratic Republic of the Congo. <sup>843</sup>Department of Internal Medicine-Cardiology, University of Edinburgh, Scotland, UK. <sup>844</sup>Surgery Research Unit, University of Oulu, Oulu, Finland. <sup>845</sup>Department of Molecular Medicine and Surgery, Karolinska Institute, Stockholm, Sweden. <sup>846</sup>International Research Center of Excellence, Institute of Human Virology Nigeria, Abuja, Nigeria. <sup>847</sup>Julius Centre for Health Sciences and Primary Care, Utrecht University, Utrecht, Netherlands. <sup>848</sup>Department of Healthcare Services Management, Alborz University of Medical Sciences, Karaj, Iran. <sup>849</sup>Public Health Department, Wollega University, Nekemte, Ethiopia. <sup>850</sup>Department of Ophthalmology, Harvard University, Boston, MA, USA. <sup>851</sup>Eye Unit, MyungSung Medical College, Addis Ababa, Ethiopia. <sup>852</sup>Centre for Adolescent Health, Murdoch Childrens Research Institute, Melbourne, VIC, Australia. <sup>853</sup>Department of Psychological Medicine, University of Otago, Christchurch, New Zealand. <sup>854</sup>Vocational Higher School of Healthcare Studies, Mardin Artuklu University, Mardin, Türkiye. <sup>855</sup>Students' Scientific Research Center (SSRC), Tehran University of Medical Sciences, Tehran, Iran. <sup>856</sup>Department of Public Health, Jordan University of Science and Technology, Irbid, Jordan. <sup>857</sup>Amity Institute of Forensic Sciences, Amity University, Noida, India. <sup>858</sup>Radiology Research Committee, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>859</sup>School of Food and Agricultural Sciences, University of Management and Technology, Lahore, Pakistan. <sup>860</sup>Health Promotion Research Center, Zahedan University of Medical Sciences, Zahedan, Iran. <sup>861</sup>School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, QLD, Australia. <sup>862</sup>Department of Medicine, University of Chicago, Chicago, IL, USA. <sup>863</sup>Department of Epidemiology and Biostatistics, Health Services Academy, Islamabad, Pakistan. <sup>864</sup>Department of Pediatrics, Rutgers University, New Brunswick, NJ, USA. <sup>865</sup>Epidemiology Department, Jazan University, Jazan, Saudi Arabia. <sup>866</sup>Department of Rehabilitation Sciences, Hong Kong Polytechnic University, Hong Kong, China. <sup>867</sup>Family Medicine Department, United Arab Emirates University, Al Ain, United Arab Emirates. <sup>868</sup>Primary Care Department, NHS North West London, London, UK. <sup>869</sup>Population Science Department, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh, Bangladesh. <sup>870</sup>Department of Public Health, University of Sydney, Sydney, NSW, Australia. <sup>871</sup>Department of Clinical Pharmacy, Jouf University, Sakaka, Saudi Arabia. <sup>872</sup>College of Health, Wellbeing and Life Sciences, Sheffield Hallam University, Sheffield, UK. <sup>873</sup>College of Arts and Sciences, Ohio University, Zanesville, OH, USA. <sup>874</sup>Department of Basic Medical Sciences, Yarmouk University, Irbid, Jordan. <sup>875</sup>Department of Medical Parasitology, Cairo University, Cairo, Egypt. <sup>876</sup>School of Medicine, Kurdistan University of Medical Sciences, Sanandaj, Iran. <sup>877</sup>Global Consortium for Public Health Research, Datta Meghe Institute of Higher Education and Research, Wardha, India. <sup>878</sup>Department of Neurosurgery, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>879</sup>Brain and Spinal Cord Injury Research Center, Tehran University of Medical Sciences, Tehran, Iran. <sup>880</sup>Department of Epidemiology, Shahroud University of Medical Sciences, Shahroud, Iran. <sup>881</sup>Department of Public Health, New Mexico State University, Las Cruces, NM, USA. <sup>882</sup>Institute of Health Services Research, Yonsei University, Seoul, South Korea. <sup>883</sup>Department of Preventive Medicine, Korea University, Seoul, South Korea. <sup>884</sup>School of Traditional Chinese Medicine, Xiamen University Malaysia, Sepang, Malaysia. <sup>885</sup>Department of Nutrition, Simmons University, Boston, MA, USA. <sup>886</sup>School of Health Sciences, Kristiania University College, Oslo, Norway. <sup>887</sup>Department of International Health and Sustainable Development, Tulane University, New Orleans, LA, USA. <sup>888</sup>Department of Nursing and Health Promotion, Oslo Metropolitan University, Oslo, Norway. <sup>889</sup>Department of Epidemiology and Public Health, University College London, London, UK. <sup>890</sup>Department of Public Health, University of Helsinki, Helsinki, Finland. <sup>891</sup>Division of Plastic Surgery, University of Washington, Seattle, WA, USA. <sup>892</sup>Department of Global Health, University of Washington, Seattle, WA, USA. <sup>893</sup>Global Healthcare Consulting, New Delhi, India. <sup>894</sup>Saw Swee Hock School of Public Health, National University of Singapore, Singapore. <sup>895</sup>Saw Swee Hock School of Public Health, National University of Singapore, Singapore. <sup>896</sup>Institute for Allergology, Charité Universitätsmedizin Berlin (Charité Medical University Berlin), Berlin, Germany. <sup>897</sup>Division of Immune-Mediated Skin Diseases, First Moscow State Medical University (Sechenov University), Moscow, Russia. <sup>898</sup>Center for Global Mental Health, London School of Hygiene and Tropical Medicine, London, UK. <sup>899</sup>Children's Medical Center, Tehran University of Medical Sciences, Tehran, Iran. <sup>900</sup>Social Determinants of Health Research Center, Saveh University of Medical Sciences, Saveh, Iran. <sup>901</sup>Department of General Practice, Kharkiv National Medical University, Kharkiv, Ukraine. <sup>902</sup>Independent Consultant, Jakarta, Indonesia. <sup>903</sup>Department of Internal and Pulmonary Medicine, Sheri Kashmir Institute of Medical Sciences, Srinagar, India. <sup>904</sup>Kasturba Medical College, Udupi, India. <sup>905</sup>San Juan de Dios Sanitary Park, Barcelona, Spain. <sup>906</sup>Department of Anthropology, Panjab University, Chandigarh, India. <sup>907</sup>Department of Anesthesiology, Duke University, Durham, NC, USA. <sup>908</sup>Department of Anesthesiology and Pain Medicine, University of Washington, Seattle, WA, USA. <sup>909</sup>School of Human Sciences, University of Western Australia, Perth, WA, Australia. <sup>910</sup>Department of Demography, University of Montreal, Montreal, QC, Canada. <sup>911</sup>Department of Social and Preventive Medicine, University of Montreal, Montreal, QC, Canada. <sup>912</sup>Faculty of Medicine, Gazi University, Ankara, Türkiye. <sup>913</sup>Department of Biochemistry, University of Hail, Hail, Saudi Arabia. <sup>914</sup>University of Environment and Sustainable Development, Somanya, Ghana. <sup>915</sup>Department of Cardiothoracic Surgery, UN Mehta Institute of Cardiology and Research Center, Ahmedabad, India. <sup>916</sup>Department of Cardiothoracic Surgery, Medanta Hospital, Gurugram, India. <sup>917</sup>Department of Psychiatry, University of Nairobi, Nairobi, Kenya. <sup>918</sup>Division of Psychology and Language Sciences, University College London, London, UK. <sup>919</sup>Department of Orthopaedics, Medanta Hospital, Lucknow, India. <sup>920</sup>Amity Institute of Biotechnology, Amity University Rajasthan, Jaipur, India. <sup>921</sup>Faculty of Health and Life Sciences, Coventry University, Coventry, UK. <sup>922</sup>Department of Medicine, McMaster University, Hamilton, ON, Canada. <sup>923</sup>Department of Health Services Research and Management, City University of London, London, UK. <sup>924</sup>Faculty of Public Health, University of Indonesia, Depok, Indonesia. <sup>925</sup>Department of Nephrology, Pushpagiri Institute of Medical Sciences and Research Centre, Thiruvalla, India. <sup>926</sup>Department of Clinical Sciences and Community Health, University of Milan, Milan, Italy. <sup>927</sup>National Institute for Health Research (NIHR) Oxford Biomedical Research Centre, Oxford, UK. <sup>928</sup>Global Public Health, Karolinska Institute, Stockholm, Sweden. <sup>929</sup>Institute for Social and Health Sciences, University of South Africa, Pretoria, South Africa. <sup>930</sup>Public Health Foundation of India, Gurugram, India. <sup>931</sup>School of Dentistry, The University of Queensland, Brisbane, QLD, Australia. <sup>932</sup>NEVES Society for Patient Safety, NEVES Society for Patient Safety, Budapest, Hungary. <sup>933</sup>Department of Community and Family Medicine, University of Baghdad, Baghdad, Iraq. <sup>934</sup>Division of Cancer Epidemiology and Genetics, National Cancer Institute, Rockville, MD, USA. <sup>935</sup>Unit of Genetics and Public Health, Institute of Medical Sciences, Las Tablas, Panama. <sup>936</sup>Ministry of Health, Herrera, Panama. <sup>937</sup>Centre for Surveillance and Applied Research, Public Health Agency of Canada, Ottawa, ON, Canada. <sup>938</sup>Department of Psychiatry and Psychotherapy, University of Regensburg, Regensburg, Germany. <sup>939</sup>Endocrinology and Metabolism Research Institute, Tehran University of Medical Sciences, Tehran, Iran. <sup>940</sup>Department of Medical Sciences, Uppsala University, Uppsala, Sweden. <sup>941</sup>Department of Clinical

Chemistry and Pharmacology, Uppsala University Hospital, Uppsala, Sweden. <sup>942</sup>Centre for Family Welfare, University of Indonesia, Depok, Indonesia. <sup>943</sup>Department of Global Health and Health Security, Taipei Medical University, Taipei, Taiwan. <sup>944</sup>Department of Rehabilitation Sciences, The Hong Kong Polytechnic University, Hong Kong, China. <sup>945</sup>International Society Doctors for the Environment, Arezzo, Italy. <sup>946</sup>Department of Public Health, Yonsei University, Seoul, South Korea. <sup>947</sup>Pattern Recognition and Machine Learning Lab, Gachon University, Seongnam, South Korea. <sup>948</sup>Department of Precision Medicine, Sungkyunkwan University, Suwon-si, South Korea. <sup>949</sup>School of Pharmacy, Taylor's University Lakeside Campus, Subang Jaya, Malaysia. <sup>950</sup>Department of Internal Medicine, University of Texas, Galveston, TX, USA. <sup>951</sup>Knowledge Translation Directorate, Ethiopian Public Health Institute, Addis Ababa, Ethiopia. <sup>952</sup>Asbestos Diseases Research Institute, University of Sydney, Sydney, NSW, Australia. <sup>953</sup>UO Neurologia, Salute Pubblica e Disabilità, Fondazione IRCCS Istituto Neurologico Carlo Besta (Carlo Besta Neurological Institute), Milan, Italy. <sup>954</sup>Faculty of Science, Universiti Brunei Darussalam (University of Brunei Darussalam), Bandar Seri Begawan, Brunei. <sup>955</sup>Center for Dentistry and Oral Hygiene, University of Groningen, Groningen, Netherlands. <sup>956</sup>Stomatological Hospital, Southern Medical University, Guangzhou, China. <sup>957</sup>Department of Health Promotion and Health Education, National Taiwan Normal University, Taipei, Taiwan. <sup>958</sup>Directorate of Quality Management and Digital Health, Ministry of Health, Lilongwe, Malawi. <sup>959</sup>School of Health Sciences, Western Sydney University, Campbelltown, NSW, Australia. <sup>960</sup>College of Medicine and Public Health, Flinders University, Bedford Park, SA, Australia. <sup>961</sup>Department of Medicine, University of Malaya, Kuala Lumpur, Malaysia. <sup>962</sup>Department of Medicine and Therapeutics, The Chinese University of Hong Kong, Shatin, China. <sup>963</sup>Asbestos Diseases Research Institute, Concord, NSW, Australia. <sup>964</sup>UCD Centre for Disability Studies, University College Dublin, Dublin, Ireland. <sup>965</sup>School of Public Health, University of Haifa, Haifa, Israel. <sup>966</sup>School of Life Sciences, University of Technology Sydney, Ultimo, NSW, Australia. <sup>967</sup>Centre for Inflammation, Centenary Institute, Camperdown, NSW, Australia. <sup>968</sup>Department of Epidemiology and Biostatistics, Peking University, Beijing, China. <sup>969</sup>Chinese Center for Disease Control and Prevention, Beijing, China. <sup>970</sup>Institute for Health and Environment, Chongqing University of Science and Technology, Chongqing, China. <sup>971</sup>Department of Internal Medicine, Kirk Kerkorian School of Medicine at UNLV, Las Vegas, NV, USA. <sup>972</sup>Interdisciplinary Centre of Marine and Environmental Research, University of Porto, Matosinhos, Portugal. <sup>973</sup>National Institutes of Health, University of the Philippines Manila, Manila, Philippines. <sup>974</sup>School of Medicine and Public Health, Ateneo De Manila University, Pasig City, Philippines. <sup>975</sup>Department of Health Economics, Syreon Research Romania, Targu Mures, Romania. <sup>976</sup>Department of Doctoral Studies, George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Targu Mures, Targu Mures, Romania. <sup>977</sup>Medical Education Research Center, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>978</sup>Laboratory for Process Engineering, Environment, Biotechnology and Energy (LEPABE), University of Porto, Porto, Portugal. <sup>979</sup>School of Health, Polytechnic Institute of Porto, Porto, Portugal. <sup>980</sup>School of Medicine, Federal University of Juiz de Fora, Juiz de Fora, Brazil. <sup>981</sup>Department of General Surgery, Liverpool University Hospitals NHS Foundation Trust, Liverpool, UK. <sup>982</sup>Department of Surgery, University of Liverpool, Liverpool, UK. <sup>983</sup>Clinical Research Unit, Centro de Investigação Interdisciplinar Egas Moniz (Egas Moniz Interdisciplinary Research Center), Monte da Caparica, Portugal. <sup>984</sup>Department of Biostatistics and Epidemiology, Yazd University of Medical Sciences, Yazd, Iran. <sup>985</sup>Institute for Physical Activity and Nutrition, Deakin University, Melbourne, VIC, Australia. <sup>986</sup>Mansoura Faculty of Medicine, Mansoura University, Mansoura, Egypt. <sup>987</sup>Department of Forensic Medicine and Toxicology, Mysore Medical College and Research Institute, Mysooru, India. <sup>988</sup>Department of Health and Family Welfare, Government of Karnataka, Bangalore, India. <sup>989</sup>Department of Community Medicine, Jawaharlal Institute of Postgraduate Medical Education and Research, Karaikal, India. <sup>990</sup>Grants, Innovation and Product Development Unit, South African Medical Research Council, Cape Town, South Africa. <sup>991</sup>Cellular and Molecular Biology Research Center, Babol University of Medical Sciences, Babol, Iran. <sup>992</sup>Department of Clinical Biochemistry, Babol University of Medical Sciences, Babol, Iran. <sup>993</sup>Department of Clinical and Hospital Pharmacy, Taibah University, Al-Madinah Al-Munawwarah, Saudi Arabia. <sup>994</sup>Department of Food Hygiene and Safety, Qazvin University of Medical Sciences, Qazvin, Iran. <sup>995</sup>Department of Biostatistics and Epidemiology, Kerman University of Medical Sciences, Kerman, Iran. <sup>996</sup>Department of Primary Care and Public Health, Imperial College London, London, UK. <sup>997</sup>Department of Public Health Research, National Institute of Health, Bogota, Colombia. <sup>998</sup>Faculty of Medicine, El Bosque University, Bogota, Colombia. <sup>999</sup>Department of Pediatric Cardiology, Tehran University of Medical Sciences, Tehran, Iran. <sup>1000</sup>Rabigh Faculty of Medicine, King Abdulaziz University, Jeddah, Saudi Arabia. <sup>1001</sup>Heart and Vascular institute, Cleveland Clinic Abu Dhabi, Abu Dhabi, United Arab Emirates. <sup>1002</sup>Département STIC, The École Nationale Supérieure de Techniques Avancées de Bretagne (ENSTA), Brest, France. <sup>1003</sup>Security, Intelligence et Integrity of Information (SI3), LABSTICC, Brest, France. <sup>1004</sup>Substance Abuse Prevention Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>1005</sup>Department of Epidemiology and Biostatistics, Tehran University of Medical Sciences, Tehran, Iran. <sup>1006</sup>School of Medicine and Surgery, University of Milan Bicocca, Monza, Italy. <sup>1007</sup>Laboratory of Public Health, Istituto Auxologico Italiano IRCCS (Italian Auxological Institute), Milan, Italy. <sup>1008</sup>Department of Biochemistry, Golestan University of Medical Sciences, Gorgan, Iran. <sup>1009</sup>Department of Health Economics, Mayor University, Cartagena, Colombia. <sup>1010</sup>Noncommunicable Diseases and Mental Health Department, Pan American Health Organization, Washington, DC, USA. <sup>1011</sup>Joint Learning Network for Universal Coverage, Arlington, VA, USA. <sup>1012</sup>Faculty of Public Health, Universitas Airlangga (Airlangga University), Surabaya, Indonesia. <sup>1013</sup>Indonesian Public Health Association, Surabaya, Indonesia. <sup>1014</sup>Campus Caucaia, Federal Institute of Education, Science and Technology of Ceará, Caucaia, Brazil. <sup>1015</sup>Department of Nutrition and Dietetics, University of Concepcion, Concepción, Chile. <sup>1016</sup>Centre for Healthy Living, University of Concepcion, Concepción, Chile. <sup>1017</sup>Department of Public Health and Community Medicine, Central University of Kerala, Kasaragod, India. <sup>1018</sup>Division of Infection, Immunity and Respiratory Medicine, University of Manchester, Manchester, UK. <sup>1019</sup>North West Lung Centre, Manchester University NHS Foundation Trust, Manchester, UK. <sup>1020</sup>Epidemiology Department, Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand. <sup>1021</sup>Nuffield Department of Medicine, University of Oxford, Oxford, UK. <sup>1022</sup>Research Division, The George Institute for Global Health, New Delhi, India. <sup>1023</sup>School of Medicine, University of New South Wales, Sydney, NSW, Australia. <sup>1024</sup>Department of Biology, Salahaddin University-Erbil, Erbil, Iraq. <sup>1025</sup>Department of Healthcare, University of Vlora, Vlora city, Albania. <sup>1026</sup>Clinic of Social and Family Medicine, University of Crete, Heraklion, Greece. <sup>1027</sup>Department of Preventive Oncology, All India Institute of Medical Sciences, New Delhi, India. <sup>1028</sup>Faculty of Nursing, University of Alberta, Edmonton, AB, Canada. <sup>1029</sup>School of Atmospheric Physics, Nanjing University of Information Science and Technology, Nanjing, China. <sup>1030</sup>Neurology Department, Janakpuri Super Specialty Hospital Society, New Delhi, India. <sup>1031</sup>Department of Neurology, Govind Ballabh Institute of Medical Education and Research, New Delhi, India. <sup>1032</sup>Tehran Heart Center, Tehran University of Medical Sciences, Tehran, Iran. <sup>1033</sup>Department of Epidemiology and Biostatistics, University of California San Francisco, San Francisco, CA, USA. <sup>1034</sup>Department of Clinical and Health Sciences, University of South Australia, Adelaide, SA, Australia. <sup>1035</sup>Research and Innovation Center, Ministry of Health, Riyadh, Saudi Arabia. <sup>1036</sup>Peru Country Office, United Nations Population Fund (UNFPA), Lima, Peru. <sup>1037</sup>Faculty of Civil Engineering, University of Colima, Colima, Mexico. <sup>1038</sup>Forensic Medicine Division, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia. <sup>1039</sup>International Dx Department, BGI Genomics, Copenhagen, Denmark. <sup>1040</sup>Neurology Unit, Helsinki University Hospital, Helsinki, Finland. <sup>1041</sup>School of Health Sciences, University of Melbourne, Melbourne, VIC, Australia. <sup>1042</sup>Breast Surgery Unit, Helsinki University Hospital, Helsinki, Finland. <sup>1043</sup>University of Helsinki, Helsinki, Finland. <sup>1044</sup>Department of Midwifery, Debre Markos University, Debre Markos, Ethiopia. <sup>1045</sup>University Centre Varazdin, University North, Varazdin, Croatia. <sup>1046</sup>Department of Propedeutics of Internal Diseases and Arterial Hypertension, Pomeranian Medical University, Szczecin, Poland. <sup>1047</sup>Anaesthesiology Department, "Helena Venizelou" General and Maternity Hospital, Athens, Greece. <sup>1048</sup>Department of Epidemiology, Maria Skłodowska-Curie National Research Institute of Oncology, Warsaw, Poland. <sup>1049</sup>National Cancer Registry, Maria Skłodowska-Curie National Research Institute of Oncology, Warsaw, Poland. <sup>1050</sup>Department



of Maternal and Child Nursing and Public Health, Federal University of Minas Gerais, Belo Horizonte, Brazil. <sup>1051</sup>Pacific Institute for Research and Evaluation, Calverton, MD, USA. <sup>1052</sup>Department of Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>1053</sup>Department of Medical Sciences, IRCCS Casa Sollievo della Sofferenza General Hospital (Home for the Relief of Suffering General Hospital), San Giovanni Rotondo, Italy. <sup>1054</sup>Internal Medicine Programme, Kyrgyz State Medical Academy, Bishkek, Kyrgyzstan. <sup>1055</sup>Department of Atherosclerosis and Coronary Heart Disease, National Center of Cardiology and Internal Disease, Bishkek, Kyrgyzstan. <sup>1056</sup>Department of Hospital Administration, All India Institute of Medical Sciences, Bathinda, India. <sup>1057</sup>Department of Rehabilitation and Sports Medicine, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>1058</sup>Comprehensive Research Laboratory, Iran University of Medical Sciences, Tehran, Iran. <sup>1059</sup>Water Quality Research Center, Tehran University of Medical Sciences, Tehran, Iran. <sup>1060</sup>National Data Management Center for Health, Ethiopian Public Health Institute, Addis Ababa, Ethiopia. <sup>1061</sup>Department of Surgical Oncology, All India Institute of Medical Sciences, Jodhpur, India. <sup>1062</sup>Department of Forensic Medicine and Toxicology, Dr. B. C. Roy Multi-Specialty Medical Research Centre, IIT Kharagpur, Kharagpur, India. <sup>1063</sup>Department of Higher Education Management, Islamic Azad University, Tehran, Iran. <sup>1064</sup>Thompson Institute, University of the Sunshine Coast, Birtinya, QLD, Australia. <sup>1065</sup>Midwifery Department, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>1066</sup>Faculty of Medicine, Tehran University of Medical Sciences, Tehran, Iran. <sup>1067</sup>Department of Public Health, Dire Dawa University, Dire Dawa, Ethiopia. <sup>1068</sup>Health Systems and Policy Research Unit, Ahmadu Bello University, Zaria, Nigeria. <sup>1069</sup>Department of Health Care Management, Technical University of Berlin, Berlin, Germany. <sup>1070</sup>Substance Abuse and Toxicology Research Center, Jazan University, Jazan, Saudi Arabia. <sup>1071</sup>Center for Transdisciplinary Research, Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai, India. <sup>1072</sup>Oncology Department, Appalachian Regional Healthcare, Hazard, KY, USA. <sup>1073</sup>Department of Internal Medicine, University of Kentucky, Lexington, KY, USA. <sup>1074</sup>Faculty of Life Sciences and Medicine, King's College London, London, UK. <sup>1075</sup>Clinical Epidemiology and Public Health Research Unit, Burlo Garofolo Institute for Maternal and Child Health, Trieste, Italy. <sup>1076</sup>Department of Biomedical and Dental Sciences and Morphofunctional Imaging, Messina University, Messina, Italy. <sup>1077</sup>Faculty of Medicine, The University of Queensland, Brisbane, QLD, Australia. <sup>1078</sup>School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>1079</sup>Social Determinants of Health Research Center, Kurdistan University of Medical Sciences, Kurdistan, Iran. <sup>1080</sup>Computer, Electrical, and Mathematical Sciences and Engineering Division, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia. <sup>1081</sup>Department of Public Health, Oswaldo Cruz Foundation, Recife, Brazil. <sup>1082</sup>Department of Public Health, Federal University of Pernambuco, Recife, Brazil. <sup>1083</sup>University Hospital Center of Porto, University of Porto, Porto, Portugal. <sup>1084</sup>Clinical Research Development Unit, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>1085</sup>Academic and Research Collaborative in Health (ARCH), La Trobe University, Melbourne, VIC, Australia. <sup>1086</sup>The Victorian Rehabilitation Centre, Healthscope, Glen Waverley, VIC, Australia. <sup>1087</sup>Division of Plastic and Reconstructive Surgery, University of Washington, Seattle, WA, USA. <sup>1088</sup>Department of Health Policy, London School of Economics and Political Science, London, UK. <sup>1089</sup>Department of Surgery and Cancer, Imperial College London, London, UK. <sup>1090</sup>Department of Medicine, Stanford University, Palo Alto, CA, USA. <sup>1091</sup>Stanford Cardiovascular Institute, Stanford University, Palo Alto, CA, USA. <sup>1092</sup>Chronic Respiratory Disease Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>1093</sup>Social Determinants of Health Research Center, Babol University of Medical Sciences, Babol, Iran. <sup>1094</sup>Department of Fruit and Vegetable Product Technology, Prof. Wacław Dąbrowski Institute of Agricultural and Food Biotechnology State Research Institute, Warsaw, Poland. <sup>1095</sup>Department of Epidemiology and Biostatistics, Wuhan University, Wuhan, China. <sup>1096</sup>Federal Institute for Population Research, Wiesbaden, Germany. <sup>1097</sup>Center for Population and Health, Wiesbaden, Germany. <sup>1098</sup>Health and Physical Education, Rhode Island College, Providence, RI, USA. <sup>1099</sup>Department of Surgery, General University Hospital of Patras, Patras, Greece. <sup>1100</sup>Faculty of Medicine, University of Thessaly, Larissa, Greece. <sup>1101</sup>Department of Pediatrics and Child Health Nursing, Debre Berhan University, Debre Berhan, Ethiopia. <sup>1102</sup>Department of Paediatrics and Paediatric Infectious Diseases, I.M. Sechenov First Moscow State Medical University, Moscow, Russia. <sup>1103</sup>National Heart and Lung Institute, Imperial College London, London, UK. <sup>1104</sup>Clinical Epidemiology Research Unit, Mexican Institute of Social Security, Villa de Alvarez, Mexico. <sup>1105</sup>Postgraduate in Medical Sciences, Universidad de Colima, Colima, Mexico. <sup>1106</sup>The George Institute for Global Health, Hyderabad, India. <sup>1107</sup>Surgery Department, University of Medicine and Pharmacy Grigore T. Popa, Iași, Romania. <sup>1108</sup>Second Surgical Unit, Regional Institute of Oncology Iasi, Iasi, Romania. <sup>1109</sup>Department of Pediatrics, Shaqra University, Shaqra, Saudi Arabia. <sup>1110</sup>Department of Pediatrics and Pediatric Pulmonology, Institute of Mother and Child Care, Multan, Pakistan. <sup>1111</sup>Department of Medical Microbiology and Immunology, Mekelle University, Mekelle, Ethiopia. <sup>1112</sup>Department of Internal Medicine, University of Botswana, Gaborone, Botswana. <sup>1113</sup>Department of Obstetrics and Gynecology, Ain Shams University, Cairo, Egypt. <sup>1114</sup>Department of Knowledge Translation and Utilization, Egyptian Center for Evidence Based Medicine, Cairo, Egypt. <sup>1115</sup>Research and Analytics Department, Initiative for Financing Health and Human Development, Chennai, India. <sup>1116</sup>Department of Research and Analytics, Bioinsilico Technologies, Chennai, India. <sup>1117</sup>Laboratory of Public Health Indicators Analysis and Health Digitalization, Moscow Institute of Physics and Technology, Dolgoprudny, Russia. <sup>1118</sup>Experimental Surgery and Oncology Laboratory, Kursk State Medical University, Kursk, Russia. <sup>1119</sup>Health Workforce Department, World Health Organisation, Geneva, Switzerland. <sup>1120</sup>Department of Health Care Management, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. <sup>1121</sup>Department of Dermatology, San Bortolo Hospital, Vicenza, Italy. <sup>1122</sup>Italian Group for Epidemiologic Research in Dermatology (GISED) Study Center, Bergamo, Italy. <sup>1123</sup>Suraj Eye Institute, Nagpur, India. <sup>1124</sup>School of Pharmacy, University of Reading, Reading, UK. <sup>1125</sup>Mysore Medical College and Research Institute, Government Medical College, Mysore, India. <sup>1126</sup>Manipal College of Dental Sciences, Manipal Academy of Higher Education, Manipal, India. <sup>1127</sup>Department of Clinical Medicine, Federal University of Minas Gerais, Belo Horizonte, Brazil. <sup>1128</sup>Clinical Hospital, Federal University of Minas Gerais, Belo Horizonte, Brazil. <sup>1129</sup>Institute of Nephrology, Madras Medical College, Chennai, India. <sup>1130</sup>Department of Dental Public Health, King Abdulaziz University, Jeddah, Saudi Arabia. <sup>1131</sup>Department of Health Policy and Oral Epidemiology, Harvard University, Boston, MA, USA. <sup>1132</sup>Department of Disease Control and Environmental Health, Makerere University, Kampala, Uganda. <sup>1133</sup>School of Pharmacy, West Virginia University, Morgantown, WV, USA. <sup>1134</sup>Department of General Surgery, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania. <sup>1135</sup>Department of General Surgery, Emergency Hospital of Bucharest, Bucharest, Romania. <sup>1136</sup>Department of Anatomy and Embryology, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania. <sup>1137</sup>Department of Cardiology, Cardio-Aid, Bucharest, Romania. <sup>1138</sup>Department of Epidemiology, Non-Communicable Diseases Research Center (NCDRC), Tehran, Iran. <sup>1139</sup>Department of Medicine, Democritus University of Thrace, Alexandroupolis, Greece. <sup>1140</sup>Department of Community Medicine, Kathmandu University, Palpa, Nepal. <sup>1141</sup>School of Nursing, University of Gondar, Gondar, Ethiopia. <sup>1142</sup>College of Medicine and Health Science, Bahir Dar University, Gondar, Ethiopia. <sup>1143</sup>Department of Public Health, University of Yaoundé I, Yaoundé, Cameroon. <sup>1144</sup>Department of Biological Sciences, University of Embu, Embu, Kenya. <sup>1145</sup>Department of Public Health and Community Medicine, University of Gothenburg, Gothenburg, Sweden. <sup>1146</sup>International Islamic University Islamabad, Islamabad, Pakistan. <sup>1147</sup>Department of Epidemiology and Biostatistics, University of Gondar, Gondar, Ethiopia. <sup>1148</sup>Department of Biomedical and Molecular Sciences, Queen's University, Kingston, ON, Canada. <sup>1149</sup>Department of Internal Medicine, Ziauddin University, Karachi, Pakistan. <sup>1150</sup>South African Medical Research Council, Cape Town, South Africa. <sup>1151</sup>School of Public Health and Family Medicine, University of Cape Town, Cape Town, South Africa. <sup>1152</sup>Department of Health Policy and Management, Keio University, Tokyo, Japan. <sup>1153</sup>Department of Global Health Policy, University of Tokyo, Tokyo, Japan. <sup>1154</sup>Medical Research Council Clinical Trials Unit, University College London, London, UK. <sup>1155</sup>Department of Gastroenterology, Cambridge University Hospitals, Cambridge, UK. <sup>1156</sup>Department of Pharmacology, Tehran University of Medical Sciences, Tehran, Iran. <sup>1157</sup>Department of Clinical Sciences, Lund University, Lund, Sweden. <sup>1158</sup>Centre for Heart Rhythm Disorders, University of Adelaide, Adelaide, SA, Australia. <sup>1159</sup>Department of Medical Mycology and



Parasitology, Shiraz University of Medical Sciences, Shiraz, Iran. <sup>1160</sup>Department of Internal Medicine, University of Thessaly, Larissa, Greece. <sup>1161</sup>Division of Cardiology, University of Cape Town, Cape Town, South Africa. <sup>1162</sup>The Cardiac Clinic, Groote Schuur Hospital, Cape Town, South Africa. <sup>1163</sup>Public Health Department, Banten School of Health Science, South Tangerang, Indonesia. <sup>1164</sup>Department of Ministry of Research, Technology and Higher Education, Higher Education Service Institutions (LL-DIKTI) Region IV, Bandung, Indonesia. <sup>1165</sup>School of Nursing, Family Health Care Department, University of California San Francisco, San Francisco, CA, USA. <sup>1166</sup>Center of Excellence in Reproductive Health Innovation (CERHI), University of Benin, Benin City, Nigeria. <sup>1167</sup>Department of Physiology, University of Benin, Edo, Nigeria. <sup>1168</sup>Department of Physiology, Benson Idahosa University, Benin City, Nigeria. <sup>1169</sup>Health Policy Research Group, University of Nigeria Nsukka, Enugu, Nigeria. <sup>1170</sup>Results for Development, Research and Academic Institution, Abuja, Nigeria. <sup>1171</sup>Department of Community Health and Primary Care, University of Lagos, Idi Araba, Nigeria. <sup>1172</sup>Department of Family and Preventive Medicine, University of Utah, Salt Lake City, UT, USA. <sup>1173</sup>Department of Obstetrics and Gynecology, University of Ibadan, Ibadan, Nigeria. <sup>1174</sup>Department of Preventive Medicine, Kyung Hee University, Dongdaemun-gu, South Korea. <sup>1175</sup>Department of Psychiatry, University of Ibadan, Ibadan, Nigeria. <sup>1176</sup>Centre for Dementia Studies, Brighton and Sussex Medical School, Brighton, UK. <sup>1177</sup>Department of Food and Nutrition, Seoul National University, Seoul, South Korea. <sup>1178</sup>College of Medicine, University of Ibadan, Ibadan, Nigeria. <sup>1179</sup>School of Pharmacy, University of the Western Cape, Cape Town, South Africa. <sup>1180</sup>Department of Psychiatry and Behavioral Sciences, Baylor College of Medicine, Houston, FL, USA. <sup>1181</sup>Department of Medicine Critical Care, Boston Children's Hospital, Boston, USA. <sup>1182</sup>Department of Psychiatry and Behavioural Neurosciences, McMaster University, Hamilton, ON, Canada. <sup>1183</sup>Department of Psychiatry, University of Lagos, Lagos, Nigeria. <sup>1184</sup>Department of Medicine, Salvador Zubiran National Institute of Medical Sciences and Nutrition, Tlalpan, Mexico. <sup>1185</sup>Department of Biostatistics, University of Washington, Seattle, WA, USA. <sup>1186</sup>Associação Brasileira de Cefaleia em Salvas e Enxaqueca, ABRACES, São Paulo, Brazil. <sup>1187</sup>Cardiology Department, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil. <sup>1188</sup>Centre for Healthy Start Initiative, Lagos, Nigeria. <sup>1189</sup>Diplomacy and Public Relations Department, University of Human Development, Sulaymaniyah, Iraq. <sup>1190</sup>Non-communicable Disease Prevention Unit, Ministry of Health, Bandar Seri Begawan, Brunei. <sup>1191</sup>Early Detection and Cancer Prevention Services, Pantai Jerudong Specialist Centre, Bandar Seri Begawan, Brunei. <sup>1192</sup>Department of Pharmacology and Therapeutics, University of Nigeria Nsukka, Enugu, Nigeria. <sup>1193</sup>Health Systems Research Center, National Institute of Public Health, Cuernavaca, Mexico. <sup>1194</sup>Department of Nephrology and Hypertension, The Institute for Health Research Foundation Jiménez Díaz University Hospital, Madrid, Spain. <sup>1195</sup>Department of Project Management, National Research University Higher School of Economics, Moscow, Russia. <sup>1196</sup>Department of Epidemiology and Population Health, Khalifa University, Abu Dhabi, United Arab Emirates. <sup>1197</sup>Faculty of Medicine, University Ferhat Abbas of Sétif, Sétif, Algeria. <sup>1198</sup>Department of Infectious Diseases, University Hospital of Sétif, Sétif, Algeria. <sup>1199</sup>Section for Health Care Collaboration, Haukeland University Hospital, Bergen, Norway. <sup>1200</sup>Department of Medicine, University of Ibadan, Ibadan, Nigeria. <sup>1201</sup>Department of Medicine, University College Hospital, Ibadan, Ibadan, Nigeria. <sup>1202</sup>Department of Respiratory Medicine, JSS Academy of Higher Education and Research, Mysore, India. <sup>1203</sup>Department of Physical Medicine and Rehabilitation, Harvard University, Boston, MA, USA. <sup>1204</sup>Vicerrectorado de Investigación, Universidad San Ignacio de Loyola, Lima, Peru. <sup>1205</sup>National School of Public Health, Institute of Health Carlos III, Madrid, Spain. <sup>1206</sup>Department of Forensic Medicine and Toxicology, Kasturba Medical College, Mangalore, India. <sup>1207</sup>Department of Neurology, National Institute of Mental Health and Neurosciences, Bangalore, India. <sup>1208</sup>Department of Public Health, University of Naples Federico II, Naples, Italy. <sup>1209</sup>Privatpraxis, Heidelberg, Germany. <sup>1210</sup>Saveetha Medical College and Hospitals, Saveetha University, Chennai, India. <sup>1211</sup>Division of Research and Development, Lovely Professional University, Phagwara, India. <sup>1212</sup>National Research and Innovation Agency, Jakarta, Indonesia. <sup>1213</sup>Department of Clinical Research, Nepal Health Research Council, Kathmandu, Nepal. <sup>1214</sup>Department of Biophysics, University of Athens, Athens, Greece. <sup>1215</sup>Department of Preventive Medicine, Yonsei University, Seoul, South Korea. <sup>1216</sup>Department of Medical Humanities and Social Medicine, Kosin University, Busan, South Korea. <sup>1217</sup>Yonsei University College of Medicine, Seodaemun-gu, South Korea. <sup>1218</sup>Cardiology Department, MercyOne North Iowa Medical Center, Mason City, IA, USA. <sup>1219</sup>Global Health Governance Programme, University of Edinburgh, Edinburgh, UK. <sup>1220</sup>School of Dentistry, University of Leeds, Leeds, UK. <sup>1221</sup>Department of Epidemiology, Human Genetics and Environmental Sciences, The University of Texas Health Science Center at Houston, Dallas, TX, USA. <sup>1222</sup>Department of Epidemiology, University of Arkansas for Medical Sciences, Little Rock, AR, USA. <sup>1223</sup>Department of Psychiatry, Oklahoma State University, Norman, OK, USA. <sup>1224</sup>Department of Psychiatry, Oklahoma State University, Tulsa, OK, USA. <sup>1225</sup>Department of Neurology and Public Health, Icahn School of Medicine at Mount Sinai, New York, NY, USA. <sup>1226</sup>Department of Pharmacology, Shaqra University, Shaqra, Saudi Arabia. <sup>1227</sup>Research Consultancy, Author Gate Publications, Malegaon, India. <sup>1228</sup>Department of General Surgery, University of Texas, Seattle, WA, USA. <sup>1229</sup>Research Section, Nepal Health Research Council, Kathmandu, Nepal. <sup>1230</sup>Faculty of Humanities and Social Sciences, Tribhuvan University, Kathmandu, Nepal. <sup>1231</sup>Department of Genetics, Yale University, New Haven, CT, USA. <sup>1232</sup>Department of Physiology, Iran University of Medical Sciences, Tehran, Iran. <sup>1233</sup>Physiology Research Center, Iran University of Medical Sciences, Tehran, Iran. <sup>1234</sup>College of Public Health, Medical and Veterinary Sciences, James Cook University, Townsville, NSW, Australia. <sup>1235</sup>Clinical Research Department, IRCCS Fondazione Don Carlo Gnocchi, Milan, Italy. <sup>1236</sup>Department of Infection Control, Taihe Hospital, Shiyang, China. <sup>1237</sup>The First Clinical College, Hubei University of Medicine, Shiyang, China. <sup>1238</sup>Department of Neurology, IRCCS Humanitas Research Hospital, Milan, Italy. <sup>1239</sup>Center for Research and Innovation, Ateneo De Manila University, Pasig City, Philippines. <sup>1240</sup>Department of Pharmacy, Pharmacology and Health Technologies, University of Lisbon, Lisbon, Portugal. <sup>1241</sup>Institute of Collective Health, Federal University of Bahia, Salvador, Brazil. <sup>1242</sup>Mario Negri Institute for Pharmacological Research, Bergamo, Italy. <sup>1243</sup>Department of Biology, University of Bahrain, Sakir, Bahrain. <sup>1244</sup>Pennsylvania Cancer and Regenerative Medicine Center, Baruch S Blumberg Institute, Doylestown, PA, USA. <sup>1245</sup>Department of Medicine, Xavier University School of Medicine, Woodbury, NY, USA. <sup>1246</sup>School of Optometry and Vision Science, University of New South Wales, Sydney, NSW, Australia. <sup>1247</sup>Department of Medicine, Endocrinology Unit, University of Padova, Padova, Italy. <sup>1248</sup>Associazione Italiana Ricerca Oncologica di Base (AIROB), Padova, Italy. <sup>1249</sup>Shanghai Mental Health Center, Shanghai Jiao Tong University, Shanghai, China. <sup>1250</sup>Department of Psychiatry, Columbia University, New York, NY, USA. <sup>1251</sup>SSD Epidemiology Screening, City of Health and Science University Hospital of Turin, Turin, Italy. <sup>1252</sup>Basic Medical Sciences Department, Durban University of Technology, Durban, South Africa. <sup>1253</sup>International Center of Medical Sciences Research, Islamabad, Pakistan. <sup>1254</sup>Molecular Medicine Research Center, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>1255</sup>Research School of Chemistry and Applied Biomedical Sciences, Tomsk Polytechnic University, Tomsk, Russia. <sup>1256</sup>Mental Health Research Institute, Tomsk National Research Medical Center of the Russian Academy of Sciences, Tomsk, Russia. <sup>1257</sup>Department of Dermatology, College of Medicine and Sagore Dutta Hospital, Kolkata, India. <sup>1258</sup>Medical College, Tairunnessa Memorial Medical College and Hospital, Gazipur, Bangladesh. <sup>1259</sup>School of Public Health, University of Adelaide, Adelaide, SA, Australia. <sup>1260</sup>Department of Experimental Medicine, Sapienza University of Rome, Rome, Italy. <sup>1261</sup>Department of Medicine, Monash University, Melbourne, VIC, Australia. <sup>1262</sup>Department of Data Management and Analysis, The INCLEN Trust International, New Delhi, India. <sup>1263</sup>Discipline of General Practice, University of Newcastle, Callaghan, NSW, Australia. <sup>1264</sup>University Medical Center Groningen, University of Groningen, Groningen, Netherlands. <sup>1265</sup>Center of Excellence in Higher Education for Pharmaceutical Care Innovation, Universitas Padjadjaran (Padjadjaran University), Bandung, Indonesia. <sup>1266</sup>Non-Communicable Diseases Research Center, Bam University of Medical Sciences, Bam, Iran. <sup>1267</sup>Centro de Investigaciones Clínicas (Clinical Research Center), Fundación Valle del Lili (Valle del Lili Foundation), Cali, Colombia. <sup>1268</sup>Centro de Estudios en Protección Social y Economía (PROESA), Universidad Icesi (ICESI University), Cali, Colombia. <sup>1269</sup>Department of Community Medicine, Tribhuvan University, Kathmandu, Nepal. <sup>1270</sup>Harvard T.H. Chan School of Public Health, Harvard University, Boston, MA, USA. <sup>1271</sup>Askok and Rita Patel Institute of

Physiotherapy, Charotar University of Science and Technology, Anand, India. <sup>1272</sup>Department of Nephrology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India. <sup>1273</sup>Center for Interdisciplinary Research (CiEM), Instituto Universitário Egas Moniz, Almada, Portugal. <sup>1274</sup>Department of Neonatology, Case Western Reserve University, Cleveland, OH, USA. <sup>1275</sup>School of Engineering, Macquarie University, Sydney, NSW, Australia. <sup>1276</sup>Pohang University of Science and Technology, Pohang, South Korea. <sup>1277</sup>College of Medicine, University of Central Florida, Orlando, FL, USA. <sup>1278</sup>Department of Medical Oncology, Cancer Institute (W.I.A), Chennai, India. <sup>1279</sup>Department of Medicine, University of Alberta, Edmonton, AB, Canada. <sup>1280</sup>Department of Anesthesia, Cihan University of Sulaimaniya, Sulaimaniya, Iraq. <sup>1281</sup>Health education and promotion, Isfahan University of Medical Sciences, Isfahan, Iran. <sup>1282</sup>Data Mining Research Unit (DaMRA), Charles Sturt University, Wagga Wagga, NSW, Australia. <sup>1283</sup>National Institute of Infectious Diseases, Center for Surveillance, Immunization, and Epidemiologic Research, Tokyo, Japan. <sup>1284</sup>Center for Evidence-Based Medicine and Clinical Research, Dhaka, Bangladesh. <sup>1285</sup>Manipal TATA Medical College, Manipal Academy of Higher Education, Manipal, India. <sup>1286</sup>School of Nursing and Healthcare Professions, Federation University Australia, Berwick, VIC, Australia. <sup>1287</sup>Future Technology Research Center, National Yunlin University of Science and Technology, Yunlin, Taiwan. <sup>1288</sup>Department of Public Health, Torbat Jam Faculty of Medical Sciences, Torbat Jam, Iran. <sup>1289</sup>IRCCS Azienda Ospedaliero Universitaria di Bologna, San-t'Orsola Malpighi Hospital, Bologna, Italy. <sup>1290</sup>Department of Medical, Surgical and Experimental Sciences, University of Sassari, Sassari, Italy. <sup>1291</sup>Gynecology and Breast Care Center, Mater Olbia Hospital, Olbia, Italy. <sup>1292</sup>Department of Medicine, Manipal Academy of Higher Education, Mangalore, India. <sup>1293</sup>Institute of Environment and Sustainable Development, Banaras Hindu University, Varanasi, India. <sup>1294</sup>Clinic for Anesthesia and Intensive Care, Medical University Innsbruck, Innsbruck, Austria. <sup>1295</sup>Department of Nephrology, Nizam's Institute of Medical Sciences, Hyderabad, India. <sup>1296</sup>Department of Cardiology, Emory University, Atlanta, GA, USA. <sup>1297</sup>Leadership Institute for Global Health Transformation (LIGHT), National University of, Singapore, Singapore. <sup>1298</sup>Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, QC, Canada. <sup>1299</sup>Research and Innovation Division, South Asian Institute for Social Transformation (SAIST), Dhaka, Bangladesh. <sup>1300</sup>Research Department, Policy Research Institute, Kathmandu, Nepal. <sup>1301</sup>Health and Public Policy Department, Global Center for Research and Development, Kathmandu, Nepal. <sup>1302</sup>Department of Community Medicine, Manipal Academy of Higher Education, Manipal, India. <sup>1303</sup>Department of Oral Pathology, Sharavathi Dental College and Hospital, Shimogga, India. <sup>1304</sup>Department of Cardiology, Tehran University of Medical Sciences, Tehran, Iran. <sup>1305</sup>Department of Geography, Soran University, Soran, Iraq. <sup>1306</sup>Department of Biomedical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh. <sup>1307</sup>Department of Health Services Management, Shiraz University of Medical Sciences, Shiraz, Iran. <sup>1308</sup>WHO Collaborating Centre for Public Health Education and Training, Imperial College London, London, UK. <sup>1309</sup>Inovus Medical, St Helens, UK. <sup>1310</sup>Department of Computer Science, Boston University, Boston, MA, USA. <sup>1311</sup>Cardiovascular Research Center, Shiraz University of Medical Sciences, Shiraz, Iran. <sup>1312</sup>Department Biological Sciences, King Abdulaziz University, Jeddah, Egypt. <sup>1313</sup>Department of Protein Research, Research and Academic Institution, Alexandria, Egypt. <sup>1314</sup>School of Medicine, Western Sydney University, Campbelltown, NSW, Australia. <sup>1315</sup>Translational Health Research Institute, Western Sydney University, Campbelltown, NSW, Australia. <sup>1316</sup>Department of Health Information Management, Manipal Academy of Higher Education, Manipal, India. <sup>1317</sup>Network of Immunity in Infection, Malignancy and Autoimmunity (NIIMA), Universal Scientific Education and Research Network (USERN), Tehran, Iran. <sup>1318</sup>School of Public Health, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>1319</sup>Department of Epidemiology and Biostatistics, Rafsanjan University of Medical Sciences, Rafsanjan, Iran. <sup>1320</sup>Department of Public Health, Masaryk University, Brno, Czech Republic. <sup>1321</sup>Czech National Centre for Evidence-based Healthcare and Knowledge Translation, Masaryk University, Brno, Czech Republic. <sup>1322</sup>The University of Lahore, Lahore, Pakistan. <sup>1323</sup>Department of Pharmacy, Shaheed Benazir Bhutto University Sheringal Pakistan, Dir Upper, Pakistan. <sup>1324</sup>Centre of Telehealth, Federal University of Minas Gerais, Belo Horizonte, Brazil. <sup>1325</sup>School of Physiotherapy, University of Otago, Dunedin, New Zealand. <sup>1326</sup>Faculty of Agrarian Sciences and Environment, University of the Azores, Angra do Heroísmo, Portugal. <sup>1327</sup>Escola de Enfermagem da UFMG, Federal University of Minas Gerais, Belo Horizonte, Brazil. <sup>1328</sup>Department of Surgery, University of Minnesota, Minneapolis, MN, USA. <sup>1329</sup>Department of Surgery, University Teaching Hospital of Kigali, Kigali, Rwanda. <sup>1330</sup>Department of Geography and Demography, University of Coimbra, Coimbra, Portugal. <sup>1331</sup>Health Economics Research Centre, University of Oxford, Oxford, UK. <sup>1332</sup>Department of Pharmacology and Toxicology, Universidad de Antioquia (University of Antioquia), Medellin, Colombia. <sup>1333</sup>Department of Clinical Research, Federal University of Uberlândia, Uberlândia, Brazil. <sup>1334</sup>Clinical and Epidemiological Research in Primary Care (GICEAP), Maimonides Biomedical Research Institute of Cordoba (IMIBIC), Cordoba, Spain. <sup>1335</sup>Maurizio Bufalini Hospital, Cesena, Italy. <sup>1336</sup>Department of Public Health Sciences, University of Miami, Miami, FL, USA. <sup>1337</sup>School of Medicine, Gonabad University of Medical Sciences, Gonabad, Iran. <sup>1338</sup>Faculty of Medicine, Quest International University Perak, Ipoh, Malaysia. <sup>1339</sup>African Genome Center, Mohammed VI Polytechnic University (UM6P), Ben Guerir, Morocco. <sup>1340</sup>Center for Research in Congenital Anomalies and Rare Diseases, Universidad Icesi (ICESI University), Cali, Colombia. <sup>1341</sup>Malaria Atlas Project, Telethon Kids Institute, Perth, WA, Australia. <sup>1342</sup>Department of Health Statistics, National Institute for Medical Research, Dar es Salaam, Tanzania. <sup>1343</sup>Department of Oral and Maxillofacial Surgery, JSS Academy of Higher Education and Research, Mysore, India. <sup>1344</sup>Cardiovascular Department, Zagazig University, Zagazig, Egypt. <sup>1345</sup>Directorate General Health Prevention, Ministry of Health, Rome, Italy. <sup>1346</sup>Department of Infectious Diseases, National Institute of Health, Rome, Italy. <sup>1347</sup>Department of Medical Pharmacology, Cairo University, Giza, Egypt. <sup>1348</sup>Department of Neurology, University of L'Aquila, L'Aquila, Italy. <sup>1349</sup>School of Psychiatry, University of New South Wales, Kensington, NSW, Australia. <sup>1350</sup>Neuropsychiatric Institute, Prince of Wales Hospital, Randwick, NSW, Australia. <sup>1351</sup>Department of Cardiology, Department of Veterans Affairs, Decatur, GA, USA. <sup>1352</sup>Department of Cardiology, Medical College of Georgia at Augusta University, Augusta, GA, USA. <sup>1353</sup>Sharjah Institute for Medical Research, University of Sharjah, Sharjah, United Arab Emirates. <sup>1354</sup>Research Consultation Center (RCC), Shiraz University of Medical Sciences, Shiraz, Iran. <sup>1355</sup>Health Information Management, Semnan University of Medical Sciences, Semnan, Iran. <sup>1356</sup>Cardiac Rehabilitation Research Center, Isfahan University of Medical Sciences, Isfahan, Iran. <sup>1357</sup>Department of Pediatric Neurology, Ahvaz Jundishapur University of Medical Sciences, AHVAZ, Iran. <sup>1358</sup>Department of Pharmaceutical Chemistry, Medical University of Gdańsk, Gdańsk, Poland. <sup>1359</sup>Multi-disciplinary Laboratory Foundation University School of Health Sciences (FUSH), Foundation University, Islamabad, Pakistan. <sup>1360</sup>International Center of Medical Sciences Research (ICMSR), Islamabad, Pakistan. <sup>1361</sup>TB Control Pakistan, World Health Organisation, Islamabad, Pakistan. <sup>1362</sup>Department of Neurology, Christian-Doppler University Hospital, Salzburg, Austria. <sup>1363</sup>Spinal Cord Injury and Tissue Regeneration Center Salzburg (SCI-TReCS), Paracelsus Medical University, Salzburg, Austria. <sup>1364</sup>Faculty of Medicine, Bioscience and Nursing, MAHSA University, Selangor, Malaysia. <sup>1365</sup>Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS Institute of Information Technology, Lahore, Pakistan. <sup>1366</sup>Department of Psychiatry, All India Institute of Medical Sciences, New Delhi, India. <sup>1367</sup>Department of Psychosocial Science, University of Bergen, Bergen, Norway. <sup>1368</sup>Applied Biomedical Research Center, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>1369</sup>Biotechnology Research Center, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>1370</sup>Department of Development Studies, International Institute for Population Sciences, Mumbai, India. <sup>1371</sup>Department of Public Health and Health Systems, Nagoya University, Nagoya, Japan. <sup>1372</sup>Department of Statistics, University of Gujrat, Pakistan, Gujrat, Pakistan. <sup>1373</sup>Department of Clinical Medical Sciences, The University of the West Indies, St. Augustine, Trinidad and Tobago. <sup>1374</sup>Thoracic Department, North Central Regional Health Authority, Champ Fleurs, Trinidad and Tobago. <sup>1375</sup>Department of Pediatrics, Ministry of Health and Population, <City>, Eritrea. <sup>1376</sup>Department of Pediatrics, Ohio State University, Columbus, OH, USA. <sup>1377</sup>Medical Laboratory, Azad University of Medical Sciences, Tehran, Iran. <sup>1378</sup>Advanced Therapy Medicinal Products Department, Royan Institution, Tehran, Iran. <sup>1379</sup>Department of Biosciences, New Delhi, India. <sup>1380</sup>Public Health and Community Medicine Department, Cairo

University, Giza, Egypt. <sup>1381</sup>Drug Applied Research Center, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>1382</sup>School of Public Health, Taipei Medical University, Taipei, Taiwan. <sup>1383</sup>Department of Entomology, Ain Shams University, Cairo, Egypt. <sup>1384</sup>Medical Ain Shams Research Institute (MASRI), Ain Shams University, Cairo, Egypt. <sup>1385</sup>Department of Nutrition and Preventive Medicine, Case Western Reserve University, Cleveland, OH, USA. <sup>1386</sup>School of Public Health and Health Management, University of Belgrade, Belgrade, Serbia. <sup>1387</sup>Department of Infectious Diseases and Tropical Medicine, Federal University of Minas Gerais, Belo Horizonte, Brazil. <sup>1388</sup>Research Development Coordination Section, Pakistan Health Research Council, Islamabad, Pakistan. <sup>1389</sup>School of Sciences, University of Management and Technology, Lahore, Pakistan. <sup>1390</sup>Independent Consultant, Thiruvananthapuram, India. <sup>1391</sup>Department of Public Health, Jahrom University of Medical Sciences, Jahrom, Iran. <sup>1392</sup>Department of Community Medicine, Manipal Academy of Higher Education, Gangtok, India. <sup>1393</sup>Isfahan Cardiovascular Research Institute, Isfahan University of Medical Sciences, Isfahan, Iran. <sup>1394</sup>Colorectal Research Center, Iran University of Medical Sciences, Tehran, Iran. <sup>1395</sup>Faculty of Health and Social Sciences, Bournemouth University, Bournemouth, UK. <sup>1396</sup>Department of Family and Preventive Medicine, Emory University, Atlanta, GA, USA. <sup>1397</sup>UGC Centre of Advanced Study in Psychology, Utkal University, Bhubaneswar, India. <sup>1398</sup>Udyam-Global Association for Sustainable Development, Bhubaneswar, India. <sup>1399</sup>IRCCS Istituti Clinici Scientifici Maugeri (IRCCS Maugeri Scientific Clinical Institute), Milan, Italy. <sup>1400</sup>Department of Public Health Sciences, University of North Carolina at Charlotte, Charlotte, NC, USA. <sup>1401</sup>Department of Preventive and Social Medicine, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India. <sup>1402</sup>Department of Medical Oncology, Huntsman Cancer Institute, Salt Lake City, UT, USA. <sup>1403</sup>Department of Neurology, National and Kapodistrian University of Athens, Athens, Greece. <sup>1404</sup>Department of Neurology, Columbia University, New York, NY, USA. <sup>1405</sup>Dobney Hypertension Centre, University of Western Australia, Perth, WA, Australia. <sup>1406</sup>Hypertension and Kidney Disease Laboratory, Baker Heart and Diabetes Institute, Melbourne, VIC, Australia. <sup>1407</sup>Psychiatry and Psychotherapy, University of Regensburg, Regensburg, Germany. <sup>1408</sup>Department of Health Sciences, Federal University of Santa Catarina, Araranguá, Brazil. <sup>1409</sup>Department of Psychology, University of Alabama at Birmingham, Birmingham, AL, USA. <sup>1410</sup>Department of Population and Health, University of Cape Coast, Cape Coast, Ghana. <sup>1411</sup>Emergency Department, Manian Medical Centre, Erode, India. <sup>1412</sup>Fourth Department of General Surgery, Emergency University Hospital Bucharest, Bucuresti, Romania. <sup>1413</sup>Iranian Research Center for HIV/AIDS, Tehran University of Medical Sciences, Tehran, Iran. <sup>1414</sup>National Heart, Lung, and Blood Institute, National Institute of Health, Rockville, MD, USA. <sup>1415</sup>Clinical Research Development Unit of Farshchian Heart Center, Hamedan University of Medical Sciences, Hamadan, Iran. <sup>1416</sup>Department of Family Medicine, Aga Khan University, Karachi, Pakistan. <sup>1417</sup>Department of Medicine, Tehran University of Medical Sciences, Tehran, Iran. <sup>1418</sup>Public Health Division, An-Najah National University, Nablus, Palestine. <sup>1419</sup>Department of Chemistry, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran. <sup>1420</sup>Independent Consultant, Karachi, Pakistan. <sup>1421</sup>Medical College, Kerala University of Health Sciences, Thrissur, India. <sup>1422</sup>Dental School, Mashhad University of Medical Sciences, mashhad, Iran. <sup>1423</sup>Department of Health Education and Promotion, Jazan University, Jazan, Saudi Arabia. <sup>1424</sup>Institute of Public Health, University of Gondar, Gondar, Ethiopia. <sup>1425</sup>Department of Nursing, Debre Berhan University, Debre Berhan, Ethiopia. <sup>1426</sup>Interdisciplinary Center Psychopathology and Emotion Regulation (ICPE), University of Groningen, Groningen, Netherlands. <sup>1427</sup>Nahavand School of Allied Medical Sciences, Hamadan University of Medical Sciences, Hamadan, Iran. <sup>1428</sup>Department of Nursing Management, Iran University of Medical Sciences, Tehran, Iran. <sup>1429</sup>Faculty of Medicine, Universidad del Azuay (University of Azuay), Cuenca, Ecuador. <sup>1430</sup>Department of Medical Oncology, Kent Hospital, Warwick, RI, USA. <sup>1431</sup>Faculty of Medicine and Health, University of New South Wales, Sydney, NSW, Australia. <sup>1432</sup>Department of Physiotherapy, Kathmandu University, Dhulikhel, Nepal. <sup>1433</sup>Institute of Forensic Science and Criminology, Panjab University, Chandigarh, India. <sup>1434</sup>Department of Engineering, Free University of Brussels (ULB), Bruxelles, Belgium. <sup>1435</sup>Department of Ophthalmology, Harvard Medical School, Boston, MA, USA. <sup>1436</sup>Ophthalmic Research Center (ORC), Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>1437</sup>Department of Health Policy and Community Health, Georgia Southern University, Statesboro, GA, USA. <sup>1438</sup>Faculty of Public Health, University of Medicine, Tirana, Albania. <sup>1439</sup>Centre for Medical Informatics, University of Edinburgh, Edinburgh, UK. <sup>1440</sup>Division of General Internal Medicine, Harvard University, Boston, MA, USA. <sup>1441</sup>Department of Health in Disasters and Emergencies, Shahrekord University of Medical Sciences, Shahrekord, Iran. <sup>1442</sup>Department of Health Information Management, Iran University of Medical Sciences, Tehran, Iran. <sup>1443</sup>Department of Cardiovascular Medicine, Cleveland, OH, USA. <sup>1444</sup>Department of Obstetrics and Gynaecology, Manipal Academy of Higher Education, Mangalore, India. <sup>1445</sup>Department of Biochemistry, Royal College of Surgeons in Ireland Medical University of Bahrain, Busaiteen, Bahrain. <sup>1446</sup>Friedman School of Nutrition Science and Policy, Tufts University, Boston, MA, USA. <sup>1447</sup>Department of Population Study, China Population and Development Research Center, Beijing, China. <sup>1448</sup>Department of Speech Therapy, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>1449</sup>National Institute of Infectious Diseases, Tokyo, Japan. <sup>1450</sup>Department of Pediatrics, Yonsei University College of Medicine, Seoul, South Korea. <sup>1451</sup>Finnish Institute of Occupational Health, Helsinki, Finland. <sup>1452</sup>Department of Health Management and Economics, Tehran University of Medical Sciences, Tehran, Iran. <sup>1453</sup>Washington State University, Pullman, WA, USA. <sup>1454</sup>Department of Public Health Dentistry, Krishna Vishwa Vidyapeeth (Deemed to be University), Karad, India. <sup>1455</sup>Department of Clinical Immunology and Hematology, Sofamed University Hospital, Sofia, Bulgaria. <sup>1456</sup>Department of Genetics, Sofia University "St. Kliment Ohridski", Sofia, Bulgaria. <sup>1457</sup>Department of International Studies, Non-Communicable Diseases Research Center (NCDC), Tehran, Iran. <sup>1458</sup>Department of Medical-Surgical Nursing, Mazandaran University of Medical Sciences, Sari, Iran. <sup>1459</sup>Department of Nursing and Health Sciences, Flinders University, Adelaide, SA, Australia. <sup>1460</sup>Department of Internal Medicine, Mount Sinai Hospital, Chicago, IL, USA. <sup>1461</sup>School of Pharmacy, Monash University, Selangor Darul Ehsan, Malaysia. <sup>1462</sup>National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan. <sup>1463</sup>The Cooper Institute, Dallas, TX, USA. <sup>1464</sup>Department of Psychology, Reykjavik University, Reykjavik, Iceland. <sup>1465</sup>Department of Health and Behavior Studies, Columbia University, New York, NY, USA. <sup>1466</sup>Center of Potential and Innovation of Natural Resources, Polytechnic Institute of Guarda, Guarda, Portugal. <sup>1467</sup>Health Sciences Research Centre, University of Beira Interior, Covilhã, Portugal. <sup>1468</sup>Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran. <sup>1469</sup>Social and Administrative Pharmacy, University of Gondar, Gondar, Ethiopia. <sup>1470</sup>WSB University in Gdańsk, Gdańsk, Poland. <sup>1471</sup>Department of Physical Therapy, Shiraz University of Medical Sciences, Shiraz, Iran. <sup>1472</sup>Department of Anatomy, All India Institute of Medical Sciences, Bathinda, India. <sup>1473</sup>School of Public Health and Zoonoses, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India. <sup>1474</sup>School of Veterinary Science, University of Sydney, Sydney, NSW, Australia. <sup>1475</sup>Department of Community Medicine, Lady Hardinge Medical College, New Delhi, India. <sup>1476</sup>Department of Community Medicine, All India Institute of Medical Sciences, Jodhpur, India. <sup>1477</sup>Department of Pulmonary and Critical Care Medicine, Medical College of Wisconsin, Milwaukee, WI, USA. <sup>1478</sup>School of Medicine, University of Alabama at Birmingham, Birmingham, AL, USA. <sup>1479</sup>Department of Medicine Service, US Department of Veterans Affairs (VA), Birmingham, AL, USA. <sup>1480</sup>Department of Pediatrics, All India Institute of Medical Sciences, Jodhpur, India. <sup>1481</sup>Faculty of Medicine and Health Sciences, Shree Guru Gobind Singh Tricentenary University, Gurugram, India. <sup>1482</sup>Department of Radiodiagnosis, All India Institute of Medical Sciences, Bathinda, India. <sup>1483</sup>Department of Pharmacology, All India Institute of Medical Sciences, Jodhpur, India. <sup>1484</sup>Department of Internal Medicine, University of Indonesia, Jakarta Pusat, Indonesia. <sup>1485</sup>Department of Internal Medicine, Dr. Cipto Mangunkusumo National Hospital, Jakarta Pusat, Indonesia. <sup>1486</sup>Maternal and Child Health Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh. <sup>1487</sup>Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark. <sup>1488</sup>Department of Physiotherapy and Occupational Therapy, Næstved-Slagelse-Ringsted Hospitals, Slagelse, Denmark. <sup>1489</sup>Clinical Branch, Moscow Research and Practical Centre on Addictions, Moscow, Russia. <sup>1490</sup>Addiction Psychiatry Department, Russian Medical Academy of Continuous Professional Education, Moscow, Russia. <sup>1491</sup>Department of Infectious Diseases and Epidemiology,



Pirogov Russian National Research Medical University, Moscow, Russia. <sup>1492</sup>Division of Injury Prevention, The Bizzell Group, Atlanta, GA, USA. <sup>1493</sup>Department of Surgery, “Sf. Pantelimon” Emergency Clinical Hospital Bucharest, Bucharest, Romania. <sup>1494</sup>Department of Nursing, Dire Dawa University, Dire Dawa, Ethiopia. <sup>1495</sup>Department of Medicine, University of Calgary, Calgary, AB, Canada. <sup>1496</sup>Department of Medicine, University of Washington, Seattle, WA, USA. <sup>1497</sup>Department of Health Policy and Management, University of Georgia College of Public Health, Athens, GA, USA. <sup>1498</sup>Department of Microbiology, All India Institute of Medical Sciences, Bilaspur, India. <sup>1499</sup>Hospital Universitario de La Princesa (Princess University Hospital), Autonomous University of Madrid, Madrid, Spain. <sup>1500</sup>Centro de Investigación Biomédica en Red Enfermedades Respiratorias (CIBERES) (Center for Biomedical Research in Respiratory Diseases Network), Madrid, Spain. <sup>1501</sup>Directive Board, Associação de Profissionais Licenciados de Optometria (Association of Licensed Optometry Professionals), Linda-a-Velha, Portugal. <sup>1502</sup>Hull York Medical School, University of Hull, Hull City, UK. <sup>1503</sup>Division of Community Medicine, International Medical University, Kuala Lumpur, Malaysia. <sup>1504</sup>Nutrition and Dietetics Department, Federal Research Institute of Nutrition, Biotechnology and Food Safety, Moscow, Russia. <sup>1505</sup>Department of Internal Disease, Pirogov Russian National Research Medical University, Moscow, Russia. <sup>1506</sup>Department of Primary Care and Public Health, University of East Anglia, Norwich, UK. <sup>1507</sup>Public Health England, London, UK. <sup>1508</sup>Management Department, Bucharest University of Economic Studies, Bucharest, Romania. <sup>1509</sup>Risk and Resilience in Mental Disorders Unit, South African Medical Research Council, Cape Town, South Africa. <sup>1510</sup>Department of Psychology, Deakin University, Burwood, VIC, Australia. <sup>1511</sup>Department of Pathophysiology, European University Cyprus Medical School, Engomi, Cyprus. <sup>1512</sup>Department of Pediatrics, Emory University, Atlanta, GA, USA. <sup>1513</sup>School of Life Sciences, Xiamen University, China, Xiamen, China. <sup>1514</sup>Department of Mental Health Research, Independent Consultant, Khulna, Bangladesh. <sup>1515</sup>Division of Global Mental Health, EviSyn Health, Khulna, Bangladesh. <sup>1516</sup>School of Medicine, Griffith University, Gold Coast, QLD, Australia. <sup>1517</sup>School of Computing Sciences, University of Technology Sydney, Sydney, NSW, Australia. <sup>1518</sup>The George Institute for Global Health, Sydney, NSW, Australia. <sup>1519</sup>Faculty of Health and Public Administration, Semmelweis University, Budapest, Hungary. <sup>1520</sup>Department of Internal Medicine, Iran University of Medical Sciences, Tehran, Iran. <sup>1521</sup>Department of Medicine, University of Valencia, Valencia, Spain. <sup>1522</sup>Carlos III Health Institute, Biomedical Research Networking Center for Mental Health Network (Ciber-SAM), Madrid, Spain. <sup>1523</sup>Department of Nutrition Sciences, Varastegan Institute for Medical Sciences, Mashhad, Iran. <sup>1524</sup>Department of Medical Education, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>1525</sup>School of Social Work, University of Illinois, Urbana, IL, USA. <sup>1526</sup>Cancer Control Center, Osaka International Cancer Institute, Osaka, Japan. <sup>1527</sup>School of Dentistry and Oral Health, Griffith University, Gold Coast, QLD, Australia. <sup>1528</sup>Trauma and Injury Research Center, Iran University of Medical Sciences, Tehran, Iran. <sup>1529</sup>Medical Ethics and Law Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>1530</sup>Living Systems Institute, University of Exeter, Exeter, UK. <sup>1531</sup>Department of Biostatistics and Epidemiology, Shahid Sadoughi University of Medical Sciences, Yazd, Iran. <sup>1532</sup>Pathology Department, Alexandria University, Alexandria, Egypt. <sup>1533</sup>Department of Dermatology, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania. <sup>1534</sup>Department of Dermato-Venereology, Dr. Victor Babes Clinical Hospital of Infectious Diseases and Tropical Diseases, Bucharest, Romania. <sup>1535</sup>Department of Surgery, National University of Singapore, Singapore, Singapore. <sup>1536</sup>School of Nursing and Public Health, University of KwaZulu-Natal, Durban, South Africa. <sup>1537</sup>Department of Economics, Rice University, Houston, TX, USA. <sup>1538</sup>Department of Research and Innovation, Enventure Medical Innovation, Houston, TX, USA. <sup>1539</sup>Department of Pathology, University of Texas, Galveston, TX, USA. <sup>1540</sup>Department of Health Education and Health Promotion, Mashhad University of Medical Sciences, Mashhad, Iran. <sup>1541</sup>Department of Nursing, Bahir Dar University, Bahir Dar, Ethiopia. <sup>1542</sup>Department of Social Medicine, Osaka University, Osaka, Japan. <sup>1543</sup>Department of Midwifery, Ethiopian Public Health Institute, Addis Ababa, Ethiopia. <sup>1544</sup>Department of Pharmacology, All India Institute of Medical Sciences, Raipur, India. <sup>1545</sup>Public Health Department, Amrita Institute of Medical Sciences, Kochi, India. <sup>1546</sup>Department of Medicine, University of Cape Town, Cape Town, South Africa. <sup>1547</sup>Department of Internal Medicine, University of Zürich, Zurich, Switzerland. <sup>1548</sup>Department of Endocrinology, Diabetes and Metabolism, Christian Medical College and Hospital (CMC), Vellore, India. <sup>1549</sup>Department of Gastroenterology, PSG Institute of Medical Sciences and Research, Coimbatore, India. <sup>1550</sup>Department of Pharmaceutical Health Outcomes and Policy, University of Houston, Houston, TX, USA. <sup>1551</sup>Prescription Drug Misuse Education and Research Center, University of Houston, Houston, TX, USA. <sup>1552</sup>Faculty of Biomedical Engineering, Czech Technical University, Prague, Czech Republic. <sup>1553</sup>Faculty of Public Health, Universitas Sam Ratulangi, Manado, Indonesia. <sup>1554</sup>Department of Pathology, University of Cape Town, Cape Town, South Africa. <sup>1555</sup>Department of Biochemistry and Molecular Biology, University of Buea, Buea, Cameroon. <sup>1556</sup>Institute of Public Health, Jagiellonian University Medical College, Kraków, Poland. <sup>1557</sup>Agency for Health Technology Assessment and Tariff System, Warsaw, Poland. <sup>1558</sup>Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai, India. <sup>1559</sup>SRM College of Pharmacy, SRM Institute of Science and Technology (SRMIST), Chennai, India. <sup>1560</sup>School of Public Health and Social Work, Queensland University of Technology, Brisbane, QLD, Australia. <sup>1561</sup>Health Informatics Department, Hanoi Medical University, Ha Noi, Viet Nam. <sup>1562</sup>Department of Neurology, All India Institute of Medical Sciences, Delhi, India. <sup>1563</sup>National Institute of Medical Statistics, National Institute of Medical Statistics, New Delhi, India. <sup>1564</sup>Department of Community and Family Medicine, All India Institute of Medical Sciences, Nagpur, India. <sup>1565</sup>Rigshospitalet, University of Copenhagen, Copenhagen, Denmark. <sup>1566</sup>Department of Vascular Surgery, Ludwig Maximilians University, Munich, Germany. <sup>1567</sup>Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore, Singapore. <sup>1568</sup>Public Health Department, Salale University, Fiche, Ethiopia. <sup>1569</sup>Department of Epidemiology and Biostatistics, Haramaya University, Harar, Ethiopia. <sup>1570</sup>College of Public Health, University of the Philippines Manila, Manila, Philippines. <sup>1571</sup>Institute of Soil and Environmental Sciences, University of Agriculture, Faisalabad, Faisalabad, Pakistan. <sup>1572</sup>Department of Zoology, University of Education, Lahore, Lahore, Pakistan. <sup>1573</sup>Division of Science and Technology, University of Education, Lahore, Lahore, Pakistan. <sup>1574</sup>Department of Paraclinical Sciences, The University of the West Indies, St. Augustine, Trinidad and Tobago. <sup>1575</sup>Department of Pediatric Cardiology, Rush University, Chicago, IL, USA. <sup>1576</sup>Department of Community Medicine, Alex Ekwueme Federal University Teaching Hospital Abakaliki, Abakaliki, Nigeria. <sup>1577</sup>Department of Cardiovascular, Endocrine-Metabolic Diseases and Aging, National Institute of Health, Rome, Italy. <sup>1578</sup>Kasturba Medical College, Manipal Academy of Higher Education, Mangalore, India. <sup>1579</sup>Department of Neurology, Rafsanjan University of Medical Sciences, Rafsanjan, Iran. <sup>1580</sup>Non-Communicable Diseases Research Center, Rafsanjan University of Medical Sciences, Rafsanjan, Iran. <sup>1581</sup>Clinical Cancer Research Center, Milad General Hospital, Tehran, Iran. <sup>1582</sup>Department of Microbiology, Islamic Azad University, Tehran, Iran. <sup>1583</sup>Argentine Society of Medicine, Buenos Aires, Argentina. <sup>1584</sup>Velez Sarsfield Hospital, Buenos Aires, Argentina. <sup>1585</sup>Urmia University of Medical Sciences, Urmia, Iran. <sup>1586</sup>Department of Cardiovascular Sciences, Katholieke Universiteit Leuven (University of Leuven), Leuven, Belgium. <sup>1587</sup>Laboratory of Toxicology, University of Crete, Heraklion, Greece. <sup>1588</sup>Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, India. <sup>1589</sup>Department of Internal Medicine, University of Groningen, Groningen, Netherlands. <sup>1590</sup>Department of Nephrology, Christian Medical College and Hospital (CMC), Vellore, India. <sup>1591</sup>UKK Institute, Tampere, Finland. <sup>1592</sup>Faculty of Medicine and Health Technology, Tampere University, Tampere, Finland. <sup>1593</sup>Institute of Public Health of Serbia, Belgrade, Serbia. <sup>1594</sup>Department of Infectious Disease, Kermanshah University of Medical Sciences, Kermanshah, Iran. <sup>1595</sup>Raffles Neuroscience Centre, Raffles Hospital, Singapore, Singapore. <sup>1596</sup>Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore. <sup>1597</sup>Department of Community and Family Medicine, All India Institute of Medical Sciences, Bathinda, India. <sup>1598</sup>Department of Medical and Surgical Sciences and Advanced Technologies, University of Catania, Catania, Italy. <sup>1599</sup>Department of Health Policy and Management, Johns Hopkins University, Baltimore, MD, USA. <sup>1600</sup>Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy. <sup>1601</sup>Occupational Health Unit, Sant’Orsola Malpighi



Hospital, Bologna, Italy. <sup>1602</sup>Department of Biochemistry, JSS Academy of Higher Education and Research, Mysore, India. <sup>1603</sup>Department of Health Care Administration and Economics, National Research University Higher School of Economics, Moscow, Russia. <sup>1604</sup>Faculty of Information Technology, HUTECH University, Ho Chi Minh City, Viet Nam. <sup>1605</sup>Department of Neurosurgery, Erasmus University Medical Center, Rotterdam, Netherlands. <sup>1606</sup>Center for Experimental Microsurgery, Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania. <sup>1607</sup>Institute for Global Health Innovations, Duy Tan University, Da Nang, Viet Nam. <sup>1608</sup>Faculty of Medicine, Duy Tan University, Da Nang, Viet Nam. <sup>1609</sup>School of Population Health and Environmental Sciences, King's College London, London, UK. <sup>1610</sup>Department of Otolaryngology, Peking University Third Hospital, Beijing, China. <sup>1611</sup>Department of Family Medicine, McGill University, Montreal, QC, Canada. <sup>1612</sup>China Centre for Health Development Studies, Peking University, Beijing, China. <sup>1613</sup>Centre for Health Policy Research, Torrens University Australia, Adelaide, SA, Australia. <sup>1614</sup>Department of Biomedical Sciences, City University of Hong Kong, Hong Kong, China. <sup>1615</sup>Department of Medicine, General Internal Medicine and Health Services Research, University of California Los Angeles, Los Angeles, CA, USA. <sup>1616</sup>Department of Medicine, Greater Los Angeles VA Healthcare System, Los Angeles, CA, USA. <sup>1617</sup>Key Laboratory of Shaanxi Province for Craniofacial Precision Medicine Research, Stomatological Hospital (College) of Xi'an Jiaotong University, Xi'an, China. <sup>1618</sup>Competence Center of Mortality-Follow-Up of the German National Cohort, Federal Institute for Population Research, Wiesbaden, Germany. <sup>1619</sup>Department of Physical Therapy, Naresuan University, Phitsanulok, Thailand. <sup>1620</sup>Department of Community Medicine, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka. <sup>1621</sup>Department of Epidemiology and Biostatistics, Dilla University, Dilla, Ethiopia. <sup>1622</sup>NIHR Biomedical Research Centre, Guy's and St. Thomas' Hospital and Kings College London, London, UK. <sup>1623</sup>Bone and Joint Research Group, Royal Cornwall Hospital, Truro, UK. <sup>1624</sup>Global Alliance for Musculoskeletal Health, St Leonards, Australia. <sup>1625</sup>Department of Orthopaedics, Wenzhou Medical University, Wenzhou, China. <sup>1626</sup>Department of Public Health, Arba Minch University, ARBA MINCH, Ethiopia. <sup>1627</sup>Department of Health Policy and Administration, Universitas Airlangga (Airlangga University), Surabaya, Indonesia. <sup>1628</sup>School of Public Health, Zhejiang University, Zhejiang, China. <sup>1629</sup>Department of Public Health Science, Fred Hutchinson Cancer Research Center, Seattle, WA, USA. <sup>1630</sup>Department of Behavior and Operation Management, Beijing Advanced Innovation Center for Big Data-based Precision Medicine, Beijing, China. <sup>1631</sup>Department of Family Medicine and Community Health, Duke University, Durham, NC, USA. <sup>1632</sup>Department of Endocrinology, University of Science and Technology of China, Hefei, China. <sup>1633</sup>School of Medicine, University of Rochester, Rochester, NY, USA. <sup>1634</sup>Cardiovascular Program, The George Institute for Global Health, Sydney, NSW, Australia. <sup>1635</sup>Department of Clinical Microbiology, Ilam University of Medical Sciences, Ilam, Iran. <sup>1636</sup>Department of Diabetes and Metabolic Diseases, University of Tokyo, Tokyo, Japan. <sup>1637</sup>Research and Development Center for Health Services, University of Tsukuba, Tsukuba, Japan. <sup>1638</sup>Graduate School of Medicine, Osaka University, Suita, Japan. <sup>1639</sup>Cancer Epidemiology and Prevention Research, Alberta Health Services, Calgary, AB, Canada. <sup>1640</sup>Department of Oncology, University of Calgary, Calgary, AB, Canada. <sup>1641</sup>Department of Family Medicine and Community Health, Duke University, Durham, NC, USA. <sup>1642</sup>School of International Development and Global Studies, University of Ottawa, Ottawa, ON, Canada. <sup>1643</sup>The George Institute for Global Health, Imperial College London, London, UK. <sup>1644</sup>Department of Pediatric Allergy and Immunology, Tabriz University of Medical Sciences, Tabriz, Iran. <sup>1645</sup>Department of Pediatric Allergy and Immunology, Tehran University of Medical Sciences, Tehran, Iran. <sup>1646</sup>National Center for Chronic and Non-communicable Disease Control and Prevention, Chinese Center for Disease Control and Prevention, Beijing, China. <sup>1647</sup>The George Institute for Global Health, University of New South Wales, Sydney, NSW, Australia. <sup>1648</sup>Center for Population Health Research, KHAPhnom Penh, Cambodia. <sup>1649</sup>Department of Health Management, Süleyman Demirel Üniversitesi (Süleyman Demirel University), Isparta, Türkiye. <sup>1650</sup>Centre for Suicide Research and Prevention, University of Hong Kong, Hong Kong, China. <sup>1651</sup>Department of Social Work and Social Administration, University of Hong Kong, Hong Kong, China. <sup>1652</sup>Department of Pediatrics, Kyung Hee University, Seoul, South Korea. <sup>1653</sup>Department of Neuropsychopharmacology, National Center of Neurology and Psychiatry, Kodaira, Japan. <sup>1654</sup>Department of Public Health, Juntendo University, Tokyo, Japan. <sup>1655</sup>Macquarie Medical School, Macquarie University, Sydney, NSW, Australia. <sup>1656</sup>Department of Health Policy and Management, Jackson State University, Jackson, MS, USA. <sup>1657</sup>School of Business and Economics, Universiti Putra Malaysia (University of Putra Malaysia), Kuala Lumpur, Malaysia. <sup>1658</sup>Department of Environmental Health, Mazandaran University of Medical Sciences, Sari, Iran. <sup>1659</sup>Injury Prevention and Safety Promotion Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>1660</sup>Department of Internal Medicine, Qom University of Medical Sciences, Qom, Iran. <sup>1661</sup>Duke Global Health Institute, Duke University, Durham, NC, USA. <sup>1662</sup>Epidemiology and Cancer Registry Sector, Institute of Oncology Ljubljana, Ljubljana, Slovenia. <sup>1663</sup>Department of Pulmonary and Critical Care Medicine, Tehran University of Medical Sciences, Baltimore, MD, USA. <sup>1664</sup>Urology and Nephrology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. <sup>1665</sup>Faculty of Medicine, Kurdistan University of Medical Sciences, Sanandaj, Iran. <sup>1666</sup>Department of Computer Science and Software Engineering, United Arab Emirates University, Al Ain, United Arab Emirates. <sup>1667</sup>Department of Health Sciences, James Madison University, Harrisonburg, VA, USA. <sup>1668</sup>Hospital San Juan de Dios, Tarija, Bolivia. <sup>1669</sup>Research and Development Department, Sina Medical Biochemistry Technologies, Shiraz, Iran. <sup>1670</sup>Department of Psychiatry, Tehran University of Medical Sciences, Tehran, Iran. <sup>1671</sup>Nursing Care Research Center in Chronic Diseases, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. <sup>1672</sup>Department of Bioengineering and Therapeutic Sciences, University of California San Francisco, San Francisco, CA, USA. <sup>1673</sup>Addictology Department, Russian Medical Academy of Continuous Professional Education, Moscow, Russia. <sup>1674</sup>Centre of Clinical Epidemiology, Hôtel Dieu Hospital, Assistance Publique Hôpitaux de Paris, Paris, France. <sup>1675</sup>Department of Gastroenterology and Nutrition, Assistance Publique Hôpitaux de Paris, Paris, France. <sup>1676</sup>Department of Public Health, Dilla University, Dilla, Ethiopia. <sup>1677</sup>Department of Epidemiology and Public Health, University of Basel, Basel, Switzerland. <sup>1678</sup>Department of Nursing, Samara University, Semera, Ethiopia. <sup>1679</sup>Department of General Practice, University of Melbourne, Melbourne, VIC, Australia. <sup>1680</sup>Victorian Comprehensive Cancer Centre, Melbourne, VIC, Australia. <sup>1681</sup>School of Medicine, Wuhan University, Wuhan, China. <sup>1682</sup>School of Biology and Pharmaceutical Engineering, Wuhan Polytechnic University, Wuhan, China. <sup>1683</sup>School of Health Sciences, Wuhan University, Wuhan, China. <sup>1684</sup>David Geffen School of Medicine, University of California Los Angeles, Los Angeles, CA, USA. <sup>1685</sup>Department of Nursing, Yasuj University of Medical Sciences, Yasuj, Iran. <sup>1686</sup>Department of Paediatrics and Child Health, University of Cape Town, Cape Town, South Africa. <sup>1687</sup>Department of Infection, University College London, London, UK. <sup>1688</sup>NIHR-Biomedical Research Centre (NIHR-BRC), University College London Hospitals, London, UK. <sup>1689</sup>Health Technology Assessment Unit, Department of Health Philippines, Manila, Philippines. <sup>1690</sup>MentalHealthPH, Inc., Quezon City, Philippines. <sup>1691</sup>These authors contributed equally: Cecilia Anza-Ramirez, J. Jaime Miranda. ✉ e-mail: [cecilia.anza@upch.pe](mailto:cecilia.anza@upch.pe)