Europe PMC Funders Group Author Manuscript *Lancet.* Author manuscript; available in PMC 2020 November 13.

Published in final edited form as:

Lancet. 2020 October 17; 396(10258): 1135-1159. doi:10.1016/S0140-6736(20)31404-5.

Correspondence to: Prof Christopher J L Murray, Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA 98195, USA, cjlm@uw.edu.

GBD 2019 Overview Collaborators.

[†]GBD 2019 Demographics Collaborators.

[‡]GBD 2019 Diseases and Injuries Collaborators.

[§]GBD 2019 Risk Factors Collaborators.

GBD 2019 UHC Collaborators.

GBD 2019 Forecasting Collaborators.

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

For the GBD Results Tool see http://ghdx.healthdata.org/gbd-results-tool

For more on the **Guidelines on Accurate and Transparent Health Estimate Reporting** see Statement Lancet 2016; 388: e19–23

Contributors

Please see the appendix for more detailed information about individual authors' contributions to the research, divided into the following categories: managing the estimation process; writing the first draft of the manuscript; providing data or critical feedback on data sources; developing methods or computational machinery; applying analytical methods to produce estimates; providing critical feedback on methods or results; drafting the work or revising it critically for important intellectual content; extracting, cleaning, or cataloguing data; designing or coding figures and tables; and managing the overall research enterprise.

About the Global Burden of Disease Collaborator Network

The Institute for Health Metrics and Evaluation (IHME) at the University of Washington engages a large network of individual collaborators with specialties in various topic areas to conduct the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) and its affiliated projects. GBD is a systematic, scientific effort to quantify the comparative magnitude of health loss due to diseases, injuries, and risk factors by age, sex, and geographies for specific points in time and is the largest and most comprehensive effort to date to measure epidemiological levels and trends worldwide. Collaborators are crucial in both the data analysis as well as the policy uptake and proliferation of GBD and affiliated projects. Below, we list the individual collaborators who are authors on the publications listed in this issue.

First and senior authors

Five insights from the Global Burden of Disease Study 2019: Christopher J L Murray (first author) and Alan D Lopez, Theo Vos, and Stephen S Lim (senior authors). *Global age-sex-specific fertility, mortality, healthy life expectancy (HALE), and population estimates for 204 countries and territories, 1950–2019: a comprehensive demographic analysis for the Global Burden of Disease Study 2019:* Haidong Wang (first author) and Christopher J L Murray (senior author). *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:* Theo Vos and Stephen S Lim (first authors) and Mohsen Naghavi and Christopher J L Murray (senior authors). *Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019:* Christopher J L Murray (first author), Aleksandr Aravkin, Peng Zheng, (ordered authors) and Michael Brauer, Ashkan Afshin, and Stephen S Lim (senior authors). *Countries and territories in 204 countries and territories and territories for the Global Burden of Disease Study 2019:* Christopher J L Murray, (first author), Aleksandr Aravkin, Peng Zheng, (ordered authors) and Michael Brauer, Ashkan Afshin, and Stephen S Lim (senior authors). *Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019.* Nancy Fullman, John Everett Mumford, Megan Knight, and Celine Barthelemy (ordered authors) and Christopher J L Murray (senior author). *Fertility, mortality, migration, and population scenarios for 195 countries and territories from 2017 to 2100: a forecasting analysis for the Global Burden of Disease Study.* Stein Emil Vollset (first author), Emily Goren, Chun-Wei Yuan, Jackie Cao, Amanda E Smith, Thomas Hsiao, Catherine Bisignano (ordered authors), and Christopher J L Murray (senior author).

Declaration of interests

R Ancuceanu reports receiving consultancy and speakers' fees from various pharmaceutical companies. E Beghi reports grants from Italian Ministry of Health and Swedish Orphan Biovitrum; and personal fees from Arvelle Therapeutics, outside the submitted work. M Bell reports grants from US Environmental Protection Agency, National Institutes of Health (NIH), and Wellcome Trust Foundation, during the conduct of this work; and Honorarium and travel reimbursement from the NIH (for review of grant proposals), American Journal of Public Health (participation as editor), Global Research Laboratory and Seoul National University, Royal Society, London UK, Ohio University, Atmospheric Chemistry Gordon Research Conference, Johns Hopkins Bloomberg School of Public Health, Arizona State University, Ministry of the Environment Japan, Hong Kong Polytechnic University, University of Illinois-Champaign, and the University of Tennessee-Knoxville, outside the submitted work. PS Briant and L Haile report personal fees from WHO, outside of the submitted work. V Jha reports grants from Baxter Healthcare, GlaxoSmithKline, Zydus Cadilla, Biocon, and NephroPlus, outside the submitted work. S Lorkowski reports personal fees from Akcea Therapeutics, Amedes, Amgen, Berlin-Chemie, Boehringer Ingelheim, Daiichi Sankyo, Merck Sharp and Dohme, Novo Nordisk, Sanofi-Aventis, Synlab, Unilever, and Upfield; and non-financial support from Preventicus, outside the submitted work. J Mosser reports grants from Bill and Melinda Gates Foundation, during the conduct of this work. S Nomura reports grants from the Ministry of Education, Culture, Sports, Science, and Technology. C Pond reports personal fees from Nutricia, during the conduct of this work; grants from the National Medical Research council in relation to dementia; and travel grants and remuneration related to education of primary care professionals in relation to dementia, outside of this work. M Postma reports grants from BioMerieux, WHO, EU, Foundation for Innovative New Diagnostics, Antilope, Pangkalan Data Pendidikan Tinggi, Indonesia Endowment Fund for Education (Lembaga Pengelola Dana Pendidikan), Bayer, and Budi, personal fees from Quintiles, Novartis, and Pharmerit; grants and personal fees from IMSQuintiles, Bristol-Myers Squibb, AstraZeneca, Seqirus, Sanofi, Merck Sharp and Dohme, GlaxoSmithKline, Pfizer, Boehringer Ingelheim, and Novavax; stocks from Ingress Health, and Pharmacoeconomics Advice Groningen; and acting as advisor to Asc Academics, all

Five insights from the Global Burden of Disease Study 2019

GBD 2019 Viewpoint Collaborators Cristiana Abbafati, PhD^{*,‡,§,¶}, Department of Juridical and Economic Studies

Kaja M Abbas, PhD^{*,†,‡,§}, Department of Infectious Disease Epidemiology

Mohammad Abbasi, PhD^{*,‡}, Department of Internal Medicine

Mitra Abbasifard, MD^{†,‡}, Clinical Research Development Unit

Mohsen Abbasi-Kangevari, MD^{*,†,‡,§}, Social Determinants of Health Research Center

Hedayat Abbastabar, PhD^{†,‡,¶}, Advanced Diagnostic and Interventional Radiology Research Center

Prof Foad Abd-Allah, MD^{*,†,‡,§,¶}, Department of Neurology

Prof Ahmed Abdelalim, MD^{†,‡,§}, Department of Neurology

Prof Mohammad Abdollahi, PhD^{*,‡,§,¶}, School of Pharmacy; The Institute of Pharmaceutical Sciences (TIPS)

Ibrahim Abdollahpour, PhD^{‡,§}, Neuroscience Research Center

Aidin Abedi, MD^{*,¶}, Department of Orthopaedic Surgery

Parisa Abedi, MD^{*},

Lancet. Author manuscript; available in PMC 2020 November 13.

outside the submitted work. E Pupillo reports grants from Agenzia Italiana del Farmaco (Italian Medicines Agency), outside the submitted work. A Schutte reports personal fees from Omron Healthcare, Takeda, Servier, Novartis, and Abbott, outside the submitted work. M Shrime reports grants from Mercy Ships and Damon Runyon Cancer Research Foundation, outside the submitted work. J Singh reports personal fees from Crealta–Horizon, Medisys, Fidia, UBM LLC, Trio health, Medscape, WebMD, Clinical Care options, Clearview healthcare partners, Putnam associates, Spherix, Practice Point communications, the National Institutes of Health and the American College of Rheumatology; personal fees from Simply Speaking; stock options in Amarin pharmaceuticals and Viking pharmaceuticals; membership in the steering committee of Outcome Measures in Rheumatology, an international organization that develops measures for clinical trials and receives arm's length funding from 12 pharmaceutical companies, membership in the Food and Drug Administration's Arthritis Advisory Committee, membership in the Veterans Affairs Rheumatology Field Advisory Committee; and non-financial support from University of Alabama at Birmingham Cochrane Musculoskeletal Group Satellite Center on Network Meta-analysis, outside the submitted work. J Stanaway reports grants from Bill and Melinda Gates Foundation, during the conduct of this work. D Stein reports personal fees from Lundbeck and Sun, outside the submitted work. C Swope reports working for a private sector organization, Delos Living. R Uddin reports travel and accommodation reimbursement from Deakin University Institute for Physical Activity and Nutrition, outside the submitted work. R Vaicekonyte reports working for a private sector organisation, Delos Living. All other authors declare no competing interests.

School of Medicine; Neuroendocrine

Kedir Hussein Abegaz, MSc[§], University of Southern California, Los Angeles, CA, USA; Biostatistics Department; Near East University, Nicosia, Cyprus; Biostatistics and Health Informatics

Hassan Abolhassani, PhD^{*,†,‡,§,¶}, Research Center for Immunodeficiencies; Madda Walabu University, Bale Robe, Ethiopia; Karolinska University Hospital, Huddinge, Sweden

Akine Eshete Abosetugn, MPH[¶], Department of Public Health

Prof Victor Aboyans, MD^{*,‡,§}, Debre Berhan University, Debre Berhan, Ethiopia; Department of Cardiology; Dupuytren University Hospital, Limoges, France; University of Limoges, Limoges, France

Elissa M Abrams, MD[‡], Section of Allergy and Clinical Immunology; University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Prof Lucas Guimarães Abreu, PhD^{*,†,‡,§,}¶, Department of Pediatric Dentistry

Michael R M Abrigo, PhD^{*,†,‡,§,¶}, Federal University of Minas Gerais, Belo Horizonte, Brazil; Department of Research

Abdulaziz Khalid Abu Haimed, MBBS^{*,¶}, Internal Medicine Department

Ahmed Abualhasan, MD[§], Department of Neurology

Eman Abu-Gharbieh, PhD^{*}, Department of Clinical Sciences

Prof Laith Jamal Abu-Raddad, PhD^{‡,§}, University of Sharjah, Sharjah, United Arab Emirates; Department of Healthcare Policy and Research

Abdelrahman I Abushouk, MD^{*,†,‡,§,¶}, Harvard Medical School; Department of Medicine

Alyssa Acebedo, MD^{*,‡}, Center of Excellence in Public Health Nutrition

Ilana N Ackerman, PhD^{*,‡}, School of Public Health and Preventive Medicine

Maryam Adabi, PhD^{*,†,‡,§,¶}, Hamadan University of Medical Sciences, Hamadan, Iran

Tim Adair, PhD[†], Melbourne School of Population and Global Health Abdu A Adamu, PhD^{*,‡}, Department of Global Health; Cochrane South Africa

Oladimeji M Adebayo, MD^{*,†,‡,¶}, College of Medicine

Isaac Akinkunmi Adedeji, PhD[†], University College Hospital, Ibadan, Ibadan, Nigeria; Department of Sociology

Victor Adekanmbi, PhD^{†,‡,§,¶}, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; School of Medicine

Jaimie D Adelson, PhD^{*,‡,¶}, Institute for Health Metrics and Evaluation

Abiodun Moshood Adeoye, MD^{†,§}, School of Laboratory Medicine and Science; Institute of Cardiovascular Diseases

Olatunji O Adetokunboh, PhD^{*,†,‡,§,¶}, University of Melbourne, Melbourne, VIC, Australia; Centre of Excellence for Epidemiological Modelling and Analysis; Department of Global Health

Davoud Adham, PhD^{‡,§,¶}, School of Health

Shailesh M Advani, PhD^{†,§,¶}, Ardabil University of Medical Science, Ardabil, Iran; Social Behavioral Research Branch; National Institute of Health, Bethesda, MD, USA; Department of Oncology

Mohsen Afarideh, MD^{*}, Endocrinology and Metabolism Research Center; Department of Dermatology

Mahdi Afshari, MD[‡], Mayo Clinic, Rochester, MN, USA; Department of Community Medicine

Ashkan Afshin, MD^{*,†,‡,§,¶}, Department of Health Metrics Sciences, School of Medicine

Emilie E Agardh, PhD[‡], Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Prof Gina Agarwal, PhD^{*,‡,§,¶}, Department of Family Medicine

Pradyumna Agasthi, MD[¶], Georgetown University, Washington DC, DC, USA; Department of Cardiovascular Medicine

Kareha M Agesa, BA[‡], Institute for Health Metrics and Evaluation

Mohammad Aghaali, PhD^{†,‡}, McMaster University, Hamilton, ON, Canada; Department of Epidemiology and Biostatistics

Prof Seyed Mohammad Kazem Aghamir, PhD^{‡,§,¶},

Urology Research Center

Prof Anurag Agrawal, PhD^{*,†,‡,§,¶},

Qom University of Medical Sciences, Qom, Iran; Institute of Genomics and Integrative Biology; Council of Scientific & Industrial Research, Delhi, India; Internal Medicine

Tauseef Ahmad, MS^{*,‡,§,¶},

Baylor College of Medicine, Houston, TX, USA; Department of Epidemiology and Health Statistics

Alireza Ahmadi, MD[‡], Department of Public Health; Department of Anesthesiology

Keivan Ahmadi, PhD^{*,†,§}, Southeast University, Nanjing, China; Lincoln Medical School

Mehdi Ahmadi, PhD^{*,‡,§},

Environmental Health Engineering; Environmental Technologies Research Center

Hamid Ahmadieh, MD^{†,‡,§}, Department of Ophthalmology; Ophthalmic Research Center

Ehsan Ahmadpour, PhD[‡], Infectious and Tropical Diseases Research Center

Muktar Beshir Ahmed, MPH^{*,†,§}, Department of Epidemiology; Jimma University, Jimma, Ethiopia; Australian Center for Precision Health

Budi Aji, DrPH^{*}, University of South Australia, Adelaide, SA, Australia; Faculty of Medicine and Public Health

Temesgen Yihunie Akalu, MPH^{‡,§}, Department of Epidemiology and Biostatistics

Rufus Olusola Akinyemi, PhD^{‡,§,¶}, Institute for Advanced Medical Research and Training; University of Gondar, Gondar, Ethiopia; Institute of Neuroscience

Tomi Akinyemiju, PhD^{*,‡,§}, Department of Population Health Sciences; Duke Global Health Institute

Blessing Akombi, PhD^{*,‡,§}, School of Public Health and Community Medicine

Chisom Joyqueenet Akunna, DMD[§],

University of New South Wales, Sydney, NSW, Australia; Department of Public Health; The Intercountry Centre for Oral Health (ICOH) for Africa, Jos, Nigeria; Department of Public Health

Fares Alahdab, MSc^{*,§,¶}, Federal Ministry of Health, Garki, Nigeria; Mayo Evidence-based Practice Center Ziyad Al-Aly, MD^{†,‡,§,¶}, John T. Milliken Department of Internal Medicine

Khurshid Alam, PhD^{*,†,‡,§,¶}, Griffith University, Nathan, QLD, Australia; Murdoch Business School

Noore Alam, MPH[‡], Dalhousie University, Halifax, NS, Canada; Prevention Division; Centre for Environment and Population Health

Samiah Alam, MSc^{‡,§}, Department of Veterans Affairs, St Louis, MO, USA; Department of Community Health and Epidemiology

Tahiya Alam, MSc^{†,‡,§}, Department of Community Health and Epidemiology

Fahad Mashhour Alanezi, PhD^{*,†,§}, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia

Turki M Alanzi, PhD^{*,†,‡,§}, Health Information Management and Technology Department

Samuel B Albertson, BS^{*,‡,¶}, Institute for Health Metrics and Evaluation

Jacqueline Elizabeth Alcalde-Rabanal, PhD^{†,‡}, Murdoch University, Perth, WA, Australia; Center for Health System Research

Niguse Meles Alema, MSc[‡], Department of Pharmacy

Biresaw Wassihun Alemu, MSc^{*,§}, Adigrat University, Adigrat, Ethiopia; College of Medicine and Health Science; Department of Midwifery

Yihun Mulugeta Alemu, MPH^{*,¶}, Department of Epidemiology and Biostatistics

Prof Khalid F Alhabib, MD^{*,§}, Department of Cardiac Sciences

Robert Kaba Alhassan, PhD[¶], Institute of Health Research

Muhammad Ali, PhD^{*,†,‡,§,¶}, University of Health and Allied Sciences, Ho, Ghana; Department of Biotechnology

Sagib Ali, PhD^{*,‡,§,¶},

Quaid-i-Azam University, Islamabad, Pakistan; Department of Information Systems, College of Economics and Political Science

Gianfranco Alicandro, PhD^{*,†,‡,§},

Page 6

Sultan Qaboos University, Muscat, Oman; Directorate for Social Statistics and Population Census

Mehran Alijanzadeh, PhD^{†,‡}, Social Determinants of Health Research Center

Cyrus Alinia, PhD^{†,‡,§}, Qazvin University of Medical Sciences, Qazvin, Iran; Department of Health Care Management and Economics

Vahid Alipour, PhD^{*,†,‡,§,¶}, Health Economics Department; Health Management and Economics Research Center

Hesam Alizade, PhD^{*,†,§}, Urmia University of Medical Science, Urmia, Iran; Infectious and Tropical Disease Research Center

Prof Syed Mohamed Aljunid, PhD^{*,†,‡,§,¶}, Department of Health Policy and Management; Kuwait University, Safat, Kuwait; International Centre for Casemix and Clinical Coding

Prof François Alla, PhD^{*,‡,§,¶}, National University of Malaysia, Bandar Tun Razak, Malaysia; Bordeaux School of Public Health

Prof Peter Allebeck, MD^{*,†,‡,§}, Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Majid Abdulrahman Hamad Almadi, FRCPC^{*,†,¶}, Bahir Dar University, Bahir Dar, Ethiopia; College of Medicine; University of Bordeaux, Bordeaux, France; Division of Gastroenterology & Hepatology

Prof Ali Almasi, PhD¹¹, Department of Environmental Health Engineering

Amir Almasi-Hashiani, PhD^{*,†,‡,§,¶}, McGill University, Montreal, QC, Canada; Department of Epidemiology

Prof Nihad A Almasri, PhD[¶], Arak University of Medical Sciences, Arak, Iran; Physiotherapy Department

Hesham M Al-Mekhlafi, PhD^{*,†,§,}¶, Medical Research Center

Abdulaziz M Almulhim, MBBS^{*,¶}, Philippine Institute for Development Studies, Quezon City, Philippines; College of Medicine

Jordi Alonso, MD^{*,‡,§,}¶,

Sana'a University, Sana'a, Yemen; Research Program of Epidemiology and Public Health; Pompeu Fabra University, Barcelona, Spain; Department of Experimental and Health Sciences

Rajaa M Al-Raddadi, PhD^{*,‡,¶},

Biomedical Research Networking Center in Epidemiology and Public Health (CiberESP), Madrid, Spain; Department of Community Medicine

Khalid A Altirkawi, MD^{*,†,‡,§,¶}, Pediatric Intensive Care Unit

Arwa Khalid Alumran, PhD[†], Health Information Management and Technology Department

Nelson Alvis-Guzman, PhD^{*,†,‡,¶}, Research Group in Health Economics

Prof Nelson J Alvis-Zakzuk, PhD^{‡,¶}, King Abdulaziz University, Jeddah, Saudi Arabia; Institute for Immunological Research

Azmeraw T Amare, PhD^{*}, Arba Minch University, Arba Minch, Ethiopia; College of Medicine and Health Science; School of Medicine

Bekalu Amare, MSc^{*}, Department of Pharmacology

Saeed Amini, PhD^{*,‡,¶}, Health Services Management Department

Mostafa Amini-Rarani^{†,‡,§,¶}, Arya Aminorroaya, MD^{†,‡}, Non-communicable Diseases Research Center; Tehran Heart Center

Fatemeh Amiri, MSc^{‡,§,¶}, Department of Radiology and Nuclear Medicine

Arianna Maever L Amit, BS^{*,†,‡,¶}, University of Adelaide, Adelaide, SA, Australia; Department of Epidemiology and Biostatistics; School of Public Health

Dickson A Amugsi, PhD^{*,‡,§,¶}, Johns Hopkins University, Baltimore, MD, USA; Maternal and Child Wellbeing

Gianna Gayle Herrera Amul, MSc[‡], African Population and Health Research Center, Nairobi, Kenya; Lee Kuan Yew School of Public Policy

Etsay Woldu Anbesu, MPH^{*}, National University of Singapore, Singapore, Singapore; Department of Public Health

Prof Robert Ancuceanu, PhD^{*,†,§,¶}, Pharmacy Department

Deanna Anderlini, MD^{*,‡,§,¶}, Centre for Sensorimotor Performance; The University of Queensland, Brisbane, QLD, Australia; Neurology Department

Jason A Anderson^{*,§}, Catalina Liliana Andrei, PhD^{*,†,‡,§,¶}, Samara University, Samara, Ethiopia; Cardiology Department Tudorel Andrei^{*,‡,§}, Sofia Androudi, PhD^{†,¶}, Bucharest University of Economic Studies, Bucharest, Romania; Department of Medicine

Colin Angus, MSc^{†,§}, University of Thessaly, Volos, Greece; School of Health and Related Research

Mina Anjomshoa^{*,†,‡,§}, Fereshteh Ansari, PhD^{*,†,‡,§,¶}, Research Center for Evidence Based Medicine; University of Sheffield, Sheffield, UK; Razi Vaccine and Serum Research Institute

Iman Ansari, MD^{†,‡},

Agricultural Research, Education, and Extension Organization (AREEO), Tehran, Iran; Medical Students Research Committee

Alireza Ansari-Moghaddam^{*,†,‡,§,¶}, Ippazio Cosimo Antonazzo, PhD[§], Zahedan University of Medical Sciences, Zahedan, Iran; Research Center on Public Health

Carl Abelardo T Antonio, MD^{*,†,‡,§,¶}, Department of Health Policy and Administration; University of Milan Bicocca, Monza, Italy; Department of Applied Social Sciences

Catherine M Antony^{*,†,‡,§,¶}, Ernoiz Antriyandarti, DrAgrSc^{‡,§,¶}, Hong Kong Polytechnic University, Hong Kong, China; Agribusiness Study Program

Davood Anvari, PhD^{*,†,‡,§,¶}, Department of Parasitology; Mazandaran University of Medical Sciences, Sari, Iran; Department of Parasitology

Razique Anwer, PhD^{‡,§,¶}, Department of Pathology

Seth Christopher Yaw Appiah, PhD^{*,†,§}, Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia; Department of Sociology and Social Work; Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Center for International Health

Jalal Arabloo, PhD^{*,†,‡,§,¶}, Health Management and Economics Research Center

Morteza Arab-Zozani^{*,†,‡,§,¶}, Aleksandr Y Aravkin, PhD^{*,†,‡,§,¶}, Department of Applied Math

Aseb Arba Kinfe Arba, MSc^{*}, Birjand University of Medical Sciences, Birjand, Iran; Department of Nursing

Olatunde Aremu, PhD^{†,¶}, Wolaita Sodo University, Wolaita Sodo, Ethiopia; Department of Public Health

Filippo Ariani, MSc^{‡,§},

Birmingham City University, Birmingham, UK; Regional Centre for the Analysis of Data on Occupational and Work-related Injuries and Diseases

Timur Aripov, PhD^{*},

Local Health Unit Tuscany Centre, Florence, Italy; Public Health and Healthcare Management; Tashkent Institute of Postgraduate Medical Education, Tashkent, Uzbekistan; Boston Children's Hospital, Boston, MA, USA

Bahram Armoon, PhD[§],

Social Determinants of Health Research Center; Saveh University of Medical Sciences, Saveh, Iran; Social Determinants of Health Research Center

Prof Johan Ärnlöv, PhD^{*,†,‡,§,¶},

Yasuj University of Medical Sciences, Yasuj, Iran; School of Health and Social Studies; Department of Neurobiology, Care Sciences and Society

Oluwaseyi Olalekan Arowosegbe, MPH^{*},

Dalarna University, Falun, Sweden; Department of Epidemiology and Public Health; Swiss Tropical and Public Health Institute, Basel, Switzerland; Department of Epidemiology and Public Health

Krishna K Aryal, PhD^{†,‡}, Monitoring Evaluation and Operational Research Project

Afsaneh Arzani, DrPH^{‡,§},

School of Nursing and Midwifery; Babol University of Medical Sciences, Babol, Iran

Malke Asaad, MD^{*,¶}, Department of Plastic Surgery

Mehran Asadi-Aliabadi^{*,‡,§,¶}, Ali A Asadi-Pooya^{*,†,‡,§,¶}, Samaneh Asgari, MSc[†], Prevention of Metabolic Disorders Research Center

Prof Babak Asghari, PhD[‡],

Department of Biostatistics and Epidemiology; Thomas Jefferson University, Philadelphia, PA, USA; Department of Biostatistics and Epidemiology

Mohammad Asghari Jafarabadi[†], Charlie Ashbaugh^{*,‡,§,¶}, Michael Assmus^{*,§}, Zahra Atafar[§], Seyyed Shamsadin Athari, MPH[¶], Department of Immunology

Desta Debalkie Atnafu, MPH^{‡,§}, Department of Health System and Health Economics

Maha Moh'd Wahbi Atout, PhD^{*,§,¶}, Zanjan University of Medical Sciences, Zanjan, Iran; Faculty of Nursing

Sachin R Atre, PhD[‡],

University of the Philippines Manila, Manila, Philippines; Center for Clinical Global Health Education; Philadelphia University, Amman, Jordan; D.Y. Patil Medical College, Hospital and Research Centre

Madhu Sudhan Atteraya, PhD[†], D.Y. Patil Vidyapeeth, Pune, Pune, India; Department of Social Welfare

Floriane Ausloos, MD^{*,‡,§},

University of Leicester, Leicester, UK; Gastro-enterology Department

Prof Marcel Ausloos, PhD^{*,†,‡,§,¶}, School of Business

Leticia Avila-Burgos^{†,¶}, Euripide Frinel Gbenato Arthur Avokpaho, MD[†], University of Liège, Liège, Belgium; Epidemiological and Clinical Research; Bénin Clinical Research Institute (IRCB), Abomey-Calavi, Benin; Epidemiology and Clinical Research

Beatriz Paulina Ayala Quintanilla, PhD^{*,†,‡,§,¶}, The Judith Lumley Centre

Getinet Ayano, MSc^{*,†,‡,§,¶}, School of Public Health

Martin Amogre Ayanore, PhD^{*,†,‡,§,¶}, Department of Health Policy Planning and Management

Getie Lake Aynalem, MSc[¶], Jenderal Soedirman University, Purwokerto, Indonesia; Department of Clinical Midwifery

Yared Asmare Aynalem, MSc^{‡,¶}, Department of Nursing

Muluken Altaye Ayza, MSc[¶], Department of Pharmacology and Toxicology

Samad Azari, PhD^{*,‡,§,¶}, Health Management and Economics Research Center

Ghasem Azarian^{†,‡,§}, Zelalem Nigussie Azene, MPH^{*,‡,§}, Department of Reproductive Health

Gulrez Azhar^{||}, Peter S Azzopardi, PhD[¶], Curtin University, Perth, WA, Australia; Global Adolescent Health Group; Burnet Institute, Melbourne, VIC, Australia; Wardliparingga Aboriginal Research Unit

Darshan B B^{*,¶}, Ebrahim Babaee, PhD^{*,†,‡,¶}, Preventive Medicine and Public Health Research Center

Alaa Badawi, PhD^{*,‡,§}, Public Health Risk Sciences Division; Department of Nutritional Sciences

Ashish D Badiye, MSc^{*,†,§,¶}, University of Toronto, Toronto, ON, Canada; Department of Forensic Science

Prof Mojtaba Bagherzadeh, PhD^{*,‡}, Government Institute of Forensic Science, Nagpur, India; Chemistry Department

Eleni Bagli, PhD[†],

Sharif University of Technology, Tehran, Iran; Department of Ophthalmology; University Hospital of Ioannina, Ioannina, Greece; Institute of Molecular Biology & Biotechnology

Mohammad Amin Bahrami, PhD^{†,§,¶}, Department of Healthcare Management and Education

Atif Amin Baig, PhD[¶],

Foundation for Research & Technology, Ioannina, Greece; Unit of Biochemistry

Mohan Bairwa, MD^{*},

Sultan Zainal Abidin University, Kuala Terengganu, Malaysia; Centre for Community Medicine

Mohammad Hossein Bakhshaei, MD^{‡,§,¶}, Department of Anesthesiology

Ahad Bakhtiari, PhD^{*,†,‡,§,¶}, Department of Health Policy, Management, and Economics

Shankar M Bakkannavar^{*,§,¶}, Arun Balachandran, MSc^{*,¶}, Hamedan University of Medical Sciences, Hamadan, Iran; Department of Demography; University of Groningen, Groningen, Netherlands; Population Research Centre

Senthilkumar Balakrishnan, PhD[‡], Department of Medical Microbiology

Shivanthi Balalla, PhD[‡], Department of Psychology and Neurosciences

Shelly Balassyano^{†,‡,¶}, Alberto Baldasseroni, MD[§], Auckland University of Technology, Auckland, New Zealand; Epidemiology Department

Prof Kylie Ball[§], Institute for Physical Activity and Nutrition

Shoshana H Ballew, PhD[§], Department of Epidemiology

Daniela Balzi, DSc[§], Deakin University, Burwood, VIC, Australia; Department of Prevention

Prof Maciej Banach, PhD^{*,†,‡,§,¶},

USL Tuscany Center, Florence, Italy; Department of Hypertension; Medical University of Lodz, Lodz, Poland; Polish Mothers' Memorial Hospital Research Institute, Lodz, Poland

Prof Srikanta K Banerjee, PhD^{*,§,¶}, School of Health Sciences

Palash Chandra Banik, MPhil^{*,†,‡,¶}, Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Marlena S Bannick[‡], Agegnehu Bante Bante, MSc^{‡,§,}¶, Department of Nursing

Simachew Animen Bante, MSc[¶], Department of Midwifery

Adhanom Gebreegziabher Baraki, MPH^{*,‡,§}, Department of Epidemiology and Biostatistics

Prof Miguel A Barboza, MD[‡],

Bangladesh University of Health Sciences, Dhaka, Bangladesh; Department of Neurosciences; Costa Rican Department of Social Security, San Jose, Costa Rica; School of Medicine

Suzanne Lyn Barker-Collo^{*,†,‡,§,¶}, Prof Till Winfried Bärnighausen, MD^{†,§,¶}, T.H. Chan School of Public Health; Heidelberg Institute of Global Health (HIGH)

Prof Lope H Barrero, DSc^{§,¶}, Heidelberg University, Heidelberg, Germany; Department of Industrial Engineering

Celine M Barthelemy^{‡,§,¶}, Lingkan Barua, MPH^{‡,§}, Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Akbar Barzegar, PhD^{†,‡}, Department of Occupational Health Engineering

Prof Huda Basaleem, PhD^{*}, Pontifical Javeriana University, Bogota, Colombia; School of Public Health and Community Medicine

Prof Quique Bassat, MD[¶],

Aden College, Aden, Yemen; Barcelona Institute for Global Health; University of Barcelona, Barcelona, Spain; Catalan Institution for Research and Advanced Studies (ICREA), Barcelona, Spain

Sanjay Basu, PhD^{*,†,‡,§,¶}, Center for Primary Care; School of Public Health

Prof Bernhard T Baune, PhD^{*,†,‡,§,¶},

Imperial College London, London, UK; Department of Psychiatry; University of Münster, Münster, Germany; Department of Psychiatry

Mohsen Bayati, PhD^{*,†,‡,§,¶}, Health Human Resources Research Center

Bayisa Abdissa Baye, MPH^{*,¶}, Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Gholamreza Bazmandegan^{†,‡}, Jacob S Becker, BA[§], Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Prof Neeraj Bedi, MD^{*,†,‡,§,¶}, Jazan University, Jazan, Saudi Arabia; University of North Carolina Chapel Hill, Chapel Hill, NC, USA; Department of Community Medicine

Ettore Beghi, MD^{*,‡,§,¶}, Department of Neuroscience

Masoud Behzadifar, PhD[¶], Social Determinants of Health Research Center

Prof Yannick Béjot, PhD^{‡,§},

Lorestan University of Medical Sciences, Khorramabad, Iran; Department of Neurology; University Hospital of Dijon, Dijon, France; Dijon Stroke Registry - UFR Sciences Santé Tariku Tesfaye Tesfaye Bekuma, MPH[¶], University of Burgundy, Dijon, France; Department of Public Health

Prof Michelle L Bell, PhD^{*,†,§,¶}, Wollega University, Nekemte, Ethiopia; School of the Environment

Aminu K Bello, PhD[‡], Yale University, New Haven, CT, USA; Department of Medicine

Rose G Bender[‡], Derrick A Bennett, PhD^{†,‡}, Nuffield Department of Population Health

Fiona B Bennitt^{‡,§}, Isabela M Bensenor, PhD^{*,†,‡,§,¶}, Department of Internal Medicine

Catherine P Benziger, MD[‡], University of São Paulo, São Paulo, Brazil; Heart and Vascular Center

Kidanemaryam Berhe, MPH^{*,†,‡,§}, Department of Nutrition and Dietetics

Adam E Berman, MD^{*,†,§,¶}, Essentia Health, Duluth, MN, USA; Department of Medicine

Eduardo Bernabe, PhD^{‡,¶}, Faculty of Dentistry, Oral & Craniofacial Sciences

Robert S Bernstein, MD[¶], Hubert Department of Global Health

Gregory J Bertolacci^{†,‡}, Akshaya Srikanth Bhagavathula, PharmD^{*,§,¶}, Emory University, Atlanta, GA, USA; Department of Internal Medicine; Department of Social and Clinical Pharmacy

Reshmi Bhageerathy, PhD^{†,‡,§,¶}, Department of Health Information Management; Manipal Academy of Higher Education, Mangalore, India

Neeraj Bhala, PhD^{*,†,‡,§},

Charles University, Prague, Czech Republic; Institutes of Applied Health Research and Translational Medicine; Queen Elizabeth Hospital Birmingham, Birmingham, UK; Institute of Applied Health Research

Dinesh Bhandari, MSc^{‡,§,¶}, School of Public Health; University of Birmingham, Birmingham, UK; Public Health Research Laboratory

Pankaj Bhardwaj, MD^{*,‡,¶},

All India Institute of Medical Sciences, New Delhi, India; Department of Community Medicine and Family Medicine

Anusha Ganapati Bhat, MD[¶],

Datta Meghe Institute of Medical Sciences, Wardha, India; Division of General Internal Medicine

Krittika Bhattacharyya, MSc^{*,†,‡,§,¶},

University of Massachusetts Medical School, Springfield, MA, USA; Department of Statistical and Computational Genomics; National Institute of Biomedical Genomics, Kalyani, India; Department of Statistics

Suraj Bhattarai, MD^{*,¶}, University of Calcutta, Kolkata, India; Department of Global Health

Prof Zulfigar A Bhutta, PhD^{*,†,‡,§,¶},

Public Health Agency of Canada, Toronto, ON, Canada; Centre for Global Child Health; Global Institute for Interdisciplinary Studies, Kathmandu, Nepal; Centre of Excellence in Women & Child Health

Sadia Bibi, PhD[‡], Aga Khan University, Karachi, Pakistan; Institute of Soil and Environmental Sciences

Molly H Biehl[‡], Ali Bijani, PhD^{*,†,§,¶}, Social Determinants of Health Research Center

Boris Bikbov, MD^{*,‡,§,¶}, Mario Negri Institute for Pharmacological Research, Milan, Italy

Ver Bilano, PhD[¶], University of Agriculture Faisalabad, Faisalabad, Pakistan; Health Economics and Outcomes Research

Muhammad Shahdaat Bin Sayeed, MSc^{‡,§},

Creativ-Ceutical, London, UK; National Centre for Epidemiology and Population Health; Australian National University, Canberra, ACT, Australia; Department of Clinical Pharmacy and Pharmacology

Prof Antonio Biondi, PhD^{*,†,‡,§,¶}, Department of General Surgery and Medical-Surgical Specialties

Binyam Minuye Birihane, MSc^{‡,§,¶}, University of Catania, Catania, Italy; Ethiopian Public Health Institute, Adis Ababa, Ethiopia; Department of Nursing

Donal Bisanzio, PhD^{†,‡},

Debre Tabor University, Debretabor, Ethiopia; Global Health Division; School of Medicine

Catherine Bisignano^{*,†,‡,§,||}, Raaj Kishore Biswas, MSc^{*,†,‡,§}, Transport and Road Safety (TARS) Research Centre

Helen Bitew, MSc[§], School of Pharmacy

Prof Tone Bjørge, PhD^{*,†}, University of Bergen, Bergen, Norway; Cancer Registry of Norway, Oslo, Norway; Department of Global Public Health and Primary Care

Prof Moses John Bockarie, MSc[¶],

European & Developing Countries Clinical Trials Partnership, Cape Town, South Africa; Department of Medicine

Somayeh Bohlouli, PhD^{*,†,‡,§,¶}, Department of Veterinary Medicine

Mehdi Bohluli, PhD^{*,†,‡,§},

Islamic Azad University, Kermanshah, Iran; Department of Computer Science and Information Technology; Institute for Advanced Studies in Basic Sciences, Zanjan, Iran; Department of Research and Innovation

Hunduma Amensisa Bojia, BPharm[¶], School of Pharmacy

Srinivasa Rao Bolla, PhD^{*,†,‡,¶}, Petanux Research GmBH, Bonn, Germany; Department of Biomedical Sciences

Archith Boloor, MD^{*,‡,¶}, Department of Internal Medicine

Alexandra S Boon-Dooley^{‡,§}, Prof Guilherme Borges, DSc^{‡,§}, Nazarbayev University, Nur-Sultan City, Kazakhstan; Department of Epidemiology and Psychosocial Research

Antonio Maria Borzì, MD^{†,‡,§}, Department of Clinical and Experimental Medicine

Shiva Borzouei^{†,§}, Dipan Bose, PhD^{*}, Ramón de la Fuente Muñiz National Institute of Psychiatry, Mexico City, Mexico; Transport Global Practice

Cristina Bosetti, PhD[§], Department of Oncology

Soufiane Boufous, PhD^{*,§}, Transport and Road Safety (TARS) Research Centre

Prof Rupert Bourne, MD[‡], World Bank, Washington, DC, USA; Vision and Eye Research Unit

Oliver J Brady, PhD^{*,†,‡,¶}, Department of Infectious Disease Epidemiology

Dejana Braithwaite, PhD^{*,†,§,¶}, Division of Hematology and Oncology

Prof Michael Brauer, DSc^{*,†,‡,§}, School of Population and Public Health

Prof Carol Brayne, MD[‡], Anglia Ruskin University, Cambridge, UK; Department of Public Health and Primary Care

Prof Nicholas J K Breitborde, PhD^{*,‡,§},

University of Cambridge, Cambridge, UK; Department of Psychology; Psychiatry and Behavioral Health Department

Susanne Breitner, DSc§,

Ohio State University, Columbus, OH, USA; Institute for Medical Information Processing, Biometry, and Epidemiology; Ludwig Maximilian University of Munich, Munich, Germany; Institute of Epidemiology

Prof Hermann Brenner, MD^{*,‡,§},

German Research Center for Environmental Health, Neuherberg, Germany; Division of Clinical Epidemiology and Aging Research

Prof Alexey V Breusov, DSc^{*}, German Cancer Research Center, Heidelberg, Germany; Institute of Medicine

Paul Svitil Briant^{*,‡,§,¶}, Prof Andrew M Briggs, PhD^{*,‡,¶}, School of Physiotherapy and Exercise Science

Prof Andrey Nikolaevich Briko, MSc, DSc^{†,§},

World Health Organization (WHO), Geneva, Switzerland; Department of Epidemiology and Evidence Based Medicine; I.M. Sechenov First Moscow State Medical University, Moscow, Russia; Department of Biomedical Technologies

Nikolay Ivanovich Briko^{†,‡,§,¶}, Gabrielle B Britton, PhD^{*,‡,§}, Bauman Moscow State Technical University, Moscow, Russia; Neuroscience Unit; Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Prof Traolach Brugha, MD^{*}, Keimyung University, Daegu, South Korea; Department of Health Sciences

Dana Bryazka^{‡,§}, Prof Rachelle Buchbinder, PhD[‡], Department of Epidemiology and Preventive Medicine; Monash Department of Clinical Epidemiology at Cabrini Hospital

Blair R Bumgarner^{1,‡,§}, Katrin Burkart[§], Richard Thomas Burnett, PhD[§], Cabrini Institute, Melbourne, VIC, Australia; Population Studies Division

Prof Sharath Burugina Nagaraja, MD^{*,†,§,¶}, Health Canada, Ottawa, ON, Canada; Department of Community Medicine

Prof Reinhard Busse, PhD^{*,‡,¶},

Employee State Insurance Post Graduate Institute of Medical Sciences and Research, Bengalore, India; Department of Health Care Management

Zahid A Butt, PhD^{*,†,‡,§,¶},

Technical University of Berlin, Berlin, Germany; School of Public Health and Health Systems; University of Waterloo, Waterloo, ON, Canada; Al Shifa School of Public Health

Florentino Luciano Caetano dos Santos, PhD^{*,†,‡,§,¶}, Al Shifa Trust Eye Hospital, Rawalpindi, Pakistan; Institute of Microengineering

Leah E Cahill, PhD[§],

Department of Nutrition; Department of Medicine

Lucero Cahuana-Hurtado[¶], Prof Tianji Cai, PhD[†], Federal Polytechnic School of Lausanne, Lausanne, Switzerland; Department of Sociology

Charlton SKH Callender[†], Prof Luis Alberto Cámera, MD^{*,†,‡,§,¶}, Peruvian University Cayetano Heredia, Lima, Peru; Internal Medicine Department; Hospital Italiano de Buenos Aires, Buenos Aires, Argentina; Board of Directors

Ismael R Campos-Nonato^{*,†,‡,§}, Julio Cesar Campuzano Rincon, PhD^{*}, National Institute of Public Health, Cuernavaca, Mexico; School of Medicine

Jackie Cao^{ll}, Josip Car, PhD^{*,‡}, University of the Valley of Cuernavaca, Cuernavaca, Mexico; Centre for Population Health Sciences; Department of Primary Care and Public Health

Prof Rosario Cárdenas, DSc^{*,†,‡,§,¶}, Nanyang Technological University, Singapore, Singapore; Department of Health Care

Giulia Carreras, PhD^{*,†,‡,§,¶}, Institute for Cancer Research, Prevention and Clinical Network, Florence, Italy

Prof Juan J Carrero, PhD^{*,†,‡,§,¶}, Department of Medical Epidemiology and Biostatistics

Prof Felix Carvalho, PhD^{*,†,‡,§,¶}, Research Unit on Applied Molecular Biosciences (UCIBIO)

Joao Mauricio Castaldelli-Maia^{*,†,‡,§,¶}, Carlos A Castañeda-Orjuela^{‡,§,¶}, Giulio Castelpietra, PhD^{*,†,‡,§,}¶,

National University of Colombia, Bogota, Colombia; Department of Medicine; University of Udine, Udine, Italy; Department of Mental Health

Chris D Castle[‡], Emma Castro, MD^{||}, Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Franz Castro^{*,†,‡,§,¶}, Ferrán Catalá-López, PhD^{*,†,‡,¶}, Institute of Health Carlos III, Madrid, Spain; Clinical Epidemiology Program; Healthcare Agency "Friuli Occidentale", Pordenone, Italy; National School of Public Health

Kate Causey^{*,‡,§,¶}, Christopher R Cederroth, PhD^{*,†,‡,§,¶}, Department of Physiology and Pharmacology; Research Triangle Institute International, Research Triangle Park, NC, USA; National Institute of Health Research Nottingham Biomedical Research Centre

Kelly M Cercy^{*,‡,§,¶}, Prof Ester Cerin, PhD^{*,†,‡,§,¶}, Ottawa Hospital Research Institute, Ottawa, ON, Canada; Mary MacKillop Institute for Health Research; School of Public Health

Julian Chalek^{||}, Joht Singh Chandan, MFPH^{*,‡,§,¶}, Queen Elizabeth Hospital Birmingham, Birmingham, UK; Institute of Applied Health Research Alex R Chang, MD[‡], National Taiwan University Hospital, Taipei, Taiwan; Kidney Health Research Institute

Angela Y Chang, DSc[¶], University of Washington, Seattle, WA, USA

Jung-Chen Chang, PhD^{*}, University of Hong Kong, Hong Kong, China; College of Medicine; National Taiwan University, Taipei, Taiwan; Department of Nursing

Kai-Lan Chang, PhD[§], Geisinger Health System, Danville, PA, USA; Cooperative Institute for Research in Environmental Sciences; University of Colorado, Boulder, CO, USA; Chemical Sciences Division

Jaykaran Charan, MD^{*,¶}, Department of Pharmacology

Fiona J Charlson, PhD^{*,‡,§}, Queensland Centre for Mental Health Research

Vijay Kumar Chattu, MD^{*,†,‡,§,¶}, Department of Medicine

Sarika Chaturvedi, PhD^{*,‡,§,¶}, National Oceanic and Atmospheric Administration Earth System Research Laboratory, Boulder, CO, USA; Research Department

Prof Nicolas Cherbuin, PhD^{*,§}, Research School of Population Health

Odgerel Chimed-Ochir^{‡,§}, Ken Lee Chin, PhD^{*,†,‡,¶}, Department of Epidemiology and Preventive Medicine; Melbourne Medical School

Jesus Lorenzo Chirinos-Caceres^{*}, Daniel Youngwhan Cho, MD^{*,‡,§,¶}, Division of Plastic Surgery

Jee-Young Jasmine Choi, PhD^{*,§,¶}, Cayetano Heredia University, Lima, Peru; Biomedical Informatics

Prof Hanne Christensen, DMSci^{‡,§,¶}, Seoul National University Hospital, Seoul, South Korea; Bispebjerg Hospital

Dinh-Toi Chu, PhD^{*,†,‡,§,¶}, University of Copenhagen, Copenhagen, Denmark; Faculty of Biology

Michael T Chung, MD^{*,‡,§,¶}, Department of Otolaryngology

Sheng-Chia Chung, PhD^{*,§}, Department of Health Informatics; University College London, London, UK; Health Data Research UK, London, UK

Prof Flavia M Cicuttini, PhD^{*,‡,§},

School of Public Health and Preventive Medicine

Liliana G Ciobanu, PhD^{†,‡,§,¶}, School of Pharmacy and Medical Sciences; Mekelle University, Mekelle, Ethiopia; Adelaide Medical School

Prof Massimo Cirillo, MD^{*,†,‡,§,¶}, Wayne State University, Detroit, MI, USA; Department of Public Health

Beniamino Cislaghi^{*}, Thomas Khaled Dwayne Classen, MSc[§], University of Naples Federico II, Naples, Italy; Department of Key Questions and International Cooperation; North Rhine-Westphalia (NRW) Centre for Health, Bochum, Germany; Bielefeld School of Public Health

Aaron J Cohen, DSc^{*,§}, Bielefeld University, Bielefeld, Germany; Health Effects Institute, Boston, MA, USA

Emma L Collins, MSc[‡], Nuffield Department of Medicine

Haley Comfort^{†,¶}, Kelly Compton^{*,‡,§,¶}, Sara Conti, PhD[‡], School of Medicine and Surgery

Owen R Cooper, PhD[§],

Geisinger Health System, Danville, PA, USA; Cooperative Institute for Research in Environmental Sciences; National Oceanic and Atmospheric Administration Chemical Sciences Laboratory, Boulder, CO, USA

Barbara Corso, PhD^{*}, Institute of Neuroscience

Paolo Angelo Cortesi, PhD^{*,‡,¶}, School of Medicine and Surgery

Vera Marisa Costa, PhD^{*,†,‡,§,¶}, Research Unit on Applied Molecular Biosciences (UCIBIO)

Ewerton Cousin, PhD^{*,‡,§,¶}, Postgraduate Program in Epidemiology

Richard G Cowden, PhD^{*,†,‡,§}, Federal University of Rio Grande do Sul, Porto Alegre, Brazil; Department of Psychology

Prof Benjamin C Cowie, PhD[‡], Department of Medicine; WHO Collaborating Centre for Viral Hepatitis

Elizabeth A Cromwell^{†,‡}, Andrew J Croneberger[†], Di H Cross, PhD^{‡,§}, Office of the Director

Marita Cross, PhD^{*}, Faculty of Medicine and Health

Christopher Stephen Crowe, MD^{*,‡}, Division of Plastic & Reconstructive Surgery Jessica A Cruz^{‡,§}, Steven Cummins^{*}, Matthew Cunningham^{†,‡}, Saad M A Dahlawi, PhD^{†,‡,§,¶},

Environmental Health Department

Prof Haijiang Dai, MD^{*},

National Institutes of Health, Bethesda, MD, USA; Department of Cardiology; Central South University, Changsha, China; Department of Mathematics and Statistics; York University, Toronto, ON, Canada; College of Environmental Sciences and Engineering

Hancheng Dai, PhD^{*}, Prof Albertino Antonio Moura Damasceno, PhD[§], Peking University, Beijing, China; Faculty of Medicine

Giovanni Damiani, MD^{*,†,‡,§,¶},

Eduardo Mondlane University, Maputo, Mozambique; Clinical Dermatology, IRCCS Istituto Ortopedico Galeazzi; University of Milan, Milan, Italy; Department of Dermatology

Emanuele D'Amico, MD[†], University of Dhaka, Dhaka, Bangladesh; Department "G.F.Ingrassia"

Prof Lalit Dandona, MD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Prof Rakhi Dandona, PhD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Parnaz Daneshpajouhnejad, MD^{*}, Department of Pathology

William James Dangel[§], Anna-Karin Danielsson, PhD[§], Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Jiregna Darega Gela, MPH[¶], Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Prof Paul I Dargan, MB^{†,§}, Faculty of Life Sciences and Medicine; Department of Clinical Toxicology

Aso Mohammad Darwesh, PhD^{*,†,‡,§,¶}, Department of Information Technology

Prof Ahmad Daryani, PhD^{†,‡,§,¶}, Toxoplasmosis Research Center

Jai K Das, MD^{*,‡,§}, Division of Women and Child Health

Rajat Das Gupta, MPH^{*,†,‡,§},

University of Human Development, Sulaymaniyah, Iraq; Department of Epidemiology and Biostatistics; University of South Carolina, Columbia, SC, USA; James P Grant School of Public Health

José das Neves, PhD^{*,†,‡,§}, Institute for Research and Innovation in Health; Institute of Biomedical Engineering (INEB) Prof Aditya Prasad Dash, DSc[¶], BRAC University, Dhaka, Bangladesh; Central University Tami Nadu, Thiruvarur, India

Prof Gail Davey, MD^{*,¶}, Department of Global Health and Infection; School of Public Health

Claudio Alberto Dávila-Cervantes^{*,‡,§,¶}, Prof Adrian C Davis, PhD^{*}, Department of Surgery and Cancer; Ear Institute

Dragos Virgil Davitoiu, PhD[§], Department of General Surgery; Latin American Faculty of Social Sciences Mexico, Mexico City, Mexico; Department of Surgery

Kairat Davletov, PhD^{†,‡,¶}, Clinical Emergency Hospital Sf. Pantelimon, Bucharest, Romania; Health Research Institute

Prof Diego De Leo, DSc^{*,†,‡,§}, Queensland Health, Brisbane, QLD, Australia; Australian Institute for Suicide Research and Prevention

Jan-Walter De Neve[¶], Heidelberg Institute of Global Health (HIGH)

Frances E Dean[‡], Prof Nicole K DeCleene[‡], National Research University Higher School of Economics, Moscow, Russia; Department of Respiratory Medicine

Amanda Deen[‡], Prof Louisa Degenhardt, PhD^{‡,§}, National Drug and Alcohol Research Centre

Marissa DeLang, BS[§], Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Prof Robert Paul Dellavalle, MD^{‡,§}, Dermatology Service; Al Farabi Kazakh National University, Almaty, Kazakhstan; Department of Dermatology

Feleke Mekonnen Demeke, MSc^{‡,§}, Department of Medical Laboratory Sciences

Gebre Teklemariam Demoz, MSc[§], School of Pharmacy

Desalegn Getnet Demsie, MSc^{‡,§}, Department of Pharmacy

Edgar Denova-Gutiérrez, DSc^{*,†,‡,§,¶}, Center for Nutrition and Health Research

Nebiyu Dereje Dereje, PhD[‡], School of Public Health; Aksum University, Aksum, Ethiopia; Department of Public Health

Kebede Deribe, PhD^{*,†,¶},

Wellcome Trust Brighton and Sussex Centre for Global Health Research; School of Public Health

Nikolaos Dervenis, MD^{*,†,‡,§,¶}, Wachemo University, Hossana, Ethiopia; St Paul's Eye Unit; Department of Ophthalmology

Rupak Desai, MBBS^{*,†,‡,¶}, Aristotle University of Thessaloniki, Thessaloniki, Greece; Division of Cardiology

Assefa Desalew, MSc[‡], School of Nursing and Midwifery

Getenet Ayalew Dessie, MSc[‡], Department of Nursing

Keshab Deuba, DrPH^{*}, Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health; National Centre for AIDS and STD Control

Prof Samath Dhamminda Dharmaratne, MD^{‡,¶}, Save the Children, Kathmandu, Nepal; Department of Community Medicine

Govinda Prasad Dhungana, MSc^{*,†,‡,§,¶}, University of Peradeniya, Peradeniya, Sri Lanka; Department of Microbiology

Mostafa Dianatinasab, MSc^{*,‡,§,¶},

University of Texas, Houston, TX, USA; Department of Epidemiology; Far Western University, Mahendranagar, Nepal; Department of Epidemiology and Biostatistics

Prof Diana Dias da Silva, PhD^{†,§,¶}, Laboratory of Toxicology

Prof Daniel Diaz, PhD^{*,†,‡,§,¶}, Shahroud University of Medical Sciences, Shahroud, Iran; Center of Complexity Sciences; National Autonomous University of Mexico, Mexico City, Mexico; Faculty of Veterinary Medicine and Zootechnics

Zahra Sadat Dibaji Forooshani, PhD^{‡,§}, Tehran University of Medical Sciences, Tehran, Iran

Prof Martin Dichgans, MD^{*}, Institute for Stroke and Dementia Research

Alireza Didarloo, PhD^{*}, Department of Public Health

Zachary V Dingels[‡], Ilse N Dippenaar^{*,†,¶}, M Ashworth Dirac, MD[‡], Autonomous University of Sinaloa, Culiacan Rosales, Mexico; Swedish Family Medicine -First Hill, Seattle, WA, USA

Shirin Djalalinia, PhD^{†,‡,§}, Development of Research and Technology Center

Hoa Thi Do^{†,‡,§,¶}, Klara Dokova, PhD^{*,†,‡,§},

Nguyen Tat Thanh University, Ho Chi Minh City, Vietnam; Department of Social Medicine and Health Care Organisation

David Teye Doku, PhD[†], Medical University of Varna, Varna, Bulgaria; Department of Population and Health

Christiane Dolecek, MD^{*}, Centre for Tropical Medicine and Global Health; University of Tampere, Tampere, Finland; Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Andrew J Dolgert^{||}, Fariba Dorostkar, PhD^{*,†,‡,§,¶, Faculty of Allied Medicine}

Chirag P Doshi, BA^{*,†,‡}, Keck School of Medicine

Pratik P Doshi, MS^{*}, School of Medicine

Leila Doshmangir, PhD^{*,†,‡,§,¶}, Department of Health Policy and Management

Abdel Douiri, PhD[‡], School of Population Health and Environmental Sciences

Matthew C Doxey, MPH^{*,‡}, Urban Indian Health Institute

Prof Kerrie E Doyle, PhD[†], Seattle Indian Health Board, Seattle, WA, USA; School of Medicine; Health Sciences

Prof Tim Robert Driscoll, PhD^{*,‡,§}, Sydney School of Public Health

Eleonora Dubljanin, PhD[†], Institute of Microbiology and Immunology

Susanna J Dunachie, PhD[‡], Centre for Tropical Medicine and Global Health; University of Tampere, Tampere, Finland; Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Prof Bruce B Duncan^{*,‡,§,¶}, Postgraduate Program in Epidemiology

Prof Andre Rodrigues Duraes, PhD^{†,‡,§,¶}, School of Medicine; Federal University of Bahia, Salvador, Brazil; Department of Internal Medicine

Arielle Wilder Eagan, MSW^{*,‡,§,¶},

Department of Global Health and Social Medicine; Escola Bahiana de Medicina e Saúde Pública, Salvador, Brazil; Department of Social Services

Hedyeh Ebrahimi, MD^{*},

Liver and Pancreaticobilliary Disease Research Center; Non-communicable Diseases Research Center

Mohammad Ebrahimi Kalan, MSc^{*,‡}, Tufts Medical Center, Boston, MA, USA; Department of Epidemiology

Prof David Edvardsson, PhD^{*,†,‡,§,¶}, School of Nursing and Midwifery; Florida International University, Miami, FL, USA; Department of Nursing

Andem Effiong, MB[†], Umeå University, Umea, Sweden; Centre Clinical Epidemiology and Biostatistics

Joshua R Ehrlich, MD^{*,‡}, University of Newcastle, Newcastle, NSW, Australia; Department of Ophthalmology and Visual Sciences; Institute for Health Care Policy and Innovation

Prof Nevine El Nahas, MD^{‡,§}, Department of Neurology

Iman El Sayed, PhD^{†,‡,§,¶}, University of Michigan, Ann Arbor, MI, USA; Biomedical Informatics and Medical Statistics Department

Prof Maysaa El Sayed Zaki, PhD^{*}, Alexandria University, Alexandria, Egypt; Department of Clinical Pathology

Prof Maha El Tantawi, PhD^{*,†,‡,§,¶}, Pediatric Dentistry and Dental Public Health Department

Iffat Elbarazi, DrPH^{*,†,‡,§}, Mansoura University, Mansoura, Egypt; Department of Public Health

Islam Y Elgendy, MD^{*,‡,§,¶}, Cardiology Department; Division of Cardiology

Prof Hala Rashad Elhabashy, MD[‡], Neurophysiology Department

Shaimaa I EI-Jaafary^{*,†,‡,§}, Aisha Elsharkawy, MD^{*}, Endemic Medicine and Hepatogastroentrology Department

Iqbal RF Elyazar, PhD^{*,‡,§,¶}, Massachusetts General Hospital, Boston, MA, USA; Eijkman-Oxford Clinical Research Unit

Mohammad Hassan Emamian, PhD^{*,†,‡}, Ophthalmic Epidemiology Research Center

Sophia Emmons-Bell^{‡,§}, Holly E Erskine, PhD^{‡,§}, Queensland Centre for Mental Health Research, Brisbane, QLD, Australia

Babak Eshrati, PhD^{*,‡},

Preventive Medicine and Public Health Research Center

Khalil Eskandari, PhD[¶],

Department of Medicinal Chemistry; Pharmaceutics Research Center

Sharareh Eskandarieh, PhD^{*,†,‡,§,¶}, Multiple Sclerosis Research Center

Saman Esmaeilnejad, PhD^{‡,§,¶}, Tehran Medical Sciences Branch; Department of Physiology

Firooz Esmaeilzadeh, PhD^{†,‡}, Department of Public Health

Prof Alireza Esteghamati, MD^{*,‡,§,¶}, Endocrinology and Metabolism Research Center

Sadaf Esteghamati, MD^{*}, Endocrinology and Metabolism Research Center

Kara Estep^{†,‡,§}, Arash Etemadi, PhD^{‡,§}, Maragheh University of Medical Sciences, Maragheh, Iran; Division of Cancer Epidemiology and Genetics

Atkilt Esaiyas Etisso, MSc^{‡,§}, Unit of Medical Physiology

Oluchi Ezekannagha, PhD[¶], Hawassa University, Hawassa, Ethiopia; Independent Consultant, Awka, Nigeria; International Institute for Tropical Agriculture, Ibadan, Nigeria

Prof Jessica Fanzo, PhD^{*,§}, School of Advanced International Studies

Tamer Farag[¶], Mohammad Farahmand, PhD^{†,‡,§,¶}, School of Public Health

Prof Anwar Faraj, PhD^{†,‡}, Department of Political Science

Emerito Jose A Faraon, MD[¶], Department of Health Policy and Administration

Mohammad Fareed, PhD^{†,‡,§}, Iranshahr University of Medical Sciences, Iranshahr, Iran; College of Medicine

Prof Roghiyeh Faridnia, PhD^{†,‡,§}, Department of Medical Parasitology

Carla Sofia e Sá Farinha, MSc^{‡,¶}, Dissemination Division; National Institute of Statistics, Lisbon, Portugal; Activity Planning and Control Unit

Andrea Farioli, PhD^{‡,§,¶}, Directorate-General of Health (DGS), Lisbon, Portugal; Department of Medical and Surgical Sciences

Pawan Sirwan Faris, PhD[¶],

University of Bologna, Bologna, Italy; Department of Biology and Biotechnology "Lazzaro Spallanzani"; University of Pavia, Pavia, Italy; Department of Biology

Prof Andre Faro, PhD^{*,†,‡,§,¶}, Salahaddin University-Erbil, Erbil, Iraq; Department of Psychology

Mithila Faruque, MPH^{‡,§}, Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Prof Farshad Farzadfar, DSc^{*,†,‡,§}, Non-communicable Diseases Research Center

Nazir Fattahi^{*,†,‡,§}, Ali Akbar Fazaeli, PhD[†], Department of Health Policy, Management, and Economics

Mehdi Fazlzadeh, PhD^{†,‡,§,¶}, Department of Environmental Health Engineering; Department of Environmental Health Engineering

Prof Valery L Feigin^{*,†,‡,§,¶}, National Institute for Stroke and Applied Neurosciences

Rachel Feldman^{‡,§}, Seyed-Mohammad Fereshtehnejad, PhD^{*,†,‡,§}, Department of Neurobiology; Federal University of Sergipe, São Cristóvão, Brazil; Division of Neurology

Prof Eduarda Fernandes, PhD^{*,†,‡,§,¶}, Associated Laboratory for Green Chemistry (LAQV)

Giannina Ferrara, MD[§], Zahedan University of Medical Sciences, Zahedan, Iran; Research Center on Public Health

Pietro Ferrara^{*,¶}, Alize J Ferrari^{*,‡,§}, Prof Manuela L Ferreira, PhD^{†,‡,§}, Institute of Bone and Joint Research

Garumma Tolu Feyissa, PhD[¶], Department of Health Education and Behavioral Sciences

Irina Filip, MD^{*,†,‡,§,¶},

Psychiatry Department; Kaiser Permanente, Fontana, CA, USA; School of Health Sciences

Florian Fischer, PhD^{*,†,‡,§,¶},

A.T. Still University, Mesa, AZ, USA; Institute of Gerontological Health Services and Nursing Research

James L Fisher, PhD^{*,‡,§,¶}, James Cancer Hospital

Ryan Fitzgerald^{*,‡}, Prof Carsten Flohr, PhD^{†,‡}, Unit for Population-Based Dermatology Research

Luisa Sorio Flor, MPH^{‡,§,¶},

Ravensburg-Weingarten University of Applied Sciences, Weingarten, Germany; Sergio Arouca National School of Public Health, Rio de Janeiro, Brazil; Federal University of Espírito Santo, Vitória, Brazil

Nataliya A Foigt, PhD^{*,†,‡,§,¶}, Institute of Gerontology

Prof Morenike Oluwatoyin Folayan, FWACS^{*,†,‡,§,¶}, National Academy of Medical Sciences of Ukraine, Kyiv, Ukraine; Department of Child Dental Health

Artem Alekseevich Fomenkov, PhD^{*,†,§,¶},

Obafemi Awolowo University, Ile-Ife, Nigeria; Department of Cell Biology and Biotechnology

Lisa M Force, MD^{‡,§},

Timiryazev Institute of Plant Physiology, Moscow, Russia; Department of Global Pediatric Medicine

Carla Fornari, PhD[‡], School of Medicine and Surgery

Masoud Foroutan, PhD^{*,‡,§,¶}, St Jude Children's Research Hospital, Memphis, TN, USA; Abadan Faculty of Medical Sciences

Jack T Fox[‡], Joel Msafiri Francis, PhD[¶], Abadan School of Medical Sciences, Abadan, Iran; Department of Family Medicine and Primary Care

Tahvi D Frank^{||}, Richard Charles Franklin, PhD^{*,§}, University of the Witwatersrand, Johannesburg, South Africa; College of Public Health, Medical, and Veterinary Sciences

Marisa Freitas^{*,†,‡,§}, Weijia Fu^{‡,§,¶}, Takeshi Fukumoto, PhD^{*,†,‡,§,¶}, James Cook University, Douglas, QLD, Australia; Department of Dermatology

Kai Fukutaki^{||}, John E Fuller[†], Nancy Fullman[¶], João M Furtado, MD^{*,†,‡,§,¶, Division of Ophthalmology}

Mohamed M Gad, MD^{*,†,‡,§,¶},

Gillings School of Global Public Health; Kobe University, Kobe, Japan; Department of Cardiovascular Medicine

Prof Abhay Motiramji Gaidhane^{*,¶}, Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine

Emmanuela Gakidou^{*,†,‡,§,¶}, Natalie C Galles^{‡,¶}, Silvano Gallus, DSc^{*,†,‡,§,¶}, Gandhi Medical College Bhopal, Bhopal, India; Department of Environmental Health Sciences

Prof Amiran Gamkrelidze, PhD[‡],

Cleveland Clinic, Cleveland, OH, USA; National Center for Disease Control and Public Health, Tbilisi, Georgia

Alberto L Garcia-Basteiro^{‡,§}, Manhiça Health Research Center (CISM), Manhiça, Mozambique; Viral and Bacterial Infections Research Program

William M Gardner^{*,‡,§,¶}, Biniyam Sahiledengle Geberemariyam, MPH^{*,‡,§,¶}, Department of Public Health

Abiyu Mekonnen Gebrehiwot, PhD^{†,‡,¶}, Department of Medical Laboratory Sciences

Ketema Bizuwork Gebremedhin, MSc^{*,†,‡}, Brighton and Sussex Medical School, Brighton, UK; Department of Nursing and Midwifery

Gebreamlak Gebremedhn Gebremeskel, MSc[¶], Department of Nursing; University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Leake G Gebremeskel, MSc^{*,¶}, Department of Pharmacy; School of Pharmacy

Begashaw Melaku Gebresillassie, MSc^{*}, Department of Clinical Pharmacy; School of Medicine and Public Health

Assefa Ayalew Ayalew Ayalew Gebreslassie, MPH^{‡,§}, Department of Reproductive Health

Yilma Chisha Dea Geramo, MSc^{*}, Department of Public Health

Abraham Geremew, PhD[§], Institute for Social and Economic Change, Bengaluru, India; Department of Environmental Health

Prof Anna Gershberg Hayoon, PhD^{‡,§}, Clinical Hospital, Porto Alegre, Brazil; Department of Preventive Medicine

Hailay Abrha Gesesew, PhD^{*,¶}, Department of Epidemiology; College of Medicine and Public Health

Prof Peter W Gething, PhD^{*,†,‡,§},

La Trobe University, Melbourne, VIC, Australia; Department of Public Health; Flinders University, Adelaide, SA, Australia; Telethon Kids Institute, Perth, WA, Australia

Kebede Embaye Gezae, MSc^{*}, National Institute of Health, Bogota, Colombia; Department of Biostatistics

Maryam Ghadimi^{‡,§}, Department of Radiology and Radiological Science

Prof Keyghobad Ghadiri, MD^{*,‡,§,¶},

Infectious Disease Research Center; Pediatric Department

Prof Fatemeh Ghaffarifar, PhD^{*,§}, Department of Parasitology and Entomology

Mansour Ghafourifard, PhD^{*,‡,§,¶}, Department of Medical Surgical Nursing

Alireza Ghajar, MD[‡], Endocrinology and Metabolism Research Center

Farhad Ghamari, PhD^{*,†,‡,§}, Occupational Health Department

Ahmad Ghashghaee, BSc^{*,†,‡,§,¶}, Health Management and Economics Research Center; Student Research Committee

Hesam Ghiasvand, PhD^{‡,§}, Institute of Health Research

Nermin Ghith, PhD^{‡,§,¶}, University of Exeter, Exeter, UK; Research Group for Genomic Epidemiology

Asadollah Gholamian, MSc^{*,†,‡,§,¶}, University of Cape Town, Cape Town, South Africa; Department of Biology; Young Researchers and Elite Club

Rakesh Ghosh, PhD[§], Institute for Global Health Sciences

Simona Giampaoli, MD^{*}, University of California San Francisco, San Francisco, CA, USA; Department of Cardiovascular Endocrine-metabolic Diseases and Aging

Prof Syed Amir Gilani, PhD^{†,‡,¶}, Italian National Institute of Health, Rome, Italy; Faculty of Allied Health Sciences; The University of Lahore, Lahore, Pakistan; Afro-Asian Institute, Lahore, Pakistan

Prof Paramjit Singh Gill, DM^{*,‡,§,¶}, Medical School

Tiffany K Gill, PhD[¶], Mekelle University, Mekelle, Ethiopia; Adelaide Medical School

Richard F Gillum, MD^{*},

University of Warwick, Coventry, UK; Department of Community and Family Medicine; Division of General Internal Medicine

Prof Ibrahim Abdelmageed Ginawi, MD^{*}, Howard University, Washington, DC, USA; Family Medicine Research Center

Themba G Ginindza, PhD^{§,¶}, Ministry of Health, Hail, Saudi Arabia; Discipline of Public Health Medicine; University of KwaZulu-Natal, Durban, South Africa

Mojgan Gitimoghaddam, MD^{†,‡,¶},

University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Giorgia Giussani, PhD^{*,‡,§,¶}, Laboratory of Neurological Disorders

Mustefa Glagn, MPH[¶], Department of Public Health

Ekaterina Vladimirovna Glushkova, PhD[†], Department of Epidemiology and Evidence-Based Medicine

Elena V Gnedovskaya, PhD^{*,†,§,¶}, Third Department of Neurology

Myron Anthony Godinho, MBBS^{*,¶}, School of Public Health and Community Medicine

Salime Goharinezhad, PhD^{§,¶}, Preventive Medicine and Public Health Research Center

Mahaveer Golechha, PhD^{*}, Health Systems and Policy Research

Srinivas Goli, PhD[‡],

Indian Institute of Public Health Gandhinagar, Gandhinagar, India; Center for the Studies in Regional Development (CSRD); UWA Public Policy Institute

Prof Ricardo Santiago Gomez, PhD[‡], Department of Oral Surgery and Pathology

Philimon N Gona, PhD^{*},

University of Western Australia, Perth, WA, Australia; Department of Exercise and Health Sciences

Sameer Vali Gopalani, MPH^{*,†,‡,§,¶},

University of Massachusetts Boston, Boston, MA, USA; Hudson College of Public Health; University of Oklahoma Health Sciences Center, Oklahoma City, OK, USA; Department of Health and Social Affairs

Prof Emily Goren, PhD^{||},

University of Washington, Seattle, WA, USA; University of Nigeria Nsukka, Enugu, Nigeria; Graduate School of Public Health

Giuseppe Gorini, MD^{*,‡,§},

Metropolitan Autonomous University, Mexico City, Mexico; Oncological Network, Prevention and Research Institute

Taren M Gorman[‡], Harrison Chase Gottlich[‡], Houman Goudarzi, PhD^{‡,§}, Government of the Federated States of Micronesia, Palikir, Federated States of Micronesia; Center for Environmental and Health Sciences; Department of Respiratory Medicine

Amir Hossein Goudarzian, MSc[¶], Faculty of Nursing and Midwifery

Alessandra C Goulart, PhD^{*,†,‡,§},

University of Oxford, Oxford, UK; Center for Clinical and Epidemiological Research; Department of Internal Medicine

Prof Bárbara Niegia Garcia Goulart, DSc^{*,‡,¶}, Postgraduate Program in Epidemiology

Ayman Grada, MD^{*,‡}, Department of Dermatology

Felix Greaves, PhD^{*,§}, Department of Primary Care and Public Health; Health Improvement Directorate

Prof Michal Grivna, PhD^{‡,§},

Institute of Public Health, College of Medicine and Health Sciences; United Arab Emirates University, AI Ain, United Arab Emirates; Department of Public Health and Preventive Medicine

Giuseppe Grosso, PhD^{‡,§}, Department of Biomedical and Biotechnological Sciences

Mohammed Ibrahim Mohialdeen Gubari, PhD^{‡,§,¶}, Department of Family and Community Medicine

Nachiket Gudi, MPH^{*}, Department of Health Policy

Prof Harish Chander Gugnani, PhD^{†,‡,§}, University of Sulaimani, Sulaimani, Iraq; Department of Epidemiology; Department of Microbiology

Prof Andre Luiz Sena Guimaraes, PhD[‡], Saint James School of Medicine, The Valley, Anguilla; School of Dentistry

Rafael Alves Guimarães, MSc^{*,‡,§,¶}, State University of Montes Claros, Montes Claros, Brazil; Institute of Tropical Pathology and Public Health (IPTSP)

Rashid Abdi Guled, PhD^{‡,§,¶}, Federal University of Goias, Goiânia, Brazil; College of Medicine and Health Science

Teklemariam Gultie, MSc[¶], Department of Midwifery

Prof Gaorui Guo, PhD^{‡,§}, Department of Epidemiology and Preventive Medicine; Jigjiga University, Jijiga, Ethiopia; Department of Epidemiology

Yuming Guo^{*,†,‡,§,¶}, Prof Rahul Gupta, MD^{*,¶},

Indian Institute of Technology Kanpur, Kanpur, India; Department of Preventive Cardiology; Eternal Heart Care Centre & Research Institute, Jaipur, India; Department of Medicine; Mahatma Gandhi University Medical Sciences, Jaipur, India; Medical Resources; March of Dimes, Arlington, VA, USA; Health Policy, Management and Leadership Prof Tarun Gupta, DSc§,

Mahatma Gandhi Institute of Medical Sciences, Sevagram, India; Department of Civil Engineering

Juanita A Haagsma, PhD^{*,†,‡},

West Virginia University School of Public Health, Morgantown, WV, USA; Department of Public Health

Vladimir Hachinski, DSc^{*},

Erasmus University Medical Center, Rotterdam, Netherlands; Clinical Neurological Sciences; The University of Western Ontario, London, ON, Canada; Lawson Health Research Institute, London, ON, Canada

Beatrix Haddock^{‡,§}, Nima Hafezi-Nejad^{*,‡,§,}¶, Abdul Hafiz, PhD^{‡,§,}¶, College of Medicine

Hailey Hagins[‡], Lydia M Haile, MSc^{*,‡}, University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Teklehaimanot Gereziher Haile[¶], Arvin Haj-Mirzaian^{*,†,§}, Arya Haj-Mirzaian^{†,§}, Brian J Hall, PhD^{*,‡,§},

Department of Psychology

Iman Halvaei, PhD^{†,‡,§},

Kerman University of Medical Sciences, Kerman, Iran; Department of Anatomical Sciences

Prof Randah R Hamadeh, PhD^{*,†,‡,§,¶},

Umm AL Qura University, Makkah, Saudi Arabia; Department of Family and Community Medicine

Kanaan Hamagharib Abdullah, PhD^{†,‡},

Guy's and St. Thomas' NHS Foundation Trust, London, UK; College of Law and Political Science

Sajid Hameed, MPH[¶], University Institute of Public Health

Prof Samer Hamidi, DrPH^{*,§,¶}, Arabian Gulf University, Manama, Bahrain; School of Health and Environmental Studies

Erin B Hamilton[‡], Melanie S Hammer, PhD[§],

Mayo Clinic Foundation for Medical Education and Research, Rochester, MN, USA; Department of Energy, Environmental and Chemical Engineering; Department of Physics and Atmospheric Science

Chieh Han^{*,†,‡,¶}, Hannah Han^{‡,¶}, Demelash Woldeyohannes Handiso, MPH^{†,¶}, Aksum University, Aksum, Ethiopia; Department of Public Health

Asif Hanif, PhD[¶], University Institute of Public Health Prof Graeme J Hankey, MD^{*,†,‡,§,¶},

Medical School; Hamdan Bin Mohammed Smart University, Dubai, United Arab Emirates; Department of Neurology

Hamidreza Haririan, PhD^{†,§}, Tabriz University of Medical Sciences, Tabriz, Iran

Josep Maria Haro, MD^{*,†,‡,§,¶}, Research Unit; Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain

James D Harvey[‡], Ahmed I Hasaballah, PhD^{*,†,‡,§,¶}, Department of Zoology and Entomology

Md Mehedi Hasan, MPH^{§,¶},

Carol Davila University of Medicine and Pharmacy, Bucharest, Romania; ARC Centre of Excellence for Children and Families over the Life Course; Institute for Social Science Research

Edris Hasanpoor, PhD[§], Tarbiat Modares University, Tehran, Iran; Department of Healthcare Management

Amir Hasanzadeh, PhD[‡], Department of Microbiology; Department of Microbiology

Maryam Hashemian, PhD[‡], Digestive Diseases Research Institute; AI Azhar University, Cairo, Egypt; Biology Department

Abdiwahab Hashi, PhD^{*,§,¶}, Department of Public Health

Amr Hassan, MD^{*,¶}, Department of Neurology

Shoaib Hassan, MPhil[¶],

University of Nottingham, Nottingham, UK; Center for International Health (CIH) and Bergen Center for Ethics and Priority Setting (BCEPS)

Soheil Hassanipour, PhD^{*,†,‡,§,¶}, Utica College, Utica, NY, USA; Caspian Digestive Disease Research Center; Gastrointestinal and Liver Diseases Research Center

Hadi Hassankhani, PhD^{*,†,‡,§,¶}, School of Nursing and Midwifery; Guilan University of Medical Sciences, Rasht, Iran; Independent Consultant, Tabriz, Iran

Rasmus J Havmoeller, PhD^{*,‡,§,¶}, Skaane University Hospital

Prof Roderick J Hay, MD[‡],

St John's Institute of Dermatology; Skaane County Council, Malmoe, Sweden; International Foundation for Dermatology, London, UK Simon I Hay^{*,†,‡,§,¶,||}, Khezar Hayat, MS^{*,‡,§,¶},

Institute of Pharmaceutical Sciences; University of Veterinary and Animal Sciences, Lahore, Pakistan; Department of Pharmacy Administration and Clinical Pharmacy

Behzad Heibati, PhD[†],

Xian Jiaotong University, Xian, China; Center for Environmental and Respiratory Health Research

Behnam Heidari, MD[‡], Endocrinology and Metabolism Research Center

Golnaz Heidari, MD^{‡,§,¶}, University of Oulu, Oulu, Finland; Independent Consultant, Santa Clara, CA, USA

Reza Heidari-Soureshjani^{†,‡,§,¶}, Delia Hendrie, PhD^{‡,¶}, School of Public Health

Kiana Henny[†], Andualem Henok, MPH^{*}, Department of Public Health

Hannah J Henrikson^{‡,§}, Nathaniel J Henry^{*,†,‡}, Molly E Herbert[§], Prof Claudiu Herteliu, PhD^{*,†,‡,§,¶},

Mizan-Tepi University, Mizan Teferi, Ethiopia; School of Business

Fatemeh Heydarpour, PhD^{*,†,‡,§}, Medical Biology Research Center

Thomas R Hird, PhD^{‡,§,¶}, London South Bank University, London, UK; Department for Health

Hung Chak Ho, PhD^{*,¶}, Department of Urban Planning and Design

Prof Hans W Hoek, MD^{‡,§}, Department of Psychiatry; Baker Heart and Diabetes Institute, Melbourne, VIC, Australia; Department of Epidemiology

Michael K Hole, MD^{*,†,‡,¶}, Columbia University, New York, NY, USA; Department of Pediatrics

Ramesh Holla^{*,‡,§,¶}, Prof Bruce Hollingsworth, PhD[¶], University of Texas Austin, Austin, TX, USA; Department of Health Economics, Lancaster University, Lancashire, UK

Praveen Hoogar, PhD^{*,†,‡,§,¶}, South Australian Health and Medical Research Institute, Adelaide, SA, Australia; Centre for Bio Cultural Studies (CBiCS)

Kathleen Pillsbury Hopf, MPH^{*,¶}, Metrics and Evaluation; Operation Smile, Virginia Beach, VA, USA; Independent Consultant, Virginia Beach, VA, USA

Nobuyuki Horita, PhD[¶], National Human Genome Research Institute (NHGRI); Department of Pulmonology Yokohama City University, Yokohama, Japan; Department of Epidemiology and Population Health

Naznin Hossain, MPhil^{*,†,§,}¶,

Albert Einstein College of Medicine, Bronx, NY, USA; Department of Pharmacology

Prof Mostafa Hosseini, PhD^{§,¶},

Department of Epidemiology and Biostatistics; Pediatric Chronic Kidney Disease Research Center

Mehdi Hosseinzadeh, PhD^{*,†,‡,§,¶}, Department of Computer Science; Institute of Research and Development

Mihaela Hostiuc, PhD^{*,†,‡,§,¶}, Department of Internal Medicine

Sorin Hostiuc, PhD^{*,†,‡,§,¶}, Department of Legal Medicine and Bioethics; Duy Tan University, Da Nang, Vietnam; Clinical Legal Medicine Department

Prof Mowafa Househ, PhD^{*,†,‡,§,¶}, National Institute of Legal Medicine Mina Minovici, Bucharest, Romania; Division of Information and Computing Technology

Damian G Hoy, PhD^{*,†,‡}, University of Sydney, Sydney, NSW, Australia

Prof Mohamed Hsairi, MPH^{‡,§}, Hamad Bin Khalifa University, Doha, Qatar; Faculty of Medicine of Tunis

Thomas Hsiao^{||}, Vivian Chia-rong Hsieh, PhD^{‡,§,¶}, Department of Health Services Administration

Prof Guoqing Hu, PhD^{*,†,‡,§,¶}, Department of Epidemiology and Health Statistics

Kejia Hu, PhD[§], China Medical University, Taichung, Taiwan; School of Public Health

Tanvir M Huda, PhD^{*,†,‡,§,¶},

Sydney School of Public Health; Zhejiang University, Hangzhou, China; Maternal and Child Health Division

Fernando N Hugo, PhD^{*,‡}, National Research Council, Padova, Italy; Department of Preventive and Social Dentistry

Prof Ayesha Humayun, PhD^{*,§,¶},

International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh; Department of Public Health and Community Medicine

Rabia Hussain, PhD*,

Shaikh Khalifa Bin Zayed Al-Nahyan Medical College, Lahore, Pakistan; School of Pharmaceutical Sciences

Chantal K Huynh^{‡,§}, Prof Bing-Fang Hwang, PhD^{*,‡,§,¶}, Department of Occupational Safety and Health

Vincent C Iannucci^{‡,§}, Prof Ivo Iavicoli, PhD^{*,¶}, Wayne State University, Detroit, MI, USA; Department of Public Health

Charles Ugochukwu Ibeneme, MPH^{*},

University of Science Malaysia, Penang, Malaysia; Nigerian Field Epidemiology and Laboratory Training Program; African Field Epidemiology Network, Abuja, Nigeria; Department of Public Health and Disease Control

Segun Emmanuel Ibitoye, MPH^{*,†,‡,§,¶}, Department of Health Promotion and Education

Nayu Ikeda, PhD^{§,¶}, Ministry of Health, Umuahia, Nigeria; International Center for Nutrition and Information

Kevin S Ikuta, MD^{*,†,‡,§}, Division of Allergy and Infectious Diseases

Olayinka Stephen Ilesanmi, PhD^{*,†,‡,§,¶}, Department of Community Medicine; Cardiff University, Cardiff, UK; Department of Community Medicine

Irena M Ilic, PhD^{*,†,‡,§,¶}, Faculty of Medicine

Prof Milena D Ilic, PhD^{*,†,‡,§,¶},

National Institutes of Biomedical Innovation, Health and Nutrition, Tokyo, Japan; Department of Epidemiology

Mohammad Hasan Imani-Nasab[†], Leeberk Raja Inbaraj, MD^{*,‡,§,}¶, University of Kragujevac, Kragujevac, Serbia; Division of Community Health and Family Medicine

Helen Ippolito^{‡,§}, Usman Iqbal, PhD^{*,§,¶}, Bangalore Baptist Hospital, Bangalore, India; College of Public Health

Seyed Sina Naghibi Irvani, MD^{*,‡,§,¶}, Research Institute for Endocrine Sciences

Caleb Mackay Salpeter Irvine^{§,¶}, M Mofizul Islam, MSc, PhD^{*,‡,§,¶}, Department of Public Health; Graduate Institute of Biomedical Informatics

MdMohaimenul Islam, PhD^{†,‡}, Institute for Physical Activity and Nutrition; Sydney Medical School

Sheikh Mohammed Shariful Islam^{*,‡,§,}¶, Farhad Islami, PhD^{‡,¶}, Taipei Medical University, Taipei, Taiwan; Surveillance and Health Services Research

Prof Hiroyasu Iso, MD^{*,†,‡,§,¶}, Department of Social Medicine

Prof Rebecca Q Ivers, PhD^{‡,§},

School of Public Health and Community Medicine

Chidozie C D Iwu, MSc^{*,‡,§,¶}, Osaka University, Suita-city, Japan; Department of Biochemistry and Microbiology

Chinwe Juliana Iwu, PhD^{†,§,¶}, Department of Global Health: South African Medical Rese

Department of Global Health; South African Medical Research Council, Cape Town, South Africa

Ihoghosa Osamuyi Iyamu, MD^{‡,§},

School of Population and Public Health; University of Fort Hare, Alice, South Africa; Knowledge Translation

Jalil Jaafari, PhD^{*,†,‡,§,¶}, Department of Environmental Health Engineering

Kathryn H Jacobsen, PhD^{†,‡,§},

Centre for Health Evaluation and Outcome Sciences, Vancouver, BC, Canada; Department of Global and Community Health

Farhad Jadidi-Niaragh^{‡,¶}, Hussain Jafari^{‡,§}, Morteza Jafarinia, MSc^{‡,§,¶}, Department of Immunology

Deepa Jahagirdar^{*,†,‡,¶}, Mohammad Ali Jahani, PhD^{*,‡,§,¶}, Social Determinants of Health Research Center

Nader Jahanmehr, PhD^{†,‡,¶},

Safety Promotion and Injury Prevention Research Center; School of Management and Medical Education

Prof Mihajlo Jakovljevic, PhD^{*,‡,§,¶},

N. A. Semashko Department of Public Health and Healthcare; Department of Global Health, Economics and Policy

Amir Jalali, PhD^{*,†,‡},

Health Institute; Substance Abuse Prevention Research Center; Substance Abuse Prevention Research Center

Farzad Jalilian, PhD^{*,†,‡,§}, Spencer L James^{†,‡,§}, Hosna Janjani, PhD^{†,‡,§,¶}, Department of Environmental Health Engineering; Kermanshah University of Medical Sciences, Kermanshah, Iran

Prof Manthan Dilipkumar Janodia, PhD^{*,‡}, Manipal College of Pharmaceutical Sciences

Tahereh Javaheri, PhD^{*,§,¶}, Health Informatic Lab

Javad Javidnia, PhD[§], Department of Medical Mycology

Achala Upendra Jayatilleke, PhD^{‡,¶},

George Mason University, Fairfax, VA, USA; Postgraduate Institute of Medicine; University of Colombo, Colombo, Sri Lanka; Faculty of Graduate Studies

Panniyammakal Jeemon, PhD^{‡,§},

Institute for Violence and Injury Prevention, Colombo, Sri Lanka; Achutha Menon Centre for Health Science Studies

Ensiyeh Jenabi^{*,†,‡,§,¶}, Ravi Prakash Jha, MSc^{*,†,‡,§,¶},

Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, India; Department of Community Medicine; Baba Saheb Ambedkar Medical College & Hospital, Delhi, India; Department of Community Medicine

Prof Vivekanand Jha, MD^{*,†,‡,§,¶},

George Institute for Global Health; Manipal Academy of Higher Education, Mangalore, India

John S Ji, DSc^{*,†,‡,§,¶},

Nicholas School of the Environment; Banaras Hindu University, Varanasi, India; Environmental Research Center

Peng Jia, PhD^{‡,¶},

Duke Kunshan University, Kunshan, China; Department of Earth Observation Science

Lars Johansson, DrPH[§],

The George Institute for Global Health, Sydney, Australia; Independent Consultant, Eiksmarka, Norway

Oommen John, MD^{‡,§},

Duke University, Durham, NC, USA; Department of Medicine; University of Twente, Enschede, Netherlands; Renal and Cardiovascular Division

Yetunde O John-Akinola^{‡,§,¶}, Catherine Owens Johnson^{*,‡,§}, Sarah Charlotte Johnson[‡], Prof Jost B Jonas, MD^{*,†,‡,§,¶},

University of Auckland, Auckland, New Zealand; Department of Ophthalmology; Beijing Institute of Ophthalmology

Tamas Joo, MSc[‡], Health Services Management Training Centre

Ankur Joshi, MD[‡],

All India Institute of Medical Sciences, Jodhpur, India; Department of Community Medicine and Family Medicine

Farahnaz Joukar, PhD^{†,§,¶},

Utica College, Utica, NY, USA; Caspian Digestive Disease Research Center; Gastrointestinal and Liver Diseases Research Center

Jacek Jerzy Jozwiak, PhD^{†,‡,§,¶},

Semmelweis University, Budapest, Hungary; Department of Family Medicine and Public Health

Mikk Jürisson, PhD^{*,†,‡,§,¶}, University of Opole, Opole, Poland; Institute of Family Medicine and Public Health

Ali Kabir, MD^{*,‡,§},

Minimally Invasive Surgery Research Center

Zubair Kabir, PhD^{*,†,‡,§,¶}, University of Tartu, Tartu, Estonia; School of Public Health

Hamed Kalani, PhD^{†,‡,§}, Infectious Diseases Research Center

Rizwan Kalani, MD^{*,‡,§}, Department of Neurology

Leila R Kalankesh, PhD^{*,†,‡,§,¶}, Health Services Management Research Center

Rohollah Kalhor, PhD^{*,‡,§,¶}, Italian National Institute of Statistics, Rome, Italy; Health Services Management Department; Institute for Prevention of Non-communicable Diseases

Aruna M Kamath, MD[¶], Ain Shams University, Cairo, Egypt; Department of Anesthesiology & Pain Medicine

Zahra Kamiab^{†,‡}, Tanuj Kanchan, MD^{*,†,‡,§,¶}, Department of Forensic Medicine and Toxicology

Neeti Kapoor, MSc^{*,†,§,¶}, University of Toronto, Toronto, ON, Canada; Department of Forensic Science

Behzad Karami Matin^{*,‡,§,¶}, Marina Karanikolos[¶], André Karch, MD^{*,†,‡,§}, Institute for Epidemiology and Social Medicine

Mohd Anisul Karim, MD^{*,‡,§},

Nuffield Department of Population Health; Golestan University of Medical Sciences, Gorgan, Iran; Centre for Therapeutic Target Validation

Salah Eddin Karimi, PhD^{*,†,‡},

Social Determinants of Health Research Center; Department of Neuroscience; Department of Physiology; Wellcome Trust Sanger Institute, Cambridge, UK; Department of Health Management and System Sciences; University of Louisville, Louisville, KY, USA; Center for Health Equity

Seyed Asaad Karimi, PhD[†], Seyed M Karimi[¶], Ayele Semachew Kasa, MSc^{*}, Department of Adult Health Nursing

Getachew Mullu Kassa, MSc^{‡,§},

Louisville Metro Department of Public Health & Wellness, Louisville, KY, USA; College of Health Sciences

Nicholas J Kassebaum, MD^{*,†,‡,¶}, Ain Shams University, Cairo, Egypt; Department of Anesthesiology & Pain Medicine

Srinivasa Vittal Katikireddi, PhD^{†,‡,§,¶},

Debre Markos University, Debre Markos, Ethiopia; MRC/CSO Social and Public Health Sciences Unit

Prof Norito Kawakami, PhD^{†,‡}, Department of Mental Health

Gbenga A Kayode, PhD^{*,†,‡,§,¶}, University of Tokyo, Tokyo, Japan; International Research Center of Excellence; Julius Centre for Health Sciences and Primary Care

Ali Kazemi Karyani^{*,§}, Suzanne H Keddie, MSc[‡], University of Alberta, Edmonton, AB, Canada; Big Data Institute

Prof Peter Njenga Keiyoro, PhD^{*,†,§,¶}, Open, Distance and eLearning Campus

Cathleen Keller^{†,‡,§}, Laura Kemmer[§], Parkes J Kendrick[§], Maia Kereselidze, PhD[‡], Cleveland Clinic, Cleveland, OH, USA; National Center for Disease Control and Public Health, Tbilisi, Georgia

Prof Yousef Saleh Khader, PhD^{†,¶}, University of Nairobi, Nairobi, Kenya; Department of Public Health

Morteza Abdullatif Khafaie, PhD[‡], Social Determinants of Health Research Center

Nauman Khalid, PhD^{*,†,‡,§}, Jordan University of Science and Technology, Irbid, Jordan; School of Food and Agricultural Sciences

Mohammad Khammarnia, PhD^{*,§,¶}, Health Promotion Research Center

Ejaz Ahmad Khan, MPH^{*,†,§,¶}, University of Management and Technology, Lahore, Pakistan; Department of Epidemiology and Biostatistics

Prof Gulfaraz Khan, PhD^{*}, Department of Medical Microbiology & Immunology

Maseer Khan, MD^{*,†,‡,§,¶}, The University of Jordan, Amman, Jordan; Epidemiology Department

Prof Young-Ho Khang, MD^{†,¶}, Health Services Academy, Islamabad, Pakistan; Department of Health Policy and Management; Institute of Health Policy and Management

Khaled Khatab, PhD^{*,‡,§,¶},

Seoul National University, Seoul, South Korea; Faculty of Health and Wellbeing; Sheffield Hallam University, Sheffield, UK; College of Arts and Sciences

Amir M Khater, MD^{†,¶}, National Hepatology and Tropical Medicine Research Institute

Mona M Khater, MD^{*,†,‡,§,¶}, Department of Medical Parasitology Prof Mahalaqua Nazli Khatib, PhD^{*,‡,§,}¶, Global Evidence Synthesis Initiative

Maryam Khayamzadeh, MD^{‡,§,¶}, Shahid Beheshti University of Medical Sciences, Tehran, Iran; Ohio University, Zanesville, OH, USA; The Iranian Academy of Medical Sciences, Tehran, Iran

Salman Khazaei^{†,§}, Prof Habibolah Khazaie, MD^{*,†}, Department of Psychiatry

Mohammad Taghi Khodayari, PhD^{†,‡}, Department of Public Health; Department of Public Health

Abdullah T Khoja, MD^{*}, Department of Health Policy and Management; Department of Public Health

Prof Jagdish Khubchandani, PhD^{*,†,¶}, Department of Nutrition and Health Science

Roba Khundkar, MA[‡], Nuffield Department of Surgical Sciences

Neda Kianipour, MA^{*,†,‡,¶}, Department of Public Health

Christian Kieling, MD^{*,‡,§}, Department of Psychiatry; Ball State University, Muncie, IN, USA; Division of Child & Adolescent Psychiatry

Cho-il Kim, PhD[†], Korea Health Industry Development Institute, Cheongju-si, South Korea

Prof Daniel Kim, DrPH[‡], Department of Health Sciences

Young-Eun Kim, PhD^{*,†,‡,¶}, Clinical Hospital, Porto Alegre, Brazil; Department of Preventive Medicine; School of Traditional Chinese Medicine

Yun Jin Kim^{*,†,‡,§,¶}, Ruth W Kimokoti, MD^{*,‡,§,¶}, Northeastern University, Boston, MA, USA; Department of Nutrition

Yohannes Kinfu, PhD^{*,†,¶}, Simmons University, Boston, MA, USA; Faculty of Health; University of Canberra, Canberra, ACT, Australia; College of Medicine

Prof Adnan Kisa, PhD^{*,†,‡,§,¶},

Oslo Metropolitan University, Oslo, Norway; School of Health Sciences; Kristiania University College, Oslo, Norway; Global Community Health and Behavioral Sciences

Sezer Kisa, PhD^{*,†,‡,§},

Qatar University, Doha, Qatar; Department of Nursing and Health Promotion

Katarzyna Kissimova-Skarbek^{†,‡,¶}, Prof Niranjan Kissoon, MD^{*},

University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Prof Mika Kivimäki, PhD^{*,†,‡,§,¶},

Jagiellonian University Medical College, Krakow, Poland; Department of Public Health; Hanoi National University of Education, Hanoi, Vietnam; Department of Epidemiology and Public Health

Cameron J Kneib, MD^{*,‡,¶}, Division of Plastic Surgery

Luke D Knibbs[§], Megan Knight^{*,¶}, Ann Kristin Skrindo Knudsen, PhD^{‡,§}, Krishna Institute of Medical Sciences, Karad, India; Centre for Disease Burden

Jonathan M Kocarnik, PhD^{‡,§,¶}, Public Health Sciences Division

Sonali Kochhar, MD^{§,¶}, Department of Global Health; Fred Hutchinson Cancer Research Center, Seattle, WA, USA; Global Healthcare Consulting, New Delhi, India

Prof David S Q Koh, PhD^{*}, Saw Swee Hock School of Public Health; Institute of Health Sciences

Stefan Kohler[¶], Heidelberg Institute of Global Health (HIGH)

Tufa Kolola, MPH[‡], Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Hamidreza Komaki, MD^{*,†}, Gadong, Brunei; Brain Engineering Research Center

Jacek A Kopec, PhD^{*,†,‡,§,¶}, School of Population and Public Health; Institute for Research in Fundamental Sciences, Tehran, Iran; Arthritis Research Canada, Richmond, BC, Canada

Anna V Korotkova, PhD[¶], Federal Research Institute for Health Organization and Informatics of the Ministry of Health (FRIHOI), Moscow, Russia

Vladimir Andreevich Korshunov, PhD^{§,¶}, Department of Epidemiology and Evidence-Based Medicine

Soewarta Kosen, MD^{*,†,‡,¶}, Independent Consultant, Jakarta, Indonesia

Anirudh Kotlo, MS^{*,¶}, Department of Global Health

Prof Parvaiz A Koul, MD^{*,†,‡,§,¶}, Vancouver Virology Centre, Vancouver, BC, Canada; Department of Internal and Pulmonary Medicine

Ai Koyanagi, MD^{*,†,‡,§,¶},

Barcelona, Spain; Sheri Kashmir Institute of Medical Sciences, Srinagar, India; Biomedical Research Networking Center for Mental Health Network (CIBERSAM)

Moritz U G Kraemer, PhD[§], Harvard Medical School; Department of Zoology

Michael A Kravchenko, PhD^{†,‡}, Research Center of Neurology, Moscow, Russia

Kewal Krishan, PhD^{*,†,‡,§,¶},

San Juan de Dios Sanitary Park, Sant Boi de Llobregat, Spain; Department of Anthropology

Kris J Krohn^{*,†,‡,§,¶}, Prof Hans Kromhout, PhD[§], Institute of Human Virology Nigeria, Abuja, Nigeria; Institute for Risk Assessment Sciences

Prof Shaji KS, MD^{*},

Panjab University, Chandigarh, India; Department of Psychiatry; Government Medical College Thrissur, Thrissur, India; Kerala University of Health Scinces, Thrissur, India

Prof Barthelemy Kuate Defo, PhD^{†,‡,§}, Department of Social and Preventive Medicine; Department of Demography

Burcu Kucuk Bicer, PhD[‡], University of Montreal, Montreal, QC, Canada; Department of Medical Education and Informatics

Nuworza Kugbey, PhD[¶], King Saud University, Riyadh, Saudi Arabia; Department of Family and Community Health

Vaman Kulkarni[¶], G Anil Kumar, PhD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Manasi Kumar, PhD^{*,†,‡,¶},

Division of Psychology and Language Sciences; Utrecht University, Utrecht, Netherlands; Department of Psychiatry

Nithin Kumar^{*,¶}, Pushpendra Kumar, PhD^{†,‡}, International Institute for Population Sciences, Mumbai, India

Vivek Kumar, MD^{†,‡,§}, Iran University of Medical Sciences, Tehran, Iran; Brigham and Women's Hospital

Girikumar Kumaresh, MS[‡], Mechanical and Industrial Engineering

Om P Kurmi, PhD^{*,‡,§,¶}, Department of Medicine; Institute of Occupational and Environmental Medicine

Dian Kusuma, DSc^{*,†,‡,§,¶},

Imperial College Business School; Indian Institute of Technology, Roorkee, Roorkee, India; Faculty of Public Health Hmwe Hmwe Kyu^{*,†,‡,¶}, Prof Carlo La Vecchia, MD^{*,†,‡,§,¶}, Department of Clinical Sciences and Community Health

Ben Lacey, PhD^{*,†,‡,§,¶},

Nuffield Department of Population Health; University of Indonesia, Depok, Indonesia; National Institute for Health Research (NIHR) Oxford Biomedical Research Centre, Oxford, UK

Dharmesh Kumar Lal, MD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Ratilal Lalloo, PhD^{*,†,‡,§,¶}, School of Dentistry

Prof Tea Lallukka, PhD^{*,§}, Jagiellonian University Medical College, Krakow, Poland; Department of Public Health

Jennifer O Lam, PhD[‡], University of Ottawa, Ottawa, ON, Canada; Division of Research

Faris Hasan Lami, PhD^{†,‡,§}, Department of Community and Family Medicine

Qing Lan, PhD^{*}, Maragheh University of Medical Sciences, Maragheh, Iran; Division of Cancer Epidemiology and Genetics

Prof Iván Landires, MD^{*,‡,§,¶},

University of Baghdad, Baghdad, Iraq; Unit of Genetics and Public Health; Ministry of Health, Herrera, Panama

Justin J Lang, PhD^{‡,§}, Centre for Surveillance and Applied Research

Prof Sinéad M Langan, PhD[§], St John's Institute of Dermatology

Prof Van Charles Lansingh, PhD^{‡,¶}, Medical Director; HelpMeSee, New York, NY, USA; General Director

Prof Sonia Lansky, PhD[†], Mexican Institute of Ophthalmology, Queretaro, Mexico; Belo Horizonte City Hall

Prof Heidi Jane Larson, PhD^{*}, Department of Infectious Disease Epidemiology

Samantha Leigh Larson^{†,‡}, Prof Anders O Larsson, PhD^{†,‡,§,¶}, Municipal Health Department of Belo Horizonte, Belo Horizonte, Brazil; Department of Medical Sciences; Uppsala University, Uppsala, Sweden; Department of Clinical Chemistry and Pharmacology

Savita Lasrado, MS^{*,†,‡,§,¶}, Uppsala University Hospital, Uppsala, Sweden; Department of Otorhinolaryngology Zohra S Lassi, PhD^{†,‡}, Robinson Research Institute

Kathryn Mei-Ming Lau^{*,‡,¶}, Paolo Lauriola, MD^{*,§,¶}, Institute of Clinical Physiology

Pablo M Lavados, MD[‡], Father Muller Medical College, Mangalore, India; Department of Neurology and Psychiatry; German Clinic of Santiago, Santiago, Chile; Faculty of Medicine

Prof Jeffrey V Lazarus, PhD^{†,‡,§,¶}, Barcelona Institute for Global Health, Barcelona, Spain

Lisiane F Leal, PhD^{*}, Epidemiology, Biostatistics and Occupational Health; Univeristy of Development, Santiago, Chile; Centre for Clinical Epidemiology

Janet L Leasher, OD^{*}, Jewish General Hospital, Montreal, QC, Canada; College of Optometry

Jorge R Ledesma^{*,‡,¶}, Paul H Lee, PhD^{*,†,‡,§,¶, School of Nursing}

Shaun Wen Huey Lee, PhD^{*,†,‡,§,¶}, School of Pharmacy; Nova Southeastern University, Fort Lauderdale, FL, USA; School of Pharmacy

Andrew T Leever^{1,¶}, Kate E LeGrand^{1,‡,§,¶}, James Leigh, MD^{‡,§,¶}, The Peter Doherty Institute for Infection and Immunity, Melbourne, VIC, Australia; Asbestos Diseases Research Institute

Matilde Leonardi, MD^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Haley Lescinsky^{‡,§}, Janni Leung, PhD^{*,‡,§}, Center for Youth Substance Abuse Research

Miriam Levi, PhD^{‡,§}, Deakin University, Burwood, VIC, Australia; Department of Prevention

Prof Sarah Lewington, PhD[‡], Medical Research Council Population Health Research Unit; Nuffield Department of Population Health

Bingyu Li, PhD^{*}, Carlo Besta Neurological Institute IRCCS, Milan, Italy; Department of Sociology

Shanshan Li, PhD^{*,†,‡,§,¶}, School of Public Health and Preventive Medicine

Lee-Ling Lim, MRCP^{*,†,‡,§,¶},

Shenzhen University, Shenzhen, China; Department of Medicine; University of Malaya, Kuala Lumpur, Malaysia; Department of Medicine and Therapeutics

Christine Lin, PhD[‡],

The Chinese University of Hong Kong, Shatin, China; Asbestos Diseases Research Institute, Concord, NSW, Australia; University Tunis El Manar, Tunis, Tunisia; College of Public Health

Ro-Ting Lin^{*,‡}, Christine Linehan, PhD[‡], UCD Centre for Disability Studies

Prof Shai Linn, DrPH^{†,‡,§}, University College Dublin, Dublin, Ireland; School of Public Health

Prof Stefan Listl, PhD^{*},

University of Haifa, Haifa, Israel; Department of Dentistry- Quality and Safety of Oral Health Care; Radboud University, Nijmegen, Netherlands; Department of Translational Health Economics

Hung-Chun Liu[‡], Prof Shiwei Liu, PhD^{‡,§}, Chinese Center for Disease Control and Prevention, Beijing, China

Simin Liu, MD[§], Department of Epidemiology

Xuefeng Liu, PhD^{*,¶}, Department of Systems, Populations, and Leadership

Prof Yang Liu, PhD^{*,§}, Rollins School of Public Health

Zichen Liu[‡], Justin Lo[§], Prof Rakesh Lodha, MD[†], Department of Paediatrics

Prof Giancarlo Logroscino, PhD^{*,†,¶},

Brown University, Providence, RI, USA; Department of Basic Medical Sciences, Neuroscience and Sense Organs; University of Bari Aldo Moro, Bari, Italy; Department Clinical Research in Neurology

Katharine J Looker, PhD[‡], Fondazione Cardinale Giovanni Panico Hospital, Tricase, Italy; Population Health Sciences

Prof Alan D Lopez, PhD^{*,†,‡,§,¶}, Melbourne School of Population and Global Health

Jaifred Christian F Lopez, MD^{*,§}, Department of Nutrition; University of Bristol, Bristol, UK; Alliance for Improving Health Outcomes, Inc., Quezon City, Philippines

Platon D Lopukhov, PhD^{†,‡,§,¶}, World Health Organization (WHO), Geneva, Switzerland; Department of Epidemiology and Evidence Based Medicine

Prof Stefan Lorkowski, PhD^{*,‡,§},

Institute of Nutritional Sciences; Friedrich Schiller University Jena, Jena, Germany; Competence Cluster for Nutrition and Cardiovascular Health (nutriCARD), Jena, Germany Prof Paulo A Lotufo, DrPH^{†,‡,§,¶}, Department of Medicine

Rafael Lozano^{*,†,¶,||}, Alton Lu^{*,†,§,¶}, Tim C D Lucas, PhD[‡], University of Alberta, Edmonton, AB, Canada; Big Data Institute

Alessandra Lugo, PhD^{*,‡,§}, Gandhi Medical College Bhopal, Bhopal, India; Department of Environmental Health Sciences

Prof Raimundas Lunevicius, DSc^{*,†,‡}, Department of General Surgery; Liverpool University Hospitals NHS Foundation Trust, Liverpool, UK; Department of Surgery

Prof Ronan A Lyons, MD^{*,‡}, University of Liverpool, Liverpool, UK; School of Medicine

Jianing Ma^{*,‡,¶}, Daiane Borges Machado, PhD^{*}, Swansea University, Swansea, UK; Center for Integration of Data and Health Knowledge

Jennifer H MacLachlan, MSc[‡], University of the Free State, Park West, South Africa; Epidemiology

Mohammed Madadin, MD^{†,¶}, Pathology Department

Emilie R Maddison^{*,†,‡,§}, Ralph Maddison[‡], Fabiana Madotto, PhD[‡], Oswald Cruz Foundation (FIOCRUZ), Salvador, Brazil; Value-based Healthcare

Hassan Magdy Abd El Razek, MSc[†], Mansoura Faculty of Medicine, Mansoura, Egypt; Ophthalmology Department

Muhammed Magdy Abd El Razek, MD[†], IRCCS MultiMedica, Sesto San Giovanni, Italy; Radiology Department

Phetole Walter Mahasha, PhD^{*,†,‡,§,¶}, Grants, Innovation and Product Development Unit

Mokhtar Mahdavi Mahdavi, PhD^{†,§}, Social Determinants of Health Research Center; Ministry of Health & Population, Aswan, Egypt; Academy of Medical Science,

Morteza Mahmoudi, PhD^{*,§,¶}, Radiology and Precision Health Program

Hue Thi Mai, MPH[‡], Bangladesh Industrial Gases Limited, Tangail, Bangladesh; Institute for Global Health Innovations

Prof Azeem Majeed, MD^{*,‡,§,¶}, Department of Primary Care and Public Health

Jeadran N Malagón-Rojas[¶], Prof Venkatesh Maled, MD^{*,‡},

El Bosque University, Bogota, Colombia; Department of Forensic Medicine; Rajiv Gandhi University of Health Sciences, Dharwad, India; Department of Forensic Medicine

Prof Afshin Maleki, PhD^{*,§}, Environmental Health Research Center

Shokofeh Maleki, MSc^{*,‡,§,¶}, Universities of Nottingham & Lincoln, Lincoln, UK; Clinical Research Development Center

Prof Reza Malekzadeh, MD^{*,†,‡,§}, Digestive Diseases Research Center; Non-communicable Disease Research Center

Prof Deborah Carvalho Malta, PhD^{*,‡,§,¶}, Department of Maternal and Child Nursing and Public Health

Abdullah A Mamun, PhD^{*,†,‡,§}, Institute for Social Science Research

Amir Manafi, MD[‡], Kurdistan University of Medical Sciences, Sanandaj, Iran; Department of Surgery

Navid Manafi, MD^{†,‡}, Department of Ophthalmology; Ophthalmology Department

Ana Laura Manda, MD[§], Department of General Surgery; University of Virginia, Charlottesville, VA, USA; General Surgery Department I

Helena Manguerra^{*,‡,§}, Fariborz Mansour-Ghanaei^{†,§}, Borhan Mansouri, PhD^{*,†,‡,§,¶}, Substance Abuse Prevention Research Center; Substance Abuse Prevention Research Center

Mohammad Ali Mansournia, PhD^{*,†,‡,§,¶}, Department of Epidemiology and Biostatistics

Ana M Mantilla Herrera, PhD^{*,‡,§}, Eijkman Institute for Molecular Biology, Jakarta, Indonesia; Psychiatric Epidemiology and Burden of Disease Research

Chabila Christopher Mapoma, PhD[†], Emergency University Hospital Bucharest, Bucharest, Romania; Department of Population Studies

Joemer C Maravilla, PhD^{‡,§}, Institute for Social Science Research

Ashley Marks^{‡,§}, Prof Randall V Martin, PhD[§], Department of Physics and Atmospheric Science; University of Zambia, Lusaka, Zambia; Department of Energy, Environmental, and Chemical Engineering

Santi Martini, PhD^{*,†,§,¶},

Washington University, St Louis, NS, USA; Faculty of Public Health; Airlangga University, Surabaya, Indonesia; Indonesian Public Health Association, Surabaya, Indonesia

Francisco Rogerlândio Martins-Melo^{*,†,‡,§,¶}, Ira Martopullo^{*,‡,¶}, Anthony Masaka, MSc^{†,§}, Federal Institute of Education, Science and Technology of Ceará, Caucaia, Brazil; Faculty of Health and Education

Seyedeh Zahra Masoumi^{*,‡,§}, João Massano, MD[‡], Department of Clinical Neurosciences and Mental Health; Botho University-Botswana, Gaborone, Botswana; Department of Neurology

Benjamin Ballard Massenburg, MD^{*,‡,¶}, Division of Plastic & Reconstructive Surgery

Claudia I Mastrogiacomo^{†,¶}, Manu Raj Mathur, PhD^{*,†,‡,§,¶, Health Policy Research; Institute of Population Health Sciences}

Prof Kunihiro Matsushita, MD[§], Department of Epidemiology

Pallab K Maulik, PhD^{*,‡,§}, School of Medicine; Research Division

Erin A May[†], Mohsen Mazidi, PhD^{*}, Medical College of Georgia at Augusta University, Augusta, GA, USA; Department of Twin Research and Genetic Epidemiology

Colm McAlinden, PhD^{*,†,‡,§,¶}, University Hospital Center de Sao Joao, Porto, Portugal; Department of Ophthalmology

Prof John J McGrath, MD^{*,†,‡,§}, Queensland Brain Institute; Singleton Hospital, Swansea, UK; National Centre for Registerbased Research

Martin McKee^{*,†,‡,§,¶}, Carlo Eduardo Medina-Solís, MSc[¶], Aarhus University, Aarhus, Denmark; Academic Area of Dentistry

Birhanu Geta Meharie, MSc[¶], Department of Pharmacy

Prof Man Mohan Mehndiratta, MD^{*,†,‡,§,¶}, Wollo University, Dessie, Ethiopia; Neurology Department; Janakpuri Super Specialty

Hospital Society, New Delhi, India; Department of Neurology Entezar Mehrabi Nasab, MD[¶],

Tehran Heart Center

Fereshteh Mehri, PhD^{*,†,‡,§,¶}, Nutrition Health Research Center

Prof Ravi Mehrotra, Phil[¶], Govind Ballabh Institute of Medical Education and Research, New Delhi, India; India Cancer Research Consortium

Kala M Mehta, DSc^{*,†,‡,§}, Lund University, Malmö, Sweden; Department of Epidemiology and Biostatistics Europe PMC Funders Author Manuscripts

Europe PMC Funders Author Manuscripts

Wahengbam Bigyananda Meitei, MSc^{†,‡}, Department of Public Health and Mortality Studies

Teferi Mekonnen, MPH[¶], Indian Council of Medical Research, New Delhi, India; Department of Nutrition

Addisu Melese, MSc^{*,¶}, Department of Medical Laboratory Sciences

Peter T N Memiah, DrPH^{†,‡,¶}, University of Oslo, Oslo, Norway; Institute of Human Virology

Prof Ziad A Memish, MD^{*,§}, University of Maryland, Baltimore, MD, USA; College of Medicine; Alfaisal University, Riyadh, Saudi Arabia; Research & Innovation Center

Walter Mendoza, MD^{*,†,‡,§,¶}, Ministry of Health, Riyadh, Saudi Arabia; Peru Country Office

Prof Ritesh G Menezes, MD^{*,†,‡,§,}¶, Forensic Medicine Division

Endalkachew Worku Mengesha, MPH^{*,†,‡,§}, Department of Reproductive Health and Population Studies

Meresa Berwo Mengesha, MSc[‡], Department of Midwifery

George A Mensah, MD^{†,¶}, Department of Medicine; Center for Translation Research and Implementation Science

Alibek Mereke, MD^{‡,§},

Clinical Emergency Hospital Sf. Pantelimon, Bucharest, Romania; Health Research Institute; United Nations Population Fund (UNFPA), Lima, Peru; Department of Cardiovascular Surgery

Seid Tiku Mereta, PhD[§], Department of Environmental Health Sciences and Technology

Atte Meretoja, MD^{*,†,‡,§,¶}, School of Health Sciences; Neurology Unit

Tuomo J Meretoja, MD^{*,†,‡,§,¶}, University of Helsinki, Helsinki, Finland; Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan; Breast Surgery Unit

Tomislav Mestrovic, PhD^{*,†,‡,§,¶},

Helsinki University Hospital, Helsinki, Finland; Clinical Microbiology and Parasitology Unit; Zora Profozic Polyclinic, Zagreb, Croatia; University Centre Varazdin

Bartosz Miazgowski, MD^{*,‡,§,¶},

University North, Varazdin, Croatia; Center for Innovation in Medical Education; Pomeranian Medical University, Szczecin, Poland Prof Tomasz Miazgowski, MD^{‡,§}, Department of Propedeutics of Internal Diseases & Arterial Hypertension

Irmina Maria Michalek, PhD^{*,†,‡,§,¶}, Department of Women-Mother-Child

Kebadnew Mulatu Mihretie, MPH^{†,‡}, Department of Epidemiology and Biostatistics

Ted R Miller, PhD^{†,‡,§},

School of Public Health; Vaud University Hospital Center, Lausanne, Switzerland; Pacific Institute for Research & Evaluation, Calverton, MD, USA

Edward J Mills, PhD^{†,‡,§}, Karolinska Institutet, Stockholm, Sweden; Department of Health Research Methods, Evidence and Impact

Prof George J Milne, PhD^{*,†}, Jawahar Lal Nehru University, New Delhi, India; Department of Computer Science and Software Engineering

Prof GK Mini, PhD[§],

Global Institute of Public Health; Ananthapuri Hospitals and Research Institute, Trivandrum, India; Women's Institute for Social and Health Studies, Trivandrum, India

Mohammad Miri, PhD^{*,§}, Department of Environmental Health; Non-Communicable Diseases Research Centre

Andreea Mirica^{*,‡,§}, Prof Erkin M Mirrakhimov, PhD^{*,†,‡,§,¶}, Sabzevar University of Medical Sciences, Sabzevar, Iran; Internal Medicine Programme; Kyrgyz State Medical Academy, Bishkek, Kyrgyzstan; Department of Atherosclerosis and Coronary Heart Disease

Hamed Mirzaei, PhD^{*,†,‡,§},

National Center of Cardiology and Internal Disease, Bishkek, Kyrgyzstan; Research Center for Biochemistry and Nutrition in Metabolic Diseases

Maryam Mirzaei, MSc^{*,†,‡,§,¶}, Department of Rehabilitation and Sports Medicine

Roya Mirzaei, PhD[§],

Water Quality Research Center; Comprehensive Research Laboratory

Mehdi Mirzaei-Alavijeh^{*,†,‡,§,¶}, Awoke Temesgen Misganaw^{*,†,‡,§}, Prof Philip B Mitchell, MD[¶],

School of Psychiatry

Prasanna Mithra^{‡,§}, Babak Moazen, MSc^{*,†,‡,§,¶}, Heidelberg Institute of Global Health (HIGH); Kashan University of Medical Sciences, Kashan, Iran; Institute of Addiction Research (ISFF)

Masoud Moghadaszadeh, PhD^{*,†,‡,¶}, Biotechnology Research Center; Molecular Medicine Research Center Bahram Mohajer, MD^{*}, Non-communicable Diseases Research Center

Osama Mohamad, MD^{*}, Department of Radiation Oncology

Efat Mohamadi, PhD^{†,‡,¶}, Health Equity Research Center

Dara K Mohammad, PhD^{*,†,‡,§,¶}, Department of Medicine; Department of Forestry

Yousef Mohammad, MD^{*,†,‡,§,¶}, Internal Medicine Department

Naser Mohammad Gholi Mezerji^{*,†,‡,§,¶}, Abolfazl Mohammadbeigi, PhD[†], McMaster University, Hamilton, ON, Canada; Department of Epidemiology and Biostatistics; Neuroscience Research Center

Abdollah Mohammadian-Hafshejani^{*,†,‡,§,¶}, Noushin Mohammadifard, PhD^{‡,§}, Isfahan Cardiovascular Research Institute

Reza Mohammadpourhodki, MSc^{1,‡,§}, Shahrekord University of Medical Sciences, Shahrekord, Iran; Kashmar Center of Higher Health Education

Ammas Siraj Mohammed, BA[§], School of Pharmacy

Hussen Mohammed, MPH^{†,§}, Mashhad University of Medical Sciences, Mashhad, Iran; Department of Public Health

Jemal Abdu Mohammed, MPH^{§,¶}, National University of Singapore, Singapore, Singapore; Department of Public Health

Shafiu Mohammed, PhD^{*,†,‡,§,¶}, Health Systems and Policy Research Unit; Heidelberg Institute of Global Health (HIGH)

Farnam Mohebi, MD^{*,†},

National Institute of Health Research (NIHR); Non-communicable Diseases Research Center

Prof Mohammad A Mohseni Bandpei, PhD[†], Ahmadu Bello University, Zaria, Nigeria; Pediatric Neurorehabilitation Research Center

Amin Mokari[†], Ali H Mokdad^{*,†,‡,§,¶,∥}, Prof Mariam Molokhia, PhD^{*,‡,§}, Faculty of Life Sciences and Medicine

Natalie C Momen, PhD^{†,‡},

Singleton Hospital, Swansea, UK; National Centre for Register-based Research; Singleton Hospital, Swansea, UK; National Centre for Register-based Research

Lorenzo Monasta, DSc^{*,†,‡,§,¶},

University of Social Welfare and Rehabilitation Sciences, Tehran, Iran; Clinical Epidemiology and Public Health Research Unit

Prof Stefania Mondello, MD^{‡,¶},

Burlo Garofolo Institute for Maternal and Child Health, Trieste, Italy; Department of Biomedical and Dental Sciences and Morphofunctional Imaging

Meghan D Mooney^{*,†,‡,§}, Mahmood Moosazadeh, PhD[‡], Health Sciences Research Center

Ghobad Moradi, PhD^{*,†,‡,§}, Shri Dharmasthala Manjunatheshwara University, Dharwad, India; Department of

Epidemiology and Biostatistics; Social Determinants of Health Research Center

Masoud Moradi^{*,†,‡,§,¶}, Mohammad Moradi-Joo[†], Maziar Moradi-Lakeh^{*,†,‡,§,¶}, Rahmatollah Moradzadeh, PhD^{*,†,‡,§,¶}, McGill University, Montreal, QC, Canada; Department of Epidemiology

Paula Moraga, PhD^{*,†,‡,§,¶}, Department of Mathematical Sciences

Linda Morales, MSc[‡], Center for Poplulation Health Research

Prof Lidia Morawska, PhD^{*,‡,§}, Iran Health Insurance Organization, Tehran, Iran; International Laboratory for Air Quality and Health

Ilais Moreno Velásquez, PhD^{†,‡},

Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Joana Morgado-da-Costa, MSc^{*,†,‡,§,}¶, University Hospital Center of Porto

Shane Douglas Morrison, MD^{*,†,‡,§,¶}, Division of Plastic & Reconstructive Surgery

Abbas Mosapour, PhD^{*,§,¶},

Abt Associates Nepal, Lalitpur, Nepal; Department of Clinical Biochemistry; Department of Clinical Biochemistry

Jonathan F Mosser^{*,†,‡,§,¶}, Simin Mouodi, PhD^{†,‡,§}, Social Determinants of Health Research Center

Seyyed Meysam Mousavi, PhD^{*,†,‡,§}, Department of Health Policy, Management, and Economics

Prof Amin Mousavi Khaneghah, PhD^{*,†,‡,§,¶}, Queensland University of Technology, Brisbane, QLD, Australia; Department of Food Science

Prof Ulrich Otto Mueller, MD^{*,†,‡,§},

Federal Institute for Population Research, Wiesbaden, Germany; Center for Population and Health, Wiesbaden, Germany

Prof Satinath Mukhopadhyay, MD[§], Department of Endocrinology & Metabolism

Erin C Mullany^{*,§}, John Everett Mumford[¶], Sandra B Munro[‡], Moses K Muriithi, PhD^{‡,¶}, School of Economics

Kamarul Imran Musa, PhD^{*,†,‡,§}, Seth Sukhlal Karnani Memorial Hospital, Kolkata, India; School of Medical Sciences

Prof Ghulam Mustafa, MD[¶],

Science University of Malaysia, Kubang Kerian, Malaysia; Department of Pediatric Medicine; The Children's Hospital & The Institute of Child Health, Multan, Pakistan; Department of Pediatrics & Pediatric Pulmonology

Saravanan Muthupandian, PhD^{†,‡,§}, Department of Microbiology and Immunology

Behnam Nabavizadeh, MD[†], Department of Urology

Prof Ashraf F Nabhan, PhD^{§,¶}, Department of Obstetrics and Gynecology; Institute of Mother & Child Care, Multan, Pakistan; Knowledge Translation and Utilization Unit

Mehdi Naderi, PhD^{*,†,‡,§,¶},

Universities of Nottingham & Lincoln, Lincoln, UK; Clinical Research Development Center

Ahamarshan Jayaraman Nagarajan, Tech^{*,†,‡,§,¶},

Egyptian Center for Evidence Based Medicine, Egypt; Research and Analytics Department; Initiative for Financing Health and Human Development, Chennai, India; Department of Research and Analytics

Prof Gabriele Nagel, MD^{‡,§}, Bioinsilico Technologies, Chennai, India; Institute of Epidemiology and Medical Biometry

Mohsen Naghavi^{*,†,‡,§,¶}, Behshad Naghshtabrizi, MD^{*,†,‡,§,¶}, Department of Cardiology

Gurudatta Naik, MPH[†], Ulm University, Ulm, Germany; Comprehensive Cancer Center

Mukhammad David Naimzada, MD^{*,§,¶},

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Moscow Institute of Physics and Technology, Dolgoprudny, Russia; Experimental Surgery and Oncology Laboratory

Sanjeev Nair, MD[‡],

Kursk State Medical University, Kursk, Russia; Department of Pulmonary Medicine; Government Medical College Trivandrum, Trivandrum, India; Health Action by People, Trivandrum, India Prof Farid Najafi, PhD^{*,†,§}, Epidemiology and Biostatistics Department

Prof Luigi Naldi, MD^{*}, San Bortolo Hospital, Vicenza, Italy; Study Center of the Italian Group for Epidemiologic Research in Dermatology; Department of Dermatology

Vishnu Nandakumar^{||}, Anita K Nandi, PhD[‡], Nuffield Department of Medicine

Vinay Nangia, MD^{†,‡,§,¶}, Suraj Eye Institute, Nagpur, India

Jobert Richie Nansseu, MD^{†,‡,§,¶},

Department for the Control of Disease, Epidemics, and Pandemics; Department of Public Health

Morteza Naserbakht, MD[§], Mental Health Research Center; Preventive Medicine and Public Health Research Center

Vinod C Nayak^{*,‡,§,¶}, Javad Nazari, MD^{*,‡,¶}, Department of Pediatrics

Rawlance Ndejjo, MSc^{*,¶}, University of Yaoundé I, Yaoundé, Cameroon; Disease Control and Environmental Health

Duduzile Edith Ndwandwe, PhD[†], Cochrane South Africa

Ionut Negoi, PhD^{*,†,‡,§,¶},

Department of General Surgery; Makerere University, Kampala, Uganda; Department of General Surgery

Ruxandra Irina Negoi, PhD^{*,†,‡,¶}, Department of Anatomy and Embryology; Emergency Hospital of Bucharest, Bucharest, Romania; Cardio-Aid, Bucharest, Romania

Henok Biresaw Netsere, MS^{*,‡}, School of Nursing; School of Health Sciences, Department of Surgical Nursing

Subas Neupane, PhD[¶], University of Cape Coast, Cape Coast, Ghana; Department of Health Sciences

Kiirithio N Ngari, MSc[¶], Research & Statistics Unit

Georges Nguefack-Tsague^{*,¶}, Josephine W Ngunjiri, DrPH^{*,†,‡,§,¶}, Synotech Consultants, Nairobi, Kenya; Department of Biological Sciences

Cuong Tat Nguyen^{‡,§,¶}, Diep Ngoc Nguyen, MA^{*,¶}, Faculty of Pharmacy

Huong Lan Thi Nguyen, BMedSc^{*,†,§,¶},

Ministry of Health and Medical Education, Tehran, Iran; Center of Excellence in Behavioral Medicine

Jason Nguyen[‡], Michele Nguyen, PhD[‡], Malaria Atlas Project

Ming Nguyen^{‡,§}, Trang Huyen Nguyen[†], Emma Nichols^{*,‡}, Dabere Nigatu, MPH[‡], Department of Reproductive Health and Population Studies

Yeshambel T Nigatu, PhD^{*,†,‡,§},

University of Embu, Embu, Kenya; Institute for Mental Health Policy Research; Centre for Addiction and Mental Health, Toronto, ON, Canada; Department of Clinical Epidemiology

Rajan Nikbakhsh, MD^{*,†,‡,§}, Obesity Research Center

Amin Reza Nikpoor, PhD[†], Hormozgan University of Medical Sciences, Bandar Abbas, Iran

Molly R Nixon^{*,†,‡,§}, Chukwudi A Nnaji, MPH^{*,†,‡,§,¶}, South African Medical Research Council, Cape Town, South Africa; School of Public Health and Family Medicine

Shuhei Nomura, PhD^{*,†,‡,§,¶},

Department of Global Health Policy; Institute for Clinical Evaluative Sciences, Ottowa, ON, Canada; Department of Health Policy and Management

Prof Ole F Norheim, PhD[¶],

Department of Global Health and Population; Department of Global Public Health and Primary Care

Prof Bo Norrving, PhD^{‡,§}, Technical University of Denmark, Copenhagen, Denmark; Department of Clinical Sciences

Jean Jacques Noubiap, MD^{*,†,‡,§,¶}, Centre for Heart Rhythm Disorders

Soraya Nouraei Motlagh, PhD[†], Department of Public Health

Christoph Nowak, PhD^{*,†,‡,§,¶}, Department of Neurobiology, Care Sciences and Society

Elaine Okanyene Nsoesie, PhD^{*}, Department of Global Health, School of Public Health

Virginia Nunez-Samudio^{*,‡,§,¶}, Prof Bogdan Oancea, PhD^{‡,§}, Keio University, Tokyo, Japan; Administrative and Economic Sciences Department

Christopher M Odell^{†,‡,§}, Felix Akpojene Ogbo, PhD^{*,‡,§,¶}, Translational Health Research Institute

Onome Bright Oghenetega, MSc^{*,¶}, Department of Obstetrics and Gynecology In-Hwan Oh, PhD^{†,‡,§,¶}, University of Bucharest, Bucharest, Romania; Department of Preventive Medicine

Emmanuel Wandera Okunga, MSc^{*,‡,§,¶}, Kyung Hee University, Dongdaemun-gu, South Korea; Disease Surveillance and Epidemic Response

Morteza Oladnabi, PhD^{*,†,‡,§,¶}, Gorgan Congenital Malformations Research Center

Andrew T Olagunju, MD^{*,†,‡,§,¶}, Department of Psychiatry and Behavioural Neurosciences; Ministry of Health, Nairobi, Kenya; Department of Psychiatry

Bolajoko Olubukunola Olusanya, PhD^{*,†,‡,§,¶}, University of Lagos, Lagos, Nigeria; Centre for Healthy Start Initiative, Lagos, Nigeria

Jacob Olusegun Olusanya, MBA^{*,†,‡,§,}¶, University of Lagos, Lagos, Nigeria; Centre for Healthy Start Initiative, Lagos, Nigeria

Mojisola Morenike Oluwasanu, PhD^{‡,¶}, Department of Health Promotion and Education

Ahmed Omar Bali, PhD^{*,†,‡,¶}, Diplomacy and Public Relations Department

Muktar Omer Omer, MSc^{*,‡,§,¶}, Department of Public Health

Kanyin L Ong, FAMS^{*,†,‡,§,¶},

Pantai Jerudong Specialist Centre, Bandar Seri Begawan, Brunei; Non-communicable Disease Prevention Unit; Early Detection and Cancer Prevention Services

Sokking Ong^{*}, Prof Obinna E Onwujekwe, PhD^{*,†,‡,§,¶}, Ministry of Health, Bandar Seri Begawan, Brunei; Department of Pharmacology and Therapeutics

Eyal Oren^{*}, Aislyn U Orji[‡], Heather M Orpana, PhD^{‡,§}, Substance Related Harms Division; School of Epidemiology and Public Health

Doris V Ortega-Altamirano[¶], Prof Alberto Ortiz, MD^{*,†,‡,§,¶}, National Public Health Institute, Cuernavaca, Mexico; Department of Medicine; Autonomous University of Madrid, Madrid, Spain; Department of Nephrology and Hypertension

Osayomwanbo Osarenotor, MSc§,

The Institute for Health Research Foundation Jiménez Díaz University Hospital, Madrid, Spain; Department of Environmental Management and Toxicology

Frank B Osei, PhD[§],

Faculty of Geo-Information Science and Earth Observation; University of Benin, Benin City, Nigeria; Department of Mathematics and Statistics

Prof Sergej M Ostojic, PhD[¶],

University of Energy and Natural Resources, Sunyani, Ghana; Biomedical Sciences

Samuel M Ostroff^{*,‡,§}, Adrian O oiu^{*,†,‡,§,¶}, Nikita Otstavnov, BA^{*,†,‡,§,¶}, University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization

Stanislav S Otstavnov, PhD^{*,†,‡,§,¶}, University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Department of Project Management

Prof Simon Øverland, PhD^{*,†,‡,§,¶}, Department of Psychosocial Science; Division of Mental and Physical Health

Prof Mayowa O Owolabi, DrM^{*,†,‡,§,¶}, Department of Medicine; Department of Medicine

Mahesh P A^{*,†,‡,§}, Jagadish Rao Padubidri, MD^{*,†,‡,§,¶}, Department of Forensic Medicine

Smita Pakhale, MD^{*,¶}, Department of Medicine

Abhijit P Pakhare, MD[‡], All India Institute of Medical Sciences, Jodhpur, India; Department of Community Medicine and Family Medicine

Prof Keyvan Pakshir, PhD^{*,†}, Department of Parasitology and Mycology

Raffaele Palladino, MD^{*,†,‡,§,¶}, Department of Primary Care and Public Health; Wayne State University, Detroit, MI, USA; Department of Public Health

Adrian Pana, MD^{*,†,‡,¶}, Jagadguru Sri Shivarathreeswara Academy of Health Education and Research, Mysore, India; Department of Health Metrics

Songhomitra Panda-Jonas^{*,†,‡,§,¶}, Anamika Pandey, PhD^{‡,§}, Case Western Reserve University, Cleveland, OH, USA; Department of Research

Helena Ullyartha Pangaribuan, MSc¹, Center for Health Outcomes & Evaluation, Bucharest, Romania; National Institute of Health Research and Development

Prof Eun-Kee Park, PhD[‡], Ministry of Health, Jakarta, Indonesia; Department of Medical Humanities and Social Medicine

James Park, MSc[†], Department of Biostatistics

Priya G Kumari Parmar, PhD^{*,‡},

Haramaya University, Harar, Ethiopia; Department of Biostatistics and Epidemiology; National Institute for Stroke and Applied Neurosciences

Prof Charles D H Parry, PhD[§],

Department of Psychiatry; Stellenbosch University, Cape Town, South Africa; Alcohol, Tobacco & Other Drug Research Unit

Maja Pasovic[§], Deepak Kumar Pasupula, MD^{†,‡,§}, Kosin University, Busan, South Korea; Division of General Internal Medicine

Jenil R Patel, PhD[†], University of Pittsburgh Medical Center, Pittsburgh, PA, USA; Department of Epidemiology

Sangram Kishor Patel, PhD^{†,‡,§}, University of Arkansas for Medical Sciences, Little Rock, AR, USA; Department of Poverty, Gender and Youth

Angel J Paternina-Caicedo[‡], Prof Ashish Pathak, PhD[‡], Department of Global Public Health-Health Systems and Policy; Kalinga Institute of Medical Sciences, Bhubaneswar, India; Department of Pediatrics

Mona Pathak, PhD^{*,‡,§,¶}, University of Sinu, Cartagena, Colombia; Research & Development Department

Prof Scott B Patten, PhD^{‡,§}, RD Gardi Medical College, Ujjain, India; Community Health Sciences Department

Prof George C Patton, MD^{*,†,‡,§,¶}, Department of Paediatrics; Population Health Theme

Deepak Paudel, PhD[‡],

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Center for International Health; Atlanta Veterans Affairs Medical Center, Decatur, GA, USA; Health, Nutrition, and HIV/AIDS Program

Sagun Paudel, MPH[¶],

Murdoch Childrens Research Institute, Melbourne, VIC, Australia; Public Health Youth Society of Nepal, Pokhara, Nepal; Public Health Update, Pokhara, Nepal

Katherine R Paulson[†], Hamidreza Pazoki Toroudi, PhD^{*,†,‡,§,¶}, Department of Physiology; Physiology Research Center

Spencer A Pease^{†,¶}, Amy E Peden, PhD^{*,†,‡,§,¶}, School of Public Health and Community Medicine; University of the Witwatersrand, Johannesburg, South Africa; College of Public Health, Medical, and Veterinary Sciences

Alyssa Pennini^{‡,§,¶}, Veincent Christian Filipino Pepito, MSc^{*,†,‡,§}, Center for Research and Innovation

Emmanuel K Peprah, PhD^{*,†,‡,§,¶}, School of Global Public Health

Alexandre Pereira, PhD^{*,†,‡}, Department of Genetics; Laboratory of Genetics and Molecular Cardiology

David M Pereira^{*,†,‡,§}, Jeevan Pereira, MS^{*,¶}, New York University, New York, NY, USA; Department of Orthopedics Norberto Perico, MD^{*,†,‡}, Mario Negri Institute for Pharmacological Research, Milan, Italy

Julia Moreira Pescarini, PhD^{*}, Yenepoya Medical College, Mangalore, India; Center for Integration of Data and Health Knowledge

Prof Konrad Pesudovs, PhD[§], School of Optometry and Vision Science

Hai Quang Pham^{*,‡,§}, Prof Michael R Phillips, MD^{*,‡,§}, Department of Psychiatry; Oswaldo Cruz Foundation, Salvador, Brazil; Shanghai Mental Health Center

Cristiano Piccinelli, MS^{*,§}, Shanghai Jiao Tong University, Shanghai, China; SSD Epidemiology Screening

Maxwell Pierce^{||}, David M Pigott^{†,‡,¶}, Thomas Pilgrim, MD^{†,‡,¶}, City of Health and Science University Hospital of Turin, Turin, Italy; Department of Cardiology

Tessa M Pilz^{*,†,‡,§,¶}, Marina Pinheiro, PhD^{*,¶}, Department of Chemistry

Prof Michael A Piradov, DSc^{*,†,§,¶}, Research Center of Neurology, Moscow, Russia

Meghdad Pirsaheb^{*,†,‡,§,¶}, Farhad Pishgar, MD^{*}, Non-communicable Diseases Research Center; Uro-oncology Research Center

Oleguer Plana-Ripoll[‡], Dietrich Plass, DrPH^{‡,§}, University of Bern, Bern, Switzerland; Department of Environmental Hygiene

Martin Pletcher^{||}, Khem Narayan Pokhrel, PhD^{†,‡,¶}, German Environment Agency, Dessau-Roßlau, Germany; HIV and Mental Health Department

Roman V Polibin, PhD[‡], Department of Epidemiology and Evidence-Based Medicine

Suzanne Polinder, PhD^{‡,§}, Department of Public health

Prof Kevan R Polkinghorne, PhD^{‡,§}, Department of Medicine

Prof Constance Dimity Pond, PhD^{*,§}, Discipline of General Practice

Prof Maarten J Postma, PhD^{*,†,‡,§,¶}, School of Economics and Business; University Medical Center Groningen

Faheem Hyder Pottoo, PhD^{*}, Pharmacology Department Hadi Pourjafar, PhD^{*,†,‡,§,¶}, Shahed University, Tehran, Iran; Dietary Supplements and Probiotic Research Center; Department of Nutrition and Food Sciences

Farshad Pourmalek, PhD^{*,†,‡,§,¶}, School of Population and Public Health

Reza Pourmirza Kalhori, PhD^{‡,¶}, Department of Emergency Medicine

Prof Akram Pourshams, MD^{†,‡,¶}, Digestive Diseases Research Institute

Anna Pozna ska, PhD^{†,‡,§}, Department of Population Health Monitoring and Analysis

Sergio I Prada, PhD^{*,†,‡,§,¶},

Integrated Development Foundation Nepal, Kathmandu, Nepal; Clinical Research Center; Valle del Lili Foundation; Center for Studies in Social Protection and Health Economics

Prof Sanjay Prakash, DM[†], Charotar University of Science and Technology, Anand, India; Department of Neurology

V Prakash, PhD^{‡,§}, ICESI University, Cali, Colombia; Askok & Rita Patel Institute of Physiotherapy

Prof Narayan Prasad, DM^{*}, Smt. B.K.S. Medical Institute and Research Center, Vadodara, India; Department of Nephrology

Liliana Preotescu, PhD[†], Department of Infectious Diseases; Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India; National Institute of Infectious Diseases, Bucuresti, Romania

Dimas Ria Angga Pribadi, MSc^{*,‡,§,}¶, Health Sciences Department

Elisabetta Pupillo, PharmD^{*,‡,§,¶}, Department of Neuroscience

Prof Zahiruddin Quazi Syed, PhD^{*,†,‡,§,¶}, Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine

Prof Mohammad Rabiee, PhD^{*,†,‡,§},

Muhammadiyah University of Surakarta, Sukoharjo, Indonesia; Biomedical Engineering Department

Navid Rabiee, MSc^{*,†,‡,§}, Government Institute of Forensic Science, Nagpur, India; Chemistry Department

Amir Radfar, MD^{*,†,‡,§,¶},

Amirkabir University of Technology, Tehran, Iran; College of Medicine

Ata Rafiee, MSc^{*,‡,§,¶},

Yale University, New Haven, CT, USA; Department of Medicine

Prof Alireza Rafiei, PhD^{†,‡,¶},

Department of Immunology; Molecular and Cell Biology Research Center

Alberto Raggi, PhD^{*,†,‡,§,¶},

Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Fakher Rahim, PhD[¶],

Metabolomics and Genomics Research Center; Thalassemia and Hemoglobinopathy Research Center

Afarin Rahimi-Movaghar[‡], Mohammad Hifz Ur Rahman, PhD^{*}, School of Nursing and Midwifery; University of Central Florida, Orlando, FL, USA; Department of Community Medicine; Maharishi Markandeshwar Institute of Medical Sciences & Research, Ambala, India; School of Nursing and Healthcare Professions

Muhammad Aziz Rahman, PhD^{*,†,‡,§,¶}, Ali Rajabpour-Sanati^{†,‡,§,¶}, Fatemeh Rajati^{‡,§}, Ivo Rakovac, PhD[§],

RUDN University, Moscow, Russia; European Office for the Prevention and Control of Noncommunicable Diseases

Pradhum Ram, MD^{†,§}, Division of Cardiology

Kiana Ramezanzadeh, PharmD^{*,‡,§}, School of Pharmacy

Prof Saleem Muhammad Rana, PhD[¶], University Institute of Public Health; Federation University Australia, Berwick, VIC, Australia; Public Health Department

Chhabi Lal Ranabhat, PhD^{*,†,‡,§,¶}, University of Health Sciences, Lahore, Pakistan; Research Department; Policy Research Institute, Kathmandu, Nepal; Health and Public Policy Department

Annemarei Ranta, PhD*,

Global Center for Research and Development, Kathmandu, Nepal; Department of Medicine; University of Otago, Wellington, New Zealand; Department of Neurology

Puja C Rao, MDS^{*,‡,§},

Capital & Coast District Health Board, Wellington, New Zealand; Department of Oral Pathology

Sowmya J Rao^{*,†,‡,§,¶}, Prof Davide Rasella, PhD^{*,†,‡,¶}, University of Belgrade, Belgrade, Serbia; Institute of Collective Health

Vahid Rashedi, PhD^{*,†,§,¶}, Tehran Institute of Psychiatry

Prateek Rastogi^{*,†,‡}, Prof Goura Kishor Rath, MD[¶],

Department of Radiation Oncology; All India Institute of Medical Sciences, Bhopal, India; Department of Radiation Oncology, All India Institute of Medical Sciences, New Delhi, India

Priya Rathi^{†,‡,§,¶}, David Laith Rawaf, MD^{*,‡,§,¶}, WHO Collaborating Centre for Public Health Education and Training; Srinivas Institute of Dental Sciences, Mangalore, India; University College London Hospitals, London, UK

Prof Salman Rawaf, MD^{*,‡,§,¶}, Department of Primary Care and Public Health; Boston University, Boston, MA, USA; Academic Public Health England

Lal Rawal, PhD^{*,†,‡,§,¶}, School of Health, Medical and Applied Sciences

Reza Rawassizadeh, PhD^{*,§,¶}, Hokkaido University, Sapporo, Japan; Department of Computer Science

Ramu Rawat, MPhil^{*,§}, Hacettepe University, Ankara, Turkey; Department of Mathematical Demography & Statistics

Christian Razo^{*,‡,§,¶}, Sofia Boston Redford^{‡,§}, Lemma Demissie Regassa, MPH^{*}, School of Public Health

Robert C Reiner Jr^{‡,§}, Nickolas Reinig[‡], Marissa Bettay Reitsma^{*,‡,§}, Giuseppe Remuzzi^{*,†,‡,§}, Vishnu Renjith, PhD^{*,†,‡,§,¶}, CQ University, Sydney, NSW, Australia; School of Nursing and Midwifery

Prof Andre M N Renzaho, PhD^{*,†,‡,§,¶}, School of Social Sciences and Psychology; Translational Health Research Institute

Prof Serge Resnikoff, MD^{*,†,‡,§},

School of Optometry and Vision Science; Royal College of Surgeons in Ireland - Bahrain, Muharraq Governorate, Bahrain; Brien Holden Vision Institute, Sydney, NSW, Australia

Prof Negar Rezaei, PhD^{*,§},

Endocrinology and Metabolism Research Center; Non-communicable Diseases Research Center; Research Center for Immunodeficiencies; Network of Immunity in Infection, Malignancy and Autoimmunity (NIIMA)

Nima Rezaei, PhD^{*,†,‡,§,¶}, Prof Mohammad sadegh Rezai, MD^{*,†,‡}, Pediatric Infectious Diseases Research Center

Aziz Rezapour, PhD^{*,†,‡,§}, Health Management and Economics Research Center

Phoebe-Anne Rhinehart^{*,‡,§}, Seyed Mohammad Riahi, PhD^{*,‡,§,}¶, Ludwig Maximilians University, Munich, Germany; Cardiovascular Diseases Research Center

Prof Antonio Luiz P Ribeiro, MD^{*,‡},

University of British Columbia, Vancouver, BC, Canada; Centre of Telehealth; Department of Internal Medicine

Daniel Cury Ribeiro, PhD^{*,‡,§,}¶, School of Physiotherapy

Daniela Ribeiro, PhD^{‡,§}, Department of Chemical Sciences

Jennifer Rickard, MD^{*,1,‡,§,¶}, Universal Scientific Education and Research Network (USERN), Tehran, Iran; Department of Surgery; University of Minnesota, Minneapolis, MN, USA; Department of Surgery

Prof Juan A Rivera, PhD[§], Director General

Toshana Robalik^{||}, Nicholas L S Roberts, MSc^{‡,§,¶}, National Institute for Stroke and Applied Neurosciences

Shaun Roberts[‡], Prof Stephen R Robinson, PhD[‡], Western Sydney University, Sydney, VIC, Australia; Department of Psychology

Sonia Rodríguez-Ramírez, DSc[§], Center for Nutrition and Health Research

Leonardo Roever, PhD^{*,†,‡,§,¶}, University Teaching Hospital of Kigali, Kigali, Rwanda; Department of Clinical Research

Sam Rolfe[‡], Michele Romoli, MD^{*,¶}, Federal University of Uberlândia, Uberlândia, Brazil; Department of Neuroscience; University of Perugia, Perugia, Italy; Department of Neurology

Luca Ronfani, PhD^{*,†,‡,§,¶}, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran; Clinical Epidemiology and Public Health Research Unit

Prof Robin Room, PhD[§], Foundation for Scientific Research (FORS), Cotonou, Benin; Centre for Alcohol Policy Research; Rimini "Infermi" Hospital - AUSL Romagna, Rimini, Italy; Centre for Social Research on Alcohol and Drugs

Gholamreza Roshandel, PhD^{*,†,‡,§,¶},

University College Cork, Cork, Ireland; Golestan Research Center of Gastroenterology and Hepatology (GRCGH)

Morteza Rostamian, PhD[†], Stockholm University, Stockholm, Sweden; School of Medicine

Gregory A Roth, MD^{‡,§}, Division of Cardiology

Dietrich Rothenbacher[§], Enrico Rubagotti, PhD^{*,†,‡,§,¶, Gonabad University of Medical Sciences, Gonabad, Iran; Agrosavia, Palmira, Colombia}

Susan Fred Rumisha, PhD^{*,‡}, Malaria Atlas Project; Department of Health Statistics Godfrey M Rwegerera, MD^{*,†,§,¶},

National Institute for Medical Research, Dar es Salaam, Tanzania; Department of Internal Medicine

Seyedmohammad Saadatagah, MD^{*},

Georgetown University, Washington DC, DC, USA; Department of Cardiovascular Medicine

Siamak Sabour^{*,†,‡,§,}¶, Prof Perminder S Sachdev, MD^{*,‡,§,¶}, School of Psychiatry; University of Botswana, Gaborone, Botswana; Neuropsychiatric Institute

Basema Saddik, PhD^{*,†,‡,§,¶}, Department of Family and Community Medicine

Prof Ehsan Sadeghi, MD^{*,†,‡,§,¶}, Cairo University, Cairo, Egypt; Cardiac Rehabilitation Research Center

Masoumeh Sadeghi^{*,†,‡,§,¶}, Reza Saeedi, MSc[§], Non-communicable Diseases Research Center

Sahar Saeedi Moghaddam^{*,†,§}, Shahram Saeidi[‡], Yahya Safari^{†,§,¶}, Sare Safi, PhD^{†,‡,§}, Ophthalmic Epidemiology Research Center; Ophthalmic Research Center

Saeid Safiri, PhD^{†,‡,§},

Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran; Aging Research Institute; Department of Community Medicine

Prof Rajesh Sagar, MD^{†,‡,§,¶}, Department of Psychiatry

Amirhossein Sahebkar, PhD^{*,†,‡,§,¶}, Neurogenic Inflammation Research Center; Prince of Wales Hospital, Randwick, NSW, Australia; Halal Research Center of IRI

Prof Mohammad Ali Sahraian, MD^{*,†,‡,¶}, Multiple Sclerosis Research Center

Prof S Mohammad Sajadi, PhD^{*,†,‡,§,¶}, University of Agriculture, Faisalabad, Faisalabad, Pakistan; Department of Phytochemistry; Soran University, Soran, Iraq; Department of Nutrition

Mohammad Reza Salahshoor, PhD^{†,‡,¶}, Department of Anatomical Sciences

Nasir Salam, PhD[§], Cihan University-Erbil, Kurdistan Region, Iraq; Department of Microbiology

Joseph S Salama, MSc[†], Health Hub

Prof Payman Salamati, MD^{†,‡,§}, Sina Trauma and Surgery Research Center

Saleh Salehi Zahabi, PhD[‡],

Department of Radiology and Nuclear Medicine; Central University of Punjab, Bathinda, India; Research Department

Prof Hosni Salem, MD^{*,‡,§,¶}, Urology Department

Marwa R Salem, MD^{*,†,‡,§,¶}, Public Health and Community Medicine Department

Yahya Salimi, PhD[†], Department of Epidemiology and Biostatistics

Hamideh Salimzadeh, PhD^{*,‡,§}, Digestive Diseases Research Institute

Omar Mukhtar Salman, MSc[§], Taleghani Hospital, Kermanshah, Iran; Global Health Institute

Prof Joshua A Salomon, PhD^{*,†,‡,§,¶}, American University of Beirut, Beirut, Lebanon; Center for Health Policy & Center for Primary Care and Outcomes Research

Inbal Salz, MD^{*,†,‡}, Stanford University, Stanford, CA, USA; Health and Disability Intelligence Group

Prof Zainab Samad, MD^{*,†,‡,§}, Department of Medicine; Department of Medicine

Hossein Samadi Kafil, PhD^{*,§,¶}, Drug Applied Research Center

Evanson Zondani Sambala, PhD[§], South African Medical Research Council, Cape Town, South Africa

Abdallah M Samy, PhD^{*,†,‡,§,¶}, Weill Cornell Medical College in Qatar, Doha, Qatar; Department of Entomology

Prof Juan Sanabria, MD^{*,†,‡,§,¶}, Department of Nutrition and Preventive Medicine; Ministry of Health, Wellington, New Zealand; Department of Surgery

Tania G Sánchez-Pimienta[§], Damian Francesco Santomauro, PhD^{*,‡,§}, West Moreton Hospital Health Service

Itamar S Santos, PhD^{‡,§}, University of Oxford, Oxford, UK; Center for Clinical and Epidemiological Research; Department of Internal Medicine

João Vasco Santos, MD^{‡,§},

Center for Health Technology and Services Research; Marshall University, Huntington, WV, USA; Public Health Unit, ACES Grande Porto VIII - Espinho/Gaia

Milena M Santric-Milicevic^{*,†,‡,§,¶}, Sivan Yegnanarayana Iyer Saraswathy, PhD^{*,†,‡,§,¶},

Northern Region Health Administration, Vila Nova de Gaia, Portugal; Department of Community Medicine; PSG Institute of Medical Sciences and Research, Coimbatore, India; PSG-FAIMER South Asia Regional Institute, Coimbatore, India

Prof Rodrigo Sarmiento-Suárez, MPH^{‡,§,¶},

University of Applied and Environmental Sciences, Bogota, Colombia; National School of Public Health; Faculty of Medicine

Prof Nizal Sarrafzadegan, MD^{*,‡,§}, Isfahan Cardiovascular Research Institute; School of Population and Public Health

Benn Sartorius^{*,†,‡,§,¶}, Arash Sarveazad, PhD^{*,†,‡,§,¶}, Isfahan University of Medical Sciences, Isfahan, Iran; Colorectal Research Center

Brijesh Sathian, PhD^{*,†,‡,§,¶},

Carlos III Health Institute, Madrid, Spain; Department of Geriatrics and Long Term Care; Hamad Medical Corporation, Doha, Qatar; Faculty of Health & Social Sciences

Thirunavukkarasu Sathish, PhD^{*,†,‡,§,¶}, Population Health Research Institute

Davide Sattin, PsyD^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Miloje Savic, PhD[¶], Bournemouth University, Bournemouth, UK; GSK Biologicals, Wavre, Belgium

Prof Susan M Sawyer, MD[¶], Department of Paediatrics; University of Calgary, Calgary, AB, Canada; Centre for Adolescent Health

Prof Deepak Saxena, PhD¹, Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine; Department of Epidemiology

Prof Sonia Saxena, MD[§], School of Public Health

Mete Saylan, MD[†], Indian Institute of Public Health, Gandhinagar, India; Market Access

Alyssa N Sbarra^{‡,¶}, Lauren E Schaeffer^{*,†,‡,§,¶}, Silvia Schiavolin, MSc^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Prof Markus P Schlaich, MD[§], Dobney Hypertension Centre; University of Bath, Bath, UK; Hypertension and Kidney Disease Laboratory

Prof Maria Inês Schmidt, PhD^{*,‡,§,}¶, Postgraduate Program in Epidemiology

Prof Aletta Elisabeth Schutte, PhD^{*,‡,§,¶},

University of New South Wales; Bayer, Istanbul, Turkey; Unit for Hypertension and Cardiovascular Disease

David C Schwebel, PhD^{*,†,‡,§,¶}, Department of Psychology

Prof Falk Schwendicke, PhD^{*,†,‡,§,¶}, North-West University, Potchefstroom, South Africa; Oral Diagnosis, Digital Health and Health Services Research

Prof Soraya Seedat, PhD[¶], Department of Psychiatry

Mario Sekerija, PhD[†],

Charité University Medical Center Berlin, Berlin, Germany; Department of Medical Statistics, Epidemiology and Medical Informatics; University of Zagreb, Zagreb, Croatia; Department of Epidemiology and Prevention of Chronic Noncommunicable Diseases

Anbissa Muleta Senbeta, MSc^{1,‡,§}, Department of Food Science and Nutrition

Subramanian Senthilkumaran, MD^{†,‡,§}, Croatian Institute of Public Health, Zagreb, Croatia; Emergency Department

Sadaf G Sepanlou, MD^{*,†,‡,§}, Digestive Diseases Research Institute; Non-communicable Disease Research Center

Berrin Serdar, PhD[§],

School of Public Health; Manian Medical Centre, Erode, India; Environmental Health Associates LLC, Englewood, CO, USA

Marc L Serre, PhD[§], Department of Environmental Sciences and Engineering

Edson Serván-Mori[†], Feng Sha, PhD^{*,¶}, Center for Biomedical Information Technology

Mahsima Shabani, MD[†],

Non-communicable Diseases Research Center; Department of Cardiology

Katya Anne Shackelford[‡], Jamileh Shadid^{‡,§}, Omid Shafaat, MD^{*,§}, Department of Radiology and Radiological Science

Saeed Shahabi, PhD^{*,†,‡,§,¶}, Health Policy Research Center

Mohammad Shahbaz[†], Amira A Shaheen, PhD^{*,†,‡,§,¶}, Shenzhen Institutes of Advanced Technology, Shenzhen, China; Public Health Division

Masood Ali Shaikh, MD^{*,†,‡,§,¶},

An-Najah National University, Nablus, Palestine; Independent Consultant, Karachi, Pakistan

Prof Ali S Shalash, PhD^{†,‡,§},

Department of Neurology

Mehran Shams-Beyranvand^{*,†,‡,§}, MohammadBagher Shamsi, PhD[†], Department of Rehabilitation and Sports Medicine

Morteza Shamsizadeh, MSc^{*,†,‡,§,¶}, Faculty of Caring Science, Work Life, and Social Welfare

Mohammed Shannawaz, PhD^{†,‡,¶}, University of Borås, Borås, Sweden; Department of Community Medicine

Kiomars Sharafi, PhD^{*,†,‡,§,¶}, Razi Herbal Medicines Research Center

Zeinab Sharafi[†], Fablina Sharara^{*,†,‡,¶}, Prof Hamid Sharifi, PhD[¶], HIV/STI Surveillance Research Center, and WHO Collaborating Center for HIV Surveillance

Rajesh Sharma, PhD[†], BLDE University, Vijayapur, India; University School of Management and Entrepreneurship

David H Shaw^{†,¶}, Brittney S Sheena[‡], Prof Aziz Sheikh, MD^{*,†,§,¶}, Division of General Internal Medicine; Delhi Technological University, Delhi, India; Centre for Medical Informatics

Abbas Sheikhtaheri, PhD^{‡,§,¶}, Health Information Management

B Suresh Kumar Shetty^{*,¶}, Ranjitha S Shetty[‡], Prof Kenji Shibuya, MD^{*,‡,§,¶}, Institute for Population Health

Kevin David Shield, PhD[§], Dalla Lana School of Public Health; University of Embu, Embu, Kenya; Institute for Mental Health Policy Research

Wondimeneh Shibabaw Shiferaw, MSc^{‡,¶}, Department of Nursing

Mika Shigematsu, PhD^{*,‡,§,¶}, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India; National Institute of Infectious Diseases, Bucuresti, Romania

Prof Jae II Shin, MD^{*,†,‡,§,¶}, University of Edinburgh, Edinburgh, UK; College of Medicine

Prof Min-Jeong Shin, PhD^{*,§}, Korea University, Seoul, South Korea

Rahman Shiri, PhD^{*,†,‡,§,¶}, Yonsei University, Seoul, South Korea; Finnish Institute of Occupational Health, Helsinki, Finland

Reza Shirkoohi, PhD^{‡,§}, Cancer Biology Research Center; Cancer Research Institute

Prof K M Shivakumar, PhD^{*,¶},

Faculty of Dental Sciences

Mark G Shrime, MD^{*,†,‡,¶}, Harvard University, Boston, MA, USA

Kerem Shuval, PhD^{*,†,‡,§,¶}, University College Dublin, Dublin, Ireland; School of Public Health

Soraya Siabani, PhD^{†,‡,§,¶}, Department of Health Education and Health Promotion; Department of Health Education and Health Promotion; School of Health

Radoslaw Sierpinski, PhD^{§,¶}, University of Technology Sydney, Sydney, NSW, Australia; Medical Research Agency, Warsaw, Poland; School of Medicine

Prof Inga Dora Sigfusdottir, PhD^{*,†,‡,§,¶}, Department of Health and Behavior Studies; Cardinal Wyszynski University, Warsaw, Poland; Department of Psychology

Rannveig Sigurvinsdottir, PhD^{*,†,‡,§,¶}, Cardinal Wyszynski University, Warsaw, Poland; Department of Psychology

Prof Diego Augusto Santos Silva, PhD^{*,†,¶}, Reykjavik University, Reykjavik, Iceland; Department of Physical Education

João Pedro Silva, PhD^{*,‡,§,¶}, Research Unit on Applied Molecular Biosciences (UCIBIO)

Prof Biagio Simonetti, PhD^{*,†,¶},

Federal University of Santa Catarina, Florianopolis, Brazil; Department of Law, Economics, Management and Quantitative Methods; University of Sannio, Benevento, Italy; WSB University, Gda sk, Poland

Kyle E Simpson^{†,‡,§,¶}, Prof Ambrish Singh, MTech^{*,‡}, US Department of Veterans Affairs; University of Tasmania, Hobart, TAS, Australia; Global Patient Outcome and Real World Evidence

Jasvinder A Singh, MD^{*,†,‡,§,¶}, School of Medicine; Medicine Service

Pushpendra Singh, MSc^{*,§,¶}, Department of Humanities and Social Sciences

Dhirendra Narain Sinha, PhD^{*,¶}, Eli Lilly and Company, Indianapolis, IN, USA; Department of Epidemiology; School of Preventive Oncology, Patna, India; Department of Epidemiology

Eirini Skiadaresi, MD^{†,‡,§}, Healis Sekhsaria Institute for Public Health, Mumbai, India; Department of Ophthalmology

Prof Søren T Skou, PhD^{‡,§},

Hywel Dda University Health Board, Llanelli, UK; Department of Sports Science and Clinical Biomechanics; University of Southern Denmark, Odense, Denmark; Department of Physiotherapy and Occupational Therapy

Valentin Yurievich Skryabin, MD^{*,†,‡,§,¶}, Næstved-Slagelse-Ringsted Hospitals, Slagelse, Denmark; Department No.16

Prof Karen Sliwa, PhD^{*}, Hatter Institute Department of Medicine

Amanda Smith, PhD^{||}, Institute of Bone and Joint Research; Pain Management Research Institute (PMRI)

Emma U R Smith^{*,§,¶}, Prof Eugene Sobngwi, PhD[‡],

Ministry of Public Health, Yaoundé, Cameroon; Department of Internal Medicine and Specialties; Moscow Research and Practical Centre on Addictions, Moscow, Russia; Department of Endocrinology and Diabetes

Amin Soheili, PhD^{*,†,§,¶},

Yaoundé Central Hospital, Yaoundé, Cameroon; Nursing Care Research Center

Anton Sokhan, PhD^{†,‡},

Semnan University of Medical Sciences, Semnan, Iran; Department of Infectious Diseases

Shahin Soltani^{*,‡,§,¶}, Oluwaseyi Dolapo Somefun, PhD^{*}, Kharkiv National Medical University, Kharkiv, Ukraine; Demography and Population Studies Department

Moslem Soofi[§], Reed J D Sorensen, MPH^{*,†,‡,§,¶, Department of Global Health}

Prof Joan B Soriano, MD^{*,†,‡,§,¶},

University of Witwatersrand, Johannesburg, South Africa; Centro de Investigación Biomédica en Red Enfermedades Respiratorias (CIBERES), Madrid, Spain

Muluken Bekele Sorrie, MPH^{*,†,‡,§,¶}, Department of Public Health

Sergey Soshnikov, PhD[§],

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Department of Research Development

Ireneous N Soyiri, PhD^{*,†,‡,§,¶}, Hull York Medical School

Cory N Spencer[§], Adel Spotin, PhD[§], Department of Parasitology and Mycology

Emma Elizabeth Spurlock^{†,¶}, Chandrashekhar T Sreeramareddy, MD^{*,†,‡,§,¶}, University of Hull, Hull City, UK; Division of Community Medicine

Vinay Srinivasan, MPH[§], International Medical University, Kuala Lumpur, Malaysia; David Geffen School of Medicine Kam Sripada, PhD^{*}, University of California Los Angeles, Los Angeles, CA, USA; Centre for Global Health Inequalities Research (CHAIN)

Jeffrey D Stanaway^{*,‡,§,¶}, Benjamin A Stark[‡], Prof Nicholas Steel, PhD[¶], Public Health England, London, UK; Norwegian University of Science and Technology, Trondheim, Norway; Department of Primary Care and Public Health

Simona C t lina tefan, PhD^{*,‡}, Management Department

Caroline Stein, PhD^{‡,§,¶}, Postgraduate Program in Epidemiology

Prof Dan J Stein, MD^{*,§}, Risk and Resilience in Mental Disorders Research Unit

Prof Caitlyn Steiner, PhD^{*,‡,§}, Division of Brain Sciences; Department of Neuromedicine and Movement Science

Timothy J Steiner[‡], Krista M Steuben^{||}, Leo Stockfelt, PhD^{†,§}, University of East Anglia, Norwich, UK; Occupational and Environmental Medicine Department

Mark A Stokes, PhD^{*,†,‡,§,¶}, Local Health Authority of Florence, Firenze, Italy; Department of Psychology

Prof Lars Jacob Stovner, PhD[‡],

Department of Neuromedicine and Movement Science; University of Gothenburg, Gothenburg, Sweden; Department of Neurology and Clinical Neurophysiology

Prof Kurt Straif, PhD[§], Barcelona Institute for Global Health, Barcelona, Spain; St. Olavs Hospital, Trondheim, Norway; Schiller Institute

Prof Saverio Stranges, MD^{*}, Department of Epidemiology & Biostatistics; Boston College, Boston, MA, USA; Department of Population Health

Jacob L Stubbs, BKin^{†,‡,§}, Department of Psychiatry

Prof Parminder S Suchdev, MD^{*}, King's College London, London, UK; Department of Pediatrics

Agus Sudaryanto, MPH^{*,†,‡}, Nursing Department

Mu'awiyyah Babale Sufiyan, MD^{*,†,‡,§,¶}, Dire Dawa University, Dire Dawa, Ethiopia; Department of Community Medicine

Hafiz Ansar Rasul Suleria, PhD^{§,¶},

Monash University, Melbourne, VIC, Australia; Department of Agriculture and Food Systems

Rizwan Suliankatchi Abdulkader, MD^{*,†,§}, Luxembourg Institute of Health, Strassen, Luxembourg; Department of Statistics; National Institute of Epidemiology

Gerhard Sulo, PhD^{*,‡,§}, Norwegian Institute of Public Health, Bergen, Norway

Iyad Sultan, MD^{‡,§,¶},

Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli, India; Pediatric Services; King Hussein Cancer Center, Amman, Jordan; Pediatrics Department

Carolyn B Swope, MPH^{*}, University of Jordan, Amman, Jordan; Delos Labs

Prof Bryan L Sykes, PhD^{†,‡}, Delos Living, New York, NY, USA; Department of Criminology, Law, and Society

Dillon O Sylte^{*,‡}, Miklós Szócska, PhD[‡], Beijing Tongren Hospital, Beijing, China; Faculty of Health and Public Administration

Lukasz Szumowski, MD[¶], University of California Irvine, Irvine, CA, USA; Minister of Health

Rafael Tabarés-Seisdedos^{*,†,‡,§,¶}, Prof Karen M Tabb, PhD^{†,‡,§}, University of Valencia, Valencia, Spain; School of Social Work

Takahiro Tabuchi, MD^{*,§,¶}, University of Illinois, Urbana, IL, USA; Cancer Control Center

Santosh Kumar Tadakamadla, PhD^{*,†,‡,¶}, School of Dentistry and Oral Health

Biruk Wogayehu Taddele, MPH^{*,¶}, Osaka International Cancer Institute, Osaka, Japan; Department of Pharmacy

Degena Bahrey Tadesse, MSc[¶], University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Amir Taherkhani^{*,†,‡,§,¶}, Prof Zarfishan Tahir, PhD^{*}, Arbaminch College of Health Sciences, Arbaminch, Ethiopia; Institute of Public Health, Lahore, Pakistan

Masih Tajdini, MD^{‡,§}, Tehran Heart Center

Prof Ken Takahashi, PhD^{‡,§}, The Chinese University of Hong Kong, Shatin, China; Asbestos Diseases Research Institute, Concord, NSW, Australia

Prof Jukka S Takala, DSC[§], International Comion on Occupational Health, Monteporzio Catone, Rome, Italy; University of Cape Coast, Cape Coast, Ghana; Department of Health Sciences

Animut Tagele Tamiru, MSc^{*,§,¶},

Department of Midwifery

Muming Tang^{*,†}, Prof Frank C Tanser, PhD[¶], University of KwaZulu-Natal, Durban, South Africa; Africa Health Research Institute, Berea, South Africa

Prof Md Ismail Tareque, PhD^{*,¶}, Department of Population Science and Human Resource Development

Ingan Ukur Tarigan, PhD[¶], University of Rajshahi, Rajshahi, Bangladesh; Research and Development Center for Humanities and Health Management

Prof Nuno Taveira, PhD^{†,‡,§}, National Institute of Health Research & Development, Jakarta, Indonesia; University Institute Egas Moniz, Monte da Caparica, Portugal; Research Institute for Medicines

Heather Jean Taylor[†], Whitney L Teagle, BA^{†,‡,¶}, National Eye Institute

Hirut Teame, MPH[‡], Department of Public Health

Fabrizio Tediosi, PhD[¶], University of Basel, Basel, Switzerland

Yonas Getaye Tefera, MSc^{*,¶}, Department of Clinical Pharmacy

Arash Tehrani-Banihashemi^{†,‡,§}, Berhane Fseha Teklehaimanot, MPH^{†,‡}, Department of Public Health

Freweini Gebrearegay Tela, BHlthSci^{*}, School of Public Health

Mohamad-Hani Temsah, MD^{*,§}, Pediatric Intensive Care Unit

Sonyah Terrason^{*,‡}, Getayeneh Antehunegn Tesema, MPH[§], Department of Epidemiology and Biostatistics

Zemenu Tadesse Tessema, MSc^{†,‡,§,¶}, Department of Epidemiology and Biostatistics

Bhaskar Thakur, PhD^{*,¶},

Massachusetts Veterans Epidemiology Research and Information Center (MAVERIC) & CSP Coordinating Center; University of Lisbon, Lisbon, Portugal; Division of Biostatistics and Epidemiology

Prof Kavumpurathu Raman Thankappan, MD^{*,†,‡}, Texas Tech University, El Paso, TX, USA; Department of Public Health and Community Medicine

Rekha Thapar^{*}, Prof Nihal Thomas, PhD^{*,†},

Central University of Kerala, Kasaragod, India; Department of Endocrinology, Diabetes and Metabolism

Azalea M Thomson[‡], Prof Amanda G Thrift, PhD[†], Department of Medicine

Prof George D Thurston, ScD§,

Ateneo De Manila University, Pasig City, Philippines; Department of Environmental Medicine

Mariya Vladimirovna Titova, PhD^{*,†,§,¶},

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Christian Medical College and Hospital (CMC), Vellore, India; Timiryazev Institute of Plant Physiology

Boikhutso Tlou, DrPH^{*},

Ministry of Health, Hail, Saudi Arabia; Discipline of Public Health Medicine

Hamid Reza Tohidinik, PhD^{†,‡,§},

Department of Epidemiology and Biostatistics; HIV/STI Surveillance Research Center, and WHO Collaborating Center for HIV Surveillance

Prof Marcello Tonelli, MD^{*,†,‡,§,¶}, Department of Medicine

Roman Topor-Madry^{*,†,‡,§,¶}, Prof Fotis Topouzis, PhD^{†,§,¶}, Royal Liverpool University Hospital, Liverpool, UK; 1st Department of Ophthalmology

Anna E Torre^{*,‡,§}, Mathilde Touvier, PhD^{*,‡,§},

National Institute for Health and Medical Research (INSERM), Paris, France; Health, Medicine and Human Biology; Nutritional Epidemiology Research Team (EREN)

Marcos Roberto Tovani-Palone^{*,†,‡,§,¶}, Eugenio Traini, MSc[†], Institute of Human Virology Nigeria, Abuja, Nigeria; Institute for Risk Assessment Sciences (IRAS)

Bach Xuan Tran, PhD^{*,†,‡,§,¶}, Department of Health Economics

Ravensara Travillian^{*,†,‡,§,¶}, Sergi Trias-Llimós[†], Christopher E Troeger^{‡,¶}, Thomas Clement Truelsen, PhD^{†,‡}, Rigshospitalet

Alexander C Tsai, MD[‡],

Abu Dhabi University, Khalifa City, United Arab Emirates; Department of Psychiatry; Hanoi Medical University, Hanoi, Vietnam; Mbarara University of Science and Technology, Mbarara, Uganda

Prof Aristidis Tsatsakis, DSc^{‡,§}, Department of Medicine

Lorainne Tudor Car, PhD^{†,‡,§,¶}, Lee Kong Chian School of Medicine

Stefanos Tyrovolas, PhD^{‡,§},

Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain; St. John of God Health Park

Riaz Uddin, PhD^{*,‡,§,¶}, School of Health and Rehabilitation Sciences

Irfan Ullah, PhD^{*,¶}, University of Crete, Heraklion, Greece; Department of Microbiology; Iqra National University, Peshawar, Pakistan; TB Culture Laboratory

Saif Ullah, PhD[‡],

Food and Drug Administration of the Islamic Republic of Iran, Tehran, Iran; Institute of Soil and Environmental Sciences

Chukwuma David Umeokonkwo, MPH^{§,¶}, Mufti Mehmood Memorial Teaching Hospital, Dera Ismail Khan, Pakistan; Department of Community Medicine

Eduardo A Undurraga, PhD[‡],

Alex Ekwueme Federal University Teaching Hospital Abakaliki, Abakaliki, Nigeria; School of Government; Pontifical Catholic University of Chile, Santiago, Chile; Schneider Institutes for Health Policy

Bhaskaran Unnikrishnan^{*,†,‡,§,¶}, Era Upadhyay, PhD^{*,†,§,¶}, Brandeis University, Waltham, MA, USA; Amity Institute of Biotechnology

Olalekan A Uthman, PhD[¶], Division of Health Sciences

Marco Vacante, PhD^{*,†,‡,§,¶}, Department of General Surgery and Medical-Surgical Specialties

Regina Vaicekonyte, MSc^{*}, University of Jordan, Amman, Jordan; Delos Labs

Alireza Vakilian^{†,‡}, Prof Pascual R Valdez, MEd^{*,†,‡,§,¶, Argentine Society of Medicine, Buenos Aires, Argentina; Amity University Rajasthan, Jaipur, India; Velez Sarsfield Hospital, Buenos Aires, Argentina}

Alessandro Valli, PhD^{*,†}, Department of General Surgery and Medical-Surgical Specialties

Aaron van Donkelaar, PhD[§],

Mayo Clinic Foundation for Medical Education and Research, Rochester, MN, USA; Department of Energy, Environmental and Chemical Engineering; Department of Physics and Atmospheric Science

Constantine Vardavas, PhD[†], Laboratory of Toxicology

Prof Santosh Varughese, FRCP^{‡,¶}, Department of Nephrology

Prof Tommi Juhani Vasankari, MD^{*,†,‡,§,¶}, UKK Institute, Tampere, Finland

Prof Ana Maria Nogales Vasconcelos, PhD[†], Department of Statistics

Yasser Vasseghian^{*,†,‡,§,¶}, Yousef Veisani, PhD^{†,§}, University of Brasilia, Brasilia, Brazil; Psychosocial Injuries Research Center

Prof Narayanaswamy Venketasubramanian, MBBS^{*,†,‡,§,}¶, Yong Loo Lin School of Medicine; Ilam University of Medical Sciences, Ilam, Iran; Raffles Neuroscience Centre

Simone Vidale, MD^{*,†}, Raffles Hospital, Singapore; Department of Neurology; Infermi Hospital, Rimini, Italy; Department of Neurology & Stroke Unit

Prof Francesco S Violante, MD^{*,†,‡,§,¶}, Directorate-General of Health; Sant'Anna Hospital, Como, Italy; Occupational Health Unit

Prof Vasily Vlassov, MD^{*,†,‡,§,¶}, University of Novi Sad, Novi Sad, Serbia; Department of Health Care Administration and Economics

Stein Emil Vollset^{*,†,‡,§,¶,||}, Avina Vongpradith^{*,‡,¶}, Theo Vos^{*,†,‡,§,¶}, Giang Thu Vu, BA^{*}, Ministry of Health and Medical Education, Tehran, Iran; Center of Excellence in Behavioral Medicine

Isidora S Vujcic, PhD[†], Faculty of Medicine Institute of Epidemiology

Ana Vukovic, DrPH^{†,‡},

Royal Melbourne Institute of Technology University, Melbourne, VIC, Australia; Department of Pediatric and Preventive Dentistry

Rade Vukovic, PhD^{†,‡,§}, School of Medicine

Sant'Orsola Malpighi Hospital, Bologna, Italy; Department of Pediatric Endocrinology

Feleke Gebremeskel W/hawariat, MPH^{*}, Department of Public Health

Prof Yasir Waheed, PhD^{*,†,‡,§,¶},

Mother and Child Healthcare Institute of Serbia "Dr Vukan Cupic", Belgrade, Serbia; Foundation University Medical College

Mitchell Taylor Wallin, MD^{†,§}, School of Medicine; Department of Neurology

Magdalene K Walters^{†,‡,¶}, Richard G Wamai, PhD^{*,¶}, School of Public Health; Xiamen University Malaysia, Sepang, Malaysia; Cultures, Societies and Global Studies, & Integrated Initiative for Global Health Fang Wang, MA^{*}, George Washington University, Washington, DC, USA; School of Health Sciences

Haidong Wang, DipSocSc^{*,†,¶}, Wuhan University, Wuhan, China; Division of Social Science

Hongbo Wang[†], Jiayu Wang^{*,‡}, Yafeng Wang, PhD^{‡,§}, Department of Psychiatry; School of Population Health and Environmental Sciences

Yanzhong Wang, BSA^{*}, Department of Epidemiology and Biostatistics

Yuan-Pang Wang^{*,†,‡,§,¶}, Joseph L Ward, MSc[‡], Great Ormond Street Institute of Child Health

Alexandrea Watson^{*,‡,§}, Stefanie Watson[†], Jingkai Wei, PhD^{*,†,‡,§}, Foundation University Islamabad, Islamabad, Pakistan; Department of Epidemiology and Biostatistics

Melissa Y Wei Wei, MD[§], Medical School

Prof Robert G Weintraub, MB^{*,‡,§,¶},

Critical Care and Neurosciences Department; Hong Kong University of Science and Technology, Hong Kong, China; Cardiology Department

Daniel J Weiss, PhD[‡], Malaria Atlas Project

Jordan Weiss, MA^{*,†,‡,§,¶},

Royal Children's Hospital, Melbourne, VIC, Australia; Leonard Davis Institute of Health Economics; Population Studies Center

Fissaha Tekulu Welay, MSc^{*}, Department of Midwifery

Girmay Teklay Weldesamuel, MSc[†], University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Andrea Werdecker, PhD^{*,†,§,¶}, Demographic Change and Aging Research Area

Prof J Jason West, PhD[§], Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Ronny Westerman, DSc^{*,†,‡,§,¶}, University of Campinas (Unicamp), Campinas, Brazil; Competence Center of Mortality-Follow-Up of the German National Cohort

Joanna L Whisnant^{‡,§}, Harvey A Whiteford^{*,†,‡,§}, Taweewat Wiangkham, PhD^{*,†,‡}, University of Pennsylvania, Philadelphia, PA, USA; Department of Physical Therapy

Nuwan Darshana Wickramasinghe, MD^{*}, Naresuan University, Phitsanulok, Thailand; Department of Community Medicine Kirsten E Wiens^{†,‡,§}, Prof Tissa Wijeratne, MD^{†,‡}, Department of Neurology; Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka; Department of Medicine

Lauren B Wilner^{*,‡,¶}, Shadrach Wilson[‡], Prof Charles Shey Wiysonge, MD[†], South African Medical Research Council, Cape Town, South Africa; School of Public Health and Family Medicine

Bogdan Wojtyniak, DSc^{*,†,‡}, Department of Population Health Monitoring and Analysis

Gebremariam Woldu, MSc[¶], School of Pharmacy

Prof Charles D A Wolfe, MD^{*,†,‡,§,¶},

University of Rajarata, Saliyapura Anuradhapuraya, Sri Lanka; NIHR Biomedical Research Centre

Temesgen Gebeyehu Wondmeneh, MPH^{*}, National University of Singapore, Singapore, Singapore; Department of Public Health

Adam Belay Wondmieneh, MSc[†], School of Nursing and Midwifery; Autonomous University of Hidalgo State, Pachuca, Mexico; Department of Nursing

Eve E Wool^{†,‡}, Sarah S Wozniak[§], Prof Ai-Min Wu, MD^{*,†,‡,§,¶, Guy's and St.Thomas' Hospital and Kings College London, London, UK; Department of Orthopaedics}

Chenkai Wu, PhD^{*},

Duke Global Health Institute; Global Health Research Center

Junjie Wu^{†,§}, Sarah Wulf Hanson^{*,‡,§,¶}, Han Yong Wunrow^{*,‡,||}, Yang Xie, MD^{*,¶}, Wenzhou Medical University, Wenzhou, China; Department of Behavior and Operation Management

Prof Gelin Xu, MD^{†,‡,§},

Beijing Advanced Innovation Center for Big Data-based Precision Medicine, Beijing, China; School of Medicine

Rixing Xu^{‡,§,¶}, Simon Yadgir^{‡,§}, Seyed Hossein Yahyazadeh Jabbari, MD^{*,‡,§,¶}, Nanjing University, Nanjing, China; Clinical Cancer Research Center

Tomohide Yamada, MD[†], University of Glasgow, Glasgow, UK; Department of Diabetes and Metabolic Diseases

Prof Kazumasa Yamagishi, MD^{*,†,‡,§,¶},

Milad General Hospital, Tehran, Iran; Research and Development Center for Health Services; American Cancer Society, Atlanta, GA, USA; Graduate School of Medicine

Mousa Yaminfirooz, PhD^{‡,§},

General Education Department; Social Determinants of Health Research Center

Yuichiro Yano, MD^{†,‡,§,¶},

Newcastle University, Newcastle upon Tyne, UK; Department of Family Medicine and Community Health

Prof Sanni Yaya, PhD^{*,†,‡,§,¶},

The George Institute for Global Health; School of International Development and Global Studies

Vahid Yazdi-Feyzabadi^{*,†,‡,§,¶}, Jamal A Yearwood^{*,†,‡,¶}, Tomas Y Yeheyis, MSc^{*,†,‡,§}, National Cancer Institute, Bethesda, MD, USA; School of Nursing

Yordanos Gizachew Yeshitila, MSc^{*,‡,¶}, Department of Nursing

Christopher Sabo Yilgwan, MD^{†,§}, University of Tsukuba, Tsukuba, Japan; Pediatrics Department; University of Jos, Jos, Nigeria; Department of Pediatrics

Mekdes Tigistu Yilma, MPH[§], University of Burgundy, Dijon, France; Department of Public Health

Prof Paul Yip, PhD^{*,†,‡,§,¶},

Australian Catholic University, Melbourne, VIC, Australia; Centre for Suicide Research and Prevention; Department of Social Work and Social Administration

Naohiro Yonemoto, MPH^{*,†,‡,§,¶},

Jos University Teaching Hospital, Jos, Nigeria; Department of Neuropsychopharmaology; National Center of Neurology and Psychiatry, Kodaira, Japan; Department of Public Health

Seok-Jun Yoon^{*,†,‡}, Javad Yoosefi Lebni, MA^{†,‡}, Department of Health Education and Promotion

Hunter W York[†], Prof Mustafa Z Younis, PhD^{*,†,‡,§,¶}, Juntendo University, Tokyo, Japan; Department of Health Policy and Management; Jackson State University, Jackson, MS, USA; School of Medicine

Theodore Patrick Younker, BS^{*,†,‡,§}, Tsinghua University, Beijing, China; Department of Immunology

Prof Bahman Yousefi, PhD[§], Molecular Medicine Research Center

Prof Zabihollah Yousefi, PhD^{†,‡,§,¶}, Sebelas Maret University, Surakarta, Indonesia; Department of Environmental Health

Mahmoud Yousefifard, PhD[‡], Physiology Research Center

Taraneh Yousefinezhadi, PhD^{*,†,‡,§,¶}, Injury Prevention and Safety Promotion Research Center

Abdilahi Yousuf Yousuf, PhD^{†,‡,§}, Department of Public Health

Prof Chuanhua Yu, PhD^{*,‡,§},

Department of Epidemiology and Biostatistics; Global Health Institute

Yong Yu, MS^{*}, University of Pittsburgh, Pittsburgh, PA, USA; School of Public Health and Management

Chun-Wei Yuan^{||}, Deniz Yuce, MD^{*}, Gazi University, Ankara, Turkey; Cancer Institute

Hasan Yusefzadeh, PhD^{*,†,‡,§,¶}, Qazvin University of Medical Sciences, Qazvin, Iran; Department of Health Care Management and Economics

Siddhesh Zadey, MS[¶], Duke Global Health Institute

Telma Zahirian Moghadam, PhD^{1,‡,§,¶}, Social Determinants of Health Research Center

Syed Saoud Zaidi, PhD^{*,¶}, Hubei University of Medicine, Shiyan, China; Department of Pharmaceutics

Leila Zaki, PhD^{‡,¶}, Department of Parasitology and Entomology

Josefina Zakzuk[†], Sojib Bin Zaman, MPH^{*,†,‡,¶}, The School of Clinical Sciences at Monash Health; Zhejiang University, Hangzhou, China; Maternal and Child Health Division

Mohammad Zamani, MD^{†,‡,§,¶}, Student Research Committee

Maryam Zamanian, PhD^{*,†,‡,§,¶}, McGill University, Montreal, QC, Canada; Department of Epidemiology

Hamed Zandian, PhD^{†,‡,§,¶}, University of Ibadan, Ibadan, Nigeria; Department of Community Medicine; Social Determinants of Health Research Center

Alireza Zangeneh^{*,‡}, Hadi Zarafshan, PhD^{*}, Psychiatry and Psychology Research Center

Prof Mikhail Sergeevich Zastrozhin, PhD^{*,‡,§,¶}, Laboratory of Genetics and Genomics; Dow University of Health Sciences, Karachi, Pakistan; Addictology Department

Kaleab Alemayehu Zewdie, MSc^{*,‡,¶}, School of Pharmacy

Jianrong Zhang, MD*,

Department of General Practice; Russian Medical Academy of Continuous Professional Education, Moscow, Russia; Victorian Comprehensive Cancer Centre, Melbourne, VIC, Australia

Yunquan Zhang, PhD^{*,‡,§,¶},

Hubei Province Key Laboratory of Occupational Hazard Identification and Control; School of Public Health

Zhi-Jiang Zhang, PhD^{*,†,‡,§}, School of Medicine

Jeff T Zhao^{‡,§}, Xiu-Ju George Zhao, PhD^{*,§,¶}, George Washington University, Washington, DC, USA; School of Health Sciences; Wuhan University of Science and Technology, Wuhan, China; School of Biology and Pharmaceutical Engineering

Yingxi Zhao, MPH^{*,‡,§,¶}, Nuffield Department of Medicine

Bistra Zheleva, MBA^{*}, Wuhan Polytechnic University, Wuhan, China; Global Strategy and Advocacy Unit

Peng Zheng^{†,*,‡,§,¶}, Maigeng Zhou, PhD^{†,‡,§}, Heidelberg University Hospital, Heidelberg, Germany; National Center for Chronic and Noncommunicable Disease Control and Prevention

Cong Zhu, MPH^{*,¶},

Children's HeartLink, Minneapolis, MN, USA; Department of Epidemiology, Human Genetics, and Environmental Sciences, University of Texas Health Science Center at Houston, Houston, TX, USA

Arash Ziapour^{*,†,‡,§,¶}, Stephanie R M Zimsen^{*,‡,§}, Bianca S Zlavog^{¶,||}, Prof Sanjay Zodpey, PhD[¶],

Indian Institute of Public Health

Stephen S Lim^{*,†,‡,§,¶}, Christopher J L Murray^{*,†,‡,§,¶,||}

Abstract

The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2019 provides a rulesbased synthesis of the available evidence on levels and trends in health outcomes, a diverse set of risk factors, and health system responses. GBD 2019 covered 204 countries and territories, as well as first administrative level disaggregations for 22 countries, from 1990 to 2019. Because GBD is highly standardised and comprehensive, spanning both fatal and non-fatal outcomes, and uses a mutually exclusive and collectively exhaustive list of hierarchical disease and injury causes, the study provides a powerful basis for detailed and broad insights on global health trends and emerging challenges. GBD 2019 incorporates data from 281 586 sources and provides more than 3·5 billion estimates of health outcome and health system measures of interest for global, national, and subnational policy dialogue. All GBD estimates are publicly available and adhere to the Guidelines on Accurate and Transparent Health Estimate Reporting. From this vast amount of information, five key insights that are important for health, social, and economic development strategies have been distilled. These insights are subject to the many limitations outlined in each of the component GBD capstone papers.

Double down on catch-up development

In the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD), a population's social and economic development status for each location-year is tracked on the basis of the Socio-demographic Index (SDI), which combines information on gross domestic product per capita, average years of schooling among individuals aged older than 25 years, and the total fertility rate among females under the age of 25 years (as a widely available inverse proxy for the status of girls and women in society).¹ SDI ranges from 0 to 100. Since 1950, global SDI has increased monotonically from 35 to 65. The average pace of progress accelerated from 1950 to 1980 and has stayed at around 0.5 units per year since then. For the 15% of countries with the fastest rate of increase, SDI has improved on average by 0.9 units per year since 1980, but it has improved by less than a third of this rate (0.3 units per year) for the bottom 15% of countries. Social and economic development can take centuries. Given what was reported from 1950 to 2019, the average country would take about 184 years to progress from an SDI of 0 to an SDI of 100; whereas, countries in the bottom 15% would take 357 years and those in the top 15% would take 110 years. From 1950 to 2000, the pace of improvement in SDI was positively correlated with the level of SDI, whereby high and highmiddle SDI countries developed faster than did low and low-middle SDI countries. Since 2000, the correlation has become progressively more negative and is now around -0.5. In other words, since the Millennium Declaration,² low and low-middle SDI countries have had larger annual increases in SDI than have high and high-middle SDI countries. The inequality in SDI between countries, measured with the standard deviation of SDI, has been decreasing since 2000, showing catch-up development.

Social and economic development, measured with SDI, is highly correlated with health outcomes.³ Figure 1 shows the increase in healthy life expectancy from 2000 to 2019, divided by what could be expected on the basis of SDI change alone and what is unexplained by SDI. These changes unexplained by SDI are likely to be explained by some combination of new technologies, prioritisation of societal resources for health, and the emergence of public health challenges, such as the HIV epidemic or alcohol consumption in eastern Europe and central Asia. Given the overwhelming impact of SDI on health progress, doubling down on policies and strategies that stimulate economic growth, expand access to primary and secondary schooling, and improve the status of women should be our collective priority. The catch-up social and economic development that has been clearly evident since the Millennium Declaration provides some optimism that maintaining focus on low SDI countries, and low SDI communities within countries, is not only possible but can also be expected to have profound health benefits. Further improvements in health can also contribute to economic growth; higher educational attainment, because healthy children can learn more effectively; and greater female empowerment, as more women have access to reproductive health services, all of which create the potential for further health gains that expand SDI improvement.

The Millennium Development Goal health agenda has been working

Since around 2000, the global health community, including donors, has focused on reducing mortality of children and mothers, and the burden from three target conditions: tuberculosis,

HIV, and malaria.^{2,4,5} Development Assistance for Health increased profoundly until 2010, but has since stagnated.⁶ The share of this assistance allocated to the Millennium Development Goal agenda has remained constant, even with the expanded Sustainable Development Goal health agenda in place since 2015. This concerted focus on communicable, maternal, neonatal, and nutritional (CMNN) diseases has led to faster progress in combatting these causes than has been reported for non-communicable diseases (NCDs) and injuries (figure 2). Reduc tions in rates of age-standardised disability-adjusted life-years (DALYs) since 1990 have been largest for CMNN diseases and progress has been the fastest in the past decade,⁷ even considering the stagnation in Development Assistance for Health since 2010. Despite population growth, particularly in countries with the lowest SDI, the absolute number of DALYs from CMNN causes has also decreased. By contrast, age-standardised DALY rates for NCDs have barely reduced; in fact, population growth and ageing have resulted in a steady increase in the number of DALYs due to these causes. Age-standardised DALY rates for injuries have decreased, but at rates well below those of CMNN diseases.

Health systems need to be more agile to adapt to the rapid shift to NCDs and disabilities

Countries in the low-middle and middle SDI quintiles have had rapid transitions from disease burden dominated by CMNN causes to burden dominated by NCDs and injuries. The low-middle quintile increased from 37.8% of total DALYs caused by NCDs and injuries in 1990 to 66.0% in 2019, with a similar pattern in the middle quintile as well.7 The GBD assessment of universal health coverage (UHC) allows disaggregation of coverage into interventions for CMNN diseases and NCDs (figure 3).8 Although coverage of CMNN diseases increases almost linearly with higher SDI, coverage of NCD intervention lags behind. Countries with rapid transitions have burden profiles dominated by NCDs, yet their health systems are struggling to deliver effective interventions for these diseases. As countries' health profiles shift to NCDs, there is a middle-SDI quintile gap that emerges, in which the most important interventions for improving health in these countries have low coverage. Despite this gap, most policy discussion, including WHO engagement with countries, is firmly focused on the agenda for CMNN diseases, ignoring the epidemiological heterogeneity of countries with low and middle SDI. The legacy focus on CMNN causes, and a failure to purposefully anticipate the inevitable shift to NCDs, is evident even in discussions on UHC. For example, the official UN UHC service indicator (3.8.1) does not include the coverage of any intervention targeting NCDs.9

A second challenge is emerging at high levels of development, in which most DALYs in high SDI countries now arise not from premature mortality, but from loss of functional health. This shift is driven by a combination of ageing populations and stagnant age-specific rates of years lived with disability (YLDs) for the main sources of functional health loss, including musculoskeletal disorders, mental disorders, substance misuse, vision loss, and hearing loss. The proportion of global DALYs due to YLDs increased from 20.7% in 1990 to 33.9% in 2019.⁷ Over the same period, the number of countries where YLDs exceeded years of life lost increased from one to 29 countries. This shift is mirrored in health

expenditures in these high SDI nations. Musculoskeletal disorders were the largest health expenditure in the USA in 2016 at US\$380 billion,¹⁰ which was greater than expenditure for either cardiovascular diseases or cancers. Health systems appear to be poorly prepared for this shift. Most policy discussion is focused on cardiovascular diseases and cancers.^{11–13} The innovation pipeline for the main disabling conditions (musculoskeletal, mental, and neurological disorders) is poor.^{14–16} Similarly, low investment in research into underlying causes and therapeutic innovations for key causes of functional health loss is exacerbating this widespread and unacceptable neglect. For example, the US National Institutes of Health budget on cardiovascular diseases and cancers is dramatically larger than its budget on musculoskeletal disorders (\$8-60 billion combined *vs* \$734 million in 2018).¹⁷

Public health is failing to address the increase in crucial global risk factors

The potential to improve health by risk reduction is well reported in GBD 2019.¹⁸ All risks quantified in GBD collectively account for 48% of global DALYs. Exposure to many risks highly correlated with SDI has been steadily decreasing as global SDI has increased, including household air pollution; child growth failure; and unsafe water, sanitation, and handwashing. Additionally, there have been notable decreases in exposure to smoking. Figure 4 shows the annualised rate of change in exposure from 2010 to 2019 for select risk factors ordered by global attributable DALYs. Among the 15 leading causes of attributable DALYs shown, high systolic blood pressure, high fasting plasma glucose, high body-mass index (BMI), ambient particulate matter pollution, alcohol use, and drug use stand out because rates of exposure are increasing by more than 0.5% per year.

If public health action and public policy could stop or reverse the trends in exposure to these risks, the benefits would be huge. What lessons can be learned to improve health from humanity's collective failure to leverage knowledge on the harms associated with these risks? Simply providing information on the harms does not appear to be sufficient. The one major behavioural risk for adults is tobacco smoking, for which a cocktail of interventions built around strong commitment to government policy has had at least partial success. Smoking is down 1.2% per year globally since 2010, suggesting important lessons for strategies to reduce obesity, for example. This progress is more likely to be linked to taxation and legislation facilitated in part by the Framework Convention on Tobacco Control¹⁹ than to providing information to consumers about the harms of tobacco, particularly in low and low-middle SDI countries.^{20,21} The failure to slow or reverse the global rise in BMI, to facilitate healthier diets, or to increase amounts of physical activity is probably partly due to inadequate policy attention and funding for public health action and behavioural research. The steady rise of these risks is likely to pose a massive threat to future health progress everywhere.^{22,23} The increase in exposure to key metabolic risks and the slowing or reversals of long-term reductions in cardiovascular diseases seen in some locations suggest that the world might be approaching a turning point in terms of life expectancy gains.²⁴ Governments should invest more funding in research and action to tackle these stagnating or worsening risk exposures. A core obstacle to accelerating progress on behavioural risks is the notion of individual agency and the need for governments to let individuals make their own choices. This concept is naive, given that individual choices are influenced by context, education, and availability of alternatives. Governments can and should take action to

facilitate healthier choices by rich and poor individuals alike. When there is a major risk to population health, concerted government action through regulation, taxation, and subsidies, drawing lessons from decades of tobacco control, might be required to protect the public's health.

Social, fiscal, and geopolitical challenges of inverted population pyramids

As an extension of GBD, Vollset and colleagues²⁵ have developed population scenarios for 195 countries and territories to 2100. In 2019, 34 countries had negative natural rates of increase; in other words, the crude death rate was greater than the crude birth rate. When the natural rate of increase is negative, in the absence of net inmigration, populations will decrease. Two variables, female educational attainment and met contraceptive need, explain 80.5% of the variation in the completed fertility for a cohort of women. When met contraceptive need reaches 95% and average educational attainment reaches 16 years of age, the global total fertility rate will decrease to 1.41. Globally, educational attainment is rising, as is contraceptive met need.^{26,27} The effect of these trends will be a rapid increase in the number of countries with a negative natural rate of increase (figure 5).25 Over time, negative rates of natural increase progressively lead to inverted age pyramids, in which older 5-year age groups (eg, aged 40-44 years) are more populous than younger 5-year age groups (eg, aged 5–9 years). In 2050, China is projected to have 79.6 million people aged 70–74 years, but only 46.0 million children aged younger than 5 years. Negative natural rates of increase will lead to an intensified national debate on immigration. The profound social, fiscal, economic, and geopolitical challenges of an inverted age pyramid might best be addressed through liberal immigration policies. Countries such as Canada, Australia, New Zealand, and the USA have already used such a strategy to maintain or increase their working age populations in the face of decreasing fertility rates. Some countries will try to increase fertility rates rather than accept migrants into their societies. Russia has identified increasing the birth rate as their number one health priority.²⁸ In such cases, it is imperative that any policy initiatives protect women's sexual and reproductive rights. Yet, attempts to increase fertility rates through economic incentives and paid maternal and paternal leave in countries like Sweden,²⁷ Singapore,³⁰ South Korea,³¹ Japan,³² and Taiwan (province of China)³³ have had a minimal effect on fertility rates.²⁵

Conclusion

Success in reducing the disease burden from causes of CMNN diseases by global collective action to fund key programmes should be celebrated. Catch-up social and economic development is fuelling more rapid health progress in the lower SDI quintiles. But there is reason to believe that, although the past 70 years have largely been a story of sustained improvements in health, rising exposure to crucial risks, such as high BMI, high fasting plasma glucose, and ambient particulate matter pollution, as well as stagnant exposure to many other behavioural risks, including diet quality and physical activity, might attenuate progress. Most alarmingly, the mortality decreases in cardiovascular diseases of the past half a century have slowed substantially, or even reversed, in some nations with high SDI. New challenges, such as rising temperature and the associated increases in poverty, need to be urgently addressed. Low fertility in many nations is likely to emerge as a profound social

and economic challenge. Tracking progress across this myriad of global health challenges, and with health development goals more broadly, reinforces the policy value of global comparative assessments in the health sector, such as the ongoing GBD.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Authors

GBD 2019 Viewpoint Collaborators Cristiana Abbafati, PhD^{*,‡,§,¶}, Department of Juridical and Economic Studies

Kaja M Abbas, PhD^{*,†,‡,§}, Department of Infectious Disease Epidemiology

Mohammad Abbasi, PhD^{*,‡}, Department of Internal Medicine

Mitra Abbasifard, MD^{†,‡}, Clinical Research Development Unit

Mohsen Abbasi-Kangevari, MD^{*,†,‡,§}, Social Determinants of Health Research Center

Hedayat Abbastabar, PhD^{†,‡,¶}, Advanced Diagnostic and Interventional Radiology Research Center

Prof Foad Abd-Allah, MD^{*,†,‡,§,¶}, Department of Neurology

Prof Ahmed Abdelalim, MD^{†,‡,§}, Department of Neurology

Prof Mohammad Abdollahi, PhD^{*,‡,§,¶}, School of Pharmacy; The Institute of Pharmaceutical Sciences (TIPS)

Ibrahim Abdollahpour, PhD^{‡,§}, Neuroscience Research Center

Aidin Abedi, MD^{*,¶}, Department of Orthopaedic Surgery

Parisa Abedi, MD^{*}, School of Medicine; Neuroendocrine

Kedir Hussein Abegaz, MSc[§], University of Southern California, Los Angeles, CA, USA; Biostatistics Department; Near East University, Nicosia, Cyprus; Biostatistics and Health Informatics

Hassan Abolhassani, PhD^{*,†,‡,§,¶},

Research Center for Immunodeficiencies; Madda Walabu University, Bale Robe, Ethiopia; Karolinska University Hospital, Huddinge, Sweden

Akine Eshete Abosetugn, MPH[¶], Department of Public Health

Prof Victor Aboyans, MD^{*,‡,§},

Debre Berhan University, Debre Berhan, Ethiopia; Department of Cardiology; Dupuytren University Hospital, Limoges, France; University of Limoges, Limoges, France

Elissa M Abrams, MD[‡], Section of Allergy and Clinical Immunology; University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Prof Lucas Guimarães Abreu, PhD^{*,†,‡,§,¶}, Department of Pediatric Dentistry

Michael R M Abrigo, PhD^{*,†,‡,§,¶}, Federal University of Minas Gerais, Belo Horizonte, Brazil; Department of Research

Abdulaziz Khalid Abu Haimed, MBBS^{*,¶}, Internal Medicine Department

Ahmed Abualhasan, MD[§], Department of Neurology

Eman Abu-Gharbieh, PhD^{*}, Department of Clinical Sciences

Prof Laith Jamal Abu-Raddad, PhD^{‡,§}, University of Sharjah, Sharjah, United Arab Emirates; Department of Healthcare Policy and Research

Abdelrahman I Abushouk, MD^{*,†,‡,§,¶}, Harvard Medical School; Department of Medicine

Alyssa Acebedo, MD^{*,‡}, Center of Excellence in Public Health Nutrition

Ilana N Ackerman, PhD^{*,‡}, School of Public Health and Preventive Medicine

Maryam Adabi, PhD^{*,†,‡,§,¶}, Hamadan University of Medical Sciences, Hamadan, Iran

Tim Adair, PhD[†], Melbourne School of Population and Global Health

Abdu A Adamu, PhD^{*,‡}, Department of Global Health; Cochrane South Africa

Oladimeji M Adebayo, MD^{*,†,‡,¶},

College of Medicine

Isaac Akinkunmi Adedeji, PhD[†], University College Hospital, Ibadan, Ibadan, Nigeria; Department of Sociology

Victor Adekanmbi, PhD^{†,‡,§,¶}, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; School of Medicine

Jaimie D Adelson, PhD^{*,‡,¶}, Institute for Health Metrics and Evaluation

Abiodun Moshood Adeoye, MD^{†,§}, School of Laboratory Medicine and Science; Institute of Cardiovascular Diseases

Olatunji O Adetokunboh, PhD^{*,†,‡,§,¶}, University of Melbourne, Melbourne, VIC, Australia; Centre of Excellence for Epidemiological Modelling and Analysis; Department of Global Health

Davoud Adham, PhD^{‡,§,¶}, School of Health

Shailesh M Advani, PhD^{†,§,¶}, Ardabil University of Medical Science, Ardabil, Iran; Social Behavioral Research Branch; National Institute of Health, Bethesda, MD, USA; Department of Oncology

Mohsen Afarideh, MD^{*}, Endocrinology and Metabolism Research Center; Department of Dermatology

Mahdi Afshari, MD[‡], Mayo Clinic, Rochester, MN, USA; Department of Community Medicine

Ashkan Afshin, MD^{*,†,‡,§,¶}, Department of Health Metrics Sciences, School of Medicine

Emilie E Agardh, PhD[‡], Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Prof Gina Agarwal, PhD^{*,‡,§,¶}, Department of Family Medicine

Pradyumna Agasthi, MD[¶], Georgetown University, Washington DC, DC, USA; Department of Cardiovascular Medicine

Kareha M Agesa, BA[‡], Institute for Health Metrics and Evaluation

Mohammad Aghaali, PhD^{†,‡}, McMaster University, Hamilton, ON, Canada; Department of Epidemiology and Biostatistics Prof Seyed Mohammad Kazem Aghamir, PhD^{‡,§,¶}, Urology Research Center

Prof Anurag Agrawal, PhD^{*,†,‡,§,¶},

Qom University of Medical Sciences, Qom, Iran; Institute of Genomics and Integrative Biology; Council of Scientific & Industrial Research, Delhi, India; Internal Medicine

Tauseef Ahmad, MS^{*,‡,§,¶}, Baylor College of Medicine, Houston, TX, USA; Department of Epidemiology and Health Statistics

Alireza Ahmadi, MD[‡], Department of Public Health; Department of Anesthesiology

Keivan Ahmadi, PhD^{*,†,§}, Southeast University, Nanjing, China; Lincoln Medical School

Mehdi Ahmadi, PhD^{*,‡,§}, Environmental Health Engineering; Environmental Technologies Research Center

Hamid Ahmadieh, MD^{†,‡,§}, Department of Ophthalmology; Ophthalmic Research Center

Ehsan Ahmadpour, PhD[‡], Infectious and Tropical Diseases Research Center

Muktar Beshir Ahmed, MPH^{*,†,§}, Department of Epidemiology; Jimma University, Jimma, Ethiopia; Australian Center for Precision Health

Budi Aji, DrPH^{*}, University of South Australia, Adelaide, SA, Australia; Faculty of Medicine and Public Health

Temesgen Yihunie Akalu, MPH^{‡,§}, Department of Epidemiology and Biostatistics

Rufus Olusola Akinyemi, PhD^{‡,§,¶}, Institute for Advanced Medical Research and Training; University of Gondar, Gondar, Ethiopia; Institute of Neuroscience

Tomi Akinyemiju, PhD^{*,‡,§}, Department of Population Health Sciences; Duke Global Health Institute

Blessing Akombi, PhD^{*,‡,§}, School of Public Health and Community Medicine

Chisom Joyqueenet Akunna, DMD[§],

University of New South Wales, Sydney, NSW, Australia; Department of Public Health; The Intercountry Centre for Oral Health (ICOH) for Africa, Jos, Nigeria; Department of Public Health

Fares Alahdab, MSc^{*,§,¶}, Federal Ministry of Health, Garki, Nigeria; Mayo Evidence-based Practice Center

Ziyad Al-Aly, MD^{†,‡,§,¶}, John T. Milliken Department of Internal Medicine

Khurshid Alam, PhD^{*,†,‡,§,¶}, Griffith University, Nathan, QLD, Australia; Murdoch Business School

Noore Alam, MPH[‡], Dalhousie University, Halifax, NS, Canada; Prevention Division; Centre for Environment and Population Health

Samiah Alam, MSc^{‡,§}, Department of Veterans Affairs, St Louis, MO, USA; Department of Community Health and Epidemiology

Tahiya Alam, MSc^{†,‡,§}, Department of Community Health and Epidemiology

Fahad Mashhour Alanezi, PhD^{*,†,§}, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia

Turki M Alanzi, PhD^{*,†,‡,§}, Health Information Management and Technology Department

Samuel B Albertson, BS^{*,‡,¶}, Institute for Health Metrics and Evaluation

Jacqueline Elizabeth Alcalde-Rabanal, PhD^{†,‡}, Murdoch University, Perth, WA, Australia; Center for Health System Research

Niguse Meles Alema, MSc[‡], Department of Pharmacy

Biresaw Wassihun Alemu, MSc^{*,§}, Adigrat University, Adigrat, Ethiopia; College of Medicine and Health Science; Department of Midwifery

Yihun Mulugeta Alemu, MPH^{*,¶}, Department of Epidemiology and Biostatistics

Prof Khalid F Alhabib, MD^{*,§}, Department of Cardiac Sciences

Robert Kaba Alhassan, PhD[¶], Institute of Health Research

Muhammad Ali, PhD^{*,†,‡,§,¶}, University of Health and Allied Sciences, Ho, Ghana; Department of Biotechnology

Saqib Ali, PhD^{*,‡,§,¶},

Quaid-i-Azam University, Islamabad, Pakistan; Department of Information Systems, College of Economics and Political Science

Gianfranco Alicandro, PhD^{*,†,‡,§}, Sultan Qaboos University, Muscat, Oman; Directorate for Social Statistics and Population Census

Mehran Alijanzadeh, PhD^{†,‡}, Social Determinants of Health Research Center

Cyrus Alinia, PhD^{†,‡,§}, Qazvin University of Medical Sciences, Qazvin, Iran; Department of Health Care Management and Economics

Vahid Alipour, PhD^{*,†,‡,§,¶}, Health Economics Department; Health Management and Economics Research Center

Hesam Alizade, PhD^{*,†,§}, Urmia University of Medical Science, Urmia, Iran; Infectious and Tropical Disease Research Center

Prof Syed Mohamed Aljunid, PhD^{*,†,‡,§,¶}, Department of Health Policy and Management; Kuwait University, Safat, Kuwait; International Centre for Casemix and Clinical Coding

Prof François Alla, PhD^{*,‡,§,¶}, National University of Malaysia, Bandar Tun Razak, Malaysia; Bordeaux School of Public Health

Prof Peter Allebeck, MD^{*,†,‡,§}, Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Majid Abdulrahman Hamad Almadi, FRCPC^{*,†,¶}, Bahir Dar University, Bahir Dar, Ethiopia; College of Medicine; University of Bordeaux, Bordeaux, France; Division of Gastroenterology & Hepatology

Prof Ali Almasi, PhD[¶], Department of Environmental Health Engineering

Amir Almasi-Hashiani, PhD^{*,†,‡,§,¶}, McGill University, Montreal, QC, Canada; Department of Epidemiology

Prof Nihad A Almasri, PhD[¶], Arak University of Medical Sciences, Arak, Iran; Physiotherapy Department

Hesham M Al-Mekhlafi, PhD^{*,†,§,¶}, Medical Research Center

Abdulaziz M Almulhim, MBBS^{*,¶}, Philippine Institute for Development Studies, Quezon City, Philippines; College of Medicine Jordi Alonso, MD^{*,‡,§,¶},

Sana'a University, Sana'a, Yemen; Research Program of Epidemiology and Public Health; Pompeu Fabra University, Barcelona, Spain; Department of Experimental and Health Sciences

Rajaa M Al-Raddadi, PhD^{*,‡,¶}, Biomedical Research Networking Center in Epidemiology and Public Health (CiberESP), Madrid, Spain; Department of Community Medicine

Khalid A Altirkawi, MD^{*,†,‡,§,¶}, Pediatric Intensive Care Unit

Arwa Khalid Alumran, PhD[†], Health Information Management and Technology Department

Nelson Alvis-Guzman, PhD^{*,†,‡,¶}, Research Group in Health Economics

Prof Nelson J Alvis-Zakzuk, PhD^{‡,¶}, King Abdulaziz University, Jeddah, Saudi Arabia; Institute for Immunological Research

Azmeraw T Amare, PhD^{*}, Arba Minch University, Arba Minch, Ethiopia; College of Medicine and Health Science; School of Medicine

Bekalu Amare, MSc^{*}, Department of Pharmacology

Saeed Amini, PhD^{*,‡,¶}, Health Services Management Department

Mostafa Amini-Rarani^{†,‡,§,¶}, Arya Aminorroaya, MD^{†,‡}, Non-communicable Diseases Research Center; Tehran Heart Center

Fatemeh Amiri, MSc^{‡,§,¶}, Department of Radiology and Nuclear Medicine

Arianna Maever L Amit, BS^{*,†,‡,¶}, University of Adelaide, Adelaide, SA, Australia; Department of Epidemiology and Biostatistics; School of Public Health

Dickson A Amugsi, PhD^{*,‡,§,¶}, Johns Hopkins University, Baltimore, MD, USA; Maternal and Child Wellbeing

Gianna Gayle Herrera Amul, MSc[‡], African Population and Health Research Center, Nairobi, Kenya; Lee Kuan Yew School of Public Policy

Etsay Woldu Anbesu, MPH^{*}, National University of Singapore, Singapore, Singapore; Department of Public Health

Prof Robert Ancuceanu, PhD^{*,†,§,¶},

Pharmacy Department

Deanna Anderlini, MD^{*,‡,§,¶}, Centre for Sensorimotor Performance; The University of Queensland, Brisbane, QLD, Australia; Neurology Department

Jason A Anderson^{*,§}, Catalina Liliana Andrei, PhD^{*,†,‡,§,¶}, Samara University, Samara, Ethiopia; Cardiology Department

Tudorel Andrei^{*,‡,§}, Sofia Androudi, PhD^{†,¶}, Bucharest University of Economic Studies, Bucharest, Romania; Department of Medicine

Colin Angus, MSc^{†,§}, University of Thessaly, Volos, Greece; School of Health and Related Research

Mina Anjomshoa^{*,†,‡,§}, Fereshteh Ansari, PhD^{*,†,‡,§,¶}, Research Center for Evidence Based Medicine; University of Sheffield, Sheffield, UK; Razi Vaccine and Serum Research Institute

Iman Ansari, MD^{†,‡},

Agricultural Research, Education, and Extension Organization (AREEO), Tehran, Iran; Medical Students Research Committee

Alireza Ansari-Moghaddam^{*,†,‡,§,¶}, Ippazio Cosimo Antonazzo, PhD[§], Zahedan University of Medical Sciences, Zahedan, Iran; Research Center on Public Health

Carl Abelardo T Antonio, MD^{*,†,‡,§,¶},

Department of Health Policy and Administration; University of Milan Bicocca, Monza, Italy; Department of Applied Social Sciences

Catherine M Antony^{*,†,‡,§,¶}, Ernoiz Antriyandarti, DrAgrSc^{‡,§,¶}, Hong Kong Polytechnic University, Hong Kong, China; Agribusiness Study Program

Davood Anvari, PhD^{*,†,‡,§,¶},

Department of Parasitology; Mazandaran University of Medical Sciences, Sari, Iran; Department of Parasitology

Razique Anwer, PhD^{‡,§,¶}, Department of Pathology

Seth Christopher Yaw Appiah, PhD^{*,†,§}, Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia; Department of Sociology and Social Work; Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Center for International Health

Jalal Arabloo, PhD^{*,†,‡,§,¶}, Health Management and Economics Research Center

Morteza Arab-Zozani^{*,†,‡,§,¶}, Aleksandr Y Aravkin, PhD^{*,†,‡,§,¶}, Department of Applied Math

Aseb Arba Kinfe Arba, MSc^{*}, Birjand University of Medical Sciences, Birjand, Iran; Department of Nursing

Olatunde Aremu, PhD^{†,¶}, Wolaita Sodo University, Wolaita Sodo, Ethiopia; Department of Public Health

Filippo Ariani, MSc^{‡,§},

Birmingham City University, Birmingham, UK; Regional Centre for the Analysis of Data on Occupational and Work-related Injuries and Diseases

Timur Aripov, PhD^{*},

Local Health Unit Tuscany Centre, Florence, Italy; Public Health and Healthcare Management; Tashkent Institute of Postgraduate Medical Education, Tashkent, Uzbekistan; Boston Children's Hospital, Boston, MA, USA

Bahram Armoon, PhD[§],

Social Determinants of Health Research Center; Saveh University of Medical Sciences, Saveh, Iran; Social Determinants of Health Research Center

Prof Johan Ärnlöv, PhD^{*,†,‡,§,¶},

Yasuj University of Medical Sciences, Yasuj, Iran; School of Health and Social Studies; Department of Neurobiology, Care Sciences and Society

Oluwaseyi Olalekan Arowosegbe, MPH^{*},

Dalarna University, Falun, Sweden; Department of Epidemiology and Public Health; Swiss Tropical and Public Health Institute, Basel, Switzerland; Department of Epidemiology and Public Health

Krishna K Aryal, PhD^{†,‡}, Monitoring Evaluation and Operational Research Project

Afsaneh Arzani, DrPH^{‡,§}, School of Nursing and Midwifery; Babol University of Medical Sciences, Babol, Iran

Malke Asaad, MD^{*,¶}, Department of Plastic Surgery

Mehran Asadi-Aliabadi^{*,‡,§,¶}, Ali A Asadi-Pooya^{*,†,‡,§,¶}, Samaneh Asgari, MSc[†], Prevention of Metabolic Disorders Research Center

Prof Babak Asghari, PhD[‡], Department of Biostatistics and Epidemiology; Thomas Jefferson University, Philadelphia, PA, USA; Department of Biostatistics and Epidemiology

Mohammad Asghari Jafarabadi[†], Charlie Ashbaugh^{*,‡,§,}¶, Michael Assmus^{*,§}, Zahra Atafar[§], Seyyed Shamsadin Athari, MPH[¶], Department of Immunology

Desta Debalkie Atnafu, MPH^{‡,§}, Department of Health System and Health Economics Maha Moh'd Wahbi Atout, PhD^{*,§,¶}, Zanjan University of Medical Sciences, Zanjan, Iran; Faculty of Nursing

Sachin R Atre, PhD[‡],

University of the Philippines Manila, Manila, Philippines; Center for Clinical Global Health Education; Philadelphia University, Amman, Jordan; D.Y. Patil Medical College, Hospital and Research Centre

Madhu Sudhan Atteraya, PhD[†], D.Y. Patil Vidyapeeth, Pune, Pune, India; Department of Social Welfare

Floriane Ausloos, MD^{*,‡,§}, University of Leicester, Leicester, UK; Gastro-enterology Department

Prof Marcel Ausloos, PhD^{*,†,‡,§,¶}, School of Business

Leticia Avila-Burgos^{†,¶}, Euripide Frinel Gbenato Arthur Avokpaho, MD[†], University of Liège, Liège, Belgium; Epidemiological and Clinical Research; Bénin Clinical Research Institute (IRCB), Abomey-Calavi, Benin; Epidemiology and Clinical Research

Beatriz Paulina Ayala Quintanilla, PhD^{*,†,‡,§,¶}, The Judith Lumley Centre

Getinet Ayano, MSc^{*,†,‡,§,¶}, School of Public Health

Martin Amogre Ayanore, PhD^{*,†,‡,§,¶}, Department of Health Policy Planning and Management

Getie Lake Aynalem, MSc[¶], Jenderal Soedirman University, Purwokerto, Indonesia; Department of Clinical Midwifery

Yared Asmare Aynalem, MSc^{‡,¶}, Department of Nursing

Muluken Altaye Ayza, MSc[¶], Department of Pharmacology and Toxicology

Samad Azari, PhD^{*,‡,§,¶}, Health Management and Economics Research Center

Ghasem Azarian^{†,‡,§}, Zelalem Nigussie Azene, MPH^{*,‡,§}, Department of Reproductive Health

Gulrez Azhar^{||}, Peter S Azzopardi, PhD[¶], Curtin University, Perth, WA, Australia; Global Adolescent Health Group; Burnet Institute, Melbourne, VIC, Australia; Wardliparingga Aboriginal Research Unit

Darshan B B^{*,¶}, Ebrahim Babaee, PhD^{*,†,‡,¶}, Preventive Medicine and Public Health Research Center Alaa Badawi, PhD^{*,‡,§}, Public Health Risk Sciences Division; Department of Nutritional Sciences

Ashish D Badiye, MSc^{*,†,§,¶}, University of Toronto, Toronto, ON, Canada; Department of Forensic Science

Prof Mojtaba Bagherzadeh, PhD^{*,‡}, Government Institute of Forensic Science, Nagpur, India; Chemistry Department

Eleni Bagli, PhD[†], Sharif University of Technology, Tehran, Iran; Department of Ophthalmology; University Hospital of Ioannina, Ioannina, Greece; Institute of Molecular Biology & Biotechnology

Mohammad Amin Bahrami, PhD^{†,§,¶}, Department of Healthcare Management and Education

Atif Amin Baig, PhD[¶], Foundation for Research & Technology, Ioannina, Greece; Unit of Biochemistry

Mohan Bairwa, MD^{*}, Sultan Zainal Abidin University, Kuala Terengganu, Malaysia; Centre for Community Medicine

Mohammad Hossein Bakhshaei, MD^{‡,§,¶}, Department of Anesthesiology

Ahad Bakhtiari, PhD^{*,†,‡,§,¶}, Department of Health Policy, Management, and Economics

Shankar M Bakkannavar^{*,§,¶}, Arun Balachandran, MSc^{*,¶}, Hamedan University of Medical Sciences, Hamadan, Iran; Department of Demography; University of Groningen, Groningen, Netherlands; Population Research Centre

Senthilkumar Balakrishnan, PhD[‡], Department of Medical Microbiology

Shivanthi Balalla, PhD[‡], Department of Psychology and Neurosciences

Shelly Balassyano^{†,‡,¶}, Alberto Baldasseroni, MD[§], Auckland University of Technology, Auckland, New Zealand; Epidemiology Department

Prof Kylie Ball[§], Institute for Physical Activity and Nutrition

Shoshana H Ballew, PhD[§], Department of Epidemiology

Daniela Balzi, DSc[§],

Deakin University, Burwood, VIC, Australia; Department of Prevention

Prof Maciej Banach, PhD^{*,†,‡,§,¶},

USL Tuscany Center, Florence, Italy; Department of Hypertension; Medical University of Lodz, Lodz, Poland; Polish Mothers' Memorial Hospital Research Institute, Lodz, Poland

Prof Srikanta K Banerjee, PhD^{*,§,¶}, School of Health Sciences

Palash Chandra Banik, MPhil^{*,†,‡,¶}, Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Marlena S Bannick[‡], Agegnehu Bante Bante, MSc^{‡,§,¶}, Department of Nursing

Simachew Animen Bante, MSc[¶], Department of Midwifery

Adhanom Gebreegziabher Baraki, MPH^{*,‡,§}, Department of Epidemiology and Biostatistics

Prof Miguel A Barboza, MD[‡],

Bangladesh University of Health Sciences, Dhaka, Bangladesh; Department of Neurosciences; Costa Rican Department of Social Security, San Jose, Costa Rica; School of Medicine

Suzanne Lyn Barker-Collo^{*,†,‡,§,¶}, Prof Till Winfried Bärnighausen, MD^{†,§,¶}, T.H. Chan School of Public Health; Heidelberg Institute of Global Health (HIGH)

Prof Lope H Barrero, DSc^{§,¶}, Heidelberg University, Heidelberg, Germany; Department of Industrial Engineering

Celine M Barthelemy^{‡,§,¶}, Lingkan Barua, MPH^{‡,§}, Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Akbar Barzegar, PhD^{†,‡}, Department of Occupational Health Engineering

Prof Huda Basaleem, PhD^{*}, Pontifical Javeriana University, Bogota, Colombia; School of Public Health and Community Medicine

Prof Quique Bassat, MD[¶],

Aden College, Aden, Yemen; Barcelona Institute for Global Health; University of Barcelona, Barcelona, Spain; Catalan Institution for Research and Advanced Studies (ICREA), Barcelona, Spain

Sanjay Basu, PhD^{*,†,‡,§,¶},

Prof Bernhard T Baune, PhD^{*,†,‡,§,¶}, Imperial College London, London, UK; Department of Psychiatry; University of Münster, Münster, Germany; Department of Psychiatry

Mohsen Bayati, PhD^{*,†,‡,§,¶}, Health Human Resources Research Center

Bayisa Abdissa Baye, MPH^{*,¶}, Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Gholamreza Bazmandegan^{†,‡}, Jacob S Becker, BA[§], Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Prof Neeraj Bedi, MD^{*,†,‡,§,¶}, Jazan University, Jazan, Saudi Arabia; University of North Carolina Chapel Hill, Chapel Hill, NC, USA; Department of Community Medicine

Ettore Beghi, MD^{*,‡,§,¶}, Department of Neuroscience

Masoud Behzadifar, PhD[¶], Social Determinants of Health Research Center

Prof Yannick Béjot, PhD^{‡,§},

Lorestan University of Medical Sciences, Khorramabad, Iran; Department of Neurology; University Hospital of Dijon, Dijon, France; Dijon Stroke Registry -UFR Sciences Santé

Tariku Tesfaye Tesfaye Bekuma, MPH[¶], University of Burgundy, Dijon, France; Department of Public Health

Prof Michelle L Bell, PhD^{*,†,§,¶}, Wollega University, Nekemte, Ethiopia; School of the Environment

Aminu K Bello, PhD[‡], Yale University, New Haven, CT, USA; Department of Medicine

Rose G Bender[‡], Derrick A Bennett, PhD^{†,‡}, Nuffield Department of Population Health

Fiona B Bennitt^{‡,§}, Isabela M Bensenor, PhD^{*,†,‡,§,¶}, Department of Internal Medicine

Catherine P Benziger, MD[‡], University of São Paulo, São Paulo, Brazil; Heart and Vascular Center

Kidanemaryam Berhe, MPH^{*,†,‡,§}, Department of Nutrition and Dietetics

Adam E Berman, MD^{*,†,§,¶},

Essentia Health, Duluth, MN, USA; Department of Medicine

Eduardo Bernabe, PhD^{‡,¶}, Faculty of Dentistry, Oral & Craniofacial Sciences

Robert S Bernstein, MD[¶], Hubert Department of Global Health

Gregory J Bertolacci^{†,‡}, Akshaya Srikanth Bhagavathula, PharmD^{*,§,¶}, Emory University, Atlanta, GA, USA; Department of Internal Medicine; Department of Social and Clinical Pharmacy

Reshmi Bhageerathy, PhD^{†,‡,§,¶},

Department of Health Information Management; Manipal Academy of Higher Education, Mangalore, India

Neeraj Bhala, PhD^{*,†,‡,§},

Charles University, Prague, Czech Republic; Institutes of Applied Health Research and Translational Medicine; Queen Elizabeth Hospital Birmingham, Birmingham, UK; Institute of Applied Health Research

Dinesh Bhandari, MSc^{‡,§,¶},

School of Public Health; University of Birmingham, Birmingham, UK; Public Health Research Laboratory

Pankaj Bhardwaj, MD^{*,‡,¶}, All India Institute of Medical Sciences, New Delhi, India; Department of Community Medicine and Family Medicine

Anusha Ganapati Bhat, MD[¶], Datta Meghe Institute of Medical Sciences, Wardha, India; Division of General Internal Medicine

Krittika Bhattacharyya, MSc^{*,†,‡,§,¶},

University of Massachusetts Medical School, Springfield, MA, USA; Department of Statistical and Computational Genomics; National Institute of Biomedical Genomics, Kalyani, India; Department of Statistics

Suraj Bhattarai, MD^{*,¶}, University of Calcutta, Kolkata, India; Department of Global Health

Prof Zulfigar A Bhutta, PhD^{*,†,‡,§,¶},

Public Health Agency of Canada, Toronto, ON, Canada; Centre for Global Child Health; Global Institute for Interdisciplinary Studies, Kathmandu, Nepal; Centre of Excellence in Women & Child Health

Sadia Bibi, PhD[‡],

Aga Khan University, Karachi, Pakistan; Institute of Soil and Environmental Sciences

Molly H Biehl[‡], Ali Bijani, PhD^{*,†,§,¶}, Social Determinants of Health Research Center Boris Bikbov, MD^{*,‡,§,¶}, Mario Negri Institute for Pharmacological Research, Milan, Italy

Ver Bilano, PhD¹, University of Agriculture Faisalabad, Faisalabad, Pakistan; Health Economics and Outcomes Research

Muhammad Shahdaat Bin Sayeed, MSc^{‡,§}, Creativ-Ceutical, London, UK; National Centre for Epidemiology and Population Health; Australian National University, Canberra, ACT, Australia; Department of Clinical Pharmacy and Pharmacology

Prof Antonio Biondi, PhD^{*,†,‡,§,¶}, Department of General Surgery and Medical-Surgical Specialties

Binyam Minuye Birihane, MSc^{‡,§,¶}, University of Catania, Catania, Italy; Ethiopian Public Health Institute, Adis Ababa, Ethiopia; Department of Nursing

Donal Bisanzio, PhD^{†,‡}, Debre Tabor University, Debretabor, Ethiopia; Global Health Division; School of Medicine

Catherine Bisignano^{*,†,‡,§,||}, Raaj Kishore Biswas, MSc^{*,†,‡,§}, Transport and Road Safety (TARS) Research Centre

Helen Bitew, MSc[§], School of Pharmacy

Prof Tone Bjørge, PhD^{*,†}, University of Bergen, Bergen, Norway; Cancer Registry of Norway, Oslo, Norway; Department of Global Public Health and Primary Care

Prof Moses John Bockarie, MSc¹, European & Developing Countries Clinical Trials Partnership, Cape Town, South Africa; Department of Medicine

Somayeh Bohlouli, PhD^{*,†,‡,§,¶}, Department of Veterinary Medicine

Mehdi Bohluli, PhD^{*,†,‡,§},

Islamic Azad University, Kermanshah, Iran; Department of Computer Science and Information Technology; Institute for Advanced Studies in Basic Sciences, Zanjan, Iran; Department of Research and Innovation

Hunduma Amensisa Bojia, BPharm[¶], School of Pharmacy

Srinivasa Rao Bolla, PhD^{*,†,‡,¶}, Petanux Research GmBH, Bonn, Germany; Department of Biomedical Sciences

Archith Boloor, MD^{*,‡,¶},

Department of Internal Medicine

Alexandra S Boon-Dooley^{‡,§}, Prof Guilherme Borges, DSc^{‡,§}, Nazarbayev University, Nur-Sultan City, Kazakhstan; Department of Epidemiology and Psychosocial Research

Antonio Maria Borzì, MD^{†,‡,§}, Department of Clinical and Experimental Medicine

Shiva Borzouei^{†,§}, Dipan Bose, PhD^{*}, Ramón de la Fuente Muñiz National Institute of Psychiatry, Mexico City, Mexico; Transport Global Practice

Cristina Bosetti, PhD[§], Department of Oncology

Soufiane Boufous, PhD^{*,§}, Transport and Road Safety (TARS) Research Centre

Prof Rupert Bourne, MD[‡], World Bank, Washington, DC, USA; Vision and Eye Research Unit

Oliver J Brady, PhD^{*,†,‡,¶}, Department of Infectious Disease Epidemiology

Dejana Braithwaite, PhD^{*,†,§,¶}, Division of Hematology and Oncology

Prof Michael Brauer, DSc^{*,†,‡,§}, School of Population and Public Health

Prof Carol Brayne, MD[‡], Anglia Ruskin University, Cambridge, UK; Department of Public Health and Primary Care

Prof Nicholas J K Breitborde, PhD^{*,‡,§}, University of Cambridge, Cambridge, UK; Department of Psychology; Psychiatry and Behavioral Health Department

Susanne Breitner, DSc§,

Ohio State University, Columbus, OH, USA; Institute for Medical Information Processing, Biometry, and Epidemiology; Ludwig Maximilian University of Munich, Munich, Germany; Institute of Epidemiology

Prof Hermann Brenner, MD^{*,‡,§},

German Research Center for Environmental Health, Neuherberg, Germany; Division of Clinical Epidemiology and Aging Research

Prof Alexey V Breusov, DSc^{*}, German Cancer Research Center, Heidelberg, Germany; Institute of Medicine

Paul Svitil Briant^{*,‡,§,¶}, Prof Andrew M Briggs, PhD^{*,‡,¶}, School of Physiotherapy and Exercise Science Prof Andrey Nikolaevich Briko, MSc, DSc^{†,§},

World Health Organization (WHO), Geneva, Switzerland; Department of Epidemiology and Evidence Based Medicine; I.M. Sechenov First Moscow State Medical University, Moscow, Russia; Department of Biomedical Technologies

Nikolay Ivanovich Briko^{†,‡,§,¶}, Gabrielle B Britton, PhD^{*,‡,§}, Bauman Moscow State Technical University, Moscow, Russia; Neuroscience Unit; Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Prof Traolach Brugha, MD^{*},

Keimyung University, Daegu, South Korea; Department of Health Sciences

Dana Bryazka^{‡,§}, Prof Rachelle Buchbinder, PhD[‡], Department of Epidemiology and Preventive Medicine; Monash Department of Clinical Epidemiology at Cabrini Hospital

Blair R Bumgarner^{†,‡,§}, Katrin Burkart[§], Richard Thomas Burnett, PhD[§], Cabrini Institute, Melbourne, VIC, Australia; Population Studies Division

Prof Sharath Burugina Nagaraja, MD^{*,†,§,¶}, Health Canada, Ottawa, ON, Canada; Department of Community Medicine

Prof Reinhard Busse, PhD^{*,‡,¶},

Employee State Insurance Post Graduate Institute of Medical Sciences and Research, Bengalore, India; Department of Health Care Management

Zahid A Butt, PhD^{*,†,‡,§,¶},

Technical University of Berlin, Berlin, Germany; School of Public Health and Health Systems; University of Waterloo, Waterloo, ON, Canada; Al Shifa School of Public Health

Florentino Luciano Caetano dos Santos, PhD^{*,†,‡,§,¶}, Al Shifa Trust Eye Hospital, Rawalpindi, Pakistan; Institute of Microengineering

Leah E Cahill, PhD[§], Department of Nutrition; Department of Medicine

Lucero Cahuana-Hurtado[¶], Prof Tianji Cai, PhD[†], Federal Polytechnic School of Lausanne, Lausanne, Switzerland; Department of Sociology

Charlton SKH Callender[†], Prof Luis Alberto Cámera, MD^{*,†,‡,§,¶}, Peruvian University Cayetano Heredia, Lima, Peru; Internal Medicine Department; Hospital Italiano de Buenos Aires, Buenos Aires, Argentina; Board of Directors

Ismael R Campos-Nonato^{*,†,‡,§}, Julio Cesar Campuzano Rincon, PhD^{*}, National Institute of Public Health, Cuernavaca, Mexico; School of Medicine Jackie Cao^{||}, Josip Car, PhD^{*,‡},

University of the Valley of Cuernavaca, Cuernavaca, Mexico; Centre for Population Health Sciences; Department of Primary Care and Public Health

Prof Rosario Cárdenas, DSc^{*,†,‡,§,¶}, Nanyang Technological University, Singapore, Singapore; Department of

Health Care

Giulia Carreras, PhD^{*,†,‡,§,¶}, Institute for Cancer Research, Prevention and Clinical Network, Florence, Italy

Prof Juan J Carrero, PhD^{*,†,‡,§,¶}, Department of Medical Epidemiology and Biostatistics

Prof Felix Carvalho, PhD^{*,†,‡,§,¶}, Research Unit on Applied Molecular Biosciences (UCIBIO)

Joao Mauricio Castaldelli-Maia^{*,†,‡,§,¶}, Carlos A Castañeda-Orjuela^{‡,§,¶}, Giulio Castelpietra, PhD^{*,†,‡,§,¶},

National University of Colombia, Bogota, Colombia; Department of Medicine; University of Udine, Udine, Italy; Department of Mental Health

Chris D Castle[‡], Emma Castro, MD^{||}, Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Franz Castro^{*,†,‡,§,¶}, Ferrán Catalá-López, PhD^{*,†,‡,¶}, Institute of Health Carlos III, Madrid, Spain; Clinical Epidemiology Program; Healthcare Agency "Friuli Occidentale", Pordenone, Italy; National School of Public Health

Kate Causey^{*,‡,§,¶}, Christopher R Cederroth, PhD^{*,†,‡,§,¶}, Department of Physiology and Pharmacology; Research Triangle Institute International, Research Triangle Park, NC, USA; National Institute of Health Research Nottingham Biomedical Research Centre

Kelly M Cercy^{*,‡,§,¶}, Prof Ester Cerin, PhD^{*,†,‡,§,¶}, Ottawa Hospital Research Institute, Ottawa, ON, Canada; Mary MacKillop Institute for Health Research; School of Public Health

Julian Chalek^{||}, Joht Singh Chandan, MFPH^{*,‡,§,¶}, Queen Elizabeth Hospital Birmingham, Birmingham, UK; Institute of Applied Health Research

Alex R Chang, MD[‡],

National Taiwan University Hospital, Taipei, Taiwan; Kidney Health Research Institute

Angela Y Chang, DSc[¶], University of Washington, Seattle, WA, USA

Jung-Chen Chang, PhD^{*},

University of Hong Kong, Hong Kong, China; College of Medicine; National Taiwan University, Taipei, Taiwan; Department of Nursing

Kai-Lan Chang, PhD[§], Geisinger Health System, Danville, PA, USA; Cooperative Institute for Research in Environmental Sciences; University of Colorado, Boulder, CO, USA; Chemical Sciences Division

Jaykaran Charan, MD^{*,¶}, Department of Pharmacology

Fiona J Charlson, PhD^{*,‡,§}, Queensland Centre for Mental Health Research

Vijay Kumar Chattu, MD^{*,†,‡,§,¶}, Department of Medicine

Sarika Chaturvedi, PhD^{*,‡,§,¶}, National Oceanic and Atmospheric Administration Earth System Research Laboratory, Boulder, CO, USA; Research Department

Prof Nicolas Cherbuin, PhD^{*,§}, Research School of Population Health

Odgerel Chimed-Ochir^{‡,§}, Ken Lee Chin, PhD^{*,†,‡,¶}, Department of Epidemiology and Preventive Medicine; Melbourne Medical School

Jesus Lorenzo Chirinos-Caceres^{*}, Daniel Youngwhan Cho, MD^{*,‡,§,¶}, Division of Plastic Surgery

Jee-Young Jasmine Choi, PhD^{*,§,¶}, Cayetano Heredia University, Lima, Peru; Biomedical Informatics

Prof Hanne Christensen, DMSci^{‡,§,¶}, Seoul National University Hospital, Seoul, South Korea; Bispebjerg Hospital

Dinh-Toi Chu, PhD^{*,†,‡,§,¶}, University of Copenhagen, Copenhagen, Denmark; Faculty of Biology

Michael T Chung, MD^{*,‡,§,¶}, Department of Otolaryngology

Sheng-Chia Chung, PhD^{*,§}, Department of Health Informatics; University College London, London, UK; Health Data Research UK, London, UK

Prof Flavia M Cicuttini, PhD^{*,‡,§}, School of Public Health and Preventive Medicine

Liliana G Ciobanu, PhD^{†,‡,§,¶}, School of Pharmacy and Medical Sciences; Mekelle University, Mekelle, Ethiopia; Adelaide Medical School Prof Massimo Cirillo, MD^{*,†,‡,§,¶}, Wayne State University, Detroit, MI, USA; Department of Public Health

Beniamino Cislaghi^{*}, Thomas Khaled Dwayne Classen, MSc[§], University of Naples Federico II, Naples, Italy; Department of Key Questions and International Cooperation; North Rhine-Westphalia (NRW) Centre for Health, Bochum, Germany; Bielefeld School of Public Health

Aaron J Cohen, DSc^{*,§}, Bielefeld University, Bielefeld, Germany; Health Effects Institute, Boston, MA, USA

Emma L Collins, MSc[‡], Nuffield Department of Medicine

Haley Comfort^{†,¶}, Kelly Compton^{*,‡,§,¶}, Sara Conti, PhD[‡], School of Medicine and Surgery

Owen R Cooper, PhD[§],

Geisinger Health System, Danville, PA, USA; Cooperative Institute for Research in Environmental Sciences; National Oceanic and Atmospheric Administration Chemical Sciences Laboratory, Boulder, CO, USA

Barbara Corso, PhD^{*}, Institute of Neuroscience

Paolo Angelo Cortesi, PhD^{*,‡,¶}, School of Medicine and Surgery

Vera Marisa Costa, PhD^{*,†,‡,§,¶}, Research Unit on Applied Molecular Biosciences (UCIBIO)

Ewerton Cousin, PhD^{*,‡,§,¶}, Postgraduate Program in Epidemiology

Richard G Cowden, PhD^{*,†,‡,§}, Federal University of Rio Grande do Sul, Porto Alegre, Brazil; Department of Psychology

Prof Benjamin C Cowie, PhD[‡], Department of Medicine; WHO Collaborating Centre for Viral Hepatitis

Elizabeth A Cromwell^{†,‡}, Andrew J Croneberger[†], Di H Cross, PhD^{‡,§}, Office of the Director

Marita Cross, PhD^{*}, Faculty of Medicine and Health

Christopher Stephen Crowe, MD^{*,‡}, Division of Plastic & Reconstructive Surgery

Jessica A Cruz^{‡,§}, Steven Cummins^{*}, Matthew Cunningham^{†,‡}, Saad M A Dahlawi, PhD^{†,‡,§,¶}, Environmental Health Department Prof Haijiang Dai, MD^{*},

National Institutes of Health, Bethesda, MD, USA; Department of Cardiology; Central South University, Changsha, China; Department of Mathematics and Statistics; York University, Toronto, ON, Canada; College of Environmental Sciences and Engineering

Hancheng Dai, PhD^{*}, Prof Albertino Antonio Moura Damasceno, PhD[§], Peking University, Beijing, China; Faculty of Medicine

Giovanni Damiani, MD^{*,†,‡,§,¶},

Eduardo Mondlane University, Maputo, Mozambique; Clinical Dermatology, IRCCS Istituto Ortopedico Galeazzi; University of Milan, Milan, Italy; Department of Dermatology

Emanuele D'Amico, MD[†], University of Dhaka, Dhaka, Bangladesh; Department "G.F.Ingrassia"

Prof Lalit Dandona, MD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Prof Rakhi Dandona, PhD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Parnaz Daneshpajouhnejad, MD^{*}, Department of Pathology

William James Dangel[§], Anna-Karin Danielsson, PhD[§], Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Jiregna Darega Gela, MPH[¶], Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Prof Paul I Dargan, MB^{†,§}, Faculty of Life Sciences and Medicine; Department of Clinical Toxicology

Aso Mohammad Darwesh, PhD^{*,†,‡,§,¶}, Department of Information Technology

Prof Ahmad Daryani, PhD^{†,‡,§,¶}, Toxoplasmosis Research Center

Jai K Das, MD^{*,‡,§}, Division of Women and Child Health

Rajat Das Gupta, MPH^{*,†,‡,§},

University of Human Development, Sulaymaniyah, Iraq; Department of Epidemiology and Biostatistics; University of South Carolina, Columbia, SC, USA; James P Grant School of Public Health

José das Neves, PhD^{*,†,‡,§},

Institute for Research and Innovation in Health; Institute of Biomedical Engineering (INEB)

Prof Aditya Prasad Dash, DSc[¶], BRAC University, Dhaka, Bangladesh; Central University Tami Nadu, Thiruvarur, India

Prof Gail Davey, MD^{*,¶}, Department of Global Health and Infection; School of Public Health

Claudio Alberto Dávila-Cervantes^{*,‡,§,¶}, Prof Adrian C Davis, PhD^{*}, Department of Surgery and Cancer; Ear Institute

Dragos Virgil Davitoiu, PhD[§],

Research and Prevention

Department of General Surgery; Latin American Faculty of Social Sciences Mexico, Mexico City, Mexico; Department of Surgery

Kairat Davletov, PhD^{†,‡,¶}, Clinical Emergency Hospital Sf. Pantelimon, Bucharest, Romania; Health Research Institute

Prof Diego De Leo, DSc^{*,†,‡,§}, Queensland Health, Brisbane, QLD, Australia; Australian Institute for Suicide

Jan-Walter De Neve[¶], Heidelberg Institute of Global Health (HIGH)

Frances E Dean[‡], Prof Nicole K DeCleene[‡], National Research University Higher School of Economics, Moscow, Russia; Department of Respiratory Medicine

Amanda Deen[‡], Prof Louisa Degenhardt, PhD^{‡,§}, National Drug and Alcohol Research Centre

Marissa DeLang, BS[§], Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Prof Robert Paul Dellavalle, MD^{‡,§}, Dermatology Service; Al Farabi Kazakh National University, Almaty, Kazakhstan; Department of Dermatology

Feleke Mekonnen Demeke, MSc^{‡,§}, Department of Medical Laboratory Sciences

Gebre Teklemariam Demoz, MSc[§], School of Pharmacy

Desalegn Getnet Demsie, MSc^{‡,§}, Department of Pharmacy

Edgar Denova-Gutiérrez, DSc^{*,†,‡,§,¶}, Center for Nutrition and Health Research Nebiyu Dereje Dereje, PhD[‡], School of Public Health; Aksum University, Aksum, Ethiopia; Department of Public Health

Kebede Deribe, PhD^{*,†,¶},

Wellcome Trust Brighton and Sussex Centre for Global Health Research; School of Public Health

Nikolaos Dervenis, MD^{*,†,‡,§,¶}, Wachemo University, Hossana, Ethiopia; St Paul's Eye Unit; Department of Ophthalmology

Rupak Desai, MBBS^{*,†,‡,¶}, Aristotle University of Thessaloniki, Thessaloniki, Greece; Division of Cardiology

Assefa Desalew, MSc[‡], School of Nursing and Midwifery

Getenet Ayalew Dessie, MSc[‡], Department of Nursing

Keshab Deuba, DrPH^{*}, Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health; National Centre for AIDS and STD Control

Prof Samath Dhamminda Dharmaratne, MD^{‡,¶}, Save the Children, Kathmandu, Nepal; Department of Community Medicine

Govinda Prasad Dhungana, MSc^{*,†,‡,§,¶}, University of Peradeniya, Peradeniya, Sri Lanka; Department of Microbiology

Mostafa Dianatinasab, MSc^{*,‡,§,¶}, University of Texas, Houston, TX, USA; Department of Epidemiology; Far Western University, Mahendranagar, Nepal; Department of Epidemiology and Biostatistics

Prof Diana Dias da Silva, PhD^{†,§,¶}, Laboratory of Toxicology

Prof Daniel Diaz, PhD^{*,†,‡,§,¶}, Shahroud University of Medical Sciences, Shahroud, Iran; Center of Complexity Sciences; National Autonomous University of Mexico, Mexico City, Mexico; Faculty of Veterinary Medicine and Zootechnics

Zahra Sadat Dibaji Forooshani, PhD^{‡,§}, Tehran University of Medical Sciences, Tehran, Iran

Prof Martin Dichgans, MD^{*}, Institute for Stroke and Dementia Research

Alireza Didarloo, PhD^{*}, Department of Public Health Zachary V Dingels[‡], Ilse N Dippenaar^{*,†,¶}, M Ashworth Dirac, MD[‡], Autonomous University of Sinaloa, Culiacan Rosales, Mexico; Swedish Family Medicine - First Hill, Seattle, WA, USA

Shirin Djalalinia, PhD^{†,‡,§}, Development of Research and Technology Center

Hoa Thi Do^{†,‡,§,¶}, Klara Dokova, PhD^{*,†,‡,§}, Nguyen Tat Thanh University, Ho Chi Minh City, Vietnam; Department of Social Medicine and Health Care Organisation

David Teye Doku, PhD[†], Medical University of Varna, Varna, Bulgaria; Department of Population and Health

Christiane Dolecek, MD^{*}, Centre for Tropical Medicine and Global Health; University of Tampere, Tampere, Finland; Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Andrew J Dolgert^{||}, Fariba Dorostkar, PhD^{*,†,‡,§,¶}, Faculty of Allied Medicine

Chirag P Doshi, BA^{*,†,‡}, Keck School of Medicine

Pratik P Doshi, MS^{*}, School of Medicine

Leila Doshmangir, PhD^{*,†,‡,§,¶}, Department of Health Policy and Management

Abdel Douiri, PhD[‡], School of Population Health and Environmental Sciences

Matthew C Doxey, MPH^{*,‡}, Urban Indian Health Institute

Prof Kerrie E Doyle, PhD[†], Seattle Indian Health Board, Seattle, WA, USA; School of Medicine; Health Sciences

Prof Tim Robert Driscoll, PhD^{*,‡,§}, Sydney School of Public Health

Eleonora Dubljanin, PhD[†], Institute of Microbiology and Immunology

Susanna J Dunachie, PhD[‡], Centre for Tropical Medicine and Global Health; University of Tampere, Tampere, Finland; Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Prof Bruce B Duncan^{*,‡,§,¶},

Postgraduate Program in Epidemiology

Prof Andre Rodrigues Duraes, PhD^{†,‡,§,¶}, School of Medicine; Federal University of Bahia, Salvador, Brazil; Department of Internal Medicine

Arielle Wilder Eagan, MSW^{*,‡,§,¶}, Department of Global Health and Social Medicine; Escola Bahiana de Medicina e Saúde Pública, Salvador, Brazil; Department of Social Services

Hedyeh Ebrahimi, MD^{*}, Liver and Pancreaticobilliary Disease Research Center; Non-communicable Diseases Research Center

Mohammad Ebrahimi Kalan, MSc^{*,‡}, Tufts Medical Center, Boston, MA, USA; Department of Epidemiology

Prof David Edvardsson, PhD^{*,†,‡,§,¶}, School of Nursing and Midwifery; Florida International University, Miami, FL, USA; Department of Nursing

Andem Effiong, MB[†], Umeå University, Umea, Sweden; Centre Clinical Epidemiology and Biostatistics

Joshua R Ehrlich, MD^{*,‡},

University of Newcastle, Newcastle, NSW, Australia; Department of Ophthalmology and Visual Sciences; Institute for Health Care Policy and Innovation

Prof Nevine El Nahas, MD^{‡,§}, Department of Neurology

Iman El Sayed, PhD^{†,‡,§,¶}, University of Michigan, Ann Arbor, MI, USA; Biomedical Informatics and Medical Statistics Department

Prof Maysaa El Sayed Zaki, PhD^{*}, Alexandria University, Alexandria, Egypt; Department of Clinical Pathology

Prof Maha El Tantawi, PhD^{*,†,‡,§,¶}, Pediatric Dentistry and Dental Public Health Department

Iffat Elbarazi, DrPH^{*,†,‡,§}, Mansoura University, Mansoura, Egypt; Department of Public Health

Islam Y Elgendy, MD^{*,‡,§,¶}, Cardiology Department; Division of Cardiology

Prof Hala Rashad Elhabashy, MD[‡], Neurophysiology Department

Shaimaa I EI-Jaafary^{*,†,‡,§}, Aisha Elsharkawy, MD^{*}, Endemic Medicine and Hepatogastroentrology Department

Lancet. Author manuscript; available in PMC 2020 November 13.

Iqbal RF Elyazar, PhD^{*,‡,§,¶}, Massachusetts General Hospital, Boston, MA, USA; Eijkman-Oxford Clinical Research Unit

Mohammad Hassan Emamian, PhD^{*,†,‡}, Ophthalmic Epidemiology Research Center

Sophia Emmons-Bell^{‡,§}, Holly E Erskine, PhD^{‡,§}, Queensland Centre for Mental Health Research, Brisbane, QLD, Australia

Babak Eshrati, PhD^{*,‡}, Preventive Medicine and Public Health Research Center

Khalil Eskandari, PhD[¶], Department of Medicinal Chemistry; Pharmaceutics Research Center

Sharareh Eskandarieh, PhD^{*,†,‡,§,}¶, Multiple Sclerosis Research Center

Saman Esmaeilnejad, PhD^{‡,§,¶}, Tehran Medical Sciences Branch; Department of Physiology

Firooz Esmaeilzadeh, PhD^{†,‡}, Department of Public Health

Prof Alireza Esteghamati, MD^{*,‡,§,¶}, Endocrinology and Metabolism Research Center

Sadaf Esteghamati, MD^{*}, Endocrinology and Metabolism Research Center

Kara Estep^{†,‡,§}, Arash Etemadi, PhD^{‡,§}, Maragheh University of Medical Sciences, Maragheh, Iran; Division of Cancer Epidemiology and Genetics

Atkilt Esaiyas Etisso, MSc^{‡,§}, Unit of Medical Physiology

Oluchi Ezekannagha, PhD[¶], Hawassa University, Hawassa, Ethiopia; Independent Consultant, Awka, Nigeria; International Institute for Tropical Agriculture, Ibadan, Nigeria

Prof Jessica Fanzo, PhD^{*,§}, School of Advanced International Studies

Tamer Farag[¶], Mohammad Farahmand, PhD^{†,‡,§,¶}, School of Public Health

Prof Anwar Faraj, PhD^{†,‡}, Department of Political Science

Emerito Jose A Faraon, MD[¶], Department of Health Policy and Administration

Mohammad Fareed, PhD^{†,‡,§},

Iranshahr University of Medical Sciences, Iranshahr, Iran; College of Medicine

Prof Roghiyeh Faridnia, PhD^{†,‡,§}, Department of Medical Parasitology

Carla Sofia e Sá Farinha, MSc^{‡,¶}, Dissemination Division; National Institute of Statistics, Lisbon, Portugal; Activity Planning and Control Unit

Andrea Farioli, PhD^{‡,§,¶}, Directorate-General of Health (DGS), Lisbon, Portugal; Department of Medical and Surgical Sciences

Pawan Sirwan Faris, PhD[¶], University of Bologna, Bologna, Italy; Department of Biology and Biotechnology "Lazzaro Spallanzani"; University of Pavia, Pavia, Italy; Department of Biology

Prof Andre Faro, PhD^{*,†,‡,§,¶}, Salahaddin University-Erbil, Erbil, Iraq; Department of Psychology

Mithila Faruque, MPH^{‡,§}, Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Prof Farshad Farzadfar, DSc^{*,†,‡,§}, Non-communicable Diseases Research Center

Nazir Fattahi^{*,†,‡,§}, Ali Akbar Fazaeli, PhD[†], Department of Health Policy, Management, and Economics

Mehdi Fazlzadeh, PhD^{†,‡,§,¶}, Department of Environmental Health Engineering; Department of Environmental Health Engineering

Prof Valery L Feigin^{*,†,‡,§,¶}, National Institute for Stroke and Applied Neurosciences

Rachel Feldman^{‡,§}, Seyed-Mohammad Fereshtehnejad, PhD^{*,†,‡,§}, Department of Neurobiology; Federal University of Sergipe, São Cristóvão, Brazil; Division of Neurology

Prof Eduarda Fernandes, PhD^{*,†,‡,§,}¶, Associated Laboratory for Green Chemistry (LAQV)

Giannina Ferrara, MD[§], Zahedan University of Medical Sciences, Zahedan, Iran; Research Center on Public Health

Pietro Ferrara^{*,¶}, Alize J Ferrari^{*,‡,§}, Prof Manuela L Ferreira, PhD^{†,‡,§}, Institute of Bone and Joint Research

Garumma Tolu Feyissa, PhD[¶], Department of Health Education and Behavioral Sciences

Lancet. Author manuscript; available in PMC 2020 November 13.

Irina Filip, MD^{*,†,‡,§,¶}, Psychiatry Department; Kaiser Permanente, Fontana, CA, USA; School of Health Sciences

Florian Fischer, PhD^{*,†,‡,§,¶},

A.T. Still University, Mesa, AZ, USA; Institute of Gerontological Health Services and Nursing Research

James L Fisher, PhD^{*,‡,§,¶}, James Cancer Hospital

Ryan Fitzgerald^{*,‡}, Prof Carsten Flohr, PhD^{†,‡}, Unit for Population-Based Dermatology Research

Luisa Sorio Flor, MPH^{‡,§,¶}, Ravensburg-Weingarten University of Applied Sciences, Weingarten, Germany; Sergio Arouca National School of Public Health, Rio de Janeiro,

Brazil; Federal University of Espírito Santo, Vitória, Brazil

Nataliya A Foigt, PhD^{*,†,‡,§,¶}, Institute of Gerontology

Prof Morenike Oluwatoyin Folayan, FWACS^{*,†,‡,§,¶}, National Academy of Medical Sciences of Ukraine, Kyiv, Ukraine; Department of Child Dental Health

Artem Alekseevich Fomenkov, PhD^{*,†,§,¶}, Obafemi Awolowo University, Ile-Ife, Nigeria; Department of Cell Biology and Biotechnology

Lisa M Force, MD^{‡,§}, Timiryazev Institute of Plant Physiology, Moscow, Russia; Department of Global Pediatric Medicine

Carla Fornari, PhD[‡], School of Medicine and Surgery

Masoud Foroutan, PhD^{*,‡,§,¶}, St Jude Children's Research Hospital, Memphis, TN, USA; Abadan Faculty of Medical Sciences

Jack T Fox[‡], Joel Msafiri Francis, PhD[¶], Abadan School of Medical Sciences, Abadan, Iran; Department of Family Medicine and Primary Care

Tahvi D Frank^{||}, Richard Charles Franklin, PhD^{*,§}, University of the Witwatersrand, Johannesburg, South Africa; College of Public Health, Medical, and Veterinary Sciences

Marisa Freitas^{*,†,‡,§}, Weijia Fu^{‡,§,¶}, Takeshi Fukumoto, PhD^{*,†,‡,§,¶}, James Cook University, Douglas, QLD, Australia; Department of Dermatology

Kai Fukutaki^{||}, John E Fuller[†], Nancy Fullman[¶], João M Furtado, MD^{*,†,‡,§,¶},

Mohamed M Gad, MD^{*,†,‡,§,¶}, Gillings School of Global Public Health; Kobe University, Kobe, Japan; Department of Cardiovascular Medicine

Prof Abhay Motiramji Gaidhane^{*,¶}, Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine

Emmanuela Gakidou^{*,†,‡,§,¶}, Natalie C Galles^{‡,¶}, Silvano Gallus, DSc^{*,†,‡,§,¶}, Gandhi Medical College Bhopal, Bhopal, India; Department of Environmental Health Sciences

Prof Amiran Gamkrelidze, PhD[‡], Cleveland Clinic, Cleveland, OH, USA; National Center for Disease Control and Public Health, Tbilisi, Georgia

Alberto L Garcia-Basteiro^{‡,§}, Manhiça Health Research Center (CISM), Manhiça, Mozambique; Viral and Bacterial Infections Research Program

William M Gardner^{*,‡,§,¶}, Biniyam Sahiledengle Geberemariyam, MPH^{*,‡,§,¶}, Department of Public Health

Abiyu Mekonnen Gebrehiwot, PhD^{†,‡,¶}, Department of Medical Laboratory Sciences

Ketema Bizuwork Gebremedhin, MSc^{*,†,‡}, Brighton and Sussex Medical School, Brighton, UK; Department of Nursing and Midwifery

Gebreamlak Gebremedhn Gebremeskel, MSc[¶], Department of Nursing; University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Leake G Gebremeskel, MSc^{*,¶}, Department of Pharmacy; School of Pharmacy

Begashaw Melaku Gebresillassie, MSc^{*}, Department of Clinical Pharmacy; School of Medicine and Public Health

Assefa Ayalew Ayalew Ayalew Gebreslassie, MPH^{‡,§}, Department of Reproductive Health

Yilma Chisha Dea Geramo, MSc^{*}, Department of Public Health

Abraham Geremew, PhD[§], Institute for Social and Economic Change, Bengaluru, India; Department of Environmental Health

Prof Anna Gershberg Hayoon, PhD^{‡,§}, Clinical Hospital, Porto Alegre, Brazil; Department of Preventive Medicine

Lancet. Author manuscript; available in PMC 2020 November 13.

Hailay Abrha Gesesew, PhD^{*,¶}, Department of Epidemiology; College of Medicine and Public Health

Prof Peter W Gething, PhD^{*,†,‡,§},

La Trobe University, Melbourne, VIC, Australia; Department of Public Health; Flinders University, Adelaide, SA, Australia; Telethon Kids Institute, Perth, WA, Australia

Kebede Embaye Gezae, MSc^{*}, National Institute of Health, Bogota, Colombia; Department of Biostatistics

Maryam Ghadimi^{‡,§}, Department of Radiology and Radiological Science

Prof Keyghobad Ghadiri, MD^{*,‡,§,¶}, Infectious Disease Research Center; Pediatric Department

Prof Fatemeh Ghaffarifar, PhD^{*,§}, Department of Parasitology and Entomology

Mansour Ghafourifard, PhD^{*,‡,§,¶}, Department of Medical Surgical Nursing

Alireza Ghajar, MD[‡], Endocrinology and Metabolism Research Center

Farhad Ghamari, PhD^{*,†,‡,§}, Occupational Health Department

Ahmad Ghashghaee, BSc^{*,†,‡,§,¶}, Health Management and Economics Research Center; Student Research Committee

Hesam Ghiasvand, PhD^{‡,§}, Institute of Health Research

Nermin Ghith, PhD^{‡,§,¶}, University of Exeter, Exeter, UK; Research Group for Genomic Epidemiology

Asadollah Gholamian, MSc^{*,†,‡,§,¶}, University of Cape Town, Cape Town, South Africa; Department of Biology; Young Researchers and Elite Club

Rakesh Ghosh, PhD[§], Institute for Global Health Sciences

Simona Giampaoli, MD^{*},

University of California San Francisco, San Francisco, CA, USA; Department of Cardiovascular Endocrine-metabolic Diseases and Aging

Prof Syed Amir Gilani, PhD^{†,‡,¶},

Italian National Institute of Health, Rome, Italy; Faculty of Allied Health Sciences; The University of Lahore, Lahore, Pakistan; Afro-Asian Institute, Lahore, Pakistan Prof Paramjit Singh Gill, DM^{*,‡,§,}¶, Medical School

Tiffany K Gill, PhD[¶], Mekelle University, Mekelle, Ethiopia; Adelaide Medical School

Richard F Gillum, MD^{*}, University of Warwick, Coventry, UK; Department of Community and Family Medicine; Division of General Internal Medicine

Prof Ibrahim Abdelmageed Ginawi, MD^{*}, Howard University, Washington, DC, USA; Family Medicine Research Center

Themba G Ginindza, PhD^{§,¶}, Ministry of Health, Hail, Saudi Arabia; Discipline of Public Health Medicine; University of KwaZulu-Natal, Durban, South Africa

Mojgan Gitimoghaddam, MD^{†,‡,¶}, University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Giorgia Giussani, PhD^{*,‡,§,¶}, Laboratory of Neurological Disorders

Mustefa Glagn, MPH¹, Department of Public Health

Ekaterina Vladimirovna Glushkova, PhD[†], Department of Epidemiology and Evidence-Based Medicine

Elena V Gnedovskaya, PhD^{*,†,§,¶}, Third Department of Neurology

Myron Anthony Godinho, MBBS^{*,¶}, School of Public Health and Community Medicine

Salime Goharinezhad, PhD^{§,¶}, Preventive Medicine and Public Health Research Center

Mahaveer Golechha, PhD^{*}, Health Systems and Policy Research

Srinivas Goli, PhD[‡], Indian Institute of Public Health Gandhinagar, Gandhinagar, India; Center for the Studies in Regional Development (CSRD); UWA Public Policy Institute

Prof Ricardo Santiago Gomez, PhD[‡], Department of Oral Surgery and Pathology

Philimon N Gona, PhD^{*}, University of Western Australia, Perth, WA, Australia; Department of Exercise and Health Sciences

Sameer Vali Gopalani, MPH^{*,†,‡,§,¶},

University of Massachusetts Boston, Boston, MA, USA; Hudson College of Public Health; University of Oklahoma Health Sciences Center, Oklahoma City, OK, USA; Department of Health and Social Affairs

Prof Emily Goren, PhD^{||},

University of Washington, Seattle, WA, USA; University of Nigeria Nsukka, Enugu, Nigeria; Graduate School of Public Health

Giuseppe Gorini, MD^{*,‡,§},

Metropolitan Autonomous University, Mexico City, Mexico; Oncological Network, Prevention and Research Institute

Taren M Gorman[‡], Harrison Chase Gottlich[‡], Houman Goudarzi, PhD^{‡,§}, Government of the Federated States of Micronesia, Palikir, Federated States of Micronesia; Center for Environmental and Health Sciences; Department of Respiratory Medicine

Amir Hossein Goudarzian, MSc¹¹, Faculty of Nursing and Midwifery

Alessandra C Goulart, PhD^{*,†,‡,§},

University of Oxford, Oxford, UK; Center for Clinical and Epidemiological Research; Department of Internal Medicine

Prof Bárbara Niegia Garcia Goulart, DSc^{*,‡,¶}, Postgraduate Program in Epidemiology

Ayman Grada, MD^{*,‡}, Department of Dermatology

Felix Greaves, PhD^{*,§}, Department of Primary Care and Public Health; Health Improvement Directorate

Prof Michal Grivna, PhD^{‡,§},

Institute of Public Health, College of Medicine and Health Sciences; United Arab Emirates University, AI Ain, United Arab Emirates; Department of Public Health and Preventive Medicine

Giuseppe Grosso, PhD^{‡,§}, Department of Biomedical and Biotechnological Sciences

Mohammed Ibrahim Mohialdeen Gubari, PhD^{‡,§,¶}, Department of Family and Community Medicine

Nachiket Gudi, MPH^{*}, Department of Health Policy

Prof Harish Chander Gugnani, PhD^{†,‡,§}, University of Sulaimani, Sulaimani, Iraq; Department of Epidemiology; Department of Microbiology

Prof Andre Luiz Sena Guimaraes, PhD[‡],

Saint James School of Medicine, The Valley, Anguilla; School of Dentistry

Rafael Alves Guimarães, MSc^{*,‡,§,¶}, State University of Montes Claros, Montes Claros, Brazil; Institute of Tropical Pathology and Public Health (IPTSP)

Rashid Abdi Guled, PhD^{‡,§,¶}, Federal University of Goias, Goiânia, Brazil; College of Medicine and Health Science

Teklemariam Gultie, MSc[¶], Department of Midwifery

Prof Gaorui Guo, PhD^{‡,§},

Department of Epidemiology and Preventive Medicine; Jigjiga University, Jijiga, Ethiopia; Department of Epidemiology

Yuming Guo^{*,†,‡,§,¶}, Prof Rahul Gupta, MD^{*,¶},

Indian Institute of Technology Kanpur, Kanpur, India; Department of Preventive Cardiology; Eternal Heart Care Centre & Research Institute, Jaipur, India; Department of Medicine; Mahatma Gandhi University Medical Sciences, Jaipur, India; Medical Resources; March of Dimes, Arlington, VA, USA; Health Policy, Management and Leadership

Rajeev Gupta, MD^{*,†,‡,§,¶}, Prof Subodh Sharan Gupta, MD^{*,†}, Binzhou Medical University, Yantai City, China; Department of Community Medicine

Prof Tarun Gupta, DSc[§], Mahatma Gandhi Institute of Medical Sciences, Sevagram, India; Department of Civil Engineering

Juanita A Haagsma, PhD^{*,†,‡},

West Virginia University School of Public Health, Morgantown, WV, USA; Department of Public Health

Vladimir Hachinski, DSc^{*},

Erasmus University Medical Center, Rotterdam, Netherlands; Clinical Neurological Sciences; The University of Western Ontario, London, ON, Canada; Lawson Health Research Institute, London, ON, Canada

Beatrix Haddock^{‡,§}, Nima Hafezi-Nejad^{*,‡,§,¶}, Abdul Hafiz, PhD^{‡,§,¶}, College of Medicine

Hailey Hagins[‡], Lydia M Haile, MSc^{*,‡}, University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Teklehaimanot Gereziher Haile[¶], Arvin Haj-Mirzaian^{*,†,§}, Arya Haj-Mirzaian^{†,§}, Brian J Hall, PhD^{*,‡,§},

Department of Psychology

Iman Halvaei, PhD^{†,‡,§},

Prof Randah R Hamadeh, PhD^{*,†,‡,§,¶}, Umm AL Qura University, Makkah, Saudi Arabia; Department of Family and Community Medicine

Kanaan Hamagharib Abdullah, PhD^{†,‡}, Guy's and St. Thomas' NHS Foundation Trust, London, UK; College of Law and Political Science

Sajid Hameed, MPH[¶], University Institute of Public Health

Prof Samer Hamidi, DrPH^{*,§,¶}, Arabian Gulf University, Manama, Bahrain; School of Health and Environmental Studies

Erin B Hamilton[‡], Melanie S Hammer, PhD[§], Mayo Clinic Foundation for Medical Education and Research, Rochester, MN, USA; Department of Energy, Environmental and Chemical Engineering; Department of Physics and Atmospheric Science

Chieh Han^{*,†,‡,¶}, Hannah Han^{‡,¶}, Demelash Woldeyohannes Handiso, MPH^{†,¶}, Aksum University, Aksum, Ethiopia; Department of Public Health

Asif Hanif, PhD[¶], University Institute of Public Health

Prof Graeme J Hankey, MD^{*,†,‡,§,¶}, Medical School; Hamdan Bin Mohammed Smart University, Dubai, United Arab Emirates; Department of Neurology

Hamidreza Haririan, PhD^{†,§}, Tabriz University of Medical Sciences, Tabriz, Iran

Josep Maria Haro, MD^{*,†,‡,§,¶}, Research Unit; Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain

James D Harvey[‡], Ahmed I Hasaballah, PhD^{*,†,‡,§,¶}, Department of Zoology and Entomology

Md Mehedi Hasan, MPH^{§,¶},

Carol Davila University of Medicine and Pharmacy, Bucharest, Romania; ARC Centre of Excellence for Children and Families over the Life Course; Institute for Social Science Research

Edris Hasanpoor, PhD[§], Tarbiat Modares University, Tehran, Iran; Department of Healthcare Management

Amir Hasanzadeh, PhD[‡],

Department of Microbiology; Department of Microbiology

Maryam Hashemian, PhD[‡], Digestive Diseases Research Institute; AI Azhar University, Cairo, Egypt; Biology Department

Abdiwahab Hashi, PhD^{*,§,¶}, Department of Public Health

Amr Hassan, MD^{*,¶}, Department of Neurology

Shoaib Hassan, MPhil[¶], University of Nottingham, Nottingham, UK; Center for International Health (CIH) and Bergen Center for Ethics and Priority Setting (BCEPS)

Soheil Hassanipour, PhD^{*,†,‡,§,¶}, Utica College, Utica, NY, USA; Caspian Digestive Disease Research Center; Gastrointestinal and Liver Diseases Research Center

Hadi Hassankhani, PhD^{*,†,‡,§,¶}, School of Nursing and Midwifery; Guilan University of Medical Sciences, Rasht, Iran; Independent Consultant, Tabriz, Iran

Rasmus J Havmoeller, PhD^{*,‡,§,¶}, Skaane University Hospital

Prof Roderick J Hay, MD[‡], St John's Institute of Dermatology; Skaane County Council, Malmoe, Sweden; International Foundation for Dermatology, London, UK

Simon I Hay^{*,†,‡,§,¶,||}, Khezar Hayat, MS^{*,‡,§,¶},

Institute of Pharmaceutical Sciences; University of Veterinary and Animal Sciences, Lahore, Pakistan; Department of Pharmacy Administration and Clinical Pharmacy

Behzad Heibati, PhD[†], Xian Jiaotong University, Xian, China; Center for Environmental and Respiratory Health Research

Behnam Heidari, MD[‡], Endocrinology and Metabolism Research Center

Golnaz Heidari, MD^{‡,§,¶}, University of Oulu, Oulu, Finland; Independent Consultant, Santa Clara, CA, USA

Reza Heidari-Soureshjani^{†,‡,§,¶}, Delia Hendrie, PhD^{‡,¶}, School of Public Health

Kiana Henny[†], Andualem Henok, MPH^{*}, Department of Public Health

Hannah J Henrikson^{‡,§}, Nathaniel J Henry^{*,†,‡}, Molly E Herbert[§], Prof Claudiu Herteliu, PhD^{*,†,‡,§,¶},

Mizan-Tepi University, Mizan Teferi, Ethiopia; School of Business

Fatemeh Heydarpour, PhD^{*,†,‡,§}, Medical Biology Research Center

Thomas R Hird, PhD^{‡,§,¶}, London South Bank University, London, UK; Department for Health

Hung Chak Ho, PhD^{*,¶}, Department of Urban Planning and Design

Prof Hans W Hoek, MD^{‡,§}, Department of Psychiatry; Baker Heart and Diabetes Institute, Melbourne, VIC, Australia; Department of Epidemiology

Michael K Hole, MD^{*,†,‡,¶}, Columbia University, New York, NY, USA; Department of Pediatrics

Ramesh Holla^{*,‡,§,¶}, Prof Bruce Hollingsworth, PhD[¶], University of Texas Austin, Austin, TX, USA; Department of Health Economics, Lancaster University, Lancashire, UK

Praveen Hoogar, PhD^{*,†,‡,§,¶}, South Australian Health and Medical Research Institute, Adelaide, SA, Australia; Centre for Bio Cultural Studies (CBiCS)

Kathleen Pillsbury Hopf, MPH^{*,¶}, Metrics and Evaluation; Operation Smile, Virginia Beach, VA, USA; Independent Consultant, Virginia Beach, VA, USA

Nobuyuki Horita, PhD[¶], National Human Genome Research Institute (NHGRI); Department of Pulmonology

H Dean Hosgood, PhD^{*,†,‡,§}, Yokohama City University, Yokohama, Japan; Department of Epidemiology and Population Health

Naznin Hossain, MPhil^{*,†,§,¶}, Albert Einstein College of Medicine, Bronx, NY, USA; Department of Pharmacology

Prof Mostafa Hosseini, PhD^{§,¶}, Department of Epidemiology and Biostatistics; Pediatric Chronic Kidney Disease Research Center

Mehdi Hosseinzadeh, PhD^{*,†,‡,§,¶}, Department of Computer Science; Institute of Research and Development

Mihaela Hostiuc, PhD^{*,†,‡,§,¶}, Department of Internal Medicine Sorin Hostiuc, PhD^{*,†,‡,§,¶},

Department of Legal Medicine and Bioethics; Duy Tan University, Da Nang, Vietnam; Clinical Legal Medicine Department

Prof Mowafa Househ, PhD^{*,†,‡,§,¶},

National Institute of Legal Medicine Mina Minovici, Bucharest, Romania; Division of Information and Computing Technology

Damian G Hoy, PhD^{*,†,‡}, University of Sydney, Sydney, NSW, Australia

Prof Mohamed Hsairi, MPH^{‡,§}, Hamad Bin Khalifa University, Doha, Qatar; Faculty of Medicine of Tunis

Thomas Hsiao^{||}, Vivian Chia-rong Hsieh, PhD^{‡,§,¶}, Department of Health Services Administration

Prof Guoqing Hu, PhD^{*,†,‡,§,¶}, Department of Epidemiology and Health Statistics

Kejia Hu, PhD[§], China Medical University, Taichung, Taiwan; School of Public Health

Tanvir M Huda, PhD^{*,†,‡,§,¶}, Sydney School of Public Health; Zhejiang University, Hangzhou, China; Maternal and Child Health Division

Fernando N Hugo, PhD^{*,‡}, National Research Council, Padova, Italy; Department of Preventive and Social Dentistry

Prof Ayesha Humayun, PhD^{*,§,¶}, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh; Department of Public Health and Community Medicine

Rabia Hussain, PhD^{*}, Shaikh Khalifa Bin Zayed Al-Nahyan Medical College, Lahore, Pakistan; School of Pharmaceutical Sciences

Chantal K Huynh^{‡,§}, Prof Bing-Fang Hwang, PhD^{*,‡,§,¶}, Department of Occupational Safety and Health

Vincent C lannucci^{‡,§}, Prof Ivo lavicoli, PhD^{*,¶}, Wayne State University, Detroit, MI, USA; Department of Public Health

Charles Ugochukwu Ibeneme, MPH^{*},

University of Science Malaysia, Penang, Malaysia; Nigerian Field Epidemiology and Laboratory Training Program; African Field Epidemiology Network, Abuja, Nigeria; Department of Public Health and Disease Control

Segun Emmanuel Ibitoye, MPH^{*,†,‡,§,¶}, Department of Health Promotion and Education

Nayu Ikeda, PhD^{§,¶},

Ministry of Health, Umuahia, Nigeria; International Center for Nutrition and Information

Kevin S Ikuta, MD^{*,†,‡,§}, Division of Allergy and Infectious Diseases

Olayinka Stephen Ilesanmi, PhD^{*,†,‡,§,¶}, Department of Community Medicine; Cardiff University, Cardiff, UK; Department of Community Medicine

Irena M Ilic, PhD^{*,†,‡,§,¶}, Faculty of Medicine

Prof Milena D Ilic, PhD^{*,†,‡,§,¶}, National Institutes of Biomedical Innovation, Health and Nutrition, Tokyo, Japan; Department of Epidemiology

Mohammad Hasan Imani-Nasab[†], Leeberk Raja Inbaraj, MD^{*,‡,§,¶}, University of Kragujevac, Kragujevac, Serbia; Division of Community Health and Family Medicine

Helen Ippolito^{‡,§}, Usman Iqbal, PhD^{*,§,¶}, Bangalore Baptist Hospital, Bangalore, India; College of Public Health

Seyed Sina Naghibi Irvani, MD^{*,‡,§,¶}, Research Institute for Endocrine Sciences

Caleb Mackay Salpeter Irvine^{§,¶}, M Mofizul Islam, MSc, PhD^{*,‡,§,¶}, Department of Public Health; Graduate Institute of Biomedical Informatics

MdMohaimenul Islam, PhD^{†,‡}, Institute for Physical Activity and Nutrition; Sydney Medical School

Sheikh Mohammed Shariful Islam^{*,‡,§,¶}, Farhad Islami, PhD^{‡,¶}, Taipei Medical University, Taipei, Taiwan; Surveillance and Health Services Research

Prof Hiroyasu Iso, MD^{*,†,‡,§,¶}, Department of Social Medicine

Prof Rebecca Q Ivers, PhD^{‡,§}, School of Public Health and Community Medicine

Chidozie C D Iwu, MSc^{*,‡,§,¶}, Osaka University, Suita-city, Japan; Department of Biochemistry and Microbiology

Chinwe Juliana Iwu, PhD^{†,§,¶}, Department of Global Health; South African Medical Research Council, Cape Town, South Africa

Ihoghosa Osamuyi Iyamu, MD^{‡,§},

School of Population and Public Health; University of Fort Hare, Alice, South Africa; Knowledge Translation

Lancet. Author manuscript; available in PMC 2020 November 13.

Jalil Jaafari, PhD^{*,†,‡,§,¶}, Department of Environmental Health Engineering

Kathryn H Jacobsen, PhD^{†,‡,§}, Centre for Health Evaluation and Outcome Sciences, Vancouver, BC, Canada; Department of Global and Community Health

Farhad Jadidi-Niaragh^{‡,¶}, Hussain Jafari^{‡,§}, Morteza Jafarinia, MSc^{‡,§,¶}, Department of Immunology

Deepa Jahagirdar^{*,†,‡,¶}, Mohammad Ali Jahani, PhD^{*,‡,§,¶}, Social Determinants of Health Research Center

Nader Jahanmehr, PhD^{†,‡,¶},

Safety Promotion and Injury Prevention Research Center; School of Management and Medical Education

Prof Mihajlo Jakovljevic, PhD^{*,‡,§,¶}, N. A. Semashko Department of Public Health and Healthcare; Department of

Global Health, Economics and Policy

Amir Jalali, PhD^{*,†,‡},

Health Institute; Substance Abuse Prevention Research Center; Substance Abuse Prevention Research Center

Farzad Jalilian, PhD^{*,†,‡,§}, Spencer L James^{†,‡,§}, Hosna Janjani, PhD^{†,‡,§,¶}, Department of Environmental Health Engineering; Kermanshah University of Medical Sciences, Kermanshah, Iran

Prof Manthan Dilipkumar Janodia, PhD^{*,‡}, Manipal College of Pharmaceutical Sciences

Tahereh Javaheri, PhD^{*,§,¶}, Health Informatic Lab

Javad Javidnia, PhD[§], Department of Medical Mycology

Achala Upendra Jayatilleke, PhD^{‡,¶}, George Mason University, Fairfax, VA, USA; Postgraduate Institute of Medicine; University of Colombo, Colombo, Sri Lanka; Faculty of Graduate Studies

Panniyammakal Jeemon, PhD^{‡,§}, Institute for Violence and Injury Prevention, Colombo, Sri Lanka; Achutha Menon Centre for Health Science Studies

Ensiyeh Jenabi^{*,†,‡,§,¶}, Ravi Prakash Jha, MSc^{*,†,‡,§,¶}, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, India; Department of Community Medicine; Baba Saheb Ambedkar Medical College & Hospital, Delhi, India; Department of Community Medicine Prof Vivekanand Jha, MD^{*,†,‡,§,¶}, George Institute for Global Health; Manipal Academy of Higher Education, Mangalore, India

John S Ji, DSc^{*,†,‡,§,¶},

Nicholas School of the Environment; Banaras Hindu University, Varanasi, India; Environmental Research Center

Peng Jia, PhD^{‡,¶}, Duke Kunshan University, Kunshan, China; Department of Earth Observation Science

Lars Johansson, DrPH[§],

The George Institute for Global Health, Sydney, Australia; Independent Consultant, Eiksmarka, Norway

Oommen John, MD^{‡,§},

Duke University, Durham, NC, USA; Department of Medicine; University of Twente, Enschede, Netherlands; Renal and Cardiovascular Division

Yetunde O John-Akinola^{‡,§,¶}, Catherine Owens Johnson^{*,‡,§}, Sarah Charlotte Johnson[‡], Prof Jost B Jonas, MD^{*,†,‡,§,¶}, University of Auckland, Auckland, New Zealand; Department of Ophthalmology; Beijing Institute of Ophthalmology

Tamas Joo, MSc[‡], Health Services Management Training Centre

Ankur Joshi, MD[‡], All India Institute of Medical Sciences, Jodhpur, India; Department of Community Medicine and Family Medicine

Farahnaz Joukar, PhD^{†,§,¶}, Utica College, Utica, NY, USA; Caspian Digestive Disease Research Center; Gastrointestinal and Liver Diseases Research Center

Jacek Jerzy Jozwiak, PhD^{†,‡,§,¶},

Semmelweis University, Budapest, Hungary; Department of Family Medicine and Public Health

Mikk Jürisson, PhD^{*,†,‡,§,¶},

University of Opole, Opole, Poland; Institute of Family Medicine and Public Health

Ali Kabir, MD^{*,‡,§}, Minimally Invasive Surgery Research Center

Zubair Kabir, PhD^{*,†,‡,§,¶}, University of Tartu, Tartu, Estonia; School of Public Health

Hamed Kalani, PhD^{†,‡,§}, Infectious Diseases Research Center Rizwan Kalani, MD^{*,‡,§}, Department of Neurology

Leila R Kalankesh, PhD^{*,†,‡,§,¶}, Health Services Management Research Center

Rohollah Kalhor, PhD^{*,‡,§,¶},

Italian National Institute of Statistics, Rome, Italy; Health Services Management Department; Institute for Prevention of Non-communicable Diseases

Aruna M Kamath, MD¹, Ain Shams University, Cairo, Egypt; Department of Anesthesiology & Pain Medicine

Zahra Kamiab^{†,‡}, Tanuj Kanchan, MD^{*,†,‡,§,¶}, Department of Forensic Medicine and Toxicology

Neeti Kapoor, MSc^{*,†,§,¶}, University of Toronto, Toronto, ON, Canada; Department of Forensic Science

Behzad Karami Matin^{*,‡,§,}¶, Marina Karanikolos[¶], André Karch, MD^{*,†,‡,§}, Institute for Epidemiology and Social Medicine

Mohd Anisul Karim, MD^{*,‡,§},

Nuffield Department of Population Health; Golestan University of Medical Sciences, Gorgan, Iran; Centre for Therapeutic Target Validation

Salah Eddin Karimi, PhD^{*,†,‡},

Social Determinants of Health Research Center; Department of Neuroscience; Department of Physiology; Wellcome Trust Sanger Institute, Cambridge, UK; Department of Health Management and System Sciences; University of Louisville, Louisville, KY, USA; Center for Health Equity

Seyed Asaad Karimi, PhD[†], Seyed M Karimi[¶], Ayele Semachew Kasa, MSc^{*}, Department of Adult Health Nursing

Getachew Mullu Kassa, MSc^{‡,§},

Louisville Metro Department of Public Health & Wellness, Louisville, KY, USA; College of Health Sciences

Nicholas J Kassebaum, MD^{*,†,‡,¶}, Ain Shams University, Cairo, Egypt; Department of Anesthesiology & Pain Medicine

Srinivasa Vittal Katikireddi, PhD^{†,‡,§,¶},

Debre Markos University, Debre Markos, Ethiopia; MRC/CSO Social and Public Health Sciences Unit

Prof Norito Kawakami, PhD^{†,‡}, Department of Mental Health

Gbenga A Kayode, PhD^{*,†,‡,§,¶},

University of Tokyo, Tokyo, Japan; International Research Center of Excellence; Julius Centre for Health Sciences and Primary Care

Ali Kazemi Karyani^{*,§}, Suzanne H Keddie, MSc[‡], University of Alberta, Edmonton, AB, Canada; Big Data Institute

Prof Peter Njenga Keiyoro, PhD^{*,†,§,¶}, Open, Distance and eLearning Campus

Cathleen Keller^{†,‡,§}, Laura Kemmer[§], Parkes J Kendrick[§], Maia Kereselidze, PhD[‡],

Cleveland Clinic, Cleveland, OH, USA; National Center for Disease Control and Public Health, Tbilisi, Georgia

Prof Yousef Saleh Khader, PhD^{†,¶}, University of Nairobi, Nairobi, Kenya; Department of Public Health

Morteza Abdullatif Khafaie, PhD[‡], Social Determinants of Health Research Center

Nauman Khalid, PhD^{*,†,‡,§}, Jordan University of Science and Technology, Irbid, Jordan; School of Food and Agricultural Sciences

Mohammad Khammarnia, PhD^{*,§,¶}, Health Promotion Research Center

Ejaz Ahmad Khan, MPH^{*,†,§,¶}, University of Management and Technology, Lahore, Pakistan; Department of Epidemiology and Biostatistics

Prof Gulfaraz Khan, PhD^{*}, Department of Medical Microbiology & Immunology

Maseer Khan, MD^{*,†,‡,§,¶}, The University of Jordan, Amman, Jordan; Epidemiology Department

Prof Young-Ho Khang, MD^{†,¶}, Health Services Academy, Islamabad, Pakistan; Department of Health Policy and Management; Institute of Health Policy and Management

Khaled Khatab, PhD^{*,‡,§,¶},

Seoul National University, Seoul, South Korea; Faculty of Health and Wellbeing; Sheffield Hallam University, Sheffield, UK; College of Arts and Sciences

Amir M Khater, MD^{†,¶}, National Hepatology and Tropical Medicine Research Institute

Mona M Khater, MD^{*,†,‡,§,¶}, Department of Medical Parasitology

Prof Mahalaqua Nazli Khatib, PhD^{*,‡,§,¶}, Global Evidence Synthesis Initiative Maryam Khayamzadeh, MD^{‡,§,¶},

Shahid Beheshti University of Medical Sciences, Tehran, Iran; Ohio University, Zanesville, OH, USA; The Iranian Academy of Medical Sciences, Tehran, Iran

Salman Khazaei^{†,§}, Prof Habibolah Khazaie, MD^{*,†}, Department of Psychiatry

Mohammad Taghi Khodayari, PhD^{†,‡}, Department of Public Health; Department of Public Health

Abdullah T Khoja, MD^{*}, Department of Health Policy and Management; Department of Public Health

Prof Jagdish Khubchandani, PhD^{*,†,¶}, Department of Nutrition and Health Science

Roba Khundkar, MA[‡], Nuffield Department of Surgical Sciences

Neda Kianipour, MA^{*,†,‡,¶}, Department of Public Health

Christian Kieling, MD^{*,‡,§}, Department of Psychiatry; Ball State University, Muncie, IN, USA; Division of Child & Adolescent Psychiatry

Cho-il Kim, PhD[†], Korea Health Industry Development Institute, Cheongju-si, South Korea

Prof Daniel Kim, DrPH[‡], Department of Health Sciences

Young-Eun Kim, PhD^{*,†,‡,¶}, Clinical Hospital, Porto Alegre, Brazil; Department of Preventive Medicine; School of Traditional Chinese Medicine

Yun Jin Kim^{*,†,‡,§,¶}, Ruth W Kimokoti, MD^{*,‡,§,¶}, Northeastern University, Boston, MA, USA; Department of Nutrition

Yohannes Kinfu, PhD^{*,†,¶}, Simmons University, Boston, MA, USA; Faculty of Health; University of Canberra, Canberra, ACT, Australia; College of Medicine

Prof Adnan Kisa, PhD^{*,†,‡,§,¶},

Oslo Metropolitan University, Oslo, Norway; School of Health Sciences; Kristiania University College, Oslo, Norway; Global Community Health and Behavioral Sciences

Sezer Kisa, PhD^{*,†,‡,§}, Qatar University, Doha, Qatar; Department of Nursing and Health Promotion

Katarzyna Kissimova-Skarbek^{†,‡,¶}, Prof Niranjan Kissoon, MD^{*}, University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

et al.

Prof Mika Kivimäki, PhD^{*,†,‡,§,¶},

Jagiellonian University Medical College, Krakow, Poland; Department of Public Health; Hanoi National University of Education, Hanoi, Vietnam; Department of Epidemiology and Public Health

Cameron J Kneib, MD^{*,‡,¶}, Division of Plastic Surgery

Luke D Knibbs[§], Megan Knight^{*,¶}, Ann Kristin Skrindo Knudsen, PhD^{‡,§}, Krishna Institute of Medical Sciences, Karad, India; Centre for Disease Burden

Jonathan M Kocarnik, PhD^{‡,§,¶}, Public Health Sciences Division

Sonali Kochhar, MD^{§,¶}, Department of Global Health; Fred Hutchinson Cancer Research Center, Seattle, WA, USA; Global Healthcare Consulting, New Delhi, India

Prof David S Q Koh, PhD^{*}, Saw Swee Hock School of Public Health; Institute of Health Sciences

Stefan Kohler[¶], Heidelberg Institute of Global Health (HIGH)

Tufa Kolola, MPH[‡], Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Hamidreza Komaki, MD^{*,†}, Gadong, Brunei; Brain Engineering Research Center

Jacek A Kopec, PhD^{*,†,‡,§,¶},

School of Population and Public Health; Institute for Research in Fundamental Sciences, Tehran, Iran; Arthritis Research Canada, Richmond, BC, Canada

Anna V Korotkova, PhD[¶], Federal Research Institute for Health Organization and Informatics of the Ministry of Health (FRIHOI), Moscow, Russia

Vladimir Andreevich Korshunov, PhD^{§,¶}, Department of Epidemiology and Evidence-Based Medicine

Soewarta Kosen, MD^{*,†,‡,¶}, Independent Consultant, Jakarta, Indonesia

Anirudh Kotlo, MS^{*,¶}, Department of Global Health

Prof Parvaiz A Koul, MD^{*,†,‡,§,¶}, Vancouver Virology Centre, Vancouver, BC, Canada; Department of Internal and Pulmonary Medicine

Ai Koyanagi, MD^{*,†,‡,§,¶},

et al.

Barcelona, Spain; Sheri Kashmir Institute of Medical Sciences, Srinagar, India; Biomedical Research Networking Center for Mental Health Network (CIBERSAM)

Moritz U G Kraemer, PhD[§], Harvard Medical School; Department of Zoology

Michael A Kravchenko, PhD^{†,‡}, Research Center of Neurology, Moscow, Russia

Kewal Krishan, PhD^{*,†,‡,§,¶}, San Juan de Dios Sanitary Park, Sant Boi de Llobregat, Spain; Department of Anthropology

Kris J Krohn^{*,†,‡,§,¶}, Prof Hans Kromhout, PhD[§], Institute of Human Virology Nigeria, Abuja, Nigeria; Institute for Risk Assessment Sciences

Prof Shaji KS, MD^{*},

Panjab University, Chandigarh, India; Department of Psychiatry; Government Medical College Thrissur, Thrissur, India; Kerala University of Health Scinces, Thrissur, India

Prof Barthelemy Kuate Defo, PhD^{†,‡,§}, Department of Social and Preventive Medicine; Department of Demography

Burcu Kucuk Bicer, PhD[‡], University of Montreal, Montreal, QC, Canada; Department of Medical Education and Informatics

Nuworza Kugbey, PhD[¶], King Saud University, Riyadh, Saudi Arabia; Department of Family and Community Health

Vaman Kulkarni[¶], G Anil Kumar, PhD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Manasi Kumar, PhD^{*,†,‡,¶}, Division of Psychology and Language Sciences; Utrecht University, Utrecht, Netherlands; Department of Psychiatry

Nithin Kumar^{*,¶}, Pushpendra Kumar, PhD^{†,‡}, International Institute for Population Sciences, Mumbai, India

Vivek Kumar, MD^{†,‡,§}, Iran University of Medical Sciences, Tehran, Iran; Brigham and Women's Hospital

Girikumar Kumaresh, MS[‡], Mechanical and Industrial Engineering

Om P Kurmi, PhD^{*,‡,§,¶},

Dian Kusuma, DSc^{*,†,‡,§,¶},

Imperial College Business School; Indian Institute of Technology, Roorkee, Roorkee, India; Faculty of Public Health

Hmwe Hmwe Kyu^{*,†,‡,¶}, Prof Carlo La Vecchia, MD^{*,†,‡,§,¶}, Department of Clinical Sciences and Community Health

Ben Lacey, PhD^{*,†,‡,§,¶},

Nuffield Department of Population Health; University of Indonesia, Depok, Indonesia; National Institute for Health Research (NIHR) Oxford Biomedical Research Centre, Oxford, UK

Dharmesh Kumar Lal, MD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Ratilal Lalloo, PhD^{*,†,‡,§,¶}, School of Dentistry

Prof Tea Lallukka, PhD^{*,§}, Jagiellonian University Medical College, Krakow, Poland; Department of Public Health

Jennifer O Lam, PhD[‡], University of Ottawa, Ottawa, ON, Canada; Division of Research

Faris Hasan Lami, PhD^{†,‡,§}, Department of Community and Family Medicine

Qing Lan, PhD^{*}, Maragheh University of Medical Sciences, Maragheh, Iran; Division of Cancer Epidemiology and Genetics

Prof Iván Landires, MD^{*,‡,§,¶}, University of Baghdad, Baghdad, Iraq; Unit of Genetics and Public Health; Ministry of Health, Herrera, Panama

Justin J Lang, PhD^{‡,§}, Centre for Surveillance and Applied Research

Prof Sinéad M Langan, PhD[§], St John's Institute of Dermatology

Prof Van Charles Lansingh, PhD^{‡,¶}, Medical Director; HelpMeSee, New York, NY, USA; General Director

Prof Sonia Lansky, PhD[†], Mexican Institute of Ophthalmology, Queretaro, Mexico; Belo Horizonte City Hall

Prof Heidi Jane Larson, PhD^{*}, Department of Infectious Disease Epidemiology Samantha Leigh Larson^{†,‡}, Prof Anders O Larsson, PhD^{†,‡,§,¶}, Municipal Health Department of Belo Horizonte, Belo Horizonte, Brazil; Department of Medical Sciences; Uppsala University, Uppsala, Sweden; Department of Clinical Chemistry and Pharmacology

Savita Lasrado, MS^{*,†,‡,§,¶}, Uppsala University Hospital, Uppsala, Sweden; Department of Otorhinolaryngology

Zohra S Lassi, PhD^{†,‡}, Robinson Research Institute

Kathryn Mei-Ming Lau^{*,‡,¶}, Paolo Lauriola, MD^{*,§,¶}, Institute of Clinical Physiology

Pablo M Lavados, MD[‡], Father Muller Medical College, Mangalore, India; Department of Neurology and Psychiatry; German Clinic of Santiago, Santiago, Chile; Faculty of Medicine

Prof Jeffrey V Lazarus, PhD^{†,‡,§,¶}, Barcelona Institute for Global Health, Barcelona, Spain

Lisiane F Leal, PhD^{*}, Epidemiology, Biostatistics and Occupational Health; University of Development, Santiago, Chile; Centre for Clinical Epidemiology

Janet L Leasher, OD^{*}, Jewish General Hospital, Montreal, QC, Canada; College of Optometry

Jorge R Ledesma^{*,‡,¶}, Paul H Lee, PhD^{*,†,‡,§,¶}, School of Nursing

Shaun Wen Huey Lee, PhD^{*,†,‡,§,¶}, School of Pharmacy; Nova Southeastern University, Fort Lauderdale, FL, USA; School of Pharmacy

Andrew T Leever^{†,¶}, Kate E LeGrand^{†,‡,§,¶}, James Leigh, MD^{‡,§,¶}, The Peter Doherty Institute for Infection and Immunity, Melbourne, VIC, Australia; Asbestos Diseases Research Institute

Matilde Leonardi, MD^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Haley Lescinsky^{‡,§}, Janni Leung, PhD^{*,‡,§}, Center for Youth Substance Abuse Research

Miriam Levi, PhD^{‡,§}, Deakin University, Burwood, VIC, Australia; Department of Prevention

Prof Sarah Lewington, PhD[‡],

Medical Research Council Population Health Research Unit; Nuffield Department of Population Health

Bingyu Li, PhD^{*}, Carlo Besta Neurological Institute IRCCS, Milan, Italy; Department of Sociology

Shanshan Li, PhD^{*,†,‡,§,¶}, School of Public Health and Preventive Medicine

Lee-Ling Lim, MRCP^{*,†,‡,§,¶},

Shenzhen University, Shenzhen, China; Department of Medicine; University of Malaya, Kuala Lumpur, Malaysia; Department of Medicine and Therapeutics

Christine Lin, PhD[‡],

The Chinese University of Hong Kong, Shatin, China; Asbestos Diseases Research Institute, Concord, NSW, Australia; University Tunis El Manar, Tunis, Tunisia; College of Public Health

Ro-Ting Lin^{*,‡}, Christine Linehan, PhD[‡], UCD Centre for Disability Studies

Prof Shai Linn, DrPH^{†,‡,§}, University College Dublin, Dublin, Ireland; School of Public Health

Prof Stefan Listl, PhD*,

University of Haifa, Haifa, Israel; Department of Dentistry- Quality and Safety of Oral Health Care; Radboud University, Nijmegen, Netherlands; Department of Translational Health Economics

Hung-Chun Liu[‡], Prof Shiwei Liu, PhD^{‡,§}, Chinese Center for Disease Control and Prevention, Beijing, China

Simin Liu, MD[§], Department of Epidemiology

Xuefeng Liu, PhD^{*,¶}, Department of Systems, Populations, and Leadership

Prof Yang Liu, PhD^{*,§}, Rollins School of Public Health

Zichen Liu[‡], Justin Lo[§], Prof Rakesh Lodha, MD[†], Department of Paediatrics

Prof Giancarlo Logroscino, PhD^{*,†,¶}, Brown University, Providence, RI, USA; Department of Basic Medical Sciences, Neuroscience and Sense Organs; University of Bari Aldo Moro, Bari, Italy; Department Clinical Research in Neurology

Katharine J Looker, PhD[‡], Fondazione Cardinale Giovanni Panico Hospital, Tricase, Italy; Population Health Sciences Prof Alan D Lopez, PhD^{*,†,‡,§,¶}, Melbourne School of Population and Global Health

Jaifred Christian F Lopez, MD^{*,§}, Department of Nutrition; University of Bristol, Bristol, UK; Alliance for Improving Health Outcomes, Inc., Quezon City, Philippines

Platon D Lopukhov, PhD^{†,‡,§,¶}, World Health Organization (WHO), Geneva, Switzerland; Department of Epidemiology and Evidence Based Medicine

Prof Stefan Lorkowski, PhD^{*,‡,§},

Institute of Nutritional Sciences; Friedrich Schiller University Jena, Jena, Germany; Competence Cluster for Nutrition and Cardiovascular Health (nutriCARD), Jena, Germany

Prof Paulo A Lotufo, DrPH^{†,‡,§,¶}, Department of Medicine

Rafael Lozano^{*,†,¶,||}, Alton Lu^{*,†,§,¶}, Tim C D Lucas, PhD[‡], University of Alberta, Edmonton, AB, Canada; Big Data Institute

Alessandra Lugo, PhD^{*,‡,§}, Gandhi Medical College Bhopal, Bhopal, India; Department of Environmental Health Sciences

Prof Raimundas Lunevicius, DSc^{*,†,‡}, Department of General Surgery; Liverpool University Hospitals NHS Foundation Trust, Liverpool, UK; Department of Surgery

Prof Ronan A Lyons, MD^{*,‡}, University of Liverpool, Liverpool, UK; School of Medicine

Jianing Ma^{*,‡,¶}, Daiane Borges Machado, PhD^{*}, Swansea University, Swansea, UK; Center for Integration of Data and Health Knowledge

Jennifer H MacLachlan, MSc[‡], University of the Free State, Park West, South Africa; Epidemiology

Mohammed Madadin, MD^{†,¶}, Pathology Department

Emilie R Maddison^{*,†,‡,§}, Ralph Maddison[‡], Fabiana Madotto, PhD[‡], Oswald Cruz Foundation (FIOCRUZ), Salvador, Brazil; Value-based Healthcare

Hassan Magdy Abd El Razek, MSc[†], Mansoura Faculty of Medicine, Mansoura, Egypt; Ophthalmology Department

Muhammed Magdy Abd El Razek, MD[†], IRCCS MultiMedica, Sesto San Giovanni, Italy; Radiology Department

Phetole Walter Mahasha, PhD^{*,†,‡,§,¶}, Grants, Innovation and Product Development Unit Mokhtar Mahdavi Mahdavi, PhD^{†,§}, Social Determinants of Health Research Center; Ministry of Health & Population, Aswan, Egypt; Academy of Medical Science,

Morteza Mahmoudi, PhD^{*,§,¶}, Radiology and Precision Health Program

Hue Thi Mai, MPH[‡], Bangladesh Industrial Gases Limited, Tangail, Bangladesh; Institute for Global Health Innovations

Prof Azeem Majeed, MD^{*,‡,§,¶}, Department of Primary Care and Public Health

Jeadran N Malagón-Rojas[¶], Prof Venkatesh Maled, MD^{*,‡}, El Bosque University, Bogota, Colombia; Department of Forensic Medicine; Rajiv Gandhi University of Health Sciences, Dharwad, India; Department of Forensic Medicine

Prof Afshin Maleki, PhD^{*,§}, Environmental Health Research Center

Shokofeh Maleki, MSc^{*,‡,§,¶}, Universities of Nottingham & Lincoln, Lincoln, UK; Clinical Research Development Center

Prof Reza Malekzadeh, MD^{*,†,‡,§}, Digestive Diseases Research Center; Non-communicable Disease Research Center

Prof Deborah Carvalho Malta, PhD^{*,‡,§,¶}, Department of Maternal and Child Nursing and Public Health

Abdullah A Mamun, PhD^{*,†,‡,§}, Institute for Social Science Research

Amir Manafi, MD[‡], Kurdistan University of Medical Sciences, Sanandaj, Iran; Department of Surgery

Navid Manafi, MD^{†,‡}, Department of Ophthalmology; Ophthalmology Department

Ana Laura Manda, MD[§], Department of General Surgery; University of Virginia, Charlottesville, VA, USA; General Surgery Department I

Helena Manguerra^{*,‡,§}, Fariborz Mansour-Ghanaei^{†,§}, Borhan Mansouri, $PhD^{*,\dagger,\ddagger,\$,\P}$,

Substance Abuse Prevention Research Center; Substance Abuse Prevention Research Center

Mohammad Ali Mansournia, PhD^{*,†,‡,§,¶},

Department of Epidemiology and Biostatistics

Ana M Mantilla Herrera, PhD^{*,‡,§}, Eijkman Institute for Molecular Biology, Jakarta, Indonesia; Psychiatric Epidemiology and Burden of Disease Research

Chabila Christopher Mapoma, PhD[†], Emergency University Hospital Bucharest, Bucharest, Romania; Department of Population Studies

Joemer C Maravilla, PhD^{‡,§}, Institute for Social Science Research

Ashley Marks^{‡,§}, Prof Randall V Martin, PhD[§], Department of Physics and Atmospheric Science; University of Zambia, Lusaka, Zambia; Department of Energy, Environmental, and Chemical Engineering

Santi Martini, PhD^{*,†,§,¶},

Washington University, St Louis, NS, USA; Faculty of Public Health; Airlangga University, Surabaya, Indonesia; Indonesian Public Health Association, Surabaya, Indonesia

Francisco Rogerlândio Martins-Melo^{*,†,‡,§,¶}, Ira Martopullo^{*,‡,¶}, Anthony Masaka, MSc^{†,§},

Federal Institute of Education, Science and Technology of Ceará, Caucaia, Brazil; Faculty of Health and Education

Seyedeh Zahra Masoumi^{*,‡,§}, João Massano, MD[‡], Department of Clinical Neurosciences and Mental Health; Botho University-Botswana, Gaborone, Botswana; Department of Neurology

Benjamin Ballard Massenburg, MD^{*,‡,¶}, Division of Plastic & Reconstructive Surgery

Claudia I Mastrogiacomo^{†,¶}, Manu Raj Mathur, PhD^{*,†,‡,§,¶}, Health Policy Research; Institute of Population Health Sciences

Prof Kunihiro Matsushita, MD[§], Department of Epidemiology

Pallab K Maulik, PhD^{*,‡,§}, School of Medicine; Research Division

Erin A May[†], Mohsen Mazidi, PhD^{*}, Medical College of Georgia at Augusta University, Augusta, GA, USA; Department of Twin Research and Genetic Epidemiology

Colm McAlinden, PhD^{*,†,‡,§,¶},

University Hospital Center de Sao Joao, Porto, Portugal; Department of Ophthalmology

Prof John J McGrath, MD^{*,†,‡,§},

Queensland Brain Institute; Singleton Hospital, Swansea, UK; National Centre for Register-based Research

Martin McKee^{*,†,‡,§,¶}, Carlo Eduardo Medina-Solís, MSc[¶], Aarhus University, Aarhus, Denmark; Academic Area of Dentistry

Birhanu Geta Meharie, MSc[¶], Department of Pharmacy

Prof Man Mohan Mehndiratta, MD^{*,†,‡,§,¶}, Wollo University, Dessie, Ethiopia; Neurology Department; Janakpuri Super Specialty Hospital Society, New Delhi, India; Department of Neurology

Entezar Mehrabi Nasab, MD[¶], Tehran Heart Center

Fereshteh Mehri, PhD^{*,†,‡,§,¶}, Nutrition Health Research Center

Prof Ravi Mehrotra, Phil[¶], Govind Ballabh Institute of Medical Education and Research, New Delhi, India; India Cancer Research Consortium

Kala M Mehta, DSc^{*,†,‡,§}, Lund University, Malmö, Sweden; Department of Epidemiology and Biostatistics

Wahengbam Bigyananda Meitei, MSc^{†,‡}, Department of Public Health and Mortality Studies

Teferi Mekonnen, MPH[¶], Indian Council of Medical Research, New Delhi, India; Department of Nutrition

Addisu Melese, MSc^{*,¶}, Department of Medical Laboratory Sciences

Peter T N Memiah, DrPH^{†,‡,¶}, University of Oslo, Oslo, Norway; Institute of Human Virology

Prof Ziad A Memish, MD^{*,§}, University of Maryland, Baltimore, MD, USA; College of Medicine; Alfaisal University, Riyadh, Saudi Arabia; Research & Innovation Center

Walter Mendoza, MD^{*,†,‡,§,¶}, Ministry of Health, Riyadh, Saudi Arabia; Peru Country Office

Prof Ritesh G Menezes, MD^{*,†,‡,§,¶}, Forensic Medicine Division

Endalkachew Worku Mengesha, MPH^{*,†,‡,§}, Department of Reproductive Health and Population Studies

Meresa Berwo Mengesha, MSc[‡], Department of Midwifery George A Mensah, MD^{†,¶},

Department of Medicine; Center for Translation Research and Implementation Science

Alibek Mereke, MD^{‡,§},

Clinical Emergency Hospital Sf. Pantelimon, Bucharest, Romania; Health Research Institute; United Nations Population Fund (UNFPA), Lima, Peru; Department of Cardiovascular Surgery

Seid Tiku Mereta, PhD[§], Department of Environmental Health Sciences and Technology

Atte Meretoja, MD^{*,†,‡,§,¶}, School of Health Sciences; Neurology Unit

Tuomo J Meretoja, MD^{*,†,‡,§,¶},

University of Helsinki, Helsinki, Finland; Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan; Breast Surgery Unit

Tomislav Mestrovic, PhD^{*,†,‡,§,¶},

Helsinki University Hospital, Helsinki, Finland; Clinical Microbiology and Parasitology Unit; Zora Profozic Polyclinic, Zagreb, Croatia; University Centre Varazdin

Bartosz Miazgowski, MD^{*,‡,§,¶}, University North, Varazdin, Croatia; Center for Innovation in Medical Education; Pomeranian Medical University, Szczecin, Poland

Prof Tomasz Miazgowski, MD^{‡,§}, Department of Propedeutics of Internal Diseases & Arterial Hypertension

Irmina Maria Michalek, PhD^{*,†,‡,§,¶}, Department of Women-Mother-Child

Kebadnew Mulatu Mihretie, MPH^{†,‡}, Department of Epidemiology and Biostatistics

Ted R Miller, PhD^{†,‡,§},

School of Public Health; Vaud University Hospital Center, Lausanne, Switzerland; Pacific Institute for Research & Evaluation, Calverton, MD, USA

Edward J Mills, PhD^{†,‡,§}, Karolinska Institutet, Stockholm, Sweden; Department of Health Research Methods, Evidence and Impact

Prof George J Milne, PhD^{*,†},

Jawahar Lal Nehru University, New Delhi, India; Department of Computer Science and Software Engineering

Prof GK Mini, PhD[§],

Global Institute of Public Health; Ananthapuri Hospitals and Research Institute, Trivandrum, India; Women's Institute for Social and Health Studies, Trivandrum, India

Mohammad Miri, PhD^{*,§},

Department of Environmental Health; Non-Communicable Diseases Research Centre

Andreea Mirica^{*,‡,§}, Prof Erkin M Mirrakhimov, PhD^{*,†,‡,§,¶}, Sabzevar University of Medical Sciences, Sabzevar, Iran; Internal Medicine Programme; Kyrgyz State Medical Academy, Bishkek, Kyrgyzstan; Department of Atherosclerosis and Coronary Heart Disease

Hamed Mirzaei, PhD^{*,†,‡,§},

National Center of Cardiology and Internal Disease, Bishkek, Kyrgyzstan; Research Center for Biochemistry and Nutrition in Metabolic Diseases

Maryam Mirzaei, MSc^{*,†,‡,§,¶}, Department of Rehabilitation and Sports Medicine

Roya Mirzaei, PhD[§], Water Quality Research Center; Comprehensive Research Laboratory

Mehdi Mirzaei-Alavijeh^{*,†,‡,§,¶}, Awoke Temesgen Misganaw^{*,†,‡,§}, Prof Philip B Mitchell, MD[¶], School of Psychiatry

School of Psychiatry

Prasanna Mithra^{‡,§}, Babak Moazen, MSc^{*,†,‡,§,¶}, Heidelberg Institute of Global Health (HIGH); Kashan University of Medical Sciences, Kashan, Iran; Institute of Addiction Research (ISFF)

Masoud Moghadaszadeh, PhD^{*,†,‡,¶}, Biotechnology Research Center; Molecular Medicine Research Center

Bahram Mohajer, MD^{*}, Non-communicable Diseases Research Center

Osama Mohamad, MD^{*}, Department of Radiation Oncology

Efat Mohamadi, PhD^{†,‡,¶}, Health Equity Research Center

Dara K Mohammad, PhD^{*,†,‡,§,¶}, Department of Medicine; Department of Forestry

Yousef Mohammad, MD^{*,†,‡,§,¶}, Internal Medicine Department

Naser Mohammad Gholi Mezerji^{*,†,‡,§,¶}, Abolfazl Mohammadbeigi, PhD[†], McMaster University, Hamilton, ON, Canada; Department of Epidemiology and Biostatistics; Neuroscience Research Center

Abdollah Mohammadian-Hafshejani^{*,†,‡,§,¶}, Noushin Mohammadifard, PhD^{‡,§},

Reza Mohammadpourhodki, MSc^{†,‡,§}, Shahrekord University of Medical Sciences, Shahrekord, Iran; Kashmar Center of Higher Health Education

Ammas Siraj Mohammed, BA[§], School of Pharmacy

Hussen Mohammed, MPH^{†,§}, Mashhad University of Medical Sciences, Mashhad, Iran; Department of Public Health

Jemal Abdu Mohammed, MPH^{§,¶}, National University of Singapore, Singapore, Singapore; Department of Public Health

Shafiu Mohammed, PhD^{*,†,‡,§,¶}, Health Systems and Policy Research Unit; Heidelberg Institute of Global Health (HIGH)

Farnam Mohebi, MD^{*,†}, National Institute of Health Research (NIHR); Non-communicable Diseases Research Center

Prof Mohammad A Mohseni Bandpei, PhD[†], Ahmadu Bello University, Zaria, Nigeria; Pediatric Neurorehabilitation Research Center

Amin Mokari[†], Ali H Mokdad^{*,†,‡,§,¶,||}, Prof Mariam Molokhia, PhD^{*,‡,§}, Faculty of Life Sciences and Medicine

Natalie C Momen, PhD^{†,‡},

Singleton Hospital, Swansea, UK; National Centre for Register-based Research; Singleton Hospital, Swansea, UK; National Centre for Registerbased Research

Lorenzo Monasta, DSc^{*,†,‡,§,¶},

University of Social Welfare and Rehabilitation Sciences, Tehran, Iran; Clinical Epidemiology and Public Health Research Unit

Prof Stefania Mondello, MD^{‡,¶},

Burlo Garofolo Institute for Maternal and Child Health, Trieste, Italy; Department of Biomedical and Dental Sciences and Morphofunctional Imaging

Meghan D Mooney^{*,†,‡,§}, Mahmood Moosazadeh, PhD[‡], Health Sciences Research Center

Ghobad Moradi, PhD^{*,†,‡,§},

Shri Dharmasthala Manjunatheshwara University, Dharwad, India; Department of Epidemiology and Biostatistics; Social Determinants of Health Research Center

Masoud Moradi^{*,†,‡,§,¶}, Mohammad Moradi-Joo[†], Maziar Moradi-Lakeh^{*,†,‡,§,¶}, Rahmatollah Moradzadeh, PhD^{*,†,‡,§,¶}, McGill University, Montreal, QC, Canada; Department of Epidemiology

Paula Moraga, PhD^{*,†,‡,§,¶}, Department of Mathematical Sciences

Linda Morales, MSc[‡], Center for Poplulation Health Research

Prof Lidia Morawska, PhD^{*,‡,§}, Iran Health Insurance Organization, Tehran, Iran; International Laboratory for Air Quality and Health

Ilais Moreno Velásquez, PhD^{†,‡}, Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Joana Morgado-da-Costa, MSc^{*,†,‡,§,¶}, University Hospital Center of Porto

Shane Douglas Morrison, MD^{*,†,‡,§,¶}, Division of Plastic & Reconstructive Surgery

Abbas Mosapour, PhD^{*,§,¶}, Abt Associates Nepal, Lalitpur, Nepal; Department of Clinical Biochemistry; Department of Clinical Biochemistry

Jonathan F Mosser^{*,†,‡,§,¶}, Simin Mouodi, PhD^{†,‡,§}, Social Determinants of Health Research Center

Seyyed Meysam Mousavi, PhD^{*,†,‡,§}, Department of Health Policy, Management, and Economics

Prof Amin Mousavi Khaneghah, PhD^{*,†,‡,§,¶}, Queensland University of Technology, Brisbane, QLD, Australia; Department of Food Science

Prof Ulrich Otto Mueller, MD^{*,†,‡,§}, Federal Institute for Population Research, Wiesbaden, Germany; Center for Population and Health, Wiesbaden, Germany

Prof Satinath Mukhopadhyay, MD[§], Department of Endocrinology & Metabolism

Erin C Mullany^{*,§}, John Everett Mumford[¶], Sandra B Munro[‡], Moses K Muriithi, PhD^{‡,¶},

School of Economics

Kamarul Imran Musa, PhD^{*,†,‡,§},

Seth Sukhlal Karnani Memorial Hospital, Kolkata, India; School of Medical Sciences

Prof Ghulam Mustafa, MD[¶],

Science University of Malaysia, Kubang Kerian, Malaysia; Department of Pediatric Medicine; The Children's Hospital & The Institute of Child Health, Multan, Pakistan; Department of Pediatrics & Pediatric Pulmonology

Saravanan Muthupandian, PhD^{†,‡,§}, Department of Microbiology and Immunology

Behnam Nabavizadeh, MD[†], Department of Urology

Prof Ashraf F Nabhan, PhD^{§,¶}, Department of Obstetrics and Gynecology; Institute of Mother & Child Care, Multan, Pakistan; Knowledge Translation and Utilization Unit

Mehdi Naderi, PhD^{*,†,‡,§,¶}, Universities of Nottingham & Lincoln, Lincoln, UK; Clinical Research Development Center

Ahamarshan Jayaraman Nagarajan, Tech^{*,†,‡,§,¶}, Egyptian Center for Evidence Based Medicine, Egypt; Research and Analytics Department; Initiative for Financing Health and Human Development, Chennai, India; Department of Research and Analytics

Prof Gabriele Nagel, MD^{‡,§}, Bioinsilico Technologies, Chennai, India; Institute of Epidemiology and Medical Biometry

Mohsen Naghavi^{*,†,‡,§,¶}, Behshad Naghshtabrizi, MD^{*,†,‡,§,¶}, Department of Cardiology

Gurudatta Naik, MPH[†], Ulm University, Ulm, Germany; Comprehensive Cancer Center

Mukhammad David Naimzada, MD^{*,§,¶},

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Moscow Institute of Physics and Technology, Dolgoprudny, Russia; Experimental Surgery and Oncology Laboratory

Sanjeev Nair, MD[‡],

Kursk State Medical University, Kursk, Russia; Department of Pulmonary Medicine; Government Medical College Trivandrum, Trivandrum, India; Health Action by People, Trivandrum, India

Prof Farid Najafi, PhD^{*,†,§}, Epidemiology and Biostatistics Department

Prof Luigi Naldi, MD^{*},

San Bortolo Hospital, Vicenza, Italy; Study Center of the Italian Group for Epidemiologic Research in Dermatology; Department of Dermatology

Vishnu Nandakumar^{||}, Anita K Nandi, PhD[‡], Nuffield Department of Medicine

Vinay Nangia, MD^{†,‡,§,¶}, Suraj Eye Institute, Nagpur, India

Jobert Richie Nansseu, MD^{†,‡,§,¶},

Department for the Control of Disease, Epidemics, and Pandemics; Department of Public Health

Morteza Naserbakht, MD[§], Mental Health Research Center; Preventive Medicine and Public Health Research Center

Vinod C Nayak^{*,‡,§,¶}, Javad Nazari, MD^{*,‡,¶}, Department of Pediatrics

Rawlance Ndejjo, MSc^{*,¶}, University of Yaoundé I, Yaoundé, Cameroon; Disease Control and Environmental Health

Duduzile Edith Ndwandwe, PhD[†], Cochrane South Africa

Ionut Negoi, PhD^{*,†,‡,§,¶}, Department of General Surgery; Makerere University, Kampala, Uganda; Department of General Surgery

Ruxandra Irina Negoi, PhD^{*,†,‡,¶}, Department of Anatomy and Embryology; Emergency Hospital of Bucharest, Bucharest, Romania; Cardio-Aid, Bucharest, Romania

Henok Biresaw Netsere, MS^{*,‡}, School of Nursing; School of Health Sciences, Department of Surgical Nursing

Subas Neupane, PhD[¶], University of Cape Coast, Cape Coast, Ghana; Department of Health Sciences

Kiirithio N Ngari, MSc[¶], Research & Statistics Unit

Georges Nguefack-Tsague^{*,¶}, Josephine W Ngunjiri, DrPH^{*,†,‡,§,¶}, Synotech Consultants, Nairobi, Kenya; Department of Biological Sciences

Cuong Tat Nguyen^{‡,§,¶}, Diep Ngoc Nguyen, MA^{*,¶}, Faculty of Pharmacy

Huong Lan Thi Nguyen, BMedSc^{*,†,§,¶},

Ministry of Health and Medical Education, Tehran, Iran; Center of Excellence in Behavioral Medicine

Ming Nguyen^{‡,§}, Trang Huyen Nguyen[†], Emma Nichols^{*,‡}, Dabere Nigatu, MPH[‡],

Department of Reproductive Health and Population Studies

Yeshambel T Nigatu, PhD^{*,†,‡,§},

University of Embu, Embu, Kenya; Institute for Mental Health Policy Research; Centre for Addiction and Mental Health, Toronto, ON, Canada; Department of Clinical Epidemiology

Rajan Nikbakhsh, MD^{*,†,‡,§}, Obesity Research Center

Amin Reza Nikpoor, PhD[†], Hormozgan University of Medical Sciences, Bandar Abbas, Iran

Molly R Nixon^{*,†,‡,§}, Chukwudi A Nnaji, MPH^{*,†,‡,§,¶}, South African Medical Research Council, Cape Town, South Africa; School of Public Health and Family Medicine

Shuhei Nomura, PhD^{*,†,‡,§,¶}, Department of Global Health Policy; Institute for Clinical Evaluative Sciences, Ottowa, ON, Canada; Department of Health Policy and Management

Prof Ole F Norheim, PhD[¶], Department of Global Health and Population; Department of Global Public Health and Primary Care

Prof Bo Norrving, PhD^{‡,§}, Technical University of Denmark, Copenhagen, Denmark; Department of Clinical Sciences

Jean Jacques Noubiap, MD^{*,†,‡,§,¶}, Centre for Heart Rhythm Disorders

Soraya Nouraei Motlagh, PhD[†], Department of Public Health

Christoph Nowak, PhD^{*,†,‡,§,¶}, Department of Neurobiology, Care Sciences and Society

Elaine Okanyene Nsoesie, PhD^{*}, Department of Global Health, School of Public Health

Virginia Nunez-Samudio^{*,‡,§,¶}, Prof Bogdan Oancea, PhD^{‡,§}, Keio University, Tokyo, Japan; Administrative and Economic Sciences Department

Christopher M Odell^{†,‡,§}, Felix Akpojene Ogbo, PhD^{*,‡,§,}¶, Translational Health Research Institute

Onome Bright Oghenetega, MSc^{*,¶},

Department of Obstetrics and Gynecology

In-Hwan Oh, PhD^{†,‡,§,¶}, University of Bucharest, Bucharest, Romania; Department of Preventive Medicine

Emmanuel Wandera Okunga, MSc^{*,‡,§,¶}, Kyung Hee University, Dongdaemun-gu, South Korea; Disease Surveillance and Epidemic Response

Morteza Oladnabi, PhD^{*,†,‡,§,¶}, Gorgan Congenital Malformations Research Center

Andrew T Olagunju, MD^{*,†,‡,§,¶}, Department of Psychiatry and Behavioural Neurosciences; Ministry of Health, Nairobi, Kenya; Department of Psychiatry

Bolajoko Olubukunola Olusanya, PhD^{*,†,‡,§,¶}, University of Lagos, Lagos, Nigeria; Centre for Healthy Start Initiative, Lagos, Nigeria

Jacob Olusegun Olusanya, MBA^{*,†,‡,§,¶}, University of Lagos, Lagos, Nigeria; Centre for Healthy Start Initiative, Lagos, Nigeria

Mojisola Morenike Oluwasanu, PhD^{‡,¶}, Department of Health Promotion and Education

Ahmed Omar Bali, PhD^{*,†,‡,¶}, Diplomacy and Public Relations Department

Muktar Omer Omer, MSc^{*,‡,§,}¶, Department of Public Health

Kanyin L Ong, FAMS^{*,†,‡,§,¶},

Pantai Jerudong Specialist Centre, Bandar Seri Begawan, Brunei; Noncommunicable Disease Prevention Unit; Early Detection and Cancer Prevention Services

Sokking Ong^{*}, Prof Obinna E Onwujekwe, PhD^{*,†,‡,§,¶}, Ministry of Health, Bandar Seri Begawan, Brunei; Department of Pharmacology and Therapeutics

Eyal Oren^{*}, Aislyn U Orji[‡], Heather M Orpana, PhD^{‡,§}, Substance Related Harms Division; School of Epidemiology and Public Health

Doris V Ortega-Altamirano[¶], Prof Alberto Ortiz, MD^{*,†,‡,§,¶}, National Public Health Institute, Cuernavaca, Mexico; Department of Medicine; Autonomous University of Madrid, Madrid, Spain; Department of Nephrology and Hypertension

Osayomwanbo Osarenotor, MSc[§],

The Institute for Health Research Foundation Jiménez Díaz University Hospital, Madrid, Spain; Department of Environmental Management and Toxicology

Frank B Osei, PhD[§],

Faculty of Geo-Information Science and Earth Observation; University of Benin, Benin City, Nigeria; Department of Mathematics and Statistics

Prof Sergej M Ostojic, PhD[¶],

University of Energy and Natural Resources, Sunyani, Ghana; Biomedical Sciences

Samuel M Ostroff^{*,‡,§}, Adrian O oiu^{*,†,‡,§,¶}, Nikita Otstavnov, BA^{*,†,‡,§,¶}, University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization

Stanislav S Otstavnov, PhD^{*,†,‡,§,¶},

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Department of Project Management

Prof Simon Øverland, PhD^{*,†,‡,§,¶}, Department of Psychosocial Science; Division of Mental and Physical Health

Prof Mayowa O Owolabi, DrM^{*,†,‡,§,¶}, Department of Medicine; Department of Medicine

Mahesh P A^{*,†,‡,§}, Jagadish Rao Padubidri, MD^{*,†,‡,§,¶}, Department of Forensic Medicine

Smita Pakhale, MD^{*,¶}, Department of Medicine

Abhijit P Pakhare, MD[‡], All India Institute of Medical Sciences, Jodhpur, India; Department of Community Medicine and Family Medicine

Prof Keyvan Pakshir, PhD^{*,†}, Department of Parasitology and Mycology

Raffaele Palladino, MD^{*,†,‡,§,¶}, Department of Primary Care and Public Health; Wayne State University, Detroit, MI, USA; Department of Public Health

Adrian Pana, MD^{*,†,‡,¶}, Jagadguru Sri Shivarathreeswara Academy of Health Education and Research, Mysore, India; Department of Health Metrics

Songhomitra Panda-Jonas^{*,†,‡,§,¶}, Anamika Pandey, PhD^{‡,§}, Case Western Reserve University, Cleveland, OH, USA; Department of Research

Helena Ullyartha Pangaribuan, MSc[¶],

Prof Eun-Kee Park, PhD[‡], Ministry of Health, Jakarta, Indonesia; Department of Medical Humanities and Social Medicine

James Park, MSc[†], Department of Biostatistics

Priya G Kumari Parmar, PhD^{*,‡}, Haramaya University, Harar, Ethiopia; Department of Biostatistics and Epidemiology; National Institute for Stroke and Applied Neurosciences

Prof Charles D H Parry, PhD[§], Department of Psychiatry; Stellenbosch University, Cape Town, South Africa; Alcohol, Tobacco & Other Drug Research Unit

Maja Pasovic[§], Deepak Kumar Pasupula, MD^{†,‡,§}, Kosin University, Busan, South Korea; Division of General Internal Medicine

Jenil R Patel, PhD[†], University of Pittsburgh Medical Center, Pittsburgh, PA, USA; Department of Epidemiology

Sangram Kishor Patel, PhD^{†,‡,§}, University of Arkansas for Medical Sciences, Little Rock, AR, USA; Department of Poverty, Gender and Youth

Angel J Paternina-Caicedo[‡], Prof Ashish Pathak, PhD[‡], Department of Global Public Health-Health Systems and Policy; Kalinga Institute of Medical Sciences, Bhubaneswar, India; Department of Pediatrics

Mona Pathak, PhD^{*,‡,§,¶}, University of Sinu, Cartagena, Colombia; Research & Development Department

Prof Scott B Patten, PhD^{‡,§}, RD Gardi Medical College, Ujjain, India; Community Health Sciences Department

Prof George C Patton, MD^{*,†,‡,§,¶}, Department of Paediatrics; Population Health Theme

Deepak Paudel, PhD[‡],

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Center for International Health; Atlanta Veterans Affairs Medical Center, Decatur, GA, USA; Health, Nutrition, and HIV/AIDS Program

Sagun Paudel, MPH[¶],

Murdoch Childrens Research Institute, Melbourne, VIC, Australia; Public Health Youth Society of Nepal, Pokhara, Nepal; Public Health Update, Pokhara, Nepal

Katherine R Paulson[†], Hamidreza Pazoki Toroudi, PhD^{*,†,‡,§,¶}, Department of Physiology; Physiology Research Center

Spencer A Pease^{†,¶}, Amy E Peden, PhD^{*,†,‡,§,¶}, School of Public Health and Community Medicine; University of the Witwatersrand, Johannesburg, South Africa; College of Public Health, Medical, and Veterinary Sciences

Alyssa Pennini^{‡,§,¶}, Veincent Christian Filipino Pepito, MSc^{*,†,‡,§}, Center for Research and Innovation

Emmanuel K Peprah, PhD^{*,†,‡,§,¶}, School of Global Public Health

Alexandre Pereira, PhD^{*,†,‡}, Department of Genetics; Laboratory of Genetics and Molecular Cardiology

David M Pereira^{*,†,‡,§}, Jeevan Pereira, MS^{*,¶}, New York University, New York, NY, USA; Department of Orthopedics

Norberto Perico, MD^{*,†,‡}, Mario Negri Institute for Pharmacological Research, Milan, Italy

Julia Moreira Pescarini, PhD^{*}, Yenepoya Medical College, Mangalore, India; Center for Integration of Data and Health Knowledge

Prof Konrad Pesudovs, PhD[§], School of Optometry and Vision Science

Hai Quang Pham^{*,‡,§}, Prof Michael R Phillips, MD^{*,‡,§}, Department of Psychiatry; Oswaldo Cruz Foundation, Salvador, Brazil; Shanghai Mental Health Center

Cristiano Piccinelli, MS^{*,§}, Shanghai Jiao Tong University, Shanghai, China; SSD Epidemiology Screening

Maxwell Pierce^{||}, David M Pigott^{†,‡,¶}, Thomas Pilgrim, MD^{†,‡,¶}, City of Health and Science University Hospital of Turin, Turin, Italy; Department of Cardiology

Tessa M Pilz^{*,†,‡,§,¶}, Marina Pinheiro, PhD^{*,¶}, Department of Chemistry

Prof Michael A Piradov, DSc^{*,†,§,¶}, Research Center of Neurology, Moscow, Russia

Meghdad Pirsaheb^{*,†,‡,§,¶}, Farhad Pishgar, MD^{*},

Oleguer Plana-Ripoll[‡], Dietrich Plass, DrPH^{‡,§}, University of Bern, Bern, Switzerland; Department of Environmental Hygiene

Martin Pletcher^{||}, Khem Narayan Pokhrel, PhD^{†,‡,¶}, German Environment Agency, Dessau-Roßlau, Germany; HIV and Mental Health Department

Roman V Polibin, PhD[‡], Department of Epidemiology and Evidence-Based Medicine

Suzanne Polinder, PhD^{‡,§}, Department of Public health

Prof Kevan R Polkinghorne, PhD^{‡,§}, Department of Medicine

Prof Constance Dimity Pond, PhD^{*,§}, Discipline of General Practice

Prof Maarten J Postma, PhD^{*,†,‡,§,¶}, School of Economics and Business; University Medical Center Groningen

Faheem Hyder Pottoo, PhD^{*}, Pharmacology Department

Hadi Pourjafar, PhD^{*,†,‡,§,¶}, Shahed University, Tehran, Iran; Dietary Supplements and Probiotic Research Center; Department of Nutrition and Food Sciences

Farshad Pourmalek, PhD^{*,†,‡,§,¶}, School of Population and Public Health

Reza Pourmirza Kalhori, PhD^{‡,¶}, Department of Emergency Medicine

Prof Akram Pourshams, MD^{†,‡,¶}, Digestive Diseases Research Institute

Anna Pozna ska, PhD^{†,‡,§}, Department of Population Health Monitoring and Analysis

Sergio I Prada, PhD^{*,†,‡,§,¶},

Integrated Development Foundation Nepal, Kathmandu, Nepal; Clinical Research Center; Valle del Lili Foundation; Center for Studies in Social Protection and Health Economics

Prof Sanjay Prakash, DM[†], Charotar University of Science and Technology, Anand, India; Department of Neurology

V Prakash, PhD^{‡,§},

ICESI University, Cali, Colombia; Askok & Rita Patel Institute of Physiotherapy

Prof Narayan Prasad, DM^{*}, Smt. B.K.S. Medical Institute and Research Center, Vadodara, India; Department of Nephrology

Liliana Preotescu, PhD[†],

Department of Infectious Diseases; Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India; National Institute of Infectious Diseases, Bucuresti, Romania

Dimas Ria Angga Pribadi, MSc^{*,‡,§,}¶, Health Sciences Department

Elisabetta Pupillo, PharmD^{*,‡,§,¶}, Department of Neuroscience

Prof Zahiruddin Quazi Syed, PhD^{*,†,‡,§,¶}, Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine

Prof Mohammad Rabiee, PhD^{*,†,‡,§}, Muhammadiyah University of Surakarta, Sukoharjo, Indonesia; Biomedical Engineering Department

Navid Rabiee, MSc^{*,†,‡,§}, Government Institute of Forensic Science, Nagpur, India; Chemistry Department

Amir Radfar, MD^{*,†,‡,§,¶}, Amirkabir University of Technology, Tehran, Iran; College of Medicine

Ata Rafiee, MSc^{*,‡,§,¶}, Yale University, New Haven, CT, USA; Department of Medicine

Prof Alireza Rafiei, PhD^{†,‡,¶}, Department of Immunology; Molecular and Cell Biology Research Center

Alberto Raggi, PhD^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Fakher Rahim, PhD[¶], Metabolomics and Genomics Research Center; Thalassemia and Hemoglobinopathy Research Center

Afarin Rahimi-Movaghar[‡], Mohammad Hifz Ur Rahman, PhD^{*}, School of Nursing and Midwifery; University of Central Florida, Orlando, FL, USA; Department of Community Medicine; Maharishi Markandeshwar Institute of Medical Sciences & Research, Ambala, India; School of Nursing and Healthcare Professions

Muhammad Aziz Rahman, PhD^{*,†,‡,§,¶}, Ali Rajabpour-Sanati^{†,‡,§,¶}, Fatemeh Rajati^{‡,§}, Ivo Rakovac, PhD[§],

RUDN University, Moscow, Russia; European Office for the Prevention and Control of Noncommunicable Diseases

Pradhum Ram, MD^{†,§}, Division of Cardiology

Kiana Ramezanzadeh, PharmD^{*,‡,§}, School of Pharmacy

Prof Saleem Muhammad Rana, PhD¹, University Institute of Public Health; Federation University Australia, Berwick, VIC, Australia; Public Health Department

Chhabi Lal Ranabhat, PhD^{*,†,‡,§,¶},

University of Health Sciences, Lahore, Pakistan; Research Department; Policy Research Institute, Kathmandu, Nepal; Health and Public Policy Department

Annemarei Ranta, PhD^{*},

Global Center for Research and Development, Kathmandu, Nepal; Department of Medicine; University of Otago, Wellington, New Zealand; Department of Neurology

Puja C Rao, MDS^{*,‡,§}, Capital & Coast District Health Board, Wellington, New Zealand; Department of Oral Pathology

Sowmya J Rao^{*,†,‡,§,¶}, Prof Davide Rasella, PhD^{*,†,‡,¶}, University of Belgrade, Belgrade, Serbia; Institute of Collective Health

Vahid Rashedi, PhD^{*,†,§,¶}, Tehran Institute of Psychiatry

Prateek Rastogi^{*,†,‡}, Prof Goura Kishor Rath, MD[¶], Department of Radiation Oncology; All India Institute of Medical Sciences, Bhopal, India; Department of Radiation Oncology, All India Institute of Medical Sciences, New Delhi, India

Priya Rathi^{†,‡,§,¶}, David Laith Rawaf, MD^{*,‡,§,¶},

WHO Collaborating Centre for Public Health Education and Training; Srinivas Institute of Dental Sciences, Mangalore, India; University College London Hospitals, London, UK

Prof Salman Rawaf, MD^{*,‡,§,¶}, Department of Primary Care and Public Health; Boston University, Boston, MA, USA; Academic Public Health England

Lal Rawal, PhD^{*,†,‡,§,¶}, School of Health, Medical and Applied Sciences

Reza Rawassizadeh, PhD^{*,§,¶}, Hokkaido University, Sapporo, Japan; Department of Computer Science

Ramu Rawat, MPhil^{*,§},

Hacettepe University, Ankara, Turkey; Department of Mathematical Demography & Statistics

Christian Razo^{*,‡,§,¶}, Sofia Boston Redford^{‡,§}, Lemma Demissie Regassa, MPH^{*},

School of Public Health

Institute

Robert C Reiner Jr^{‡,§}, Nickolas Reinig[‡], Marissa Bettay Reitsma^{*,‡,§}, Giuseppe Remuzzi^{*,†,‡,§}, Vishnu Renjith, PhD^{*,†,‡,§,¶},

CQ University, Sydney, NSW, Australia; School of Nursing and Midwifery

Prof Andre M N Renzaho, PhD^{*,†,‡,§,¶}, School of Social Sciences and Psychology; Translational Health Research

Prof Serge Resnikoff, MD^{*,†,‡,§},

School of Optometry and Vision Science; Royal College of Surgeons in Ireland - Bahrain, Muharraq Governorate, Bahrain; Brien Holden Vision Institute, Sydney, NSW, Australia

Prof Negar Rezaei, PhD^{*,§},

Endocrinology and Metabolism Research Center; Non-communicable Diseases Research Center; Research Center for Immunodeficiencies; Network of Immunity in Infection, Malignancy and Autoimmunity (NIIMA)

Nima Rezaei, PhD^{*,†,‡,§,¶}, Prof Mohammad sadegh Rezai, MD^{*,†,‡}, Pediatric Infectious Diseases Research Center

Aziz Rezapour, PhD^{*,†,‡,§}, Health Management and Economics Research Center

Phoebe-Anne Rhinehart^{*,‡,§}, Seyed Mohammad Riahi, PhD^{*,‡,§,¶}, Ludwig Maximilians University, Munich, Germany; Cardiovascular Diseases Research Center

Prof Antonio Luiz P Ribeiro, MD^{*,‡}, University of British Columbia, Vancouver, BC, Canada; Centre of Telehealth; Department of Internal Medicine

Daniel Cury Ribeiro, PhD^{*,‡,§,¶}, School of Physiotherapy

Daniela Ribeiro, PhD^{‡,§}, Department of Chemical Sciences

Jennifer Rickard, MD^{*,†,‡,§,¶},

Universal Scientific Education and Research Network (USERN), Tehran, Iran; Department of Surgery; University of Minnesota, Minneapolis, MN, USA; Department of Surgery

Prof Juan A Rivera, PhD[§], Director General

Toshana Robalik^{||}, Nicholas L S Roberts, MSc^{‡,§,¶}, National Institute for Stroke and Applied Neurosciences

Shaun Roberts[‡], Prof Stephen R Robinson, PhD[‡], Western Sydney University, Sydney, VIC, Australia; Department of Psychology

Sonia Rodríguez-Ramírez, DSc[§], Center for Nutrition and Health Research

Leonardo Roever, PhD^{*,†,‡,§,¶},

University Teaching Hospital of Kigali, Kigali, Rwanda; Department of Clinical Research

Sam Rolfe[‡], Michele Romoli, MD^{*,¶}, Federal University of Uberlândia, Uberlândia, Brazil; Department of Neuroscience; University of Perugia, Perugia, Italy; Department of Neurology

Luca Ronfani, PhD^{*,†,‡,§,¶}, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran; Clinical Epidemiology and Public Health Research Unit

Prof Robin Room, PhD[§],

Foundation for Scientific Research (FORS), Cotonou, Benin; Centre for Alcohol Policy Research; Rimini "Infermi" Hospital - AUSL Romagna, Rimini, Italy; Centre for Social Research on Alcohol and Drugs

Gholamreza Roshandel, PhD^{*,†,‡,§,¶}, University College Cork, Cork, Ireland; Golestan Research Center of Gastroenterology and Hepatology (GRCGH)

Morteza Rostamian, PhD[†], Stockholm University, Stockholm, Sweden; School of Medicine

Gregory A Roth, MD^{‡,§}, Division of Cardiology

Dietrich Rothenbacher[§], Enrico Rubagotti, PhD^{*,†,‡,§,¶}, Gonabad University of Medical Sciences, Gonabad, Iran; Agrosavia, Palmira, Colombia

Susan Fred Rumisha, PhD^{*,‡}, Malaria Atlas Project; Department of Health Statistics

Godfrey M Rwegerera, MD^{*,†,§,¶}, National Institute for Medical Research, Dar es Salaam, Tanzania; Department of Internal Medicine

Seyedmohammad Saadatagah, MD^{*}, Georgetown University, Washington DC, DC, USA; Department of Cardiovascular Medicine

Siamak Sabour^{*,†,‡,§,¶}, Prof Perminder S Sachdev, MD^{*,‡,§,¶},

Basema Saddik, PhD^{*,†,‡,§,¶}, Department of Family and Community Medicine

Prof Ehsan Sadeghi, MD^{*,†,‡,§,¶}, Cairo University, Cairo, Egypt; Cardiac Rehabilitation Research Center

Masoumeh Sadeghi^{*,†,‡,§,¶}, Reza Saeedi, MSc[§], Non-communicable Diseases Research Center

Sahar Saeedi Moghaddam^{*,†,§}, Shahram Saeidi[‡], Yahya Safari^{†,§,¶}, Sare Safi, PhD^{†,‡,§},

Ophthalmic Epidemiology Research Center; Ophthalmic Research Center

Saeid Safiri, PhD^{†,‡,§}, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran; Aging Research Institute; Department of Community Medicine

Prof Rajesh Sagar, MD^{†,‡,§,¶}, Department of Psychiatry

Amirhossein Sahebkar, PhD^{*,†,‡,§,¶}, Neurogenic Inflammation Research Center; Prince of Wales Hospital, Randwick, NSW, Australia; Halal Research Center of IRI

Prof Mohammad Ali Sahraian, MD^{*,†,‡,¶}, Multiple Sclerosis Research Center

Prof S Mohammad Sajadi, PhD^{*,†,‡,§,¶}, University of Agriculture, Faisalabad, Faisalabad, Pakistan; Department of Phytochemistry; Soran University, Soran, Iraq; Department of Nutrition

Mohammad Reza Salahshoor, PhD^{†,‡,¶}, Department of Anatomical Sciences

Nasir Salam, PhD[§], Cihan University-Erbil, Kurdistan Region, Iraq; Department of Microbiology

Joseph S Salama, MSc[†], Health Hub

Prof Payman Salamati, MD^{†,‡,§}, Sina Trauma and Surgery Research Center

Saleh Salehi Zahabi, PhD[‡],

Department of Radiology and Nuclear Medicine; Central University of Punjab, Bathinda, India; Research Department

Prof Hosni Salem, MD^{*,‡,§,}¶, Urology Department

Marwa R Salem, MD^{*,†,‡,§,¶},

Public Health and Community Medicine Department

Yahya Salimi, PhD[†], Department of Epidemiology and Biostatistics

Hamideh Salimzadeh, PhD^{*,‡,§}, Digestive Diseases Research Institute

Omar Mukhtar Salman, MSc[§], Taleghani Hospital, Kermanshah, Iran; Global Health Institute

Prof Joshua A Salomon, PhD^{*,†,‡,§,¶}, American University of Beirut, Beirut, Lebanon; Center for Health Policy & Center for Primary Care and Outcomes Research

Inbal Salz, MD^{*,†,‡}, Stanford University, Stanford, CA, USA; Health and Disability Intelligence Group

Prof Zainab Samad, MD^{*,†,‡,§}, Department of Medicine; Department of Medicine

Hossein Samadi Kafil, PhD^{*,§,¶}, Drug Applied Research Center

Evanson Zondani Sambala, PhD[§], South African Medical Research Council, Cape Town, South Africa

Abdallah M Samy, PhD^{*,†,‡,§,¶}, Weill Cornell Medical College in Qatar, Doha, Qatar; Department of Entomology

Prof Juan Sanabria, MD^{*,†,‡,§,¶}, Department of Nutrition and Preventive Medicine; Ministry of Health, Wellington, New Zealand; Department of Surgery

Tania G Sánchez-Pimienta[§], Damian Francesco Santomauro, PhD^{*,‡,§}, West Moreton Hospital Health Service

Itamar S Santos, PhD^{‡,§}, University of Oxford, Oxford, UK; Center for Clinical and Epidemiological Research; Department of Internal Medicine

João Vasco Santos, MD^{‡,§},

Center for Health Technology and Services Research; Marshall University, Huntington, WV, USA; Public Health Unit, ACES Grande Porto VIII - Espinho/ Gaia

Milena M Santric-Milicevic^{*,†,‡,§,¶}, Sivan Yegnanarayana lyer Saraswathy, PhD^{*,†,‡,§,¶},

Northern Region Health Administration, Vila Nova de Gaia, Portugal; Department of Community Medicine; PSG Institute of Medical Sciences and Prof Rodrigo Sarmiento-Suárez, MPH^{‡,§,¶}, University of Applied and Environmental Sciences, Bogota, Colombia; National School of Public Health; Faculty of Medicine

Prof Nizal Sarrafzadegan, MD^{*,‡,§},

Isfahan Cardiovascular Research Institute; School of Population and Public Health

Benn Sartorius^{*,†,‡,§,¶}, Arash Sarveazad, PhD^{*,†,‡,§,¶}, Isfahan University of Medical Sciences, Isfahan, Iran; Colorectal Research Center

Brijesh Sathian, PhD^{*,†,‡,§,¶},

Carlos III Health Institute, Madrid, Spain; Department of Geriatrics and Long Term Care; Hamad Medical Corporation, Doha, Qatar; Faculty of Health & Social Sciences

Thirunavukkarasu Sathish, PhD^{*,†,‡,§,¶}, Population Health Research Institute

Davide Sattin, PsyD^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Miloje Savic, PhD[¶], Bournemouth University, Bournemouth, UK; GSK Biologicals, Wavre, Belgium

Prof Susan M Sawyer, MD[¶], Department of Paediatrics; University of Calgary, Calgary, AB, Canada; Centre for Adolescent Health

Prof Deepak Saxena, PhD[¶], Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine; Department of Epidemiology

Prof Sonia Saxena, MD[§], School of Public Health

Mete Saylan, MD[†], Indian Institute of Public Health, Gandhinagar, India; Market Access

Alyssa N Sbarra^{‡,¶}, Lauren E Schaeffer^{*,†,‡,§,¶}, Silvia Schiavolin, MSc^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Prof Markus P Schlaich, MD[§],

Dobney Hypertension Centre; University of Bath, Bath, UK; Hypertension and Kidney Disease Laboratory

Prof Maria Inês Schmidt, PhD^{*,‡,§,¶},

Postgraduate Program in Epidemiology

Prof Aletta Elisabeth Schutte, PhD^{*,‡,§,¶}, University of New South Wales; Bayer, Istanbul, Turkey; Unit for Hypertension and Cardiovascular Disease

David C Schwebel, PhD^{*,†,‡,§,¶}, Department of Psychology

Prof Falk Schwendicke, PhD^{*,†,‡,§,¶}, North-West University, Potchefstroom, South Africa; Oral Diagnosis, Digital Health and Health Services Research

Prof Soraya Seedat, PhD[¶], Department of Psychiatry

Mario Sekerija, PhD[†],

Charité University Medical Center Berlin, Berlin, Germany; Department of Medical Statistics, Epidemiology and Medical Informatics; University of Zagreb, Zagreb, Croatia; Department of Epidemiology and Prevention of Chronic Noncommunicable Diseases

Anbissa Muleta Senbeta, MSc^{†,‡,§}, Department of Food Science and Nutrition

Subramanian Senthilkumaran, MD^{†,‡,§}, Croatian Institute of Public Health, Zagreb, Croatia; Emergency Department

Sadaf G Sepanlou, MD^{*,†,‡,§}, Digestive Diseases Research Institute; Non-communicable Disease Research Center

Berrin Serdar, PhD[§], School of Public Health; Manian Medical Centre, Erode, India; Environmental Health Associates LLC, Englewood, CO, USA

Marc L Serre, PhD[§], Department of Environmental Sciences and Engineering

Edson Serván-Mori[†], Feng Sha, PhD^{*,¶}, Center for Biomedical Information Technology

Mahsima Shabani, MD[†], Non-communicable Diseases Research Center; Department of Cardiology

Katya Anne Shackelford[‡], Jamileh Shadid^{‡,§}, Omid Shafaat, MD^{*,§}, Department of Radiology and Radiological Science

Saeed Shahabi, PhD^{*,†,‡,§,¶}, Health Policy Research Center

Mohammad Shahbaz[†], Amira A Shaheen, PhD^{*,†,‡,§,}¶, Shenzhen Institutes of Advanced Technology, Shenzhen, China; Public Health Division

Masood Ali Shaikh, MD^{*,†,‡,§,¶}, An-Najah National University, Nablus, Palestine; Independent Consultant, Karachi, Pakistan

Prof Ali S Shalash, PhD^{†,‡,§}, Department of Neurology

Mehran Shams-Beyranvand^{*,†,‡,§}, MohammadBagher Shamsi, PhD[†], Department of Rehabilitation and Sports Medicine

Morteza Shamsizadeh, MSc^{*,†,‡,§,}¶, Faculty of Caring Science, Work Life, and Social Welfare

Mohammed Shannawaz, PhD^{†,‡,¶}, University of Borås, Borås, Sweden; Department of Community Medicine

Kiomars Sharafi, PhD^{*,†,‡,§,¶}, Razi Herbal Medicines Research Center

Zeinab Sharafi[†], Fablina Sharara^{*,†,‡,¶}, Prof Hamid Sharifi, PhD[¶], HIV/STI Surveillance Research Center, and WHO Collaborating Center for HIV Surveillance

Rajesh Sharma, PhD[†], BLDE University, Vijayapur, India; University School of Management and Entrepreneurship

David H Shaw^{†,¶}, Brittney S Sheena[‡], Prof Aziz Sheikh, MD^{*,†,§,¶}, Division of General Internal Medicine; Delhi Technological University, Delhi, India; Centre for Medical Informatics

Abbas Sheikhtaheri, PhD^{‡,§,¶}, Health Information Management

B Suresh Kumar Shetty^{*,¶}, Ranjitha S Shetty[‡], Prof Kenji Shibuya, MD^{*,‡,§,¶}, Institute for Population Health

Kevin David Shield, PhD[§], Dalla Lana School of Public Health; University of Embu, Embu, Kenya; Institute for Mental Health Policy Research

Wondimeneh Shibabaw Shiferaw, MSc^{‡,¶}, Department of Nursing

Mika Shigematsu, PhD^{*,‡,§,¶}, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India; National Institute of Infectious Diseases, Bucuresti, Romania

Prof Jae II Shin, MD^{*,†,‡,§,¶}, University of Edinburgh, Edinburgh, UK; College of Medicine

Prof Min-Jeong Shin, PhD^{*,§}, Korea University, Seoul, South Korea Rahman Shiri, PhD^{*,†,‡,§,}¶, Yonsei University, Seoul, South Korea; Finnish Institute of Occupational Health, Helsinki, Finland

Reza Shirkoohi, PhD^{‡,§}, Cancer Biology Research Center; Cancer Research Institute

Prof K M Shivakumar, PhD^{*,¶}, Faculty of Dental Sciences

Mark G Shrime, MD^{*,†,‡,¶}, Harvard University, Boston, MA, USA

Kerem Shuval, PhD^{*,†,‡,§,¶}, University College Dublin, Dublin, Ireland; School of Public Health

Soraya Siabani, PhD^{†,‡,§,¶}, Department of Health Education and Health Promotion; Department of Health Education and Health Promotion; School of Health

Radoslaw Sierpinski, PhD^{§,¶}, University of Technology Sydney, Sydney, NSW, Australia; Medical Research Agency, Warsaw, Poland; School of Medicine

Prof Inga Dora Sigfusdottir, PhD^{*,†,‡,§,¶}, Department of Health and Behavior Studies; Cardinal Wyszynski University, Warsaw, Poland; Department of Psychology

Rannveig Sigurvinsdottir, PhD^{*,†,‡,§,¶}, Cardinal Wyszynski University, Warsaw, Poland; Department of Psychology

Prof Diego Augusto Santos Silva, PhD^{*,†,¶}, Reykjavik University, Reykjavik, Iceland; Department of Physical Education

João Pedro Silva, PhD^{*,‡,§,¶}, Research Unit on Applied Molecular Biosciences (UCIBIO)

Prof Biagio Simonetti, PhD^{*,†,¶},

Federal University of Santa Catarina, Florianopolis, Brazil; Department of Law, Economics, Management and Quantitative Methods; University of Sannio, Benevento, Italy; WSB University, Gda sk, Poland

Kyle E Simpson^{†,‡,§,¶}, Prof Ambrish Singh, MTech^{*,‡}, US Department of Veterans Affairs; University of Tasmania, Hobart, TAS, Australia; Global Patient Outcome and Real World Evidence

Jasvinder A Singh, MD^{*,†,‡,§,¶}, School of Medicine; Medicine Service

Pushpendra Singh, MSc^{*,§,¶}, Department of Humanities and Social Sciences

Dhirendra Narain Sinha, PhD^{*,¶},

Eli Lilly and Company, Indianapolis, IN, USA; Department of Epidemiology; School of Preventive Oncology, Patna, India; Department of Epidemiology

Eirini Skiadaresi, MD^{†,‡,§},

Healis Sekhsaria Institute for Public Health, Mumbai, India; Department of Ophthalmology

Prof Søren T Skou, PhD^{‡,§},

Hywel Dda University Health Board, Llanelli, UK; Department of Sports Science and Clinical Biomechanics; University of Southern Denmark, Odense, Denmark; Department of Physiotherapy and Occupational Therapy

Valentin Yurievich Skryabin, MD^{*,†,‡,§,¶}, Næstved-Slagelse-Ringsted Hospitals, Slagelse, Denmark; Department No.16

Prof Karen Sliwa, PhD^{*}, Hatter Institute Department of Medicine

Amanda Smith, PhD^{||}, Institute of Bone and Joint Research; Pain Management Research Institute (PMRI)

Emma U R Smith^{*,§,¶}, Prof Eugene Sobngwi, PhD[‡], Ministry of Public Health, Yaoundé, Cameroon; Department of Internal Medicine and Specialties; Moscow Research and Practical Centre on Addictions, Moscow, Russia; Department of Endocrinology and Diabetes

Amin Soheili, PhD^{*,†,§,¶},

Yaoundé Central Hospital, Yaoundé, Cameroon; Nursing Care Research Center

Anton Sokhan, PhD^{†,‡}, Semnan University of Medical Sciences, Semnan, Iran; Department of

Infectious Diseases

Shahin Soltani^{*,‡,§,¶}, Oluwaseyi Dolapo Somefun, PhD^{*}, Kharkiv National Medical University, Kharkiv, Ukraine; Demography and Population Studies Department

Moslem Soofi[§], Reed J D Sorensen, MPH^{*,†,‡,§,¶, Department of Global Health}

Prof Joan B Soriano, MD^{*,†,‡,§,¶},

University of Witwatersrand, Johannesburg, South Africa; Centro de Investigación Biomédica en Red Enfermedades Respiratorias (CIBERES), Madrid, Spain

Muluken Bekele Sorrie, MPH^{*,†,‡,§,¶}, Department of Public Health

Sergey Soshnikov, PhD[§],

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Department of Research Development

Ireneous N Soyiri, PhD^{*,†,‡,§,¶}, Hull York Medical School

Cory N Spencer[§], Adel Spotin, PhD[§], Department of Parasitology and Mycology

Emma Elizabeth Spurlock^{†,¶}, Chandrashekhar T Sreeramareddy, MD^{*,†,‡,§,¶}, University of Hull, Hull City, UK; Division of Community Medicine

Vinay Srinivasan, MPH[§], International Medical University, Kuala Lumpur, Malaysia; David Geffen School of Medicine

Kam Sripada, PhD^{*}, University of California Los Angeles, Los Angeles, CA, USA; Centre for Global Health Inequalities Research (CHAIN)

Jeffrey D Stanaway^{*,‡,§,¶}, Benjamin A Stark[‡], Prof Nicholas Steel, PhD[¶], Public Health England, London, UK; Norwegian University of Science and Technology, Trondheim, Norway; Department of Primary Care and Public Health

Simona C t lina tefan, PhD^{*,‡}, Management Department

Caroline Stein, PhD^{‡,§,¶}, Postgraduate Program in Epidemiology

Prof Dan J Stein, MD^{*,§}, Risk and Resilience in Mental Disorders Research Unit

Prof Caitlyn Steiner, PhD^{*,‡,§}, Division of Brain Sciences; Department of Neuromedicine and Movement Science

Timothy J Steiner[‡], Krista M Steuben^{||}, Leo Stockfelt, PhD^{†,§}, University of East Anglia, Norwich, UK; Occupational and Environmental Medicine Department

Mark A Stokes, PhD^{*,†,‡,§,¶}, Local Health Authority of Florence, Firenze, Italy; Department of Psychology

Prof Lars Jacob Stovner, PhD[‡],

Department of Neuromedicine and Movement Science; University of Gothenburg, Gothenburg, Sweden; Department of Neurology and Clinical Neurophysiology

Prof Kurt Straif, PhD[§],

Barcelona Institute for Global Health, Barcelona, Spain; St. Olavs Hospital, Trondheim, Norway; Schiller Institute

Prof Saverio Stranges, MD^{*}, Department of Epidemiology & Biostatistics; Boston College, Boston, MA, USA; Department of Population Health

Jacob L Stubbs, BKin^{†,‡,§}, Department of Psychiatry

Prof Parminder S Suchdev, MD^{*}, King's College London, London, UK; Department of Pediatrics

Agus Sudaryanto, MPH^{*,†,‡}, Nursing Department

Mu'awiyyah Babale Sufiyan, MD^{*,†,‡,§,¶}, Dire Dawa University, Dire Dawa, Ethiopia; Department of Community Medicine

Hafiz Ansar Rasul Suleria, PhD^{§,¶}, Monash University, Melbourne, VIC, Australia; Department of Agriculture and Food Systems

Rizwan Suliankatchi Abdulkader, MD^{*,†,§}, Luxembourg Institute of Health, Strassen, Luxembourg; Department of Statistics; National Institute of Epidemiology

Gerhard Sulo, PhD^{*,‡,§}, Norwegian Institute of Public Health, Bergen, Norway

Iyad Sultan, MD^{‡,§,¶},

Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli, India; Pediatric Services; King Hussein Cancer Center, Amman, Jordan; Pediatrics Department

Carolyn B Swope, MPH^{*}, University of Jordan, Amman, Jordan; Delos Labs

Prof Bryan L Sykes, PhD^{†,‡}, Delos Living, New York, NY, USA; Department of Criminology, Law, and Society

Dillon O Sylte^{*,‡}, Miklós Szócska, PhD[‡], Beijing Tongren Hospital, Beijing, China; Faculty of Health and Public Administration

Lukasz Szumowski, MD[¶], University of California Irvine, Irvine, CA, USA; Minister of Health

Rafael Tabarés-Seisdedos^{*,†,‡,§,¶}, Prof Karen M Tabb, PhD^{†,‡,§}, University of Valencia, Valencia, Spain; School of Social Work

Takahiro Tabuchi, MD^{*,§,¶},

University of Illinois, Urbana, IL, USA; Cancer Control Center

Santosh Kumar Tadakamadla, PhD^{*,†,‡,¶}, School of Dentistry and Oral Health

Biruk Wogayehu Taddele, MPH^{*,¶}, Osaka International Cancer Institute, Osaka, Japan; Department of Pharmacy

Degena Bahrey Tadesse, MSc[¶], University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Amir Taherkhani^{*,†,‡,§,¶}, Prof Zarfishan Tahir, PhD^{*}, Arbaminch College of Health Sciences, Arbaminch, Ethiopia; Institute of Public Health, Lahore, Pakistan

Masih Tajdini, MD^{‡,§}, Tehran Heart Center

Prof Ken Takahashi, PhD^{‡,§}, The Chinese University of Hong Kong, Shatin, China; Asbestos Diseases Research Institute, Concord, NSW, Australia

Prof Jukka S Takala, DSc[§], International Comion on Occupational Health, Monteporzio Catone, Rome, Italy; University of Cape Coast, Cape Coast, Ghana; Department of Health Sciences

Animut Tagele Tamiru, MSc^{*,§,¶}, Department of Midwifery

Muming Tang^{*,†}, Prof Frank C Tanser, PhD[¶], University of KwaZulu-Natal, Durban, South Africa; Africa Health Research Institute, Berea, South Africa

Prof Md Ismail Tareque, PhD^{*,¶}, Department of Population Science and Human Resource Development

Ingan Ukur Tarigan, PhD[¶], University of Rajshahi, Rajshahi, Bangladesh; Research and Development Center for Humanities and Health Management

Prof Nuno Taveira, PhD^{†,‡,§},

National Institute of Health Research & Development, Jakarta, Indonesia; University Institute Egas Moniz, Monte da Caparica, Portugal; Research Institute for Medicines

Heather Jean Taylor[†], Whitney L Teagle, BA^{†,‡,¶}, National Eye Institute

Hirut Teame, MPH[‡], Department of Public Health

Fabrizio Tediosi, PhD[¶], University of Basel, Basel, Switzerland Yonas Getaye Tefera, MSc^{*,¶}, Department of Clinical Pharmacy

Arash Tehrani-Banihashemi^{†,‡,§}, Berhane Fseha Teklehaimanot, MPH^{†,‡}, Department of Public Health

Freweini Gebrearegay Tela, BHlthSci^{*}, School of Public Health

Mohamad-Hani Temsah, MD^{*,§}, Pediatric Intensive Care Unit

Sonyah Terrason^{*,‡}, Getayeneh Antehunegn Tesema, MPH[§], Department of Epidemiology and Biostatistics

Zemenu Tadesse Tessema, MSc^{1,‡,§,¶}, Department of Epidemiology and Biostatistics

Bhaskar Thakur, PhD^{*,¶},

Massachusetts Veterans Epidemiology Research and Information Center (MAVERIC) & CSP Coordinating Center; University of Lisbon, Lisbon, Portugal; Division of Biostatistics and Epidemiology

Prof Kavumpurathu Raman Thankappan, MD^{*,†,‡}, Texas Tech University, El Paso, TX, USA; Department of Public Health and Community Medicine

Rekha Thapar^{*}, Prof Nihal Thomas, PhD^{*,†}, Central University of Kerala, Kasaragod, India; Department of Endocrinology, Diabetes and Metabolism

Azalea M Thomson[‡], Prof Amanda G Thrift, PhD[†], Department of Medicine

Prof George D Thurston, ScD[§], Ateneo De Manila University, Pasig City, Philippines; Department of Environmental Medicine

Mariya Vladimirovna Titova, PhD^{*,†,§,¶},

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Christian Medical College and Hospital (CMC), Vellore, India; Timiryazev Institute of Plant Physiology

Boikhutso Tlou, DrPH^{*}, Ministry of Health, Hail, Saudi Arabia; Discipline of Public Health Medicine

Hamid Reza Tohidinik, PhD^{†,‡,§},

Department of Epidemiology and Biostatistics; HIV/STI Surveillance Research Center, and WHO Collaborating Center for HIV Surveillance

Prof Marcello Tonelli, MD^{*,†,‡,§,¶}, Department of Medicine Roman Topor-Madry^{*,†,‡,§,¶}, Prof Fotis Topouzis, PhD^{†,§,¶}, Royal Liverpool University Hospital, Liverpool, UK; 1st Department of Ophthalmology

Anna E Torre^{*,‡,§}, Mathilde Touvier, PhD^{*,‡,§},

National Institute for Health and Medical Research (INSERM), Paris, France; Health, Medicine and Human Biology; Nutritional Epidemiology Research Team (EREN)

Marcos Roberto Tovani-Palone^{*,†,‡,§,¶}, Eugenio Traini, MSc[†], Institute of Human Virology Nigeria, Abuja, Nigeria; Institute for Risk Assessment Sciences (IRAS)

Bach Xuan Tran, PhD^{*,†,‡,§,¶}, Department of Health Economics

Ravensara Travillian^{*,†,‡,§,¶}, Sergi Trias-Llimós[†], Christopher E Troeger^{‡,¶}, Thomas Clement Truelsen, PhD^{†,‡}, Rigshospitalet

Alexander C Tsai, MD[‡], Abu Dhabi University, Khalifa City, United Arab Emirates; Department of Psychiatry; Hanoi Medical University, Hanoi, Vietnam; Mbarara University of Science and Technology, Mbarara, Uganda

Prof Aristidis Tsatsakis, DSc^{‡,§}, Department of Medicine

Lorainne Tudor Car, PhD^{†,‡,§,¶}, Lee Kong Chian School of Medicine

Stefanos Tyrovolas, PhD^{‡,§}, Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain; St. John of God Health Park

Riaz Uddin, PhD^{*,‡,§,¶}, School of Health and Rehabilitation Sciences

Irfan Ullah, PhD^{*,¶}, University of Crete, Heraklion, Greece; Department of Microbiology; Iqra National University, Peshawar, Pakistan; TB Culture Laboratory

Saif Ullah, PhD[‡], Food and Drug Administration of the Islamic Republic of Iran, Tehran, Iran; Institute of Soil and Environmental Sciences

Chukwuma David Umeokonkwo, MPH^{§,¶}, Mufti Mehmood Memorial Teaching Hospital, Dera Ismail Khan, Pakistan; Department of Community Medicine

Eduardo A Undurraga, PhD[‡],

Alex Ekwueme Federal University Teaching Hospital Abakaliki, Abakaliki, Nigeria; School of Government; Pontifical Catholic University of Chile, Santiago, Chile; Schneider Institutes for Health Policy

Bhaskaran Unnikrishnan^{*,†,‡,§,¶}, Era Upadhyay, PhD^{*,†,§,¶}, Brandeis University, Waltham, MA, USA; Amity Institute of Biotechnology

Olalekan A Uthman, PhD[¶], Division of Health Sciences

Marco Vacante, PhD^{*,†,‡,§,¶}, Department of General Surgery and Medical-Surgical Specialties

Regina Vaicekonyte, MSc^{*}, University of Jordan, Amman, Jordan; Delos Labs

Alireza Vakilian^{†,‡}, Prof Pascual R Valdez, MEd^{*,†,‡,§,¶}, Argentine Society of Medicine, Buenos Aires, Argentina; Amity University Rajasthan, Jaipur, India; Velez Sarsfield Hospital, Buenos Aires, Argentina

Alessandro Valli, PhD^{*,†}, Department of General Surgery and Medical-Surgical Specialties

Aaron van Donkelaar, PhD[§],

Mayo Clinic Foundation for Medical Education and Research, Rochester, MN, USA; Department of Energy, Environmental and Chemical Engineering; Department of Physics and Atmospheric Science

Constantine Vardavas, PhD[†], Laboratory of Toxicology

Prof Santosh Varughese, FRCP^{‡,¶}, Department of Nephrology

Prof Tommi Juhani Vasankari, MD^{*,†,‡,§,¶}, UKK Institute, Tampere, Finland

Prof Ana Maria Nogales Vasconcelos, PhD[†], Department of Statistics

Yasser Vasseghian^{*,†,‡,§,¶}, Yousef Veisani, PhD^{†,§}, University of Brasilia, Brasilia, Brazil; Psychosocial Injuries Research Center

Prof Narayanaswamy Venketasubramanian, MBBS^{*,†,‡,§,¶}, Yong Loo Lin School of Medicine; Ilam University of Medical Sciences, Ilam, Iran; Raffles Neuroscience Centre

Simone Vidale, MD^{*,†},

Raffles Hospital, Singapore; Department of Neurology; Infermi Hospital, Rimini, Italy; Department of Neurology & Stroke Unit

Prof Francesco S Violante, MD^{*,†,‡,§,¶},

Directorate-General of Health; Sant'Anna Hospital, Como, Italy; Occupational Health Unit

Prof Vasily Vlassov, MD^{*,†,‡,§,¶}, University of Novi Sad, Novi Sad, Serbia; Department of Health Care Administration and Economics

Stein Emil Vollset^{*,†,‡,§,¶,||}, Avina Vongpradith^{*,‡,¶}, Theo Vos^{*,†,‡,§,¶}, Giang Thu Vu, BA^{*},

Ministry of Health and Medical Education, Tehran, Iran; Center of Excellence in Behavioral Medicine

Isidora S Vujcic, PhD[†], Faculty of Medicine Institute of Epidemiology

Ana Vukovic, DrPH^{†,‡}, Royal Melbourne Institute of Technology University, Melbourne, VIC, Australia; Department of Pediatric and Preventive Dentistry

Rade Vukovic, PhD^{†,‡,§}, School of Medicine

Sant'Orsola Malpighi Hospital, Bologna, Italy; Department of Pediatric Endocrinology

Feleke Gebremeskel W/hawariat, MPH^{*}, Department of Public Health

Prof Yasir Waheed, PhD^{*,†,‡,§,¶}, Mother and Child Healthcare Institute of Serbia "Dr Vukan Cupic", Belgrade, Serbia; Foundation University Medical College

Mitchell Taylor Wallin, MD^{†,§}, School of Medicine; Department of Neurology

Magdalene K Walters^{†,‡,¶}, Richard G Wamai, PhD^{*,¶}, School of Public Health; Xiamen University Malaysia, Sepang, Malaysia; Cultures, Societies and Global Studies, & Integrated Initiative for Global Health

Fang Wang, MA^{*}, George Washington University, Washington, DC, USA; School of Health Sciences

Haidong Wang, DipSocSc^{*,†,¶}, Wuhan University, Wuhan, China; Division of Social Science

Hongbo Wang[†], Jiayu Wang^{*,‡}, Yafeng Wang, PhD^{‡,§}, Department of Psychiatry; School of Population Health and Environmental Sciences

Yanzhong Wang, BSA^{*}, Department of Epidemiology and Biostatistics

Yuan-Pang Wang^{*,†,‡,§,¶}, Joseph L Ward, MSc[‡], Great Ormond Street Institute of Child Health Alexandrea Watson^{*,‡,§}, Stefanie Watson[†], Jingkai Wei, PhD^{*,†,‡,§}, Foundation University Islamabad, Islamabad, Pakistan; Department of Epidemiology and Biostatistics

Melissa Y Wei Wei, MD[§], Medical School

Prof Robert G Weintraub, MB^{*,‡,§,¶}, Critical Care and Neurosciences Department; Hong Kong University of Science and Technology, Hong Kong, China; Cardiology Department

Daniel J Weiss, PhD[‡], Malaria Atlas Project

Jordan Weiss, MA^{*,†,‡,§,¶}, Royal Children's Hospital, Melbourne, VIC, Australia; Leonard Davis Institute of Health Economics; Population Studies Center

Fissaha Tekulu Welay, MSc^{*}, Department of Midwifery

Girmay Teklay Weldesamuel, MSc[†], University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Andrea Werdecker, PhD^{*,†,§,¶}, Demographic Change and Aging Research Area

Prof J Jason West, PhD[§], Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Ronny Westerman, DSc^{*,†,‡,§,¶}, University of Campinas (Unicamp), Campinas, Brazil; Competence Center of Mortality-Follow-Up of the German National Cohort

Joanna L Whisnant^{‡,§}, Harvey A Whiteford^{*,†,‡,§}, Taweewat Wiangkham, PhD^{*,†,‡},

University of Pennsylvania, Philadelphia, PA, USA; Department of Physical Therapy

Nuwan Darshana Wickramasinghe, MD^{*}, Naresuan University, Phitsanulok, Thailand; Department of Community Medicine

Kirsten E Wiens^{†,‡,§}, Prof Tissa Wijeratne, MD^{†,‡}, Department of Neurology; Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka; Department of Medicine

Lauren B Wilner^{*,‡,¶}, Shadrach Wilson[‡], Prof Charles Shey Wiysonge, MD[†], South African Medical Research Council, Cape Town, South Africa; School of Public Health and Family Medicine

Bogdan Wojtyniak, DSc^{*,†,‡},

Department of Population Health Monitoring and Analysis

Gebremariam Woldu, MSc[¶], School of Pharmacy

Prof Charles D A Wolfe, MD^{*,†,‡,§,¶}, University of Rajarata, Saliyapura Anuradhapuraya, Sri Lanka; NIHR Biomedical Research Centre

Temesgen Gebeyehu Wondmeneh, MPH^{*}, National University of Singapore, Singapore, Singapore; Department of Public Health

Adam Belay Wondmieneh, MSc[†], School of Nursing and Midwifery; Autonomous University of Hidalgo State, Pachuca, Mexico; Department of Nursing

Eve E Wool^{†,‡}, Sarah S Wozniak[§], Prof Ai-Min Wu, MD^{*,†,‡,§,¶}, Guy's and St.Thomas' Hospital and Kings College London, London, UK; Department of Orthopaedics

Chenkai Wu, PhD^{*}, Duke Global Health Institute; Global Health Research Center

Junjie Wu^{†,§}, Sarah Wulf Hanson^{*,‡,§,¶}, Han Yong Wunrow^{*,‡,||}, Yang Xie, MD^{*,¶}, Wenzhou Medical University, Wenzhou, China; Department of Behavior and Operation Management

Prof Gelin Xu, MD^{†,‡,§},

Beijing Advanced Innovation Center for Big Data-based Precision Medicine, Beijing, China; School of Medicine

Rixing Xu^{‡,§,¶}, Simon Yadgir^{‡,§}, Seyed Hossein Yahyazadeh Jabbari, MD^{*,‡,§,¶}, Nanjing University, Nanjing, China; Clinical Cancer Research Center

Tomohide Yamada, MD[†], University of Glasgow, Glasgow, UK; Department of Diabetes and Metabolic Diseases

Prof Kazumasa Yamagishi, MD^{*,†,‡,§,¶},

Milad General Hospital, Tehran, Iran; Research and Development Center for Health Services; American Cancer Society, Atlanta, GA, USA; Graduate School of Medicine

Mousa Yaminfirooz, PhD^{‡,§}, General Education Department; Social Determinants of Health Research Center

Yuichiro Yano, MD^{†,‡,§,¶},

Newcastle University, Newcastle upon Tyne, UK; Department of Family Medicine and Community Health

Prof Sanni Yaya, PhD^{*,†,‡,§,¶},

The George Institute for Global Health; School of International Development and Global Studies

Vahid Yazdi-Feyzabadi^{*,†,‡,§,¶}, Jamal A Yearwood^{*,†,‡,¶}, Tomas Y Yeheyis, $MSc^{*,†,‡,\$}$,

National Cancer Institute, Bethesda, MD, USA; School of Nursing

Yordanos Gizachew Yeshitila, MSc^{*,‡,¶}, Department of Nursing

Christopher Sabo Yilgwan, MD^{†,§}, University of Tsukuba, Tsukuba, Japan; Pediatrics Department; University of Jos, Jos, Nigeria; Department of Pediatrics

Mekdes Tigistu Yilma, MPH[§], University of Burgundy, Dijon, France; Department of Public Health

Prof Paul Yip, PhD^{*,†,‡,§,¶},

Australian Catholic University, Melbourne, VIC, Australia; Centre for Suicide Research and Prevention; Department of Social Work and Social Administration

Naohiro Yonemoto, MPH^{*,†,‡,§,¶}, Jos University Teaching Hospital, Jos, Nigeria; Department of Neuropsychopharmaology; National Center of Neurology and Psychiatry, Kodaira, Japan; Department of Public Health

Seok-Jun Yoon^{*,†,‡}, Javad Yoosefi Lebni, MA^{†,‡}, Department of Health Education and Promotion

Hunter W York[†], Prof Mustafa Z Younis, PhD^{*,†,‡,§,¶}, Juntendo University, Tokyo, Japan; Department of Health Policy and Management; Jackson State University, Jackson, MS, USA; School of Medicine

Theodore Patrick Younker, BS^{*,†,‡,§}, Tsinghua University, Beijing, China; Department of Immunology

Prof Bahman Yousefi, PhD[§], Molecular Medicine Research Center

Prof Zabihollah Yousefi, PhD^{†,‡,§,¶}, Sebelas Maret University, Surakarta, Indonesia; Department of Environmental Health

Mahmoud Yousefifard, PhD[‡], Physiology Research Center

Taraneh Yousefinezhadi, PhD^{*,†,‡,§,¶}, Injury Prevention and Safety Promotion Research Center

Abdilahi Yousuf Yousuf, PhD^{†,‡,§}, Department of Public Health Prof Chuanhua Yu, PhD^{*,‡,§}, Department of Epidemiology and Biostatistics; Global Health Institute

Yong Yu, MS^{*}, University of Pittsburgh, Pittsburgh, PA, USA; School of Public Health and Management

Chun-Wei Yuan^{||}, Deniz Yuce, MD^{*}, Gazi University, Ankara, Turkey; Cancer Institute

Hasan Yusefzadeh, PhD^{*,†,‡,§,¶}, Qazvin University of Medical Sciences, Qazvin, Iran; Department of Health Care Management and Economics

Siddhesh Zadey, MS[¶], Duke Global Health Institute

Telma Zahirian Moghadam, PhD^{1,‡,§,¶}, Social Determinants of Health Research Center

Syed Saoud Zaidi, PhD^{*,¶}, Hubei University of Medicine, Shiyan, China; Department of Pharmaceutics

Leila Zaki, PhD^{‡,¶}, Department of Parasitology and Entomology

Josefina Zakzuk[†], Sojib Bin Zaman, MPH^{*,†,‡,¶}, The School of Clinical Sciences at Monash Health; Zhejiang University, Hangzhou, China; Maternal and Child Health Division

Mohammad Zamani, MD^{†,‡,§,¶}, Student Research Committee

Maryam Zamanian, PhD^{*,†,‡,§,¶}, McGill University, Montreal, QC, Canada; Department of Epidemiology

Hamed Zandian, PhD^{†,‡,§,¶}, University of Ibadan, Ibadan, Nigeria; Department of Community Medicine; Social Determinants of Health Research Center

Alireza Zangeneh^{*,‡}, Hadi Zarafshan, PhD^{*}, Psychiatry and Psychology Research Center

Prof Mikhail Sergeevich Zastrozhin, PhD^{*,‡,§,¶}, Laboratory of Genetics and Genomics; Dow University of Health Sciences, Karachi, Pakistan; Addictology Department

Kaleab Alemayehu Zewdie, MSc^{*,‡,¶}, School of Pharmacy

Jianrong Zhang, MD^{*},

Department of General Practice; Russian Medical Academy of Continuous Professional Education, Moscow, Russia; Victorian Comprehensive Cancer Centre, Melbourne, VIC, Australia Yunquan Zhang, PhD^{*,‡,§,¶}, Hubei Province Key Laboratory of Occupational Hazard Identification and Control; School of Public Health

Zhi-Jiang Zhang, PhD^{*,†,‡,§}, School of Medicine

Jeff T Zhao^{‡,§}, Xiu-Ju George Zhao, PhD^{*,§,¶}, George Washington University, Washington, DC, USA; School of Health Sciences; Wuhan University of Science and Technology, Wuhan, China; School of Biology and Pharmaceutical Engineering

Yingxi Zhao, MPH^{*,‡,§,¶}, Nuffield Department of Medicine

Bistra Zheleva, MBA^{*}, Wuhan Polytechnic University, Wuhan, China; Global Strategy and Advocacy Unit

Peng Zheng^{†,*,‡,§,¶}, Maigeng Zhou, PhD^{†,‡,§}, Heidelberg University Hospital, Heidelberg, Germany; National Center for Chronic and Noncommunicable Disease Control and Prevention

Cong Zhu, MPH^{*,¶}, Children's HeartLink, Minneapolis, MN, USA; Department of Epidemiology, Human Genetics, and Environmental Sciences, University of Texas Health Science Center at Houston, Houston, TX, USA

Arash Ziapour^{*,†,‡,§,¶}, Stephanie R M Zimsen^{*,‡,§}, Bianca S Zlavog^{¶,||}, Prof Sanjay Zodpey, PhD[¶], Indian Institute of Public Health

Stephen S Lim^{*,†,‡,§,¶}, Christopher J L Murray^{*,†,‡,§,¶,||}

Cristiana Abbafati, PhD^{*,‡,§,¶}, Department of Juridical and Economic Studies

Kaja M Abbas, PhD^{*,†,‡,§}, Department of Infectious Disease Epidemiology

Mohammad Abbasi, PhD^{*,‡}, Department of Internal Medicine

Mitra Abbasifard, MD^{†,‡}, Clinical Research Development Unit

Mohsen Abbasi-Kangevari, MD^{*,†,‡,§}, Social Determinants of Health Research Center

Hedayat Abbastabar, PhD^{†,‡,¶}, Advanced Diagnostic and Interventional Radiology Research Center

Prof Foad Abd-Allah, MD^{*,†,‡,§,¶}, Department of Neurology

Prof Ahmed Abdelalim, MD^{†,‡,§}, Department of Neurology

Prof Mohammad Abdollahi, PhD^{*,‡,§,¶}, School of Pharmacy; The Institute of Pharmaceutical Sciences (TIPS)

Ibrahim Abdollahpour, PhD^{‡,§}, Neuroscience Research Center

Aidin Abedi, MD^{*,¶}, Department of Orthopaedic Surgery

Parisa Abedi, MD^{*}, School of Medicine; Neuroendocrine

Kedir Hussein Abegaz, MSc[§], University of Southern California, Los Angeles, CA, USA; Biostatistics Department; Near East University, Nicosia, Cyprus; Biostatistics and Health Informatics

Hassan Abolhassani, PhD^{*,†,‡,§,¶},

Research Center for Immunodeficiencies; Madda Walabu University, Bale Robe, Ethiopia; Karolinska University Hospital, Huddinge, Sweden

Akine Eshete Abosetugn, MPH[¶], Department of Public Health

Prof Victor Aboyans, MD^{*,‡,§}, Debre Berhan University, Debre Berhan, Ethiopia; Department of Cardiology; Dupuytren University Hospital, Limoges, France; University of Limoges, Limoges, France

Elissa M Abrams, MD[‡], Section of Allergy and Clinical Immunology; University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Prof Lucas Guimarães Abreu, PhD^{*,†,‡,§,¶}, Department of Pediatric Dentistry

Michael R M Abrigo, PhD^{*,†,‡,§,¶}, Federal University of Minas Gerais, Belo Horizonte, Brazil; Department of Research

Abdulaziz Khalid Abu Haimed, MBBS^{*,¶}, Internal Medicine Department

Ahmed Abualhasan, MD[§], Department of Neurology

Eman Abu-Gharbieh, PhD^{*}, Department of Clinical Sciences

Prof Laith Jamal Abu-Raddad, PhD^{‡,§}, University of Sharjah, Sharjah, United Arab Emirates; Department of Healthcare Policy and Research Abdelrahman I Abushouk, MD^{*,†,‡,§,¶}, Harvard Medical School; Department of Medicine

Alyssa Acebedo, MD^{*,‡}, Center of Excellence in Public Health Nutrition

Ilana N Ackerman, PhD^{*,‡}, School of Public Health and Preventive Medicine

Maryam Adabi, PhD^{*,†,‡,§,¶}, Hamadan University of Medical Sciences, Hamadan, Iran

Tim Adair, PhD[†], Melbourne School of Population and Global Health

Abdu A Adamu, PhD^{*,‡}, Department of Global Health; Cochrane South Africa

Oladimeji M Adebayo, MD^{*,†,‡,¶}, College of Medicine

Isaac Akinkunmi Adedeji, PhD[†], University College Hospital, Ibadan, Ibadan, Nigeria; Department of Sociology

Victor Adekanmbi, PhD^{†,‡,§,¶}, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; School of Medicine

Jaimie D Adelson, PhD^{*,‡,¶}, Institute for Health Metrics and Evaluation

Abiodun Moshood Adeoye, MD^{†,§}, School of Laboratory Medicine and Science; Institute of Cardiovascular Diseases

Olatunji O Adetokunboh, PhD^{*,†,‡,§,¶}, University of Melbourne, Melbourne, VIC, Australia; Centre of Excellence for Epidemiological Modelling and Analysis; Department of Global Health

Davoud Adham, PhD^{‡,§,¶}, School of Health

Shailesh M Advani, PhD^{†,§,¶}, Ardabil University of Medical Science, Ardabil, Iran; Social Behavioral Research Branch; National Institute of Health, Bethesda, MD, USA; Department of Oncology

Mohsen Afarideh, MD^{*}, Endocrinology and Metabolism Research Center; Department of Dermatology

Mahdi Afshari, MD[‡], Mayo Clinic, Rochester, MN, USA; Department of Community Medicine

Ashkan Afshin, MD^{*,†,‡,§,¶}, Department of Health Metrics Sciences, School of Medicine

Emilie E Agardh, PhD[‡],

Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Prof Gina Agarwal, PhD^{*,‡,§,¶}, Department of Family Medicine

Pradyumna Agasthi, MD[¶], Georgetown University, Washington DC, DC, USA; Department of Cardiovascular Medicine

Kareha M Agesa, BA[‡], Institute for Health Metrics and Evaluation

Mohammad Aghaali, PhD^{†,‡}, McMaster University, Hamilton, ON, Canada; Department of Epidemiology and Biostatistics

Prof Seyed Mohammad Kazem Aghamir, PhD^{‡,§,¶}, Urology Research Center

Prof Anurag Agrawal, PhD^{*,†,‡,§,¶}, Qom University of Medical Sciences, Qom, Iran; Institute of Genomics and Integrative Biology; Council of Scientific & Industrial Research, Delhi, India; Internal Medicine

Tauseef Ahmad, MS^{*,‡,§,¶}, Baylor College of Medicine, Houston, TX, USA; Department of Epidemiology and Health Statistics

Alireza Ahmadi, MD[‡], Department of Public Health; Department of Anesthesiology

Keivan Ahmadi, PhD^{*,†,§}, Southeast University, Nanjing, China; Lincoln Medical School

Mehdi Ahmadi, PhD^{*,‡,§}, Environmental Health Engineering; Environmental Technologies Research Center

Hamid Ahmadieh, MD^{†,‡,§}, Department of Ophthalmology; Ophthalmic Research Center

Ehsan Ahmadpour, PhD[‡], Infectious and Tropical Diseases Research Center

Muktar Beshir Ahmed, MPH^{*,†,§}, Department of Epidemiology; Jimma University, Jimma, Ethiopia; Australian Center for Precision Health

Budi Aji, DrPH^{*}, University of South Australia, Adelaide, SA, Australia; Faculty of Medicine and Public Health

Temesgen Yihunie Akalu, MPH^{‡,§}, Department of Epidemiology and Biostatistics Rufus Olusola Akinyemi, PhD^{‡,§,¶}, Institute for Advanced Medical Research and Training; University of Gondar, Gondar, Ethiopia; Institute of Neuroscience

Tomi Akinyemiju, PhD^{*,‡,§}, Department of Population Health Sciences; Duke Global Health Institute

Blessing Akombi, PhD^{*,‡,§}, School of Public Health and Community Medicine

Chisom Joyqueenet Akunna, DMD§,

University of New South Wales, Sydney, NSW, Australia; Department of Public Health; The Intercountry Centre for Oral Health (ICOH) for Africa, Jos, Nigeria; Department of Public Health

Fares Alahdab, MSc^{*,§,¶}, Federal Ministry of Health, Garki, Nigeria; Mayo Evidence-based Practice Center

Ziyad Al-Aly, MD^{†,‡,§,¶}, John T. Milliken Department of Internal Medicine

Khurshid Alam, PhD^{*,†,‡,§,¶}, Griffith University, Nathan, QLD, Australia; Murdoch Business School

Noore Alam, MPH[‡], Dalhousie University, Halifax, NS, Canada; Prevention Division; Centre for Environment and Population Health

Samiah Alam, MSc^{‡,§}, Department of Veterans Affairs, St Louis, MO, USA; Department of Community Health and Epidemiology

Tahiya Alam, MSc^{†,‡,§}, Department of Community Health and Epidemiology

Fahad Mashhour Alanezi, PhD^{*,†,§}, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia

Turki M Alanzi, PhD^{*,†,‡,§}, Health Information Management and Technology Department

Samuel B Albertson, BS^{*,‡,¶}, Institute for Health Metrics and Evaluation

Jacqueline Elizabeth Alcalde-Rabanal, PhD^{†,‡}, Murdoch University, Perth, WA, Australia; Center for Health System Research

Niguse Meles Alema, MSc[‡], Department of Pharmacy

Biresaw Wassihun Alemu, MSc^{*,§}, Adigrat University, Adigrat, Ethiopia; College of Medicine and Health Science; Department of Midwifery Yihun Mulugeta Alemu, MPH^{*,¶}, Department of Epidemiology and Biostatistics

Prof Khalid F Alhabib, MD^{*,§}, Department of Cardiac Sciences

Robert Kaba Alhassan, PhD[¶], Institute of Health Research

Muhammad Ali, PhD^{*,†,‡,§,¶}, University of Health and Allied Sciences, Ho, Ghana; Department of Biotechnology

Saqib Ali, PhD^{*,‡,§,¶}, Quaid-i-Azam University, Islamabad, Pakistan; Department of Information Systems, College of Economics and Political Science

Gianfranco Alicandro, PhD^{*,†,‡,§}, Sultan Qaboos University, Muscat, Oman; Directorate for Social Statistics and Population Census

Mehran Alijanzadeh, PhD^{†,‡}, Social Determinants of Health Research Center

Cyrus Alinia, PhD^{†,‡,§}, Qazvin University of Medical Sciences, Qazvin, Iran; Department of Health Care Management and Economics

Vahid Alipour, PhD^{*,†,‡,§,¶},

Health Economics Department; Health Management and Economics Research Center

Hesam Alizade, PhD^{*,†,§}, Urmia University of Medical Science, Urmia, Iran; Infectious and Tropical Disease Research Center

Prof Syed Mohamed Aljunid, PhD^{*,†,‡,§,¶}, Department of Health Policy and Management; Kuwait University, Safat, Kuwait; International Centre for Casemix and Clinical Coding

Prof François Alla, PhD^{*,‡,§,¶}, National University of Malaysia, Bandar Tun Razak, Malaysia; Bordeaux School of Public Health

Prof Peter Allebeck, MD^{*,†,‡,§},

Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Majid Abdulrahman Hamad Almadi, FRCPC^{*,†,¶}, Bahir Dar University, Bahir Dar, Ethiopia; College of Medicine; University of Bordeaux, Bordeaux, France; Division of Gastroenterology & Hepatology

Prof Ali Almasi, PhD[¶], Department of Environmental Health Engineering Amir Almasi-Hashiani, PhD^{*,†,‡,§,¶}, McGill University, Montreal, QC, Canada; Department of Epidemiology

Prof Nihad A Almasri, PhD[¶], Arak University of Medical Sciences, Arak, Iran; Physiotherapy Department

Hesham M Al-Mekhlafi, PhD^{*,†,§,¶}, Medical Research Center

Abdulaziz M Almulhim, MBBS^{*,¶}, Philippine Institute for Development Studies, Quezon City, Philippines; College of Medicine

Jordi Alonso, MD^{*,‡,§,¶},

Sana'a University, Sana'a, Yemen; Research Program of Epidemiology and Public Health; Pompeu Fabra University, Barcelona, Spain; Department of Experimental and Health Sciences

Rajaa M Al-Raddadi, PhD^{*,‡,¶},

Biomedical Research Networking Center in Epidemiology and Public Health (CiberESP), Madrid, Spain; Department of Community Medicine

Khalid A Altirkawi, MD^{*,†,‡,§,¶}, Pediatric Intensive Care Unit

Arwa Khalid Alumran, PhD[†], Health Information Management and Technology Department

Nelson Alvis-Guzman, PhD^{*,†,‡,¶}, Research Group in Health Economics

Prof Nelson J Alvis-Zakzuk, PhD^{‡,¶}, King Abdulaziz University, Jeddah, Saudi Arabia; Institute for Immunological Research

Azmeraw T Amare, PhD^{*}, Arba Minch University, Arba Minch, Ethiopia; College of Medicine and Health Science; School of Medicine

Bekalu Amare, MSc^{*}, Department of Pharmacology

Saeed Amini, PhD^{*,‡,¶}, Health Services Management Department

Mostafa Amini-Rarani^{†,‡,§,¶}, Arya Aminorroaya, MD^{†,‡}, Non-communicable Diseases Research Center; Tehran Heart Center

Fatemeh Amiri, MSc^{‡,§,¶}, Department of Radiology and Nuclear Medicine

Arianna Maever L Amit, BS^{*,†,‡,¶},

University of Adelaide, Adelaide, SA, Australia; Department of Epidemiology and Biostatistics; School of Public Health

Dickson A Amugsi, PhD^{*,‡,§,¶}, Johns Hopkins University, Baltimore, MD, USA; Maternal and Child Wellbeing

Gianna Gayle Herrera Amul, MSc[‡], African Population and Health Research Center, Nairobi, Kenya; Lee Kuan Yew School of Public Policy

Etsay Woldu Anbesu, MPH^{*}, National University of Singapore, Singapore, Singapore; Department of Public Health

Prof Robert Ancuceanu, PhD^{*,†,§,¶}, Pharmacy Department

Deanna Anderlini, MD^{*,‡,§,¶},

Centre for Sensorimotor Performance; The University of Queensland, Brisbane, QLD, Australia; Neurology Department

Jason A Anderson^{*,§}, Catalina Liliana Andrei, PhD^{*,†,‡,§,¶}, Samara University, Samara, Ethiopia; Cardiology Department

Tudorel Andrei^{*,‡,§}, Sofia Androudi, PhD^{†,¶}, Bucharest University of Economic Studies, Bucharest, Romania; Department of Medicine

Colin Angus, MSc^{†,§}, University of Thessaly, Volos, Greece; School of Health and Related Research

Mina Anjomshoa^{*,†,‡,§}, Fereshteh Ansari, PhD^{*,†,‡,§,¶}, Research Center for Evidence Based Medicine; University of Sheffield, Sheffield, UK; Razi Vaccine and Serum Research Institute

Iman Ansari, MD^{†,‡}, Agricultural Research, Education, and Extension Organization (AREEO), Tehran, Iran; Medical Students Research Committee

Alireza Ansari-Moghaddam^{*,†,‡,§,¶}, Ippazio Cosimo Antonazzo, PhD[§], Zahedan University of Medical Sciences, Zahedan, Iran; Research Center on Public Health

Carl Abelardo T Antonio, MD^{*,†,‡,§,¶}, Department of Health Policy and Administration; University of Milan Bicocca, Monza, Italy; Department of Applied Social Sciences

Catherine M Antony^{*,†,‡,§,¶}, Ernoiz Antriyandarti, DrAgrSc^{‡,§,¶}, Hong Kong Polytechnic University, Hong Kong, China; Agribusiness Study Program

Davood Anvari, PhD^{*,†,‡,§,¶},

Department of Parasitology; Mazandaran University of Medical Sciences, Sari, Iran; Department of Parasitology

Razique Anwer, PhD^{‡,§,¶}, Department of Pathology

Seth Christopher Yaw Appiah, PhD^{*,†,§},

Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia; Department of Sociology and Social Work; Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Center for International Health

Jalal Arabloo, PhD^{*,†,‡,§,¶}, Health Management and Economics Research Center

Morteza Arab-Zozani^{*,†,‡,§,¶}, Aleksandr Y Aravkin, PhD^{*,†,‡,§,¶}, Department of Applied Math

Aseb Arba Kinfe Arba, MSc^{*}, Birjand University of Medical Sciences, Birjand, Iran; Department of Nursing

Olatunde Aremu, PhD^{†,¶}, Wolaita Sodo University, Wolaita Sodo, Ethiopia; Department of Public Health

Filippo Ariani, MSc^{‡,§},

Birmingham City University, Birmingham, UK; Regional Centre for the Analysis of Data on Occupational and Work-related Injuries and Diseases

Timur Aripov, PhD^{*},

Local Health Unit Tuscany Centre, Florence, Italy; Public Health and Healthcare Management; Tashkent Institute of Postgraduate Medical Education, Tashkent, Uzbekistan; Boston Children's Hospital, Boston, MA, USA

Bahram Armoon, PhD[§],

Social Determinants of Health Research Center; Saveh University of Medical Sciences, Saveh, Iran; Social Determinants of Health Research Center

Prof Johan Ärnlöv, PhD^{*,†,‡,§,¶},

Yasuj University of Medical Sciences, Yasuj, Iran; School of Health and Social Studies; Department of Neurobiology, Care Sciences and Society

Oluwaseyi Olalekan Arowosegbe, MPH^{*},

Dalarna University, Falun, Sweden; Department of Epidemiology and Public Health; Swiss Tropical and Public Health Institute, Basel, Switzerland; Department of Epidemiology and Public Health

Krishna K Aryal, PhD^{†,‡}, Monitoring Evaluation and Operational Research Project

Afsaneh Arzani, DrPH^{‡,§}, School of Nursing and Midwifery; Babol University of Medical Sciences, Babol, Iran

Malke Asaad, MD^{*,¶}, Department of Plastic Surgery

Mehran Asadi-Aliabadi^{*,‡,§,¶}, Ali A Asadi-Pooya^{*,†,‡,§,¶}, Samaneh Asgari, MSc[†], Prevention of Metabolic Disorders Research Center

Prof Babak Asghari, PhD[‡],

Department of Biostatistics and Epidemiology; Thomas Jefferson University, Philadelphia, PA, USA; Department of Biostatistics and Epidemiology

Mohammad Asghari Jafarabadi[†], Charlie Ashbaugh^{*,‡,§,¶}, Michael Assmus^{*,§}, Zahra Atafar[§], Seyyed Shamsadin Athari, MPH[¶], Department of Immunology

Desta Debalkie Atnafu, MPH^{‡,§}, Department of Health System and Health Economics

Maha Moh'd Wahbi Atout, PhD^{*,§,¶}, Zanjan University of Medical Sciences, Zanjan, Iran; Faculty of Nursing

Sachin R Atre, PhD[‡],

University of the Philippines Manila, Manila, Philippines; Center for Clinical Global Health Education; Philadelphia University, Amman, Jordan; D.Y. Patil Medical College, Hospital and Research Centre

Madhu Sudhan Atteraya, PhD[†], D.Y. Patil Vidyapeeth, Pune, Pune, India; Department of Social Welfare

Floriane Ausloos, MD^{*,‡,§}, University of Leicester, Leicester, UK; Gastro-enterology Department

Prof Marcel Ausloos, PhD^{*,†,‡,§,¶}, School of Business

Leticia Avila-Burgos^{†,¶}, Euripide Frinel Gbenato Arthur Avokpaho, MD[†], University of Liège, Liège, Belgium; Epidemiological and Clinical Research; Bénin Clinical Research Institute (IRCB), Abomey-Calavi, Benin; Epidemiology and Clinical Research

Beatriz Paulina Ayala Quintanilla, PhD^{*,†,‡,§,¶}, The Judith Lumley Centre

Getinet Ayano, MSc^{*,†,‡,§,¶}, School of Public Health

Martin Amogre Ayanore, PhD^{*,†,‡,§,¶}, Department of Health Policy Planning and Management

Getie Lake Aynalem, MSc¹, Jenderal Soedirman University, Purwokerto, Indonesia; Department of Clinical Midwifery

Yared Asmare Aynalem, MSc^{‡,¶}, Department of Nursing

Muluken Altaye Ayza, MSc¹, Department of Pharmacology and Toxicology

Samad Azari, PhD^{*,‡,§,¶}, Health Management and Economics Research Center Gulrez Azhar^{||}, Peter S Azzopardi, PhD[¶], Curtin University, Perth, WA, Australia; Global Adolescent Health Group; Burnet Institute, Melbourne, VIC, Australia; Wardliparingga Aboriginal Research Unit

Darshan B B^{*,¶}, Ebrahim Babaee, PhD^{*,†,‡,¶}, Preventive Medicine and Public Health Research Center

Alaa Badawi, PhD^{*,‡,§}, Public Health Risk Sciences Division; Department of Nutritional Sciences

Ashish D Badiye, MSc^{*,†,§,¶}, University of Toronto, Toronto, ON, Canada; Department of Forensic Science

Prof Mojtaba Bagherzadeh, PhD^{*,‡}, Government Institute of Forensic Science, Nagpur, India; Chemistry Department

Eleni Bagli, PhD[†],

Sharif University of Technology, Tehran, Iran; Department of Ophthalmology; University Hospital of Ioannina, Ioannina, Greece; Institute of Molecular Biology & Biotechnology

Mohammad Amin Bahrami, PhD^{†,§,¶}, Department of Healthcare Management and Education

Atif Amin Baig, PhD[¶], Foundation for Research & Technology, Ioannina, Greece; Unit of Biochemistry

Mohan Bairwa, MD^{*}, Sultan Zainal Abidin University, Kuala Terengganu, Malaysia; Centre for Community Medicine

Mohammad Hossein Bakhshaei, MD^{‡,§,¶}, Department of Anesthesiology

Ahad Bakhtiari, PhD^{*,†,‡,§,¶}, Department of Health Policy, Management, and Economics

Shankar M Bakkannavar^{*,§,¶}, Arun Balachandran, MSc^{*,¶}, Hamedan University of Medical Sciences, Hamadan, Iran; Department of Demography; University of Groningen, Groningen, Netherlands; Population Research Centre

Senthilkumar Balakrishnan, PhD[‡], Department of Medical Microbiology

Shivanthi Balalla, PhD[‡], Department of Psychology and Neurosciences

Shelly Balassyano^{†,‡,¶}, Alberto Baldasseroni, MD[§], Auckland University of Technology, Auckland, New Zealand; Epidemiology Department

Prof Kylie Ball[§], Institute for Physical Activity and Nutrition

Shoshana H Ballew, PhD[§], Department of Epidemiology

Daniela Balzi, DSc[§], Deakin University, Burwood, VIC, Australia; Department of Prevention

Prof Maciej Banach, PhD^{*,†,‡,§,¶},

USL Tuscany Center, Florence, Italy; Department of Hypertension; Medical University of Lodz, Lodz, Poland; Polish Mothers' Memorial Hospital Research Institute, Lodz, Poland

Prof Srikanta K Banerjee, PhD^{*,§,¶}, School of Health Sciences

Palash Chandra Banik, MPhil^{*,†,‡,¶}, Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Marlena S Bannick[‡], Agegnehu Bante Bante, MSc^{‡,§,¶}, Department of Nursing

Simachew Animen Bante, MSc[¶], Department of Midwifery

Adhanom Gebreegziabher Baraki, MPH^{*,‡,§}, Department of Epidemiology and Biostatistics

Prof Miguel A Barboza, MD[‡],

Bangladesh University of Health Sciences, Dhaka, Bangladesh; Department of Neurosciences; Costa Rican Department of Social Security, San Jose, Costa Rica; School of Medicine

Suzanne Lyn Barker-Collo^{*,†,‡,§,¶}, Prof Till Winfried Bärnighausen, MD^{†,§,¶}, T.H. Chan School of Public Health; Heidelberg Institute of Global Health (HIGH)

Prof Lope H Barrero, DSc^{§,¶}, Heidelberg University, Heidelberg, Germany; Department of Industrial Engineering

Celine M Barthelemy^{‡,§,¶}, Lingkan Barua, MPH^{‡,§}, Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Akbar Barzegar, PhD^{†,‡}, Department of Occupational Health Engineering

Prof Huda Basaleem, PhD^{*}, Pontifical Javeriana University, Bogota, Colombia; School of Public Health and Community Medicine

Prof Quique Bassat, MD[¶],

Aden College, Aden, Yemen; Barcelona Institute for Global Health; University of Barcelona, Barcelona, Spain; Catalan Institution for Research and Advanced Studies (ICREA), Barcelona, Spain

Sanjay Basu, PhD^{*,†,‡,§,¶}, Center for Primary Care; School of Public Health

Prof Bernhard T Baune, PhD^{*,†,‡,§,¶}, Imperial College London, London, UK; Department of Psychiatry; University of Münster, Münster, Germany; Department of Psychiatry

Mohsen Bayati, PhD^{*,†,‡,§,¶}, Health Human Resources Research Center

Bayisa Abdissa Baye, MPH^{*,¶}, Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Gholamreza Bazmandegan^{†,‡}, Jacob S Becker, BA[§], Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Prof Neeraj Bedi, MD^{*,†,‡,§,¶}, Jazan University, Jazan, Saudi Arabia; University of North Carolina Chapel Hill, Chapel Hill, NC, USA; Department of Community Medicine

Ettore Beghi, MD^{*,‡,§,¶}, Department of Neuroscience

Masoud Behzadifar, PhD[¶], Social Determinants of Health Research Center

Prof Yannick Béjot, PhD^{‡,§}, Lorestan University of Medical Sciences, Khorramabad, Iran; Department of Neurology; University Hospital of Dijon, Dijon, France; Dijon Stroke Registry - UFR Sciences Santé

Tariku Tesfaye Tesfaye Bekuma, MPH[¶], University of Burgundy, Dijon, France; Department of Public Health

Prof Michelle L Bell, PhD^{*,†,§,¶}, Wollega University, Nekemte, Ethiopia; School of the Environment

Aminu K Bello, PhD[‡], Yale University, New Haven, CT, USA; Department of Medicine

Rose G Bender[‡], Derrick A Bennett, PhD^{†,‡}, Nuffield Department of Population Health

Fiona B Bennitt^{‡,§}, Isabela M Bensenor, PhD^{*,†,‡,§,¶}, Department of Internal Medicine

Catherine P Benziger, MD[‡], University of São Paulo, São Paulo, Brazil; Heart and Vascular Center Kidanemaryam Berhe, MPH^{*,†,‡,§}, Department of Nutrition and Dietetics

Adam E Berman, MD^{*,†,§,¶}, Essentia Health, Duluth, MN, USA; Department of Medicine

Eduardo Bernabe, PhD^{‡,¶}, Faculty of Dentistry, Oral & Craniofacial Sciences

Robert S Bernstein, MD[¶], Hubert Department of Global Health

Gregory J Bertolacci^{†,‡}, Akshaya Srikanth Bhagavathula, PharmD^{*,§,¶}, Emory University, Atlanta, GA, USA; Department of Internal Medicine; Department of Social and Clinical Pharmacy

Reshmi Bhageerathy, PhD^{†,‡,§,¶}, Department of Health Information Management; Manipal Academy of Higher Education, Mangalore, India

Neeraj Bhala, PhD^{*,†,‡,§}, Charles University, Prague, Czech Republic; Institutes of Applied Health Research and Translational Medicine; Queen Elizabeth Hospital Birmingham, Birmingham, UK; Institute of Applied Health Research

Dinesh Bhandari, MSc^{‡,§,¶}, School of Public Health; University of Birmingham, Birmingham, UK; Public Health Research Laboratory

Pankaj Bhardwaj, MD^{*,‡,¶}, All India Institute of Medical Sciences, New Delhi, India; Department of Community Medicine and Family Medicine

Anusha Ganapati Bhat, MD[¶], Datta Meghe Institute of Medical Sciences, Wardha, India; Division of General Internal Medicine

Krittika Bhattacharyya, MSc^{*,†,‡,§,¶},

University of Massachusetts Medical School, Springfield, MA, USA; Department of Statistical and Computational Genomics; National Institute of Biomedical Genomics, Kalyani, India; Department of Statistics

Suraj Bhattarai, MD^{*,¶}, University of Calcutta, Kolkata, India; Department of Global Health

Prof Zulfigar A Bhutta, PhD^{*,†,‡,§,¶},

Public Health Agency of Canada, Toronto, ON, Canada; Centre for Global Child Health; Global Institute for Interdisciplinary Studies, Kathmandu, Nepal; Centre of Excellence in Women & Child Health

Sadia Bibi, PhD[‡],

Aga Khan University, Karachi, Pakistan; Institute of Soil and Environmental Sciences

Molly H Biehl[‡], Ali Bijani, PhD^{*,†,§,¶}, Social Determinants of Health Research Center

Boris Bikbov, MD^{*,‡,§,¶}, Mario Negri Institute for Pharmacological Research, Milan, Italy

Ver Bilano, PhD[¶], University of Agriculture Faisalabad, Faisalabad, Pakistan; Health Economics and Outcomes Research

Muhammad Shahdaat Bin Sayeed, MSc^{‡,§}, Creativ-Ceutical, London, UK; National Centre for Epidemiology and Population Health; Australian National University, Canberra, ACT, Australia; Department of Clinical Pharmacy and Pharmacology

Prof Antonio Biondi, PhD^{*,†,‡,§,¶}, Department of General Surgery and Medical-Surgical Specialties

Binyam Minuye Birihane, MSc^{‡,§,¶}, University of Catania, Catania, Italy; Ethiopian Public Health Institute, Adis Ababa, Ethiopia; Department of Nursing

Donal Bisanzio, PhD^{†,‡}, Debre Tabor University, Debretabor, Ethiopia; Global Health Division; School of Medicine

Catherine Bisignano^{*,†,‡,§,||}, Raaj Kishore Biswas, $MSc^{*,†,\ddagger,\$}$, Transport and Road Safety (TARS) Research Centre

Helen Bitew, MSc[§], School of Pharmacy

Prof Tone Bjørge, PhD^{*,†},

University of Bergen, Bergen, Norway; Cancer Registry of Norway, Oslo, Norway; Department of Global Public Health and Primary Care

Prof Moses John Bockarie, MSc[¶], European & Developing Countries Clinical Trials Partnership, Cape Town, South Africa; Department of Medicine

Somayeh Bohlouli, PhD^{*,†,‡,§,¶}, Department of Veterinary Medicine

Mehdi Bohluli, PhD^{*,†,‡,§},

Islamic Azad University, Kermanshah, Iran; Department of Computer Science and Information Technology; Institute for Advanced Studies in Basic Sciences, Zanjan, Iran; Department of Research and Innovation

Hunduma Amensisa Bojia, BPharm[¶], School of Pharmacy

Srinivasa Rao Bolla, PhD^{*,†,‡,¶}, Petanux Research GmBH, Bonn, Germany; Department of Biomedical Sciences

Archith Boloor, MD^{*,‡,¶}, Department of Internal Medicine

Alexandra S Boon-Dooley^{‡,§}, Prof Guilherme Borges, DSc^{‡,§}, Nazarbayev University, Nur-Sultan City, Kazakhstan; Department of Epidemiology and Psychosocial Research

Antonio Maria Borzì, MD^{†,‡,§}, Department of Clinical and Experimental Medicine

Shiva Borzouei^{†,§}, Dipan Bose, PhD^{*}, Ramón de la Fuente Muñiz National Institute of Psychiatry, Mexico City, Mexico; Transport Global Practice

Cristina Bosetti, PhD[§], Department of Oncology

Soufiane Boufous, PhD^{*,§}, Transport and Road Safety (TARS) Research Centre

Prof Rupert Bourne, MD[‡], World Bank, Washington, DC, USA; Vision and Eye Research Unit

Oliver J Brady, PhD^{*,†,‡,¶}, Department of Infectious Disease Epidemiology

Dejana Braithwaite, PhD^{*,†,§,¶}, Division of Hematology and Oncology

Prof Michael Brauer, DSc^{*,†,‡,§}, School of Population and Public Health

Prof Carol Brayne, MD[‡], Anglia Ruskin University, Cambridge, UK; Department of Public Health and Primary Care

Prof Nicholas J K Breitborde, PhD^{*,‡,§}, University of Cambridge, Cambridge, UK; Department of Psychology; Psychiatry and Behavioral Health Department

Susanne Breitner, DSc§,

Ohio State University, Columbus, OH, USA; Institute for Medical Information Processing, Biometry, and Epidemiology; Ludwig Maximilian University of Munich, Munich, Germany; Institute of Epidemiology

Prof Hermann Brenner, MD^{*,‡,§},

German Research Center for Environmental Health, Neuherberg, Germany; Division of Clinical Epidemiology and Aging Research

Prof Alexey V Breusov, DSc^{*}, German Cancer Research Center, Heidelberg, Germany; Institute of Medicine

Paul Svitil Briant^{*,‡,§,¶}, Prof Andrew M Briggs, PhD^{*,‡,¶}, School of Physiotherapy and Exercise Science

Prof Andrey Nikolaevich Briko, MSc, DSc^{†,§}, World Health Organization (WHO), Geneva, Switzerland; Department of Epidemiology and Evidence Based Medicine; I.M. Sechenov First Moscow State Medical University, Moscow, Russia; Department of Biomedical Technologies

Nikolay Ivanovich Briko^{†,‡,§,¶}, Gabrielle B Britton, PhD^{*,‡,§}, Bauman Moscow State Technical University, Moscow, Russia; Neuroscience Unit; Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Prof Traolach Brugha, MD^{*}, Keimyung University, Daegu, South Korea; Department of Health Sciences

Dana Bryazka^{‡,§}, Prof Rachelle Buchbinder, PhD[‡], Department of Epidemiology and Preventive Medicine; Monash Department of Clinical Epidemiology at Cabrini Hospital

Blair R Bumgarner^{†,‡,§}, Katrin Burkart[§], Richard Thomas Burnett, PhD[§], Cabrini Institute, Melbourne, VIC, Australia; Population Studies Division

Prof Sharath Burugina Nagaraja, MD^{*,†,§,¶}, Health Canada, Ottawa, ON, Canada; Department of Community Medicine

Prof Reinhard Busse, PhD^{*,‡,¶},

Employee State Insurance Post Graduate Institute of Medical Sciences and Research, Bengalore, India; Department of Health Care Management

Zahid A Butt, PhD^{*,†,‡,§,¶},

Technical University of Berlin, Berlin, Germany; School of Public Health and Health Systems; University of Waterloo, Waterloo, ON, Canada; Al Shifa School of Public Health

Florentino Luciano Caetano dos Santos, PhD^{*,†,‡,§,¶}, Al Shifa Trust Eye Hospital, Rawalpindi, Pakistan; Institute of Microengineering

Leah E Cahill, PhD[§], Department of Nutrition; Department of Medicine

Lucero Cahuana-Hurtado[¶], Prof Tianji Cai, PhD[†], Federal Polytechnic School of Lausanne, Lausanne, Switzerland; Department of Sociology

Charlton SKH Callender[†], Prof Luis Alberto Cámera, MD^{*,†,‡,§,¶}, Peruvian University Cayetano Heredia, Lima, Peru; Internal Medicine Department; Hospital Italiano de Buenos Aires, Buenos Aires, Argentina; Board of Directors

Ismael R Campos-Nonato^{*,†,‡,§}, Julio Cesar Campuzano Rincon, PhD^{*}, National Institute of Public Health, Cuernavaca, Mexico; School of Medicine

Jackie Cao^{||}, Josip Car, PhD^{*,‡},

University of the Valley of Cuernavaca, Cuernavaca, Mexico; Centre for Population Health Sciences; Department of Primary Care and Public Health

Prof Rosario Cárdenas, DSc^{*,†,‡,§,¶}, Nanyang Technological University, Singapore, Singapore; Department of Health

Care

Giulia Carreras, PhD^{*,†,‡,§,¶}, Institute for Cancer Research, Prevention and Clinical Network, Florence, Italy

Prof Juan J Carrero, PhD^{*,†,‡,§,¶}, Department of Medical Epidemiology and Biostatistics

Prof Felix Carvalho, PhD^{*,†,‡,§,¶}, Research Unit on Applied Molecular Biosciences (UCIBIO)

Joao Mauricio Castaldelli-Maia^{*,†,‡,§,¶}, Carlos A Castañeda-Orjuela^{‡,§,¶}, Giulio Castelpietra, PhD^{*,†,‡,§,¶},

National University of Colombia, Bogota, Colombia; Department of Medicine; University of Udine, Udine, Italy; Department of Mental Health

Chris D Castle[‡], Emma Castro, MD^{||},

Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Franz Castro^{*,†,‡,§,¶}, Ferrán Catalá-López, PhD^{*,†,‡,¶}, Institute of Health Carlos III, Madrid, Spain; Clinical Epidemiology Program; Healthcare Agency "Friuli Occidentale", Pordenone, Italy; National School of Public Health

Kate Causey^{*,‡,§,¶}, Christopher R Cederroth, PhD^{*,†,‡,§,¶}, Department of Physiology and Pharmacology; Research Triangle Institute International, Research Triangle Park, NC, USA; National Institute of Health Research Nottingham Biomedical Research Centre

Kelly M Cercy^{*,‡,§,¶}, Prof Ester Cerin, PhD^{*,†,‡,§,¶}, Ottawa Hospital Research Institute, Ottawa, ON, Canada; Mary MacKillop Institute for Health Research; School of Public Health

Julian Chalek^{II}, Joht Singh Chandan, MFPH^{*,‡,§,¶}, Queen Elizabeth Hospital Birmingham, Birmingham, UK; Institute of Applied Health Research

Alex R Chang, MD[‡], National Taiwan University Hospital, Taipei, Taiwan; Kidney Health Research Institute

Angela Y Chang, DSc[¶], University of Washington, Seattle, WA, USA

Jung-Chen Chang, PhD*,

University of Hong Kong, Hong Kong, China; College of Medicine; National Taiwan University, Taipei, Taiwan; Department of Nursing

Kai-Lan Chang, PhD[§], Geisinger Health System, Danville, PA, USA; Cooperative Institute for Research in Environmental Sciences; University of Colorado, Boulder, CO, USA; Chemical Sciences Division

Jaykaran Charan, MD^{*,¶}, Department of Pharmacology

Fiona J Charlson, PhD^{*,‡,§}, Queensland Centre for Mental Health Research

Vijay Kumar Chattu, MD^{*,†,‡,§,¶}, Department of Medicine

Sarika Chaturvedi, PhD^{*,‡,§,¶}, National Oceanic and Atmospheric Administration Earth System Research Laboratory, Boulder, CO, USA; Research Department

Prof Nicolas Cherbuin, PhD^{*,§}, Research School of Population Health

Odgerel Chimed-Ochir^{‡,§}, Ken Lee Chin, PhD^{*,†,‡,¶}, Department of Epidemiology and Preventive Medicine; Melbourne Medical School

Jesus Lorenzo Chirinos-Caceres^{*}, Daniel Youngwhan Cho, MD^{*,‡,§,¶}, Division of Plastic Surgery

Jee-Young Jasmine Choi, PhD^{*,§,¶}, Cayetano Heredia University, Lima, Peru; Biomedical Informatics

Prof Hanne Christensen, DMSci^{‡,§,¶}, Seoul National University Hospital, Seoul, South Korea; Bispebjerg Hospital

Dinh-Toi Chu, PhD^{*,†,‡,§,¶}, University of Copenhagen, Copenhagen, Denmark; Faculty of Biology

Michael T Chung, MD^{*,‡,§,¶}, Department of Otolaryngology

Sheng-Chia Chung, PhD^{*,§}, Department of Health Informatics; University College London, London, UK; Health Data Research UK, London, UK

Prof Flavia M Cicuttini, PhD^{*,‡,§}, School of Public Health and Preventive Medicine

Liliana G Ciobanu, PhD^{†,‡,§,¶}, School of Pharmacy and Medical Sciences; Mekelle University, Mekelle, Ethiopia; Adelaide Medical School

Prof Massimo Cirillo, MD^{*,†,‡,§,¶},

Wayne State University, Detroit, MI, USA; Department of Public Health

Beniamino Cislaghi^{*}, Thomas Khaled Dwayne Classen, MSc[§], University of Naples Federico II, Naples, Italy; Department of Key Questions and International Cooperation; North Rhine-Westphalia (NRW) Centre for Health, Bochum, Germany; Bielefeld School of Public Health

Aaron J Cohen, DSc^{*,§}, Bielefeld University, Bielefeld, Germany; Health Effects Institute, Boston, MA, USA

Emma L Collins, MSc[‡], Nuffield Department of Medicine

Haley Comfort^{†,¶}, Kelly Compton^{*,‡,§,¶}, Sara Conti, PhD[‡], School of Medicine and Surgery

Owen R Cooper, PhD[§], Geisinger Health System, Danville, PA, USA; Cooperative Institute for Research in Environmental Sciences; National Oceanic and Atmospheric Administration Chemical Sciences Laboratory, Boulder, CO, USA

Barbara Corso, PhD^{*}, Institute of Neuroscience

Paolo Angelo Cortesi, PhD^{*,‡,¶}, School of Medicine and Surgery

Vera Marisa Costa, PhD^{*,†,‡,§,¶}, Research Unit on Applied Molecular Biosciences (UCIBIO)

Ewerton Cousin, PhD^{*,‡,§,¶}, Postgraduate Program in Epidemiology

Richard G Cowden, PhD^{*,†,‡,§}, Federal University of Rio Grande do Sul, Porto Alegre, Brazil; Department of Psychology

Prof Benjamin C Cowie, PhD[‡], Department of Medicine; WHO Collaborating Centre for Viral Hepatitis

Elizabeth A Cromwell^{†,‡}, Andrew J Croneberger[†], Di H Cross, PhD^{‡,§}, Office of the Director

Marita Cross, PhD^{*}, Faculty of Medicine and Health

Christopher Stephen Crowe, MD^{*,‡}, Division of Plastic & Reconstructive Surgery

Jessica A Cruz^{‡,§}, Steven Cummins^{*}, Matthew Cunningham^{†,‡}, Saad M A Dahlawi, PhD^{†,‡,§,¶},

Environmental Health Department

Prof Haijiang Dai, MD^{*},

National Institutes of Health, Bethesda, MD, USA; Department of Cardiology; Central South University, Changsha, China; Department of Mathematics and Statistics; York University, Toronto, ON, Canada; College of Environmental Sciences and Engineering

Hancheng Dai, PhD^{*}, Prof Albertino Antonio Moura Damasceno, PhD[§], Peking University, Beijing, China; Faculty of Medicine

Giovanni Damiani, MD^{*,†,‡,§,¶},

Eduardo Mondlane University, Maputo, Mozambique; Clinical Dermatology, IRCCS Istituto Ortopedico Galeazzi; University of Milan, Milan, Italy; Department of Dermatology

Emanuele D'Amico, MD[†], University of Dhaka, Dhaka, Bangladesh; Department "G.F.Ingrassia"

Prof Lalit Dandona, MD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Prof Rakhi Dandona, PhD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Parnaz Daneshpajouhnejad, MD^{*}, Department of Pathology

William James Dangel[§], Anna-Karin Danielsson, PhD[§], Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Jiregna Darega Gela, MPH[¶], Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Prof Paul I Dargan, MB^{†,§}, Faculty of Life Sciences and Medicine; Department of Clinical Toxicology

Aso Mohammad Darwesh, PhD^{*,†,‡,§,¶}, Department of Information Technology

Prof Ahmad Daryani, PhD^{†,‡,§,¶}, Toxoplasmosis Research Center

Jai K Das, MD^{*,‡,§}, Division of Women and Child Health

Rajat Das Gupta, MPH^{*,†,‡,§}, University of Human Development, Sulaymaniyah, Iraq; Department of Epidemiology and Biostatistics; University of South Carolina, Columbia, SC, USA; James P Grant School of Public Health

José das Neves, PhD^{*,†,‡,§}, Institute for Research and Innovation in Health; Institute of Biomedical Engineering (INEB)

Prof Aditya Prasad Dash, DSc[¶],

BRAC University, Dhaka, Bangladesh; Central University Tami Nadu, Thiruvarur, India

Prof Gail Davey, MD^{*,¶}, Department of Global Health and Infection; School of Public Health

Claudio Alberto Dávila-Cervantes^{*,‡,§,¶}, Prof Adrian C Davis, PhD^{*}, Department of Surgery and Cancer; Ear Institute

Dragos Virgil Davitoiu, PhD§,

Department of General Surgery; Latin American Faculty of Social Sciences Mexico, Mexico City, Mexico; Department of Surgery

Kairat Davletov, PhD^{†,‡,¶}, Clinical Emergency Hospital Sf. Pantelimon, Bucharest, Romania; Health Research Institute

Prof Diego De Leo, DSc^{*,†,‡,§}, Queensland Health, Brisbane, QLD, Australia; Australian Institute for Suicide Research and Prevention

Jan-Walter De Neve[¶], Heidelberg Institute of Global Health (HIGH)

Frances E Dean[‡], Prof Nicole K DeCleene[‡], National Research University Higher School of Economics, Moscow, Russia; Department of Respiratory Medicine

Amanda Deen[‡], Prof Louisa Degenhardt, PhD^{‡,§}, National Drug and Alcohol Research Centre

Marissa DeLang, BS[§], Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Prof Robert Paul Dellavalle, MD^{‡,§}, Dermatology Service; Al Farabi Kazakh National University, Almaty, Kazakhstan; Department of Dermatology

Feleke Mekonnen Demeke, MSc^{‡,§}, Department of Medical Laboratory Sciences

Gebre Teklemariam Demoz, MSc[§], School of Pharmacy

Desalegn Getnet Demsie, MSc^{‡,§}, Department of Pharmacy

Edgar Denova-Gutiérrez, DSc^{*,†,‡,§,¶}, Center for Nutrition and Health Research

Nebiyu Dereje Dereje, PhD[‡], School of Public Health; Aksum University, Aksum, Ethiopia; Department of Public Health

Kebede Deribe, PhD^{*,†,¶}, Wellcome Trust Brighton and Sussex Centre for Global Health Research; School of Public Health

Nikolaos Dervenis, MD^{*,†,‡,§,¶}, Wachemo University, Hossana, Ethiopia; St Paul's Eye Unit; Department of Ophthalmology

Rupak Desai, MBBS^{*,†,‡,¶}, Aristotle University of Thessaloniki, Thessaloniki, Greece; Division of Cardiology

Assefa Desalew, MSc[‡], School of Nursing and Midwifery

Getenet Ayalew Dessie, MSc[‡], Department of Nursing

Keshab Deuba, DrPH^{*}, Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health; National Centre for AIDS and STD Control

Prof Samath Dhamminda Dharmaratne, MD^{‡,¶}, Save the Children, Kathmandu, Nepal; Department of Community Medicine

Govinda Prasad Dhungana, MSc^{*,†,‡,§,¶}, University of Peradeniya, Peradeniya, Sri Lanka; Department of Microbiology

Mostafa Dianatinasab, MSc^{*,‡,§,¶},

University of Texas, Houston, TX, USA; Department of Epidemiology; Far Western University, Mahendranagar, Nepal; Department of Epidemiology and Biostatistics

Prof Diana Dias da Silva, PhD^{†,§,¶}, Laboratory of Toxicology

Prof Daniel Diaz, PhD^{*,†,‡,§,¶},

Shahroud University of Medical Sciences, Shahroud, Iran; Center of Complexity Sciences; National Autonomous University of Mexico, Mexico City, Mexico; Faculty of Veterinary Medicine and Zootechnics

Zahra Sadat Dibaji Forooshani, PhD^{‡,§}, Tehran University of Medical Sciences, Tehran, Iran

Prof Martin Dichgans, MD^{*}, Institute for Stroke and Dementia Research

Alireza Didarloo, PhD^{*}, Department of Public Health

Zachary V Dingels[‡], Ilse N Dippenaar^{*,†,¶}, M Ashworth Dirac, MD[‡], Autonomous University of Sinaloa, Culiacan Rosales, Mexico; Swedish Family Medicine - First Hill, Seattle, WA, USA

Shirin Djalalinia, PhD^{†,‡,§}, Development of Research and Technology Center Hoa Thi Do^{†,‡,§,¶}, Klara Dokova, PhD^{*,†,‡,§}, Nguyen Tat Thanh University, Ho Chi Minh City, Vietnam; Department of Social Medicine and Health Care Organisation

David Teye Doku, PhD[†], Medical University of Varna, Varna, Bulgaria; Department of Population and Health

Christiane Dolecek, MD*,

Centre for Tropical Medicine and Global Health; University of Tampere, Tampere, Finland; Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Andrew J Dolgert^{||}, Fariba Dorostkar, PhD^{*,†,‡,§,¶}, Faculty of Allied Medicine

Chirag P Doshi, BA^{*,†,‡}, Keck School of Medicine

Pratik P Doshi, MS^{*}, School of Medicine

Leila Doshmangir, PhD^{*,†,‡,§,¶}, Department of Health Policy and Management

Abdel Douiri, PhD[‡], School of Population Health and Environmental Sciences

Matthew C Doxey, MPH^{*,‡}, Urban Indian Health Institute

Prof Kerrie E Doyle, PhD[†], Seattle Indian Health Board, Seattle, WA, USA; School of Medicine; Health Sciences

Prof Tim Robert Driscoll, PhD^{*,‡,§}, Sydney School of Public Health

Eleonora Dubljanin, PhD[†], Institute of Microbiology and Immunology

Susanna J Dunachie, PhD[‡], Centre for Tropical Medicine and Global Health; University of Tampere, Tampere, Finland; Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Prof Bruce B Duncan^{*,‡,§,¶}, Postgraduate Program in Epidemiology

Prof Andre Rodrigues Duraes, PhD^{†,‡,§,¶}, School of Medicine; Federal University of Bahia, Salvador, Brazil; Department of Internal Medicine

Arielle Wilder Eagan, MSW^{*,‡,§,¶},

Department of Global Health and Social Medicine; Escola Bahiana de Medicina e Saúde Pública, Salvador, Brazil; Department of Social Services

Hedyeh Ebrahimi, MD^{*}, Liver and Pancreaticobilliary Disease Research Center; Non-communicable Diseases Research Center

Mohammad Ebrahimi Kalan, MSc^{*,‡}, Tufts Medical Center, Boston, MA, USA; Department of Epidemiology

Prof David Edvardsson, PhD^{*,†,‡,§,¶},

School of Nursing and Midwifery; Florida International University, Miami, FL, USA; Department of Nursing

Andem Effiong, MB[†], Umeå University, Umea, Sweden; Centre Clinical Epidemiology and Biostatistics

Joshua R Ehrlich, MD^{*,‡},

University of Newcastle, Newcastle, NSW, Australia; Department of Ophthalmology and Visual Sciences; Institute for Health Care Policy and Innovation

Prof Nevine El Nahas, MD^{‡,§}, Department of Neurology

Iman El Sayed, PhD^{†,‡,§,¶}, University of Michigan, Ann Arbor, MI, USA; Biomedical Informatics and Medical Statistics Department

Prof Maysaa El Sayed Zaki, PhD^{*}, Alexandria University, Alexandria, Egypt; Department of Clinical Pathology

Prof Maha El Tantawi, PhD^{*,†,‡,§,¶}, Pediatric Dentistry and Dental Public Health Department

Iffat Elbarazi, DrPH^{*,†,‡,§}, Mansoura University, Mansoura, Egypt; Department of Public Health

Islam Y Elgendy, MD^{*,‡,§,¶}, Cardiology Department; Division of Cardiology

Prof Hala Rashad Elhabashy, MD[‡], Neurophysiology Department

Shaimaa I El-Jaafary^{*,†,‡,§}, Aisha Elsharkawy, MD^{*}, Endemic Medicine and Hepatogastroentrology Department

Iqbal RF Elyazar, PhD^{*,‡,§,¶}, Massachusetts General Hospital, Boston, MA, USA; Eijkman-Oxford Clinical Research Unit

Mohammad Hassan Emamian, PhD^{*,†,‡}, Ophthalmic Epidemiology Research Center

Sophia Emmons-Bell^{‡,§}, Holly E Erskine, PhD^{‡,§}, Queensland Centre for Mental Health Research, Brisbane, QLD, Australia

Babak Eshrati, PhD^{*,‡},

Preventive Medicine and Public Health Research Center

Khalil Eskandari, PhD[¶], Department of Medicinal Chemistry; Pharmaceutics Research Center

Sharareh Eskandarieh, PhD^{*,†,‡,§,¶}, Multiple Sclerosis Research Center

Saman Esmaeilnejad, PhD^{‡,§,¶}, Tehran Medical Sciences Branch; Department of Physiology

Firooz Esmaeilzadeh, PhD^{†,‡}, Department of Public Health

Prof Alireza Esteghamati, MD^{*,‡,§,¶}, Endocrinology and Metabolism Research Center

Sadaf Esteghamati, MD^{*}, Endocrinology and Metabolism Research Center

Kara Estep^{†,‡,§}, Arash Etemadi, PhD^{‡,§}, Maragheh University of Medical Sciences, Maragheh, Iran; Division of Cancer Epidemiology and Genetics

Atkilt Esaiyas Etisso, MSc^{‡,§}, Unit of Medical Physiology

Oluchi Ezekannagha, PhD[¶], Hawassa University, Hawassa, Ethiopia; Independent Consultant, Awka, Nigeria; International Institute for Tropical Agriculture, Ibadan, Nigeria

Prof Jessica Fanzo, PhD^{*,§}, School of Advanced International Studies

Tamer Farag[¶], Mohammad Farahmand, PhD^{†,‡,§,¶}, School of Public Health

Prof Anwar Faraj, PhD^{†,‡}, Department of Political Science

Emerito Jose A Faraon, MD[¶], Department of Health Policy and Administration

Mohammad Fareed, PhD^{†,‡,§}, Iranshahr University of Medical Sciences, Iranshahr, Iran; College of Medicine

Prof Roghiyeh Faridnia, PhD^{†,‡,§}, Department of Medical Parasitology

Carla Sofia e Sá Farinha, MSc^{‡,¶}, Dissemination Division; National Institute of Statistics, Lisbon, Portugal; Activity Planning and Control Unit

Andrea Farioli, PhD^{‡,§,¶},

Directorate-General of Health (DGS), Lisbon, Portugal; Department of Medical and Surgical Sciences

Pawan Sirwan Faris, PhD[¶],

University of Bologna, Bologna, Italy; Department of Biology and Biotechnology "Lazzaro Spallanzani"; University of Pavia, Pavia, Italy; Department of Biology

Prof Andre Faro, PhD^{*,†,‡,§,¶}, Salahaddin University-Erbil, Erbil, Iraq; Department of Psychology

Mithila Faruque, MPH^{‡,§}, Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Prof Farshad Farzadfar, DSc^{*,†,‡,§}, Non-communicable Diseases Research Center

Nazir Fattahi^{*,†,‡,§}, Ali Akbar Fazaeli, PhD[†], Department of Health Policy, Management, and Economics

Mehdi Fazlzadeh, PhD^{†,‡,§,¶}, Department of Environmental Health Engineering; Department of Environmental Health Engineering

Prof Valery L Feigin^{*,†,‡,§,¶}, National Institute for Stroke and Applied Neurosciences

Rachel Feldman^{‡,§}, Seyed-Mohammad Fereshtehnejad, PhD^{*,†,‡,§}, Department of Neurobiology; Federal University of Sergipe, São Cristóvão, Brazil; Division of Neurology

Prof Eduarda Fernandes, PhD^{*,†,‡,§,¶}, Associated Laboratory for Green Chemistry (LAQV)

Giannina Ferrara, MD[§], Zahedan University of Medical Sciences, Zahedan, Iran; Research Center on Public Health

Pietro Ferrara^{*,¶}, Alize J Ferrari^{*,‡,§}, Prof Manuela L Ferreira, PhD^{†,‡,§}, Institute of Bone and Joint Research

Garumma Tolu Feyissa, PhD[¶], Department of Health Education and Behavioral Sciences

Irina Filip, MD^{*,†,‡,§,¶}, Psychiatry Department; Kaiser Permanente, Fontana, CA, USA; School of Health Sciences

Florian Fischer, PhD^{*,†,‡,§,¶},

A.T. Still University, Mesa, AZ, USA; Institute of Gerontological Health Services and Nursing Research

James L Fisher, PhD^{*,‡,§,¶}, James Cancer Hospital

Ryan Fitzgerald^{*,‡}, Prof Carsten Flohr, PhD^{†,‡}, Unit for Population-Based Dermatology Research

Luisa Sorio Flor, MPH^{‡,§,¶},

Ravensburg-Weingarten University of Applied Sciences, Weingarten, Germany; Sergio Arouca National School of Public Health, Rio de Janeiro, Brazil; Federal University of Espírito Santo, Vitória, Brazil

Nataliya A Foigt, PhD^{*,†,‡,§,¶}, Institute of Gerontology

Prof Morenike Oluwatoyin Folayan, FWACS^{*,†,‡,§,¶}, National Academy of Medical Sciences of Ukraine, Kyiv, Ukraine; Department of Child Dental Health

Artem Alekseevich Fomenkov, PhD^{*,†,§,¶}, Obafemi Awolowo University, Ile-Ife, Nigeria; Department of Cell Biology and Biotechnology

Lisa M Force, MD^{‡,§}, Timiryazev Institute of Plant Physiology, Moscow, Russia; Department of Global Pediatric Medicine

Carla Fornari, PhD[‡], School of Medicine and Surgery

Masoud Foroutan, PhD^{*,‡,§,¶}, St Jude Children's Research Hospital, Memphis, TN, USA; Abadan Faculty of Medical Sciences

Jack T Fox[‡], Joel Msafiri Francis, PhD[¶], Abadan School of Medical Sciences, Abadan, Iran; Department of Family Medicine and Primary Care

Tahvi D Frank^{||}, Richard Charles Franklin, PhD^{*,§}, University of the Witwatersrand, Johannesburg, South Africa; College of Public Health, Medical, and Veterinary Sciences

Marisa Freitas^{*,†,‡,§}, Weijia Fu^{‡,§,¶}, Takeshi Fukumoto, PhD^{*,†,‡,§,¶}, James Cook University, Douglas, QLD, Australia; Department of Dermatology

Kai Fukutaki^{||}, John E Fuller[†], Nancy Fullman[¶], João M Furtado, MD^{*,†,‡,§,¶}, Division of Ophthalmology

Mohamed M Gad, MD^{*,†,‡,§,¶}, Gillings School of Global Public Health; Kobe University, Kobe, Japan; Department of Cardiovascular Medicine

Prof Abhay Motiramji Gaidhane^{*,¶}, Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine

Emmanuela Gakidou^{*,†,‡,§,¶}, Natalie C Galles^{‡,¶}, Silvano Gallus, DSc^{*,†,‡,§,¶},

Gandhi Medical College Bhopal, Bhopal, India; Department of Environmental Health Sciences

Prof Amiran Gamkrelidze, PhD[‡], Cleveland Clinic, Cleveland, OH, USA; National Center for Disease Control and Public Health, Tbilisi, Georgia

Alberto L Garcia-Basteiro^{‡,§}, Manhiça Health Research Center (CISM), Manhiça, Mozambique; Viral and Bacterial Infections Research Program

William M Gardner^{*,‡,§,¶}, Biniyam Sahiledengle Geberemariyam, MPH^{*,‡,§,¶}, Department of Public Health

Abiyu Mekonnen Gebrehiwot, PhD^{†,‡,¶}, Department of Medical Laboratory Sciences

Ketema Bizuwork Gebremedhin, MSc^{*,†,‡}, Brighton and Sussex Medical School, Brighton, UK; Department of Nursing and Midwifery

Gebreamlak Gebremedhn Gebremeskel, MSc[¶], Department of Nursing; University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Leake G Gebremeskel, MSc^{*,¶}, Department of Pharmacy; School of Pharmacy

Begashaw Melaku Gebresillassie, MSc^{*}, Department of Clinical Pharmacy; School of Medicine and Public Health

Assefa Ayalew Ayalew Ayalew Gebreslassie, MPH^{‡,§}, Department of Reproductive Health

Yilma Chisha Dea Geramo, MSc^{*}, Department of Public Health

Abraham Geremew, PhD[§], Institute for Social and Economic Change, Bengaluru, India; Department of Environmental Health

Prof Anna Gershberg Hayoon, PhD^{‡,§}, Clinical Hospital, Porto Alegre, Brazil; Department of Preventive Medicine

Hailay Abrha Gesesew, PhD^{*,¶}, Department of Epidemiology; College of Medicine and Public Health

Prof Peter W Gething, PhD^{*,†,‡,§},

La Trobe University, Melbourne, VIC, Australia; Department of Public Health; Flinders University, Adelaide, SA, Australia; Telethon Kids Institute, Perth, WA, Australia

Kebede Embaye Gezae, MSc^{*}, National Institute of Health, Bogota, Colombia; Department of Biostatistics

Maryam Ghadimi^{‡,§}, Department of Radiology and Radiological Science

Prof Keyghobad Ghadiri, MD^{*,‡,§,¶}, Infectious Disease Research Center; Pediatric Department

Prof Fatemeh Ghaffarifar, PhD^{*,§}, Department of Parasitology and Entomology

Mansour Ghafourifard, PhD^{*,‡,§,¶}, Department of Medical Surgical Nursing

Alireza Ghajar, MD[‡], Endocrinology and Metabolism Research Center

Farhad Ghamari, PhD^{*,†,‡,§}, Occupational Health Department

Ahmad Ghashghaee, BSc^{*,†,‡,§,¶}, Health Management and Economics Research Center; Student Research Committee

Hesam Ghiasvand, PhD^{‡,§}, Institute of Health Research

Nermin Ghith, PhD^{‡,§,¶}, University of Exeter, Exeter, UK; Research Group for Genomic Epidemiology

Asadollah Gholamian, MSc^{*,†,‡,§,¶}, University of Cape Town, Cape Town, South Africa; Department of Biology; Young Researchers and Elite Club

Rakesh Ghosh, PhD[§], Institute for Global Health Sciences

Simona Giampaoli, MD^{*}, University of California San Francisco, San Francisco, CA, USA; Department of Cardiovascular Endocrine-metabolic Diseases and Aging

Prof Syed Amir Gilani, PhD^{†,‡,¶},

Italian National Institute of Health, Rome, Italy; Faculty of Allied Health Sciences; The University of Lahore, Lahore, Pakistan; Afro-Asian Institute, Lahore, Pakistan

Prof Paramjit Singh Gill, DM^{*,‡,§,¶}, Medical School

Tiffany K Gill, PhD[¶], Mekelle University, Mekelle, Ethiopia; Adelaide Medical School

Richard F Gillum, MD^{*}, University of Warwick, Coventry, UK; Department of Community and Family Medicine; Division of General Internal Medicine

Prof Ibrahim Abdelmageed Ginawi, MD^{*},

Howard University, Washington, DC, USA; Family Medicine Research Center

Themba G Ginindza, PhD^{§,¶}, Ministry of Health, Hail, Saudi Arabia; Discipline of Public Health Medicine; University of KwaZulu-Natal, Durban, South Africa

Mojgan Gitimoghaddam, MD^{†,‡,¶}, University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Giorgia Giussani, PhD^{*,‡,§,¶}, Laboratory of Neurological Disorders

Mustefa Glagn, MPH[¶], Department of Public Health

Ekaterina Vladimirovna Glushkova, PhD[†], Department of Epidemiology and Evidence-Based Medicine

Elena V Gnedovskaya, PhD^{*,†,§,¶}, Third Department of Neurology

Myron Anthony Godinho, MBBS^{*,¶}, School of Public Health and Community Medicine

Salime Goharinezhad, PhD^{§,¶}, Preventive Medicine and Public Health Research Center

Mahaveer Golechha, PhD^{*}, Health Systems and Policy Research

Srinivas Goli, PhD[‡], Indian Institute of Public Health Gandhinagar, Gandhinagar, India; Center for the Studies in Regional Development (CSRD); UWA Public Policy Institute

Prof Ricardo Santiago Gomez, PhD[‡], Department of Oral Surgery and Pathology

Philimon N Gona, PhD^{*}, University of Western Australia, Perth, WA, Australia; Department of Exercise and Health Sciences

Sameer Vali Gopalani, MPH^{*,†,‡,§,¶}, University of Massachusetts Boston, Boston, MA, USA; Hudson College of Public Health; University of Oklahoma Health Sciences Center, Oklahoma City, OK, USA; Department of Health and Social Affairs

Prof Emily Goren, PhD^{||}, University of Washington, Seattle, WA, USA; University of Nigeria Nsukka, Enugu, Nigeria; Graduate School of Public Health

Giuseppe Gorini, MD^{*,‡,§}, Metropolitan Autonomous University, Mexico City, Mexico; Oncological Network, Prevention and Research Institute Taren M Gorman[‡], Harrison Chase Gottlich[‡], Houman Goudarzi, PhD^{‡,§}, Government of the Federated States of Micronesia, Palikir, Federated States of Micronesia; Center for Environmental and Health Sciences; Department of Respiratory Medicine

Amir Hossein Goudarzian, MSc[¶], Faculty of Nursing and Midwifery

Alessandra C Goulart, PhD^{*,†,‡,§}, University of Oxford, Oxford, UK; Center for Clinical and Epidemiological Research; Department of Internal Medicine

Prof Bárbara Niegia Garcia Goulart, DSc^{*,‡,¶}, Postgraduate Program in Epidemiology

Ayman Grada, MD^{*,‡}, Department of Dermatology

Felix Greaves, PhD^{*,§}, Department of Primary Care and Public Health; Health Improvement Directorate

Prof Michal Grivna, PhD^{‡,§}, Institute of Public Health, College of Medicine and Health Sciences; United Arab Emirates University, AI Ain, United Arab Emirates; Department of Public Health and Preventive Medicine

Giuseppe Grosso, PhD^{‡,§}, Department of Biomedical and Biotechnological Sciences

Mohammed Ibrahim Mohialdeen Gubari, PhD^{‡,§,¶}, Department of Family and Community Medicine

Nachiket Gudi, MPH^{*}, Department of Health Policy

Prof Harish Chander Gugnani, PhD^{†,‡,§}, University of Sulaimani, Sulaimani, Iraq; Department of Epidemiology; Department of Microbiology

Prof Andre Luiz Sena Guimaraes, PhD[‡], Saint James School of Medicine, The Valley, Anguilla; School of Dentistry

Rafael Alves Guimarães, MSc^{*,‡,§,¶}, State University of Montes Claros, Montes Claros, Brazil; Institute of Tropical Pathology and Public Health (IPTSP)

Rashid Abdi Guled, PhD^{‡,§,¶}, Federal University of Goias, Goiânia, Brazil; College of Medicine and Health Science

Teklemariam Gultie, MSc[¶], Department of Midwifery

Prof Gaorui Guo, PhD^{‡,§},

Department of Epidemiology and Preventive Medicine; Jigjiga University, Jijiga, Ethiopia; Department of Epidemiology

Yuming Guo^{*,†,‡,§,¶}, Prof Rahul Gupta, MD^{*,¶},

Indian Institute of Technology Kanpur, Kanpur, India; Department of Preventive Cardiology; Eternal Heart Care Centre & Research Institute, Jaipur, India; Department of Medicine; Mahatma Gandhi University Medical Sciences, Jaipur, India; Medical Resources; March of Dimes, Arlington, VA, USA; Health Policy, Management and Leadership

Rajeev Gupta, MD^{*,†,‡,§,¶}, Prof Subodh Sharan Gupta, MD^{*,†}, Binzhou Medical University, Yantai City, China; Department of Community Medicine

Prof Tarun Gupta, DSc[§], Mahatma Gandhi Institute of Medical Sciences, Sevagram, India; Department of Civil Engineering

Juanita A Haagsma, PhD^{*,†,‡}, West Virginia University School of Public Health, Morgantown, WV, USA; Department of Public Health

Vladimir Hachinski, DSc*,

Erasmus University Medical Center, Rotterdam, Netherlands; Clinical Neurological Sciences; The University of Western Ontario, London, ON, Canada; Lawson Health Research Institute, London, ON, Canada

Beatrix Haddock^{‡,§}, Nima Hafezi-Nejad^{*,‡,§,¶}, Abdul Hafiz, PhD^{‡,§,¶}, College of Medicine

Hailey Hagins[‡], Lydia M Haile, MSc^{*,‡}, University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Teklehaimanot Gereziher Haile[¶], Arvin Haj-Mirzaian^{*,†,§}, Arya Haj-Mirzaian^{†,§}, Brian J Hall, PhD^{*,‡,§},

Department of Psychology

Iman Halvaei, PhD^{†,‡,§},

Kerman University of Medical Sciences, Kerman, Iran; Department of Anatomical Sciences

Prof Randah R Hamadeh, PhD^{*,†,‡,§,¶}, Umm AL Qura University, Makkah, Saudi Arabia; Department of Family and Community Medicine

Kanaan Hamagharib Abdullah, PhD^{†,‡},

Guy's and St. Thomas' NHS Foundation Trust, London, UK; College of Law and Political Science

Sajid Hameed, MPH[¶], University Institute of Public Health

Prof Samer Hamidi, DrPH^{*,§,¶},

Arabian Gulf University, Manama, Bahrain; School of Health and Environmental Studies

Erin B Hamilton[‡], Melanie S Hammer, PhD[§],

Mayo Clinic Foundation for Medical Education and Research, Rochester, MN, USA; Department of Energy, Environmental and Chemical Engineering; Department of Physics and Atmospheric Science

Chieh Han^{*,†,‡,¶}, Hannah Han^{‡,¶}, Demelash Woldeyohannes Handiso, MPH^{†,¶}, Aksum University, Aksum, Ethiopia; Department of Public Health

Asif Hanif, PhD[¶], University Institute of Public Health

Prof Graeme J Hankey, MD^{*,†,‡,§,¶},

Medical School; Hamdan Bin Mohammed Smart University, Dubai, United Arab Emirates; Department of Neurology

Hamidreza Haririan, PhD^{†,§}, Tabriz University of Medical Sciences, Tabriz, Iran

Josep Maria Haro, MD^{*,†,‡,§,¶}, Research Unit; Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain

James D Harvey[‡], Ahmed I Hasaballah, PhD^{*,†,‡,§,¶}, Department of Zoology and Entomology

Md Mehedi Hasan, MPH^{§,¶}, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania; ARC Centre of Excellence for Children and Families over the Life Course; Institute for Social Science Research

Edris Hasanpoor, PhD[§], Tarbiat Modares University, Tehran, Iran; Department of Healthcare Management

Amir Hasanzadeh, PhD[‡], Department of Microbiology; Department of Microbiology

Maryam Hashemian, PhD[‡], Digestive Diseases Research Institute; Al Azhar University, Cairo, Egypt; Biology Department

Abdiwahab Hashi, PhD^{*,§,¶}, Department of Public Health

Amr Hassan, MD^{*,¶}, Department of Neurology

Shoaib Hassan, MPhil[¶], University of Nottingham, Nottingham, UK; Center for International Health (CIH) and Bergen Center for Ethics and Priority Setting (BCEPS)

Soheil Hassanipour, PhD^{*,†,‡,§,¶},

Utica College, Utica, NY, USA; Caspian Digestive Disease Research Center; Gastrointestinal and Liver Diseases Research Center

Hadi Hassankhani, PhD^{*,†,‡,§,¶},

School of Nursing and Midwifery; Guilan University of Medical Sciences, Rasht, Iran; Independent Consultant, Tabriz, Iran

Rasmus J Havmoeller, PhD^{*,‡,§,¶}, Skaane University Hospital

Prof Roderick J Hay, MD[‡], St John's Institute of Dermatology; Skaane County Council, Malmoe, Sweden; International Foundation for Dermatology, London, UK

Simon I Hay^{*,†,‡,§,¶,||}, Khezar Hayat, MS^{*,‡,§,¶}, Institute of Pharmaceutical Sciences; University of Veterinary and Animal Sciences, Lahore, Pakistan; Department of Pharmacy Administration and Clinical Pharmacy

Behzad Heibati, PhD[†], Xian Jiaotong University, Xian, China; Center for Environmental and Respiratory Health Research

Behnam Heidari, MD[‡], Endocrinology and Metabolism Research Center

Golnaz Heidari, MD^{‡,§,¶}, University of Oulu, Oulu, Finland; Independent Consultant, Santa Clara, CA, USA

Reza Heidari-Soureshjani^{†,‡,§,¶}, Delia Hendrie, PhD^{‡,¶}, School of Public Health

Kiana Henny[†], Andualem Henok, MPH^{*}, Department of Public Health

Hannah J Henrikson^{\ddagger ,\$}, Nathaniel J Henry^{$*, \dagger, \ddagger$}, Molly E Herbert[§], Prof Claudiu Herteliu, PhD^{$*, \dagger, \ddagger, \$$,¶,}

Mizan-Tepi University, Mizan Teferi, Ethiopia; School of Business

Fatemeh Heydarpour, PhD^{*,†,‡,§}, Medical Biology Research Center

Thomas R Hird, PhD^{‡,§,¶}, London South Bank University, London, UK; Department for Health

Hung Chak Ho, PhD^{*,¶}, Department of Urban Planning and Design

Prof Hans W Hoek, MD^{‡,§}, Department of Psychiatry; Baker Heart and Diabetes Institute, Melbourne, VIC, Australia; Department of Epidemiology

Michael K Hole, MD^{*,†,‡,¶}, Columbia University, New York, NY, USA; Department of Pediatrics Ramesh Holla^{*,‡,§,¶}, Prof Bruce Hollingsworth, PhD[¶], University of Texas Austin, Austin, TX, USA; Department of Health Economics, Lancaster University, Lancashire, UK

Praveen Hoogar, PhD^{*,†,‡,§,¶}, South Australian Health and Medical Research Institute, Adelaide, SA, Australia; Centre for Bio Cultural Studies (CBiCS)

Kathleen Pillsbury Hopf, MPH^{*,¶}, Metrics and Evaluation; Operation Smile, Virginia Beach, VA, USA; Independent Consultant, Virginia Beach, VA, USA

Nobuyuki Horita, PhD¹, National Human Genome Research Institute (NHGRI); Department of Pulmonology

H Dean Hosgood, PhD^{*,†,‡,§}, Yokohama City University, Yokohama, Japan; Department of Epidemiology and Population Health

Naznin Hossain, MPhil^{*,†,§,¶}, Albert Einstein College of Medicine, Bronx, NY, USA; Department of Pharmacology

Prof Mostafa Hosseini, PhD^{§,¶}, Department of Epidemiology and Biostatistics; Pediatric Chronic Kidney Disease Research Center

Mehdi Hosseinzadeh, PhD^{*,†,‡,§,¶}, Department of Computer Science; Institute of Research and Development

Mihaela Hostiuc, PhD^{*,†,‡,§,¶}, Department of Internal Medicine

Sorin Hostiuc, PhD^{*,†,‡,§,¶}, Department of Legal Medicine and Bioethics; Duy Tan University, Da Nang, Vietnam; Clinical Legal Medicine Department

Prof Mowafa Househ, PhD^{*,†,‡,§,¶}, National Institute of Legal Medicine Mina Minovici, Bucharest, Romania; Division of Information and Computing Technology

Damian G Hoy, PhD^{*,†,‡}, University of Sydney, Sydney, NSW, Australia

Prof Mohamed Hsairi, MPH^{‡,§}, Hamad Bin Khalifa University, Doha, Qatar; Faculty of Medicine of Tunis

Thomas Hsiao^{II}, Vivian Chia-rong Hsieh, PhD^{‡,§,¶}, Department of Health Services Administration

Prof Guoqing Hu, PhD^{*,†,‡,§,¶}, Department of Epidemiology and Health Statistics

Kejia Hu, PhD[§], China Medical University, Taichung, Taiwan; School of Public Health

Tanvir M Huda, PhD^{*,†,‡,§,¶},

Sydney School of Public Health; Zhejiang University, Hangzhou, China; Maternal and Child Health Division

Fernando N Hugo, PhD^{*,‡},

National Research Council, Padova, Italy; Department of Preventive and Social Dentistry

Prof Ayesha Humayun, PhD^{*,§,¶}, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh; Department of Public Health and Community Medicine

Rabia Hussain, PhD^{*}, Shaikh Khalifa Bin Zayed Al-Nahyan Medical College, Lahore, Pakistan; School of Pharmaceutical Sciences

Chantal K Huynh^{‡,§}, Prof Bing-Fang Hwang, PhD^{*,‡,§,¶}, Department of Occupational Safety and Health

Vincent C Iannucci^{‡,§}, Prof Ivo Iavicoli, PhD^{*,¶}, Wayne State University, Detroit, MI, USA; Department of Public Health

Charles Ugochukwu Ibeneme, MPH*,

University of Science Malaysia, Penang, Malaysia; Nigerian Field Epidemiology and Laboratory Training Program; African Field Epidemiology Network, Abuja, Nigeria; Department of Public Health and Disease Control

Segun Emmanuel Ibitoye, MPH^{*,†,‡,§,¶}, Department of Health Promotion and Education

Nayu Ikeda, PhD^{§,¶}, Ministry of Health, Umuahia, Nigeria; International Center for Nutrition and Information

Kevin S Ikuta, MD^{*,†,‡,§}, Division of Allergy and Infectious Diseases

Olayinka Stephen Ilesanmi, PhD^{*,†,‡,§,¶}, Department of Community Medicine; Cardiff University, Cardiff, UK; Department of Community Medicine

Irena M Ilic, PhD^{*,†,‡,§,¶}, Faculty of Medicine

Prof Milena D Ilic, PhD^{*,†,‡,§,¶},

National Institutes of Biomedical Innovation, Health and Nutrition, Tokyo, Japan; Department of Epidemiology

Mohammad Hasan Imani-Nasab[†], Leeberk Raja Inbaraj, MD^{*,‡,§,¶}, University of Kragujevac, Kragujevac, Serbia; Division of Community Health and Family Medicine

Helen Ippolito^{‡,§}, Usman Iqbal, PhD^{*,§,¶},

Bangalore Baptist Hospital, Bangalore, India; College of Public Health

Seyed Sina Naghibi Irvani, MD^{*,‡,§,¶}, Research Institute for Endocrine Sciences

Caleb Mackay Salpeter Irvine^{§,¶}, M Mofizul Islam, MSc, PhD^{*,‡,§,¶}, Department of Public Health; Graduate Institute of Biomedical Informatics

MdMohaimenul Islam, PhD^{†,‡}, Institute for Physical Activity and Nutrition; Sydney Medical School

Sheikh Mohammed Shariful Islam^{*,‡,§,¶}, Farhad Islami, PhD^{‡,¶}, Taipei Medical University, Taipei, Taiwan; Surveillance and Health Services Research

Prof Hiroyasu Iso, MD^{*,†,‡,§,¶}, Department of Social Medicine

Prof Rebecca Q Ivers, PhD^{‡,§}, School of Public Health and Community Medicine

Chidozie C D Iwu, MSc^{*,‡,§,¶}, Osaka University, Suita-city, Japan; Department of Biochemistry and Microbiology

Chinwe Juliana Iwu, PhD^{†,§,¶}, Department of Global Health; South African Medical Research Council, Cape Town, South Africa

Ihoghosa Osamuyi Iyamu, MD^{‡,§}, School of Population and Public Health; University of Fort Hare, Alice, South Africa; Knowledge Translation

Jalil Jaafari, PhD^{*,†,‡,§,¶}, Department of Environmental Health Engineering

Kathryn H Jacobsen, PhD^{†,‡,§},

Centre for Health Evaluation and Outcome Sciences, Vancouver, BC, Canada; Department of Global and Community Health

Farhad Jadidi-Niaragh^{‡,¶}, Hussain Jafari^{‡,§}, Morteza Jafarinia, MSc^{‡,§,¶}, Department of Immunology

Deepa Jahagirdar^{*,†,‡,¶}, Mohammad Ali Jahani, PhD^{*,‡,§,¶}, Social Determinants of Health Research Center

Nader Jahanmehr, PhD^{†,‡,¶}, Safety Promotion and Injury Prevention Research Center; School of Management and Medical Education

Prof Mihajlo Jakovljevic, PhD^{*,‡,§,¶},

N. A. Semashko Department of Public Health and Healthcare; Department of Global Health, Economics and Policy

Amir Jalali, PhD*,†,‡,

Health Institute; Substance Abuse Prevention Research Center; Substance Abuse Prevention Research Center

Farzad Jalilian, PhD^{*,†,‡,§}, Spencer L James^{†,‡,§}, Hosna Janjani, PhD^{†,‡,§,¶}, Department of Environmental Health Engineering; Kermanshah University of Medical Sciences, Kermanshah, Iran

Prof Manthan Dilipkumar Janodia, PhD^{*,‡}, Manipal College of Pharmaceutical Sciences

Tahereh Javaheri, PhD^{*,§,¶}, Health Informatic Lab

Javad Javidnia, PhD[§], Department of Medical Mycology

Achala Upendra Jayatilleke, PhD^{‡,¶}, George Mason University, Fairfax, VA, USA; Postgraduate Institute of Medicine; University of Colombo, Colombo, Sri Lanka; Faculty of Graduate Studies

Panniyammakal Jeemon, PhD^{‡,§}, Institute for Violence and Injury Prevention, Colombo, Sri Lanka; Achutha Menon Centre for Health Science Studies

Ensiyeh Jenabi^{*,†,‡,§,¶}, Ravi Prakash Jha, MSc^{*,†,‡,§,¶}, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, India; Department of Community Medicine; Baba Saheb Ambedkar Medical College & Hospital, Delhi, India; Department of Community Medicine

Prof Vivekanand Jha, MD^{*,†,‡,§,¶}, George Institute for Global Health; Manipal Academy of Higher Education, Mangalore, India

John S Ji, DSc^{*,†,‡,§,¶}, Nicholas School of the Environment; Banaras Hindu University, Varanasi, India; Environmental Research Center

Peng Jia, PhD^{‡,¶}, Duke Kunshan University, Kunshan, China; Department of Earth Observation Science

Lars Johansson, DrPH[§],

The George Institute for Global Health, Sydney, Australia; Independent Consultant, Eiksmarka, Norway

Oommen John, MD^{‡,§},

Duke University, Durham, NC, USA; Department of Medicine; University of Twente, Enschede, Netherlands; Renal and Cardiovascular Division

Yetunde O John-Akinola^{‡,§,¶}, Catherine Owens Johnson^{*,‡,§}, Sarah Charlotte Johnson[‡], Prof Jost B Jonas, MD^{*,†,‡,§,¶},

University of Auckland, Auckland, New Zealand; Department of Ophthalmology; Beijing Institute of Ophthalmology

Tamas Joo, MSc[‡], Health Services Management Training Centre

Ankur Joshi, MD[‡], All India Institute of Medical Sciences, Jodhpur, India; Department of Community Medicine and Family Medicine

Farahnaz Joukar, PhD^{†,§,¶}, Utica College, Utica, NY, USA; Caspian Digestive Disease Research Center; Gastrointestinal and Liver Diseases Research Center

Jacek Jerzy Jozwiak, PhD^{†,‡,§,¶}, Semmelweis University, Budapest, Hungary; Department of Family Medicine and Public Health

Mikk Jürisson, PhD^{*,†,‡,§,¶}, University of Opole, Opole, Poland; Institute of Family Medicine and Public Health

Ali Kabir, MD^{*,‡,§}, Minimally Invasive Surgery Research Center

Zubair Kabir, PhD^{*,†,‡,§,¶}, University of Tartu, Tartu, Estonia; School of Public Health

Hamed Kalani, PhD^{†,‡,§}, Infectious Diseases Research Center

Rizwan Kalani, MD^{*,‡,§}, Department of Neurology

Leila R Kalankesh, PhD^{*,†,‡,§,¶}, Health Services Management Research Center

Rohollah Kalhor, PhD^{*,‡,§,¶}, Italian National Institute of Statistics, Rome, Italy; Health Services Management Department; Institute for Prevention of Non-communicable Diseases

Aruna M Kamath, MD[¶], Ain Shams University, Cairo, Egypt; Department of Anesthesiology & Pain Medicine

Zahra Kamiab^{†,‡}, Tanuj Kanchan, MD^{*,†,‡,§,¶}, Department of Forensic Medicine and Toxicology

Neeti Kapoor, MSc^{*,†,§,¶},

University of Toronto, Toronto, ON, Canada; Department of Forensic Science

Behzad Karami Matin^{*,‡,§,¶}, Marina Karanikolos[¶], André Karch, MD^{*,†,‡,§}, Institute for Epidemiology and Social Medicine

Mohd Anisul Karim, MD^{*,‡,§},

Nuffield Department of Population Health; Golestan University of Medical Sciences, Gorgan, Iran; Centre for Therapeutic Target Validation

Salah Eddin Karimi, PhD^{*,†,‡},

Social Determinants of Health Research Center; Department of Neuroscience; Department of Physiology; Wellcome Trust Sanger Institute, Cambridge, UK; Department of Health Management and System Sciences; University of Louisville, Louisville, KY, USA; Center for Health Equity

Seyed Asaad Karimi, PhD[†], Seyed M Karimi[¶], Ayele Semachew Kasa, MSc^{*}, Department of Adult Health Nursing

Getachew Mullu Kassa, MSc^{‡,§},

Louisville Metro Department of Public Health & Wellness, Louisville, KY, USA; College of Health Sciences

Nicholas J Kassebaum, MD^{*,†,‡,¶}, Ain Shams University, Cairo, Egypt; Department of Anesthesiology & Pain Medicine

Srinivasa Vittal Katikireddi, PhD^{†,‡,§,¶}, Debre Markos University, Debre Markos, Ethiopia; MRC/CSO Social and Public Health Sciences Unit

Prof Norito Kawakami, PhD^{†,‡}, Department of Mental Health

Gbenga A Kayode, PhD^{*,†,‡,§,¶}, University of Tokyo, Tokyo, Japan; International Research Center of Excellence; Julius Centre for Health Sciences and Primary Care

Ali Kazemi Karyani^{*,§}, Suzanne H Keddie, MSc[‡], University of Alberta, Edmonton, AB, Canada; Big Data Institute

Prof Peter Njenga Keiyoro, PhD^{*,†,§,¶}, Open, Distance and eLearning Campus

Cathleen Keller^{†,‡,§}, Laura Kemmer[§], Parkes J Kendrick[§], Maia Kereselidze, PhD[‡], Cleveland Clinic, Cleveland, OH, USA; National Center for Disease Control and Public Health, Tbilisi, Georgia

Prof Yousef Saleh Khader, PhD^{†,¶}, University of Nairobi, Nairobi, Kenya; Department of Public Health

Morteza Abdullatif Khafaie, PhD[‡], Social Determinants of Health Research Center

Nauman Khalid, PhD^{*,†,‡,§}, Jordan University of Science and Technology, Irbid, Jordan; School of Food and Agricultural Sciences

Mohammad Khammarnia, PhD^{*,§,¶}, Health Promotion Research Center

Ejaz Ahmad Khan, MPH^{*,†,§,¶},

University of Management and Technology, Lahore, Pakistan; Department of Epidemiology and Biostatistics

Prof Gulfaraz Khan, PhD^{*}, Department of Medical Microbiology & Immunology

Maseer Khan, MD^{*,†,‡,§,¶}, The University of Jordan, Amman, Jordan; Epidemiology Department

Prof Young-Ho Khang, MD^{1,1}, Health Services Academy, Islamabad, Pakistan; Department of Health Policy and Management; Institute of Health Policy and Management

Khaled Khatab, PhD^{*,‡,§,¶}, Seoul National University, Seoul, South Korea; Faculty of Health and Wellbeing; Sheffield Hallam University, Sheffield, UK; College of Arts and Sciences

Amir M Khater, MD^{†,¶}, National Hepatology and Tropical Medicine Research Institute

Mona M Khater, MD^{*,†,‡,§,¶}, Department of Medical Parasitology

Prof Mahalaqua Nazli Khatib, PhD^{*,‡,§,¶}, Global Evidence Synthesis Initiative

Maryam Khayamzadeh, MD^{‡,§,¶}, Shahid Beheshti University of Medical Sciences, Tehran, Iran; Ohio University, Zanesville, OH, USA; The Iranian Academy of Medical Sciences, Tehran, Iran

Salman Khazaei^{†,§}, Prof Habibolah Khazaie, MD^{*,†}, Department of Psychiatry

Mohammad Taghi Khodayari, PhD^{†,‡}, Department of Public Health; Department of Public Health

Abdullah T Khoja, MD^{*}, Department of Health Policy and Management; Department of Public Health

Prof Jagdish Khubchandani, PhD^{*,†,¶}, Department of Nutrition and Health Science

Roba Khundkar, MA[‡], Nuffield Department of Surgical Sciences

Neda Kianipour, MA^{*,†,‡,¶}, Department of Public Health

Christian Kieling, MD^{*,‡,§}, Department of Psychiatry; Ball State University, Muncie, IN, USA; Division of Child & Adolescent Psychiatry

Cho-il Kim, PhD[†], Korea Health Industry Development Institute, Cheongju-si, South Korea

Prof Daniel Kim, DrPH[‡], Department of Health Sciences

Young-Eun Kim, PhD^{*,†,‡,¶}, Clinical Hospital, Porto Alegre, Brazil; Department of Preventive Medicine; School of Traditional Chinese Medicine

Yun Jin Kim^{*,†,‡,§,¶}, Ruth W Kimokoti, MD^{*,‡,§,¶}, Northeastern University, Boston, MA, USA; Department of Nutrition

Yohannes Kinfu, PhD^{*,†,¶}, Simmons University, Boston, MA, USA; Faculty of Health; University of Canberra, Canberra, ACT, Australia; College of Medicine

Prof Adnan Kisa, PhD^{*,†,‡,§,¶},

Oslo Metropolitan University, Oslo, Norway; School of Health Sciences; Kristiania University College, Oslo, Norway; Global Community Health and Behavioral Sciences

Sezer Kisa, PhD^{*,†,‡,§}, Qatar University, Doha, Qatar; Department of Nursing and Health Promotion

Katarzyna Kissimova-Skarbek^{†,‡,¶}, Prof Niranjan Kissoon, MD^{*}, University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Prof Mika Kivimäki, PhD^{*,†,‡,§,¶},

Jagiellonian University Medical College, Krakow, Poland; Department of Public Health; Hanoi National University of Education, Hanoi, Vietnam; Department of Epidemiology and Public Health

Cameron J Kneib, MD^{*,‡,¶}, Division of Plastic Surgery

Luke D Knibbs[§], Megan Knight^{*,¶}, Ann Kristin Skrindo Knudsen, PhD^{‡,§}, Krishna Institute of Medical Sciences, Karad, India; Centre for Disease Burden

Jonathan M Kocarnik, PhD^{‡,§,¶}, Public Health Sciences Division

Sonali Kochhar, MD^{§,¶}, Department of Global Health; Fred Hutchinson Cancer Research Center, Seattle, WA, USA; Global Healthcare Consulting, New Delhi, India

Prof David S Q Koh, PhD^{*}, Saw Swee Hock School of Public Health; Institute of Health Sciences

Stefan Kohler¹, Heidelberg Institute of Global Health (HIGH)

Tufa Kolola, MPH[‡], Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Hamidreza Komaki, MD^{*,†}, Gadong, Brunei; Brain Engineering Research Center

Jacek A Kopec, PhD^{*,†,‡,§,¶},

School of Population and Public Health; Institute for Research in Fundamental Sciences, Tehran, Iran; Arthritis Research Canada, Richmond, BC, Canada

Anna V Korotkova, PhD[¶], Federal Research Institute for Health Organization and Informatics of the Ministry of Health (FRIHOI), Moscow, Russia

Vladimir Andreevich Korshunov, PhD^{§,¶}, Department of Epidemiology and Evidence-Based Medicine

Soewarta Kosen, MD^{*,†,‡,¶}, Independent Consultant, Jakarta, Indonesia

Anirudh Kotlo, MS^{*,¶}, Department of Global Health

Prof Parvaiz A Koul, MD^{*,†,‡,§,¶}, Vancouver Virology Centre, Vancouver, BC, Canada; Department of Internal and Pulmonary Medicine

Ai Koyanagi, MD^{*,†,‡,§,¶}, Barcelona, Spain; Sheri Kashmir Institute of Medical Sciences, Srinagar, India; Biomedical Research Networking Center for Mental Health Network (CIBERSAM)

Moritz U G Kraemer, PhD[§], Harvard Medical School; Department of Zoology

Michael A Kravchenko, PhD^{†,‡}, Research Center of Neurology, Moscow, Russia

Kewal Krishan, PhD^{*,†,‡,§,¶}, San Juan de Dios Sanitary Park, Sant Boi de Llobregat, Spain; Department of Anthropology

Kris J Krohn^{*,†,‡,§,¶}, Prof Hans Kromhout, PhD[§], Institute of Human Virology Nigeria, Abuja, Nigeria; Institute for Risk Assessment Sciences

Prof Shaji KS, MD^{*},

Panjab University, Chandigarh, India; Department of Psychiatry; Government Medical College Thrissur, Thrissur, India; Kerala University of Health Scinces, Thrissur, India

Prof Barthelemy Kuate Defo, PhD^{†,‡,§}, Department of Social and Preventive Medicine; Department of Demography

Burcu Kucuk Bicer, PhD[‡],

University of Montreal, Montreal, QC, Canada; Department of Medical Education and Informatics

Nuworza Kugbey, PhD[¶],

King Saud University, Riyadh, Saudi Arabia; Department of Family and Community Health

Vaman Kulkarni[¶], G Anil Kumar, PhD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Manasi Kumar, PhD^{*,†,‡,¶},

Division of Psychology and Language Sciences; Utrecht University, Utrecht, Netherlands; Department of Psychiatry

Nithin Kumar^{*,¶}, Pushpendra Kumar, PhD^{†,‡}, International Institute for Population Sciences, Mumbai, India

Vivek Kumar, MD^{†,‡,§}, Iran University of Medical Sciences, Tehran, Iran; Brigham and Women's Hospital

Girikumar Kumaresh, MS[‡], Mechanical and Industrial Engineering

Om P Kurmi, PhD^{*,‡,§,¶}, Department of Medicine; Institute of Occupational and Environmental Medicine

Dian Kusuma, DSc^{*,†,‡,§,¶}, Imperial College Business School; Indian Institute of Technology, Roorkee, Roorkee, India; Faculty of Public Health

Hmwe Hmwe Kyu^{*,†,‡,¶}, Prof Carlo La Vecchia, $MD^{*,†,‡,\$,\P}$, Department of Clinical Sciences and Community Health

Ben Lacey, PhD^{*,†,‡,§,¶},

Nuffield Department of Population Health; University of Indonesia, Depok, Indonesia; National Institute for Health Research (NIHR) Oxford Biomedical Research Centre, Oxford, UK

Dharmesh Kumar Lal, MD^{*,†,‡,§,¶}, Public Health Foundation of India, Gurugram, India

Ratilal Lalloo, PhD^{*,†,‡,§,¶}, School of Dentistry

Prof Tea Lallukka, PhD^{*,§}, Jagiellonian University Medical College, Krakow, Poland; Department of Public Health

Jennifer O Lam, PhD[‡], University of Ottawa, Ottawa, ON, Canada; Division of Research

Faris Hasan Lami, PhD^{†,‡,§}, Department of Community and Family Medicine

Qing Lan, PhD^{*}, Maragheh University of Medical Sciences, Maragheh, Iran; Division of Cancer Epidemiology and Genetics Prof Iván Landires, MD^{*,‡,§,¶}, University of Baghdad, Baghdad, Iraq; Unit of Genetics and Public Health; Ministry of Health, Herrera, Panama

Justin J Lang, PhD^{‡,§}, Centre for Surveillance and Applied Research

Prof Sinéad M Langan, PhD[§], St John's Institute of Dermatology

Prof Van Charles Lansingh, PhD^{‡,¶}, Medical Director; HelpMeSee, New York, NY, USA; General Director

Prof Sonia Lansky, PhD[†], Mexican Institute of Ophthalmology, Queretaro, Mexico; Belo Horizonte City Hall

Prof Heidi Jane Larson, PhD^{*}, Department of Infectious Disease Epidemiology

Samantha Leigh Larson^{†,‡}, Prof Anders O Larsson, PhD^{†,‡,§,¶}, Municipal Health Department of Belo Horizonte, Belo Horizonte, Brazil; Department of Medical Sciences; Uppsala University, Uppsala, Sweden; Department of Clinical Chemistry and Pharmacology

Savita Lasrado, MS^{*,†,‡,§,¶}, Uppsala University Hospital, Uppsala, Sweden; Department of Otorhinolaryngology

Zohra S Lassi, PhD^{†,‡}, Robinson Research Institute

Kathryn Mei-Ming Lau^{*,‡,¶}, Paolo Lauriola, MD^{*,§,¶}, Institute of Clinical Physiology

Pablo M Lavados, MD[‡], Father Muller Medical College, Mangalore, India; Department of Neurology and Psychiatry; German Clinic of Santiago, Santiago, Chile; Faculty of Medicine

Prof Jeffrey V Lazarus, PhD^{†,‡,§,¶}, Barcelona Institute for Global Health, Barcelona, Spain

Lisiane F Leal, PhD^{*}, Epidemiology, Biostatistics and Occupational Health; University of Development, Santiago, Chile; Centre for Clinical Epidemiology

Janet L Leasher, OD^{*}, Jewish General Hospital, Montreal, QC, Canada; College of Optometry

Jorge R Ledesma^{*,‡,¶}, Paul H Lee, PhD^{*,†,‡,§,¶}, School of Nursing

Shaun Wen Huey Lee, PhD^{*,†,‡,§,¶}, School of Pharmacy; Nova Southeastern University, Fort Lauderdale, FL, USA; School of Pharmacy Andrew T Leever^{†,¶}, Kate E LeGrand^{†,‡,§,¶}, James Leigh, MD^{‡,§,¶}, The Peter Doherty Institute for Infection and Immunity, Melbourne, VIC, Australia; Asbestos Diseases Research Institute

Matilde Leonardi, MD^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Haley Lescinsky^{‡,§}, Janni Leung, PhD^{*,‡,§}, Center for Youth Substance Abuse Research

Miriam Levi, PhD^{‡,§}, Deakin University, Burwood, VIC, Australia; Department of Prevention

Prof Sarah Lewington, PhD[‡], Medical Research Council Population Health Research Unit; Nuffield Department of Population Health

Bingyu Li, PhD^{*}, Carlo Besta Neurological Institute IRCCS, Milan, Italy; Department of Sociology

Shanshan Li, PhD^{*,†,‡,§,¶}, School of Public Health and Preventive Medicine

Lee-Ling Lim, MRCP^{*,†,‡,§,¶}, Shenzhen University, Shenzhen, China; Department of Medicine; University of Malaya, Kuala Lumpur, Malaysia; Department of Medicine and Therapeutics

Christine Lin, PhD[‡],

The Chinese University of Hong Kong, Shatin, China; Asbestos Diseases Research Institute, Concord, NSW, Australia; University Tunis El Manar, Tunis, Tunisia; College of Public Health

Ro-Ting Lin^{*,‡}, Christine Linehan, PhD[‡], UCD Centre for Disability Studies

Prof Shai Linn, DrPH^{†,‡,§}, University College Dublin, Dublin, Ireland; School of Public Health

Prof Stefan Listl, PhD*,

University of Haifa, Haifa, Israel; Department of Dentistry- Quality and Safety of Oral Health Care; Radboud University, Nijmegen, Netherlands; Department of Translational Health Economics

Hung-Chun Liu[‡], Prof Shiwei Liu, PhD^{‡,§}, Chinese Center for Disease Control and Prevention, Beijing, China

Simin Liu, MD[§], Department of Epidemiology

Xuefeng Liu, PhD^{*,¶}, Department of Systems, Populations, and Leadership

Prof Yang Liu, PhD^{*,§},

Rollins School of Public Health

Zichen Liu[‡], Justin Lo[§], Prof Rakesh Lodha, MD[†], Department of Paediatrics

Prof Giancarlo Logroscino, PhD^{*,†,¶}, Brown University, Providence, RI, USA; Department of Basic Medical Sciences, Neuroscience and Sense Organs; University of Bari Aldo Moro, Bari, Italy; Department Clinical Research in Neurology

Katharine J Looker, PhD[‡], Fondazione Cardinale Giovanni Panico Hospital, Tricase, Italy; Population Health Sciences

Prof Alan D Lopez, PhD^{*,†,‡,§,¶}, Melbourne School of Population and Global Health

Jaifred Christian F Lopez, MD^{*,§}, Department of Nutrition; University of Bristol, Bristol, UK; Alliance for Improving Health Outcomes, Inc., Quezon City, Philippines

Platon D Lopukhov, PhD^{†,‡,§,¶}, World Health Organization (WHO), Geneva, Switzerland; Department of Epidemiology and Evidence Based Medicine

Prof Stefan Lorkowski, PhD^{*,‡,§}, Institute of Nutritional Sciences; Friedrich Schiller University Jena, Jena, Germany; Competence Cluster for Nutrition and Cardiovascular Health (nutriCARD), Jena,

Prof Paulo A Lotufo, DrPH^{†,‡,§,¶}, Department of Medicine

Germany

Rafael Lozano^{*,†,¶,||}, Alton Lu^{*,†,§,¶}, Tim C D Lucas, PhD[‡], University of Alberta, Edmonton, AB, Canada; Big Data Institute

Alessandra Lugo, PhD^{*,‡,§}, Gandhi Medical College Bhopal, Bhopal, India; Department of Environmental Health Sciences

Prof Raimundas Lunevicius, DSc^{*,†,‡}, Department of General Surgery; Liverpool University Hospitals NHS Foundation Trust, Liverpool, UK; Department of Surgery

Prof Ronan A Lyons, MD^{*,‡}, University of Liverpool, Liverpool, UK; School of Medicine

Jianing Ma^{*,‡,¶}, Daiane Borges Machado, PhD^{*}, Swansea University, Swansea, UK; Center for Integration of Data and Health Knowledge

Jennifer H MacLachlan, MSc[‡], University of the Free State, Park West, South Africa; Epidemiology

Mohammed Madadin, MD^{†,¶}, Pathology Department

Emilie R Maddison^{*,†,‡,§}, Ralph Maddison[‡], Fabiana Madotto, PhD[‡], Oswald Cruz Foundation (FIOCRUZ), Salvador, Brazil; Value-based Healthcare

Hassan Magdy Abd El Razek, MSc[†], Mansoura Faculty of Medicine, Mansoura, Egypt; Ophthalmology Department

Muhammed Magdy Abd El Razek, MD[†], IRCCS MultiMedica, Sesto San Giovanni, Italy; Radiology Department

Phetole Walter Mahasha, PhD^{*,†,‡,§,¶}, Grants, Innovation and Product Development Unit

Mokhtar Mahdavi Mahdavi, PhD^{†,§}, Social Determinants of Health Research Center; Ministry of Health & Population, Aswan, Egypt; Academy of Medical Science,

Morteza Mahmoudi, PhD^{*,§,¶}, Radiology and Precision Health Program

Hue Thi Mai, MPH[‡], Bangladesh Industrial Gases Limited, Tangail, Bangladesh; Institute for Global Health Innovations

Prof Azeem Majeed, MD^{*,‡,§,¶}, Department of Primary Care and Public Health

Jeadran N Malagón-Rojas[¶], Prof Venkatesh Maled, MD^{*,‡}, El Bosque University, Bogota, Colombia; Department of Forensic Medicine; Rajiv Gandhi University of Health Sciences, Dharwad, India; Department of Forensic Medicine

Prof Afshin Maleki, PhD^{*,§}, Environmental Health Research Center

Shokofeh Maleki, MSc^{*,‡,§,¶}, Universities of Nottingham & Lincoln, Lincoln, UK; Clinical Research Development Center

Prof Reza Malekzadeh, MD^{*,†,‡,§}, Digestive Diseases Research Center; Non-communicable Disease Research Center

Prof Deborah Carvalho Malta, PhD^{*,‡,§,¶}, Department of Maternal and Child Nursing and Public Health

Abdullah A Mamun, PhD^{*,†,‡,§}, Institute for Social Science Research

Amir Manafi, MD[‡], Kurdistan University of Medical Sciences, Sanandaj, Iran; Department of Surgery Navid Manafi, MD^{†,‡}, Department of Ophthalmology; Ophthalmology Department

Ana Laura Manda, MD[§], Department of General Surgery; University of Virginia, Charlottesville, VA, USA; General Surgery Department I

Helena Manguerra^{*,‡,§}, Fariborz Mansour-Ghanaei^{†,§}, Borhan Mansouri, PhD^{*,†,‡,§,¶},

Substance Abuse Prevention Research Center; Substance Abuse Prevention Research Center

Mohammad Ali Mansournia, PhD^{*,†,‡,§,¶}, Department of Epidemiology and Biostatistics

Ana M Mantilla Herrera, PhD^{*,‡,§}, Eijkman Institute for Molecular Biology, Jakarta, Indonesia; Psychiatric Epidemiology and Burden of Disease Research

Chabila Christopher Mapoma, PhD[†], Emergency University Hospital Bucharest, Bucharest, Romania; Department of Population Studies

Joemer C Maravilla, PhD^{‡,§}, Institute for Social Science Research

Ashley Marks^{‡,§}, Prof Randall V Martin, PhD[§], Department of Physics and Atmospheric Science; University of Zambia, Lusaka, Zambia; Department of Energy, Environmental, and Chemical Engineering

Santi Martini, PhD*,†,§,¶,

Washington University, St Louis, NS, USA; Faculty of Public Health; Airlangga University, Surabaya, Indonesia; Indonesian Public Health Association, Surabaya, Indonesia

Francisco Rogerlândio Martins-Melo^{*,†,‡,§,¶}, Ira Martopullo^{*,‡,¶}, Anthony Masaka, $MSc^{\dagger,\$}$,

Federal Institute of Education, Science and Technology of Ceará, Caucaia, Brazil; Faculty of Health and Education

Seyedeh Zahra Masoumi^{*,‡,§}, João Massano, MD[‡], Department of Clinical Neurosciences and Mental Health; Botho University-Botswana, Gaborone, Botswana; Department of Neurology

Benjamin Ballard Massenburg, MD^{*,‡,¶}, Division of Plastic & Reconstructive Surgery

Claudia I Mastrogiacomo^{†,¶}, Manu Raj Mathur, PhD^{*,†,‡,§,¶}, Health Policy Research; Institute of Population Health Sciences

Prof Kunihiro Matsushita, MD[§], Department of Epidemiology Pallab K Maulik, PhD^{*,‡,§}, School of Medicine; Research Division

Erin A May[†], Mohsen Mazidi, PhD^{*}, Medical College of Georgia at Augusta University, Augusta, GA, USA; Department of Twin Research and Genetic Epidemiology

Colm McAlinden, PhD^{*,†,‡,§,¶}, University Hospital Center de Sao Joao, Porto, Portugal; Department of Ophthalmology

Prof John J McGrath, MD^{*,†,‡,§}, Queensland Brain Institute; Singleton Hospital, Swansea, UK; National Centre for Register-based Research

Martin McKee^{*,†,‡,§,¶}, Carlo Eduardo Medina-Solís, MSc[¶], Aarhus University, Aarhus, Denmark; Academic Area of Dentistry

Birhanu Geta Meharie, MSc[¶], Department of Pharmacy

Prof Man Mohan Mehndiratta, MD^{*,†,‡,§,¶}, Wollo University, Dessie, Ethiopia; Neurology Department; Janakpuri Super Specialty Hospital Society, New Delhi, India; Department of Neurology

Entezar Mehrabi Nasab, MD[¶], Tehran Heart Center

Fereshteh Mehri, PhD^{*,†,‡,§,¶}, Nutrition Health Research Center

Prof Ravi Mehrotra, Phil[¶], Govind Ballabh Institute of Medical Education and Research, New Delhi, India; India Cancer Research Consortium

Kala M Mehta, DSc^{*,†,‡,§}, Lund University, Malmö, Sweden; Department of Epidemiology and Biostatistics

Wahengbam Bigyananda Meitei, MSc^{†,‡}, Department of Public Health and Mortality Studies

Teferi Mekonnen, MPH[¶], Indian Council of Medical Research, New Delhi, India; Department of Nutrition

Addisu Melese, MSc^{*,¶}, Department of Medical Laboratory Sciences

Peter T N Memiah, DrPH^{†,‡,¶}, University of Oslo, Oslo, Norway; Institute of Human Virology

Prof Ziad A Memish, MD^{*,§}, University of Maryland, Baltimore, MD, USA; College of Medicine; Alfaisal University, Riyadh, Saudi Arabia; Research & Innovation Center Walter Mendoza, MD^{*,†,‡,§,¶,}

Ministry of Health, Riyadh, Saudi Arabia; Peru Country Office

Prof Ritesh G Menezes, MD^{*,†,‡,§,¶}, Forensic Medicine Division

Endalkachew Worku Mengesha, MPH^{*,†,‡,§}, Department of Reproductive Health and Population Studies

Meresa Berwo Mengesha, MSc[‡], Department of Midwifery

George A Mensah, MD^{†,¶}, Department of Medicine; Center for Translation Research and Implementation Science

Alibek Mereke, MD^{‡,§},

Clinical Emergency Hospital Sf. Pantelimon, Bucharest, Romania; Health Research Institute; United Nations Population Fund (UNFPA), Lima, Peru; Department of Cardiovascular Surgery

Seid Tiku Mereta, PhD[§], Department of Environmental Health Sciences and Technology

Atte Meretoja, MD^{*,†,‡,§,¶}, School of Health Sciences; Neurology Unit

Tuomo J Meretoja, MD^{*,†,‡,§,¶}, University of Helsinki, Helsinki, Finland; Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan; Breast Surgery Unit

Tomislav Mestrovic, PhD*,†,‡,§,¶,

Helsinki University Hospital, Helsinki, Finland; Clinical Microbiology and Parasitology Unit; Zora Profozic Polyclinic, Zagreb, Croatia; University Centre Varazdin

Bartosz Miazgowski, MD^{*,‡,§,¶}, University North, Varazdin, Croatia; Center for Innovation in Medical Education; Pomeranian Medical University, Szczecin, Poland

Prof Tomasz Miazgowski, MD^{‡,§}, Department of Propedeutics of Internal Diseases & Arterial Hypertension

Irmina Maria Michalek, PhD^{*,†,‡,§,¶}, Department of Women-Mother-Child

Kebadnew Mulatu Mihretie, MPH^{†,‡}, Department of Epidemiology and Biostatistics

Ted R Miller, PhD^{†,‡,§}, School of Public Health; Vaud University Hospital Center, Lausanne, Switzerland; Pacific Institute for Research & Evaluation, Calverton, MD, USA

Edward J Mills, PhD^{†,‡,§},

Karolinska Institutet, Stockholm, Sweden; Department of Health Research Methods, Evidence and Impact

Prof George J Milne, PhD^{*,†}, Jawahar Lal Nehru University, New Delhi, India; Department of Computer Science and Software Engineering

Prof GK Mini, PhD[§],

Global Institute of Public Health; Ananthapuri Hospitals and Research Institute, Trivandrum, India; Women's Institute for Social and Health Studies, Trivandrum, India

Mohammad Miri, PhD^{*,§},

Department of Environmental Health; Non-Communicable Diseases Research Centre

Andreea Mirica^{*,‡,§}, Prof Erkin M Mirrakhimov, PhD^{*,†,‡,§,¶}, Sabzevar University of Medical Sciences, Sabzevar, Iran; Internal Medicine Programme; Kyrgyz State Medical Academy, Bishkek, Kyrgyzstan; Department of Atherosclerosis and Coronary Heart Disease

Hamed Mirzaei, PhD^{*,†,‡,§},

National Center of Cardiology and Internal Disease, Bishkek, Kyrgyzstan; Research Center for Biochemistry and Nutrition in Metabolic Diseases

Maryam Mirzaei, MSc^{*,†,‡,§,¶}, Department of Rehabilitation and Sports Medicine

Roya Mirzaei, PhD[§], Water Quality Research Center; Comprehensive Research Laboratory

Mehdi Mirzaei-Alavijeh^{*,†,‡,§,¶}, Awoke Temesgen Misganaw^{*,†,‡,§}, Prof Philip B Mitchell, MD[¶], School of Psychiatry

Prasanna Mithra^{‡,§}, Babak Moazen, MSc^{*,†,‡,§,¶}, Heidelberg Institute of Global Health (HIGH); Kashan University of Medical Sciences, Kashan, Iran; Institute of Addiction Research (ISFF)

Masoud Moghadaszadeh, PhD^{*,†,‡,¶}, Biotechnology Research Center; Molecular Medicine Research Center

Bahram Mohajer, MD^{*}, Non-communicable Diseases Research Center

Osama Mohamad, MD^{*}, Department of Radiation Oncology

Efat Mohamadi, PhD^{†,‡,¶}, Health Equity Research Center

Dara K Mohammad, PhD^{*,†,‡,§,¶}, Department of Medicine; Department of Forestry Yousef Mohammad, MD^{*,†,‡,§,¶}, Internal Medicine Department

Naser Mohammad Gholi Mezerji^{*,†,‡,§,¶}, Abolfazl Mohammadbeigi, PhD[†], McMaster University, Hamilton, ON, Canada; Department of Epidemiology and Biostatistics; Neuroscience Research Center

Abdollah Mohammadian-Hafshejani^{*,†,‡,§,¶}, Noushin Mohammadifard, PhD^{‡,§}, Isfahan Cardiovascular Research Institute

Reza Mohammadpourhodki, MSc^{†,‡,§}, Shahrekord University of Medical Sciences, Shahrekord, Iran; Kashmar Center of Higher Health Education

Ammas Siraj Mohammed, BA[§], School of Pharmacy

Hussen Mohammed, MPH^{†,§},

Mashhad University of Medical Sciences, Mashhad, Iran; Department of Public Health

Jemal Abdu Mohammed, MPH^{§,¶},

National University of Singapore, Singapore, Singapore; Department of Public Health

Shafiu Mohammed, PhD^{*,†,‡,§,¶}, Health Systems and Policy Research Unit; Heidelberg Institute of Global Health (HIGH)

Farnam Mohebi, MD^{*,†}, National Institute of Health Research (NIHR); Non-communicable Diseases Research Center

Prof Mohammad A Mohseni Bandpei, PhD[†], Ahmadu Bello University, Zaria, Nigeria; Pediatric Neurorehabilitation Research Center

Amin Mokari[†], Ali H Mokdad^{*,†,‡,§,¶,||}, Prof Mariam Molokhia, PhD^{*,‡,§}, Faculty of Life Sciences and Medicine

Natalie C Momen, PhD^{†,‡},

Singleton Hospital, Swansea, UK; National Centre for Register-based Research; Singleton Hospital, Swansea, UK; National Centre for Register-based Research

Lorenzo Monasta, DSc^{*,†,‡,§,¶},

University of Social Welfare and Rehabilitation Sciences, Tehran, Iran; Clinical Epidemiology and Public Health Research Unit

Prof Stefania Mondello, MD^{‡,¶},

Burlo Garofolo Institute for Maternal and Child Health, Trieste, Italy; Department of Biomedical and Dental Sciences and Morphofunctional Imaging

Meghan D Mooney^{*,†,‡,§}, Mahmood Moosazadeh, PhD[‡],

Health Sciences Research Center

Ghobad Moradi, PhD^{*,†,‡,§},

Shri Dharmasthala Manjunatheshwara University, Dharwad, India; Department of Epidemiology and Biostatistics; Social Determinants of Health Research Center

Masoud Moradi^{*,†,‡,§,¶}, Mohammad Moradi-Joo[†], Maziar Moradi-Lakeh^{*,†,‡,§,¶}, Rahmatollah Moradzadeh, PhD^{*,†,‡,§,¶}, McGill University, Montreal, QC, Canada; Department of Epidemiology

Paula Moraga, PhD^{*,†,‡,§,¶}, Department of Mathematical Sciences

Linda Morales, MSc[‡], Center for Poplulation Health Research

Prof Lidia Morawska, PhD^{*,‡,§}, Iran Health Insurance Organization, Tehran, Iran; International Laboratory for Air Quality and Health

Ilais Moreno Velásquez, PhD^{†,‡}, Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Joana Morgado-da-Costa, MSc^{*,†,‡,§,¶}, University Hospital Center of Porto

Shane Douglas Morrison, MD^{*,†,‡,§,¶}, Division of Plastic & Reconstructive Surgery

Abbas Mosapour, PhD^{*,§,¶}, Abt Associates Nepal, Lalitpur, Nepal; Department of Clinical Biochemistry; Department of Clinical Biochemistry

Jonathan F Mosser^{*,†,‡,§,¶}, Simin Mouodi, PhD^{†,‡,§}, Social Determinants of Health Research Center

Seyyed Meysam Mousavi, PhD^{*,†,‡,§}, Department of Health Policy, Management, and Economics

Prof Amin Mousavi Khaneghah, PhD^{*,†,‡,§,¶}, Queensland University of Technology, Brisbane, QLD, Australia; Department of Food Science

Prof Ulrich Otto Mueller, MD^{*,†,‡,§}, Federal Institute for Population Research, Wiesbaden, Germany; Center for Population and Health, Wiesbaden, Germany

Prof Satinath Mukhopadhyay, MD[§], Department of Endocrinology & Metabolism

Erin C Mullany^{*,§}, John Everett Mumford[¶], Sandra B Munro[‡], Moses K Muriithi, PhD^{‡,¶}, School of Economics Kamarul Imran Musa, PhD^{*,†,‡,§}, Seth Sukhlal Karnani Memorial Hospital, Kolkata, India; School of Medical Sciences

Prof Ghulam Mustafa, MD[¶],

Science University of Malaysia, Kubang Kerian, Malaysia; Department of Pediatric Medicine; The Children's Hospital & The Institute of Child Health, Multan, Pakistan; Department of Pediatrics & Pediatric Pulmonology

Saravanan Muthupandian, PhD^{†,‡,§}, Department of Microbiology and Immunology

Behnam Nabavizadeh, MD[†], Department of Urology

Prof Ashraf F Nabhan, PhD^{§,¶},

Department of Obstetrics and Gynecology; Institute of Mother & Child Care, Multan, Pakistan; Knowledge Translation and Utilization Unit

Mehdi Naderi, PhD^{*,†,‡,§,¶},

Universities of Nottingham & Lincoln, Lincoln, UK; Clinical Research Development Center

Ahamarshan Jayaraman Nagarajan, Tech^{*,†,‡,§,¶}, Egyptian Center for Evidence Based Medicine, Egypt; Research and Analytics Department; Initiative for Financing Health and Human Development, Chennai, India; Department of Research and Analytics

Prof Gabriele Nagel, MD^{‡,§},

Bioinsilico Technologies, Chennai, India; Institute of Epidemiology and Medical Biometry

Mohsen Naghavi^{*,†,‡,§,¶}, Behshad Naghshtabrizi, MD^{*,†,‡,§,¶}, Department of Cardiology

Gurudatta Naik, MPH[†], Ulm University, Ulm, Germany; Comprehensive Cancer Center

Mukhammad David Naimzada, MD^{*,§,¶},

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Moscow Institute of Physics and Technology, Dolgoprudny, Russia; Experimental Surgery and Oncology Laboratory

Sanjeev Nair, MD[‡],

Kursk State Medical University, Kursk, Russia; Department of Pulmonary Medicine; Government Medical College Trivandrum, Trivandrum, India; Health Action by People, Trivandrum, India

Prof Farid Najafi, PhD^{*,†,§}, Epidemiology and Biostatistics Department

Prof Luigi Naldi, MD^{*},

Vishnu Nandakumar^{||}, Anita K Nandi, PhD[‡], Nuffield Department of Medicine

Vinay Nangia, MD^{†,‡,§,¶}, Suraj Eye Institute, Nagpur, India

Jobert Richie Nansseu, MD^{†,‡,§,¶},

Department for the Control of Disease, Epidemics, and Pandemics; Department of Public Health

Morteza Naserbakht, MD[§], Mental Health Research Center; Preventive Medicine and Public Health Research Center

Vinod C Nayak^{*,‡,§,¶}, Javad Nazari, MD^{*,‡,¶}, Department of Pediatrics

Rawlance Ndejjo, MSc^{*,¶}, University of Yaoundé I, Yaoundé, Cameroon; Disease Control and Environmental Health

Duduzile Edith Ndwandwe, PhD[†], Cochrane South Africa

Ionut Negoi, PhD^{*,†,‡,§,¶},

Department of General Surgery; Makerere University, Kampala, Uganda; Department of General Surgery

Ruxandra Irina Negoi, PhD*,†,‡,¶,

Department of Anatomy and Embryology; Emergency Hospital of Bucharest, Bucharest, Romania; Cardio-Aid, Bucharest, Romania

Henok Biresaw Netsere, MS^{*,‡}, School of Nursing; School of Health Sciences, Department of Surgical Nursing

Subas Neupane, PhD[¶], University of Cape Coast, Cape Coast, Ghana; Department of Health Sciences

Kiirithio N Ngari, MSc[¶], Research & Statistics Unit

Georges Nguefack-Tsague^{*,¶}, Josephine W Ngunjiri, DrPH^{*,†,‡,§,¶}, Synotech Consultants, Nairobi, Kenya; Department of Biological Sciences

Cuong Tat Nguyen^{‡,§,¶}, Diep Ngoc Nguyen, MA^{*,¶}, Faculty of Pharmacy

Huong Lan Thi Nguyen, BMedSc^{*,†,§,¶}, Ministry of Health and Medical Education, Tehran, Iran; Center of Excellence in Behavioral Medicine Jason Nguyen[‡], Michele Nguyen, PhD[‡], Malaria Atlas Project

Ming Nguyen^{‡,§}, Trang Huyen Nguyen[†], Emma Nichols^{*,‡}, Dabere Nigatu, MPH[‡], Department of Reproductive Health and Population Studies

Yeshambel T Nigatu, PhD^{*,†,‡,§},

University of Embu, Embu, Kenya; Institute for Mental Health Policy Research; Centre for Addiction and Mental Health, Toronto, ON, Canada; Department of Clinical Epidemiology

Rajan Nikbakhsh, MD^{*,†,‡,§}, Obesity Research Center

Amin Reza Nikpoor, PhD[†], Hormozgan University of Medical Sciences, Bandar Abbas, Iran

Molly R Nixon^{*,†,‡,§}, Chukwudi A Nnaji, MPH^{*,†,‡,§,¶}, South African Medical Research Council, Cape Town, South Africa; School of Public Health and Family Medicine

Shuhei Nomura, PhD^{*,†,‡,§,¶}, Department of Global Health Policy; Institute for Clinical Evaluative Sciences, Ottowa, ON, Canada; Department of Health Policy and Management

Prof Ole F Norheim, PhD[¶], Department of Global Health and Population; Department of Global Public Health and Primary Care

Prof Bo Norrving, PhD^{‡,§}, Technical University of Denmark, Copenhagen, Denmark; Department of Clinical Sciences

Jean Jacques Noubiap, MD^{*,†,‡,§,¶}, Centre for Heart Rhythm Disorders

Soraya Nouraei Motlagh, PhD[†], Department of Public Health

Christoph Nowak, PhD^{*,†,‡,§,¶}, Department of Neurobiology, Care Sciences and Society

Elaine Okanyene Nsoesie, PhD^{*}, Department of Global Health, School of Public Health

Virginia Nunez-Samudio^{*,‡,§,¶}, Prof Bogdan Oancea, PhD^{‡,§}, Keio University, Tokyo, Japan; Administrative and Economic Sciences Department

Christopher M Odell^{†,‡,§}, Felix Akpojene Ogbo, PhD^{*,‡,§,¶}, Translational Health Research Institute

Onome Bright Oghenetega, MSc^{*,¶}, Department of Obstetrics and Gynecology In-Hwan Oh, PhD^{†,‡,§,¶}, University of Bucharest, Bucharest, Romania; Department of Preventive Medicine

Emmanuel Wandera Okunga, MSc^{*,‡,§,¶}, Kyung Hee University, Dongdaemun-gu, South Korea; Disease Surveillance and Epidemic Response

Morteza Oladnabi, PhD^{*,†,‡,§,¶}, Gorgan Congenital Malformations Research Center

Andrew T Olagunju, MD^{*,†,‡,§,¶}, Department of Psychiatry and Behavioural Neurosciences; Ministry of Health, Nairobi, Kenya; Department of Psychiatry

Bolajoko Olubukunola Olusanya, PhD^{*,†,‡,§,¶}, University of Lagos, Lagos, Nigeria; Centre for Healthy Start Initiative, Lagos, Nigeria

Jacob Olusegun Olusanya, MBA^{*,†,‡,§,¶}, University of Lagos, Lagos, Nigeria; Centre for Healthy Start Initiative, Lagos, Nigeria

Mojisola Morenike Oluwasanu, PhD^{‡,¶}, Department of Health Promotion and Education

Ahmed Omar Bali, PhD^{*,†,‡,¶}, Diplomacy and Public Relations Department

Muktar Omer Omer, MSc^{*,‡,§,¶}, Department of Public Health

Kanyin L Ong, FAMS^{*,†,‡,§,¶},

Pantai Jerudong Specialist Centre, Bandar Seri Begawan, Brunei; Noncommunicable Disease Prevention Unit; Early Detection and Cancer Prevention Services

Sokking Ong^{*}, Prof Obinna E Onwujekwe, PhD^{*,†,‡,§,¶}, Ministry of Health, Bandar Seri Begawan, Brunei; Department of Pharmacology and Therapeutics

Eyal Oren^{*}, Aislyn U Orji[‡], Heather M Orpana, PhD^{‡,§}, Substance Related Harms Division; School of Epidemiology and Public Health

Doris V Ortega-Altamirano[¶], Prof Alberto Ortiz, MD^{*,†,‡,§,¶}, National Public Health Institute, Cuernavaca, Mexico; Department of Medicine; Autonomous University of Madrid, Madrid, Spain; Department of Nephrology and Hypertension

Osayomwanbo Osarenotor, MSc§,

The Institute for Health Research Foundation Jiménez Díaz University Hospital, Madrid, Spain; Department of Environmental Management and Toxicology

Frank B Osei, PhD[§],

Faculty of Geo-Information Science and Earth Observation; University of Benin, Benin City, Nigeria; Department of Mathematics and Statistics

Prof Sergej M Ostojic, PhD[¶], University of Energy and Natural Resources, Sunyani, Ghana; Biomedical Sciences

Samuel M Ostroff^{*,‡,§}, Adrian O oiu^{*,†,‡,§,¶}, Nikita Otstavnov, BA^{*,†,‡,§,¶}, University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization

Stanislav S Otstavnov, PhD^{*,†,‡,§,¶},

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Department of Project Management

Prof Simon Øverland, PhD^{*,†,‡,§,¶}, Department of Psychosocial Science; Division of Mental and Physical Health

Prof Mayowa O Owolabi, DrM^{*,†,‡,§,¶}, Department of Medicine; Department of Medicine

Mahesh P $A^{*, \dagger, \ddagger, \$}$, Jagadish Rao Padubidri, $MD^{*, \dagger, \ddagger, \$, \$}$, Department of Forensic Medicine

Smita Pakhale, MD^{*,¶}, Department of Medicine

Abhijit P Pakhare, MD[‡], All India Institute of Medical Sciences, Jodhpur, India; Department of Community Medicine and Family Medicine

Prof Keyvan Pakshir, PhD^{*,†}, Department of Parasitology and Mycology

Raffaele Palladino, MD^{*,†,‡,§,¶},

Department of Primary Care and Public Health; Wayne State University, Detroit, MI, USA; Department of Public Health

Adrian Pana, MD^{*,†,‡,¶}, Jagadguru Sri Shivarathreeswara Academy of Health Education and Research, Mysore, India; Department of Health Metrics

Songhomitra Panda-Jonas^{*,†,‡,§,¶}, Anamika Pandey, PhD^{‡,§}, Case Western Reserve University, Cleveland, OH, USA; Department of Research

Helena Ullyartha Pangaribuan, MSc[¶], Center for Health Outcomes & Evaluation, Bucharest, Romania; National Institute of Health Research and Development

Prof Eun-Kee Park, PhD[‡], Ministry of Health, Jakarta, Indonesia; Department of Medical Humanities and Social Medicine

James Park, MSc[†],

Department of Biostatistics

Priya G Kumari Parmar, PhD^{*,‡}, Haramaya University, Harar, Ethiopia; Department of Biostatistics and Epidemiology; National Institute for Stroke and Applied Neurosciences

Prof Charles D H Parry, PhD[§], Department of Psychiatry; Stellenbosch University, Cape Town, South Africa; Alcohol, Tobacco & Other Drug Research Unit

Maja Pasovic[§], Deepak Kumar Pasupula, MD^{†,‡,§}, Kosin University, Busan, South Korea; Division of General Internal Medicine

Jenil R Patel, PhD[†], University of Pittsburgh Medical Center, Pittsburgh, PA, USA; Department of Epidemiology

Sangram Kishor Patel, PhD^{1,‡,§}, University of Arkansas for Medical Sciences, Little Rock, AR, USA; Department of Poverty, Gender and Youth

Angel J Paternina-Caicedo[‡], Prof Ashish Pathak, PhD[‡], Department of Global Public Health-Health Systems and Policy; Kalinga Institute of Medical Sciences, Bhubaneswar, India; Department of Pediatrics

Mona Pathak, PhD^{*,‡,§,¶}, University of Sinu, Cartagena, Colombia; Research & Development Department

Prof Scott B Patten, PhD^{‡,§}, RD Gardi Medical College, Ujjain, India; Community Health Sciences Department

Prof George C Patton, MD^{*,†,‡,§,¶}, Department of Paediatrics; Population Health Theme

Deepak Paudel, PhD[‡],

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Center for International Health; Atlanta Veterans Affairs Medical Center, Decatur, GA, USA; Health, Nutrition, and HIV/AIDS Program

Sagun Paudel, MPH[¶],

Murdoch Childrens Research Institute, Melbourne, VIC, Australia; Public Health Youth Society of Nepal, Pokhara, Nepal; Public Health Update, Pokhara, Nepal

Katherine R Paulson[†], Hamidreza Pazoki Toroudi, PhD^{*,†,‡,§,¶}, Department of Physiology; Physiology Research Center

Spencer A Pease^{†,¶}, Amy E Peden, PhD^{*,†,‡,§,¶},

School of Public Health and Community Medicine; University of the Witwatersrand, Johannesburg, South Africa; College of Public Health, Medical, and Veterinary Sciences

Alyssa Pennini^{‡,§,¶}, Veincent Christian Filipino Pepito, MSc^{*,†,‡,§}, Center for Research and Innovation Emmanuel K Peprah, PhD^{*,†,‡,§,¶}, School of Global Public Health

Alexandre Pereira, PhD^{*,†,‡}, Department of Genetics; Laboratory of Genetics and Molecular Cardiology

David M Pereira^{*,†,‡,§}, Jeevan Pereira, MS^{*,¶}, New York University, New York, NY, USA; Department of Orthopedics

Norberto Perico, MD^{*,†,‡}, Mario Negri Institute for Pharmacological Research, Milan, Italy

Julia Moreira Pescarini, PhD^{*}, Yenepoya Medical College, Mangalore, India; Center for Integration of Data and Health Knowledge

Prof Konrad Pesudovs, PhD[§], School of Optometry and Vision Science

Hai Quang Pham^{*,‡,§}, Prof Michael R Phillips, MD^{*,‡,§}, Department of Psychiatry; Oswaldo Cruz Foundation, Salvador, Brazil; Shanghai Mental Health Center

Cristiano Piccinelli, MS^{*,§}, Shanghai Jiao Tong University, Shanghai, China; SSD Epidemiology Screening

Maxwell Pierce^{||}, David M Pigott^{†,‡,¶}, Thomas Pilgrim, MD^{†,‡,¶}, City of Health and Science University Hospital of Turin, Turin, Italy; Department of Cardiology

Tessa M Pilz^{*,†,‡,§,¶}, Marina Pinheiro, PhD^{*,¶}, Department of Chemistry

Prof Michael A Piradov, DSc^{*,†,§,¶}, Research Center of Neurology, Moscow, Russia

Meghdad Pirsaheb^{*,†,‡,§,¶}, Farhad Pishgar, MD^{*}, Non-communicable Diseases Research Center; Uro-oncology Research Center

Oleguer Plana-Ripoll[‡], Dietrich Plass, DrPH^{‡,§}, University of Bern, Bern, Switzerland; Department of Environmental Hygiene

Martin Pletcher^{||}, Khem Narayan Pokhrel, PhD^{†,‡,¶}, German Environment Agency, Dessau-Roßlau, Germany; HIV and Mental Health Department

Roman V Polibin, PhD[‡], Department of Epidemiology and Evidence-Based Medicine

Suzanne Polinder, PhD^{‡,§}, Department of Public health

Prof Kevan R Polkinghorne, PhD^{‡,§}, Department of Medicine Prof Constance Dimity Pond, PhD^{*,§}, Discipline of General Practice

Prof Maarten J Postma, PhD^{*,†,‡,§,¶}, School of Economics and Business; University Medical Center Groningen

Faheem Hyder Pottoo, PhD*, Pharmacology Department

Hadi Pourjafar, PhD^{*,†,‡,§,¶}, Shahed University, Tehran, Iran; Dietary Supplements and Probiotic Research Center; Department of Nutrition and Food Sciences

Farshad Pourmalek, PhD^{*,†,‡,§,¶}, School of Population and Public Health

Reza Pourmirza Kalhori, PhD^{‡,¶}, Department of Emergency Medicine

Prof Akram Pourshams, MD^{†,‡,¶}, Digestive Diseases Research Institute

Anna Pozna ska, PhD^{†,‡,§}, Department of Population Health Monitoring and Analysis

Sergio I Prada, PhD^{*,†,‡,§,¶},

Integrated Development Foundation Nepal, Kathmandu, Nepal; Clinical Research Center; Valle del Lili Foundation; Center for Studies in Social Protection and Health Economics

Prof Sanjay Prakash, DM[†], Charotar University of Science and Technology, Anand, India; Department of Neurology

V Prakash, PhD^{‡,§}, ICESI University, Cali, Colombia; Askok & Rita Patel Institute of Physiotherapy

Prof Narayan Prasad, DM^{*}, Smt. B.K.S. Medical Institute and Research Center, Vadodara, India; Department of Nephrology

Liliana Preotescu, PhD[†],

Department of Infectious Diseases; Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India; National Institute of Infectious Diseases, Bucuresti, Romania

Dimas Ria Angga Pribadi, MSc^{*,‡,§,¶}, Health Sciences Department

Elisabetta Pupillo, PharmD^{*,‡,§,¶}, Department of Neuroscience

Prof Zahiruddin Quazi Syed, PhD^{*,†,‡,§,¶}, Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine

Prof Mohammad Rabiee, PhD^{*,†,‡,§}, Muhammadiyah University of Surakarta, Sukoharjo, Indonesia; Biomedical Engineering Department

Navid Rabiee, MSc^{*,†,‡,§}, Government Institute of Forensic Science, Nagpur, India; Chemistry Department

Amir Radfar, MD^{*,†,‡,§,¶}, Amirkabir University of Technology, Tehran, Iran; College of Medicine

Ata Rafiee, MSc^{*,‡,§,¶}, Yale University, New Haven, CT, USA; Department of Medicine

Prof Alireza Rafiei, PhD^{†,‡,¶}, Department of Immunology; Molecular and Cell Biology Research Center

Alberto Raggi, PhD^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Fakher Rahim, PhD[¶], Metabolomics and Genomics Research Center; Thalassemia and Hemoglobinopathy Research Center

Afarin Rahimi-Movaghar[‡], Mohammad Hifz Ur Rahman, PhD^{*}, School of Nursing and Midwifery; University of Central Florida, Orlando, FL, USA; Department of Community Medicine; Maharishi Markandeshwar Institute of Medical Sciences & Research, Ambala, India; School of Nursing and Healthcare Professions

Muhammad Aziz Rahman, PhD^{*,†,‡,§,¶}, Ali Rajabpour-Sanati^{†,‡,§,}¶, Fatemeh Rajati^{‡,§}, Ivo Rakovac, PhD[§],

RUDN University, Moscow, Russia; European Office for the Prevention and Control of Noncommunicable Diseases

Pradhum Ram, MD^{†,§}, Division of Cardiology

Kiana Ramezanzadeh, PharmD^{*,‡,§}, School of Pharmacy

Prof Saleem Muhammad Rana, PhD[¶], University Institute of Public Health; Federation University Australia, Berwick, VIC, Australia; Public Health Department

Chhabi Lal Ranabhat, PhD^{*,†,‡,§,¶},

University of Health Sciences, Lahore, Pakistan; Research Department; Policy Research Institute, Kathmandu, Nepal; Health and Public Policy Department

Annemarei Ranta, PhD*,

Global Center for Research and Development, Kathmandu, Nepal; Department of Medicine; University of Otago, Wellington, New Zealand; Department of Neurology

Puja C Rao, MDS^{*,‡,§},

Capital & Coast District Health Board, Wellington, New Zealand; Department of Oral Pathology

Sowmya J Rao^{*,†,‡,§,¶}, Prof Davide Rasella, PhD^{*,†,‡,¶}, University of Belgrade, Belgrade, Serbia; Institute of Collective Health

Vahid Rashedi, PhD^{*,†,§,¶}, Tehran Institute of Psychiatry

Prateek Rastogi^{*,†,‡}, Prof Goura Kishor Rath, MD[¶],

Department of Radiation Oncology; All India Institute of Medical Sciences, Bhopal, India; Department of Radiation Oncology, All India Institute of Medical Sciences, New Delhi, India

Priya Rathi^{†,‡,§,¶}, David Laith Rawaf, MD^{*,‡,§,¶}, WHO Collaborating Centre for Public Health Education and Training; Srinivas Institute of Dental Sciences, Mangalore, India; University College London Hospitals, London, UK

Prof Salman Rawaf, MD^{*,‡,§,¶}, Department of Primary Care and Public Health; Boston University, Boston, MA, USA; Academic Public Health England

Lal Rawal, PhD^{*,†,‡,§,¶}, School of Health, Medical and Applied Sciences

Reza Rawassizadeh, PhD^{*,§,¶}, Hokkaido University, Sapporo, Japan; Department of Computer Science

Ramu Rawat, MPhil^{*,§},

Hacettepe University, Ankara, Turkey; Department of Mathematical Demography & Statistics

Christian Razo^{*,‡,§,¶}, Sofia Boston Redford^{‡,§}, Lemma Demissie Regassa, MPH^{*}, School of Public Health

Robert C Reiner Jr^{‡,§}, Nickolas Reinig[‡], Marissa Bettay Reitsma^{*,‡,§}, Giuseppe Remuzzi^{*,†,‡,§}, Vishnu Renjith, PhD^{*,†,‡,§,¶},

CQ University, Sydney, NSW, Australia; School of Nursing and Midwifery

Prof Andre M N Renzaho, PhD^{*,†,‡,§,¶}, School of Social Sciences and Psychology; Translational Health Research Institute

Prof Serge Resnikoff, MD^{*,†,‡,§},

School of Optometry and Vision Science; Royal College of Surgeons in Ireland -Bahrain, Muharraq Governorate, Bahrain; Brien Holden Vision Institute, Sydney, NSW, Australia

Prof Negar Rezaei, PhD^{*,§},

et al.

Endocrinology and Metabolism Research Center; Non-communicable Diseases Research Center; Research Center for Immunodeficiencies; Network of Immunity in Infection, Malignancy and Autoimmunity (NIIMA)

Nima Rezaei, PhD^{*,†,‡,§,¶}, Prof Mohammad sadegh Rezai, MD^{*,†,‡}, Pediatric Infectious Diseases Research Center

Aziz Rezapour, PhD^{*,†,‡,§}, Health Management and Economics Research Center

Phoebe-Anne Rhinehart^{*,‡,§}, Seyed Mohammad Riahi, PhD^{*,‡,§,¶}, Ludwig Maximilians University, Munich, Germany; Cardiovascular Diseases Research Center

Prof Antonio Luiz P Ribeiro, MD^{*,‡}, University of British Columbia, Vancouver, BC, Canada; Centre of Telehealth; Department of Internal Medicine

Daniel Cury Ribeiro, PhD^{*,‡,§,¶}, School of Physiotherapy

Daniela Ribeiro, PhD^{‡,§}, Department of Chemical Sciences

Jennifer Rickard, MD^{*,†,‡,§,¶}, Universal Scientific Education and Research Network (USERN), Tehran, Iran; Department of Surgery; University of Minnesota, Minneapolis, MN, USA; Department of Surgery

Prof Juan A Rivera, PhD[§], Director General

Toshana Robalik^{||}, Nicholas L S Roberts, MSc^{‡,§,¶}, National Institute for Stroke and Applied Neurosciences

Shaun Roberts[‡], Prof Stephen R Robinson, PhD[‡], Western Sydney University, Sydney, VIC, Australia; Department of Psychology

Sonia Rodríguez-Ramírez, DSc[§], Center for Nutrition and Health Research

Leonardo Roever, PhD^{*,†,‡,§,¶}, University Teaching Hospital of Kigali, Kigali, Rwanda; Department of Clinical Research

Sam Rolfe[‡], Michele Romoli, MD^{*,¶}, Federal University of Uberlândia, Uberlândia, Brazil; Department of Neuroscience; University of Perugia, Perugia, Italy; Department of Neurology

Luca Ronfani, PhD^{*,†,‡,§,¶}, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran; Clinical Epidemiology and Public Health Research Unit

Prof Robin Room, PhD§,

Foundation for Scientific Research (FORS), Cotonou, Benin; Centre for Alcohol Policy Research; Rimini "Infermi" Hospital - AUSL Romagna, Rimini, Italy; Centre for Social Research on Alcohol and Drugs

Gholamreza Roshandel, PhD^{*,†,‡,§,¶}, University College Cork, Cork, Ireland; Golestan Research Center of Gastroenterology and Hepatology (GRCGH)

Morteza Rostamian, PhD[†], Stockholm University, Stockholm, Sweden; School of Medicine

Gregory A Roth, MD^{‡,§}, Division of Cardiology

Dietrich Rothenbacher[§], Enrico Rubagotti, PhD^{*,†,‡,§,¶}, Gonabad University of Medical Sciences, Gonabad, Iran; Agrosavia, Palmira, Colombia

Susan Fred Rumisha, PhD^{*,‡}, Malaria Atlas Project; Department of Health Statistics

Godfrey M Rwegerera, MD^{*,†,§,¶}, National Institute for Medical Research, Dar es Salaam, Tanzania; Department of Internal Medicine

Seyedmohammad Saadatagah, MD^{*}, Georgetown University, Washington DC, DC, USA; Department of Cardiovascular Medicine

Siamak Sabour^{*,†,‡,§,¶}, Prof Perminder S Sachdev, MD^{*,‡,§,¶}, School of Psychiatry; University of Botswana, Gaborone, Botswana; Neuropsychiatric Institute

Basema Saddik, PhD^{*,†,‡,§,¶}, Department of Family and Community Medicine

Prof Ehsan Sadeghi, MD^{*,†,‡,§,¶}, Cairo University, Cairo, Egypt; Cardiac Rehabilitation Research Center

Masoumeh Sadeghi^{*,†,‡,§,¶}, Reza Saeedi, MSc[§], Non-communicable Diseases Research Center

Sahar Saeedi Moghaddam^{*,†,§}, Shahram Saeidi[‡], Yahya Safari^{†,§,¶}, Sare Safi, PhD^{†,‡,§},

Ophthalmic Epidemiology Research Center; Ophthalmic Research Center

Saeid Safiri, PhD^{†,‡,§},

Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran; Aging Research Institute; Department of Community Medicine

Prof Rajesh Sagar, MD^{†,‡,§,¶}, Department of Psychiatry

Amirhossein Sahebkar, PhD*,†,‡,§,¶,

Neurogenic Inflammation Research Center; Prince of Wales Hospital, Randwick, NSW, Australia; Halal Research Center of IRI

Prof Mohammad Ali Sahraian, MD^{*,†,‡,¶}, Multiple Sclerosis Research Center

Prof S Mohammad Sajadi, PhD^{*,†,‡,§,¶}, University of Agriculture, Faisalabad, Faisalabad, Pakistan; Department of Phytochemistry; Soran University, Soran, Iraq; Department of Nutrition

Mohammad Reza Salahshoor, PhD^{†,‡,¶}, Department of Anatomical Sciences

Nasir Salam, PhD[§], Cihan University-Erbil, Kurdistan Region, Iraq; Department of Microbiology

Joseph S Salama, MSc[†], Health Hub

Prof Payman Salamati, MD^{†,‡,§}, Sina Trauma and Surgery Research Center

Saleh Salehi Zahabi, PhD[‡], Department of Radiology and Nuclear Medicine; Central University of Punjab, Bathinda, India; Research Department

Prof Hosni Salem, MD^{*,‡,§,¶}, Urology Department

Marwa R Salem, MD^{*,†,‡,§,¶}, Public Health and Community Medicine Department

Yahya Salimi, PhD[†], Department of Epidemiology and Biostatistics

Hamideh Salimzadeh, PhD^{*,‡,§}, Digestive Diseases Research Institute

Omar Mukhtar Salman, MSc[§], Taleghani Hospital, Kermanshah, Iran; Global Health Institute

Prof Joshua A Salomon, PhD^{*,†,‡,§,¶}, American University of Beirut, Beirut, Lebanon; Center for Health Policy & Center for Primary Care and Outcomes Research

Inbal Salz, MD^{*,†,‡}, Stanford University, Stanford, CA, USA; Health and Disability Intelligence Group

Prof Zainab Samad, MD^{*,†,‡,§}, Department of Medicine; Department of Medicine

Hossein Samadi Kafil, PhD^{*,§,¶}, Drug Applied Research Center

Evanson Zondani Sambala, PhD§,

South African Medical Research Council, Cape Town, South Africa

Abdallah M Samy, PhD^{*,†,‡,§,¶}, Weill Cornell Medical College in Qatar, Doha, Qatar; Department of Entomology

Prof Juan Sanabria, MD^{*,†,‡,§,¶}, Department of Nutrition and Preventive Medicine; Ministry of Health, Wellington, New Zealand; Department of Surgery

Tania G Sánchez-Pimienta[§], Damian Francesco Santomauro, PhD^{*,‡,§}, West Moreton Hospital Health Service

Itamar S Santos, PhD^{‡,§},

University of Oxford, Oxford, UK; Center for Clinical and Epidemiological Research; Department of Internal Medicine

João Vasco Santos, MD^{‡,§},

Center for Health Technology and Services Research; Marshall University, Huntington, WV, USA; Public Health Unit, ACES Grande Porto VIII - Espinho/Gaia

Milena M Santric-Milicevic^{*,†,‡,§,¶}, Sivan Yegnanarayana Iyer Saraswathy, $PhD^{*,†,\ddagger,\$,\P}$,

Northern Region Health Administration, Vila Nova de Gaia, Portugal; Department of Community Medicine; PSG Institute of Medical Sciences and Research, Coimbatore, India; PSG-FAIMER South Asia Regional Institute, Coimbatore, India

Prof Rodrigo Sarmiento-Suárez, MPH^{‡,§,¶},

University of Applied and Environmental Sciences, Bogota, Colombia; National School of Public Health; Faculty of Medicine

Prof Nizal Sarrafzadegan, MD^{*,‡,§}, Isfahan Cardiovascular Research Institute; School of Population and Public Health

Benn Sartorius^{*,†,‡,§,¶}, Arash Sarveazad, PhD^{*,†,‡,§,¶}, Isfahan University of Medical Sciences, Isfahan, Iran; Colorectal Research Center

Brijesh Sathian, PhD^{*,†,‡,§,¶},

Carlos III Health Institute, Madrid, Spain; Department of Geriatrics and Long Term Care; Hamad Medical Corporation, Doha, Qatar; Faculty of Health & Social Sciences

Thirunavukkarasu Sathish, PhD^{*,†,‡,§,¶}, Population Health Research Institute

Davide Sattin, PsyD^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Miloje Savic, PhD[¶], Bournemouth University, Bournemouth, UK; GSK Biologicals, Wavre, Belgium

Prof Susan M Sawyer, MD[¶],

Department of Paediatrics; University of Calgary, Calgary, AB, Canada; Centre for Adolescent Health

Prof Deepak Saxena, PhD[¶], Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine; Department of Epidemiology

Prof Sonia Saxena, MD[§], School of Public Health

Mete Saylan, MD[†], Indian Institute of Public Health, Gandhinagar, India; Market Access

Alyssa N Sbarra^{‡,¶}, Lauren E Schaeffer^{*,†,‡,§,¶}, Silvia Schiavolin, MSc^{*,†,‡,§,¶}, Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Prof Markus P Schlaich, MD[§], Dobney Hypertension Centre; University of Bath, Bath, UK; Hypertension and Kidney Disease Laboratory

Prof Maria Inês Schmidt, PhD^{*,‡,§,¶}, Postgraduate Program in Epidemiology

Prof Aletta Elisabeth Schutte, PhD^{*,‡,§,¶}, University of New South Wales; Bayer, Istanbul, Turkey; Unit for Hypertension and Cardiovascular Disease

David C Schwebel, PhD^{*,†,‡,§,¶}, Department of Psychology

Prof Falk Schwendicke, PhD^{*,†,‡,§,¶}, North-West University, Potchefstroom, South Africa; Oral Diagnosis, Digital Health and Health Services Research

Prof Soraya Seedat, PhD[¶], Department of Psychiatry

Mario Sekerija, PhD[†],

Charité University Medical Center Berlin, Berlin, Germany; Department of Medical Statistics, Epidemiology and Medical Informatics; University of Zagreb, Zagreb, Croatia; Department of Epidemiology and Prevention of Chronic Noncommunicable Diseases

Anbissa Muleta Senbeta, MSc^{†,‡,§}, Department of Food Science and Nutrition

Subramanian Senthilkumaran, MD^{†,‡,§}, Croatian Institute of Public Health, Zagreb, Croatia; Emergency Department

Sadaf G Sepanlou, MD^{*,†,‡,§},

Digestive Diseases Research Institute; Non-communicable Disease Research Center

Berrin Serdar, PhD[§], School of Public Health; Manian Medical Centre, Erode, India; Environmental Health Associates LLC, Englewood, CO, USA

Marc L Serre, PhD[§], Department of Environmental Sciences and Engineering

Edson Serván-Mori[†], Feng Sha, PhD^{*,¶}, Center for Biomedical Information Technology

Mahsima Shabani, MD[†], Non-communicable Diseases Research Center; Department of Cardiology

Katya Anne Shackelford[‡], Jamileh Shadid^{‡,§}, Omid Shafaat, MD^{*,§}, Department of Radiology and Radiological Science

Saeed Shahabi, PhD^{*,†,‡,§,¶}, Health Policy Research Center

Mohammad Shahbaz[†], Amira A Shaheen, PhD^{*,†,‡,§,¶}, Shenzhen Institutes of Advanced Technology, Shenzhen, China; Public Health Division

Masood Ali Shaikh, MD^{*,†,‡,§,¶}, An-Najah National University, Nablus, Palestine; Independent Consultant, Karachi, Pakistan

Prof Ali S Shalash, PhD^{†,‡,§}, Department of Neurology

Mehran Shams-Beyranvand^{*,†,‡,§}, MohammadBagher Shamsi, PhD[†], Department of Rehabilitation and Sports Medicine

Morteza Shamsizadeh, MSc^{*,†,‡,§,¶}, Faculty of Caring Science, Work Life, and Social Welfare

Mohammed Shannawaz, PhD^{†,‡,¶}, University of Borås, Borås, Sweden; Department of Community Medicine

Kiomars Sharafi, PhD^{*,†,‡,§,¶}, Razi Herbal Medicines Research Center

Zeinab Sharafi[†], Fablina Sharara^{*,†,‡,¶}, Prof Hamid Sharifi, PhD[¶], HIV/STI Surveillance Research Center, and WHO Collaborating Center for HIV Surveillance

Rajesh Sharma, PhD[†], BLDE University, Vijayapur, India; University School of Management and Entrepreneurship

David H Shaw^{†,¶}, Brittney S Sheena[‡], Prof Aziz Sheikh, MD^{*,†,§,¶}, Division of General Internal Medicine; Delhi Technological University, Delhi, India; Centre for Medical Informatics B Suresh Kumar Shetty^{*,¶}, Ranjitha S Shetty[‡], Prof Kenji Shibuya, MD^{*,‡,§,¶}, Institute for Population Health

Kevin David Shield, PhD[§], Dalla Lana School of Public Health; University of Embu, Embu, Kenya; Institute for Mental Health Policy Research

Wondimeneh Shibabaw Shiferaw, MSc^{‡,¶}, Department of Nursing

Mika Shigematsu, PhD^{*,‡,§,¶}, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India; National Institute of Infectious Diseases, Bucuresti, Romania

Prof Jae II Shin, MD^{*,†,‡,§,¶}, University of Edinburgh, Edinburgh, UK; College of Medicine

Prof Min-Jeong Shin, PhD^{*,§}, Korea University, Seoul, South Korea

Rahman Shiri, PhD^{*,†,‡,§,¶}, Yonsei University, Seoul, South Korea; Finnish Institute of Occupational Health, Helsinki, Finland

Reza Shirkoohi, PhD^{‡,§}, Cancer Biology Research Center; Cancer Research Institute

Prof K M Shivakumar, PhD^{*,¶}, Faculty of Dental Sciences

Mark G Shrime, MD^{*,†,‡,¶}, Harvard University, Boston, MA, USA

Kerem Shuval, PhD^{*,†,‡,§,¶}, University College Dublin, Dublin, Ireland; School of Public Health

Soraya Siabani, PhD^{†,‡,§,¶}, Department of Health Education and Health Promotion; Department of Health Education and Health Promotion; School of Health

Radoslaw Sierpinski, PhD^{§,¶}, University of Technology Sydney, Sydney, NSW, Australia; Medical Research Agency, Warsaw, Poland; School of Medicine

Prof Inga Dora Sigfusdottir, PhD^{*,†,‡,§,¶}, Department of Health and Behavior Studies; Cardinal Wyszynski University, Warsaw, Poland; Department of Psychology

Rannveig Sigurvinsdottir, PhD^{*,†,‡,§,¶}, Cardinal Wyszynski University, Warsaw, Poland; Department of Psychology Prof Diego Augusto Santos Silva, PhD^{*,†,¶}, Reykjavik University, Reykjavik, Iceland; Department of Physical Education

João Pedro Silva, PhD^{*,‡,§,¶}, Research Unit on Applied Molecular Biosciences (UCIBIO)

Prof Biagio Simonetti, PhD^{*,†,¶},

Federal University of Santa Catarina, Florianopolis, Brazil; Department of Law, Economics, Management and Quantitative Methods; University of Sannio, Benevento, Italy; WSB University, Gda sk, Poland

Kyle E Simpson^{†,‡,§,¶}, Prof Ambrish Singh, MTech^{*,‡}, US Department of Veterans Affairs; University of Tasmania, Hobart, TAS, Australia; Global Patient Outcome and Real World Evidence

Jasvinder A Singh, MD^{*,†,‡,§,¶}, School of Medicine; Medicine Service

Pushpendra Singh, MSc^{*,§,¶}, Department of Humanities and Social Sciences

Dhirendra Narain Sinha, PhD^{*,¶},

Eli Lilly and Company, Indianapolis, IN, USA; Department of Epidemiology; School of Preventive Oncology, Patna, India; Department of Epidemiology

Eirini Skiadaresi, MD^{†,‡,§}, Healis Sekhsaria Institute for Public Health, Mumbai, India; Department of Ophthalmology

Prof Søren T Skou, PhD^{‡,§}, Hywel Dda University Health Board, Llanelli, UK; Department of Sports Science and Clinical Biomechanics; University of Southern Denmark, Odense, Denmark; Department of Physiotherapy and Occupational Therapy

Valentin Yurievich Skryabin, MD^{*,†,‡,§,¶}, Næstved-Slagelse-Ringsted Hospitals, Slagelse, Denmark; Department No.16

Prof Karen Sliwa, PhD^{*}, Hatter Institute Department of Medicine

Amanda Smith, PhD^{II}, Institute of Bone and Joint Research; Pain Management Research Institute (PMRI)

Emma U R Smith^{*,§,¶}, Prof Eugene Sobngwi, PhD[‡], Ministry of Public Health, Yaoundé, Cameroon; Department of Internal Medicine and Specialties; Moscow Research and Practical Centre on Addictions, Moscow, Russia; Department of Endocrinology and Diabetes

Amin Soheili, PhD^{*,†,§,¶}, Yaoundé Central Hospital, Yaoundé, Cameroon; Nursing Care Research Center

Anton Sokhan, PhD^{†,‡},

Semnan University of Medical Sciences, Semnan, Iran; Department of Infectious Diseases

Shahin Soltani^{*,‡,§,¶}, Oluwaseyi Dolapo Somefun, PhD^{*}, Kharkiv National Medical University, Kharkiv, Ukraine; Demography and Population Studies Department

Moslem Soofi[§], Reed J D Sorensen, MPH^{*,†,‡,§,¶}, Department of Global Health

Prof Joan B Soriano, MD^{*,†,‡,§,¶},

University of Witwatersrand, Johannesburg, South Africa; Centro de Investigación Biomédica en Red Enfermedades Respiratorias (CIBERES), Madrid, Spain

Muluken Bekele Sorrie, MPH^{*,†,‡,§,¶}, Department of Public Health

Sergey Soshnikov, PhD§,

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Department of Research Development

Ireneous N Soyiri, PhD^{*,†,‡,§,¶}, Hull York Medical School

Cory N Spencer[§], Adel Spotin, PhD[§], Department of Parasitology and Mycology

Emma Elizabeth Spurlock^{†,¶}, Chandrashekhar T Sreeramareddy, MD^{*,†,‡,§,¶}, University of Hull, Hull City, UK; Division of Community Medicine

Vinay Srinivasan, MPH§,

International Medical University, Kuala Lumpur, Malaysia; David Geffen School of Medicine

Kam Sripada, PhD^{*},

University of California Los Angeles, Los Angeles, CA, USA; Centre for Global Health Inequalities Research (CHAIN)

Jeffrey D Stanaway^{*,‡,§,¶}, Benjamin A Stark[‡], Prof Nicholas Steel, PhD[¶], Public Health England, London, UK; Norwegian University of Science and Technology, Trondheim, Norway; Department of Primary Care and Public Health

Simona C t lina tefan, PhD^{*,‡}, Management Department

Caroline Stein, PhD^{‡,§,¶}, Postgraduate Program in Epidemiology

Prof Dan J Stein, MD^{*,§}, Risk and Resilience in Mental Disorders Research Unit

Prof Caitlyn Steiner, PhD^{*,‡,§}, Division of Brain Sciences; Department of Neuromedicine and Movement Science

Timothy J Steiner[‡], Krista M Steuben^{||}, Leo Stockfelt, PhD^{†,§}, University of East Anglia, Norwich, UK; Occupational and Environmental Medicine Department

Mark A Stokes, PhD^{*,†,‡,§,¶}, Local Health Authority of Florence, Firenze, Italy; Department of Psychology

Prof Lars Jacob Stovner, PhD[‡],

Department of Neuromedicine and Movement Science; University of Gothenburg, Gothenburg, Sweden; Department of Neurology and Clinical Neurophysiology

Prof Kurt Straif, PhD[§], Barcelona Institute for Global Health, Barcelona, Spain; St. Olavs Hospital, Trondheim, Norway; Schiller Institute

Prof Saverio Stranges, MD^{*}, Department of Epidemiology & Biostatistics; Boston College, Boston, MA, USA; Department of Population Health

Jacob L Stubbs, BKin^{†,‡,§}, Department of Psychiatry

Prof Parminder S Suchdev, MD^{*}, King's College London, London, UK; Department of Pediatrics

Agus Sudaryanto, MPH^{*,†,‡}, Nursing Department

Mu'awiyyah Babale Sufiyan, MD^{*,†,‡,§,¶}, Dire Dawa University, Dire Dawa, Ethiopia; Department of Community Medicine

Hafiz Ansar Rasul Suleria, PhD^{§,¶}, Monash University, Melbourne, VIC, Australia; Department of Agriculture and Food Systems

Rizwan Suliankatchi Abdulkader, MD^{*,†,§}, Luxembourg Institute of Health, Strassen, Luxembourg; Department of Statistics; National Institute of Epidemiology

Gerhard Sulo, PhD^{*,‡,§}, Norwegian Institute of Public Health, Bergen, Norway

Iyad Sultan, MD^{‡,§,¶}, Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli, India; Pediatric Services; King Hussein Cancer Center, Amman, Jordan; Pediatrics Department

Carolyn B Swope, MPH^{*}, University of Jordan, Amman, Jordan; Delos Labs

Prof Bryan L Sykes, PhD^{†,‡}, Delos Living, New York, NY, USA; Department of Criminology, Law, and Society

Dillon O Sylte^{*,‡}, Miklós Szócska, PhD[‡], Beijing Tongren Hospital, Beijing, China; Faculty of Health and Public Administration

Lukasz Szumowski, MD[¶], University of California Irvine, Irvine, CA, USA; Minister of Health

Rafael Tabarés-Seisdedos^{*,†,‡,§,¶}, Prof Karen M Tabb, PhD^{†,‡,§}, University of Valencia, Valencia, Spain; School of Social Work

Takahiro Tabuchi, MD^{*,§,¶}, University of Illinois, Urbana, IL, USA; Cancer Control Center

Santosh Kumar Tadakamadla, PhD^{*,†,‡,¶}, School of Dentistry and Oral Health

Biruk Wogayehu Taddele, MPH^{*,¶}, Osaka International Cancer Institute, Osaka, Japan; Department of Pharmacy

Degena Bahrey Tadesse, MSc[¶], University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Amir Taherkhani^{*,†,‡,§,¶}, Prof Zarfishan Tahir, PhD^{*}, Arbaminch College of Health Sciences, Arbaminch, Ethiopia; Institute of Public Health, Lahore, Pakistan

Masih Tajdini, MD^{‡,§}, Tehran Heart Center

Prof Ken Takahashi, PhD^{‡,§}, The Chinese University of Hong Kong, Shatin, China; Asbestos Diseases Research Institute, Concord, NSW, Australia

Prof Jukka S Takala, DSc[§], International Comion on Occupational Health, Monteporzio Catone, Rome, Italy; University of Cape Coast, Cape Coast, Ghana; Department of Health Sciences

Animut Tagele Tamiru, MSc^{*,§,¶}, Department of Midwifery

Muming Tang^{*,†}, Prof Frank C Tanser, PhD[¶], University of KwaZulu-Natal, Durban, South Africa; Africa Health Research Institute, Berea, South Africa

Prof Md Ismail Tareque, PhD^{*,¶}, Department of Population Science and Human Resource Development

Ingan Ukur Tarigan, PhD[¶], University of Rajshahi, Rajshahi, Bangladesh; Research and Development Center for Humanities and Health Management

Prof Nuno Taveira, PhD^{†,‡,§},

National Institute of Health Research & Development, Jakarta, Indonesia; University Institute Egas Moniz, Monte da Caparica, Portugal; Research Institute for Medicines

Heather Jean Taylor[†], Whitney L Teagle, BA^{†,‡,¶}, National Eye Institute

Hirut Teame, MPH[‡], Department of Public Health

Fabrizio Tediosi, PhD[¶], University of Basel, Basel, Switzerland

Yonas Getaye Tefera, MSc^{*,¶}, Department of Clinical Pharmacy

Arash Tehrani-Banihashemi^{†,‡,§}, Berhane Fseha Teklehaimanot, MPH^{†,‡}, Department of Public Health

Freweini Gebrearegay Tela, BHlthSci^{*}, School of Public Health

Mohamad-Hani Temsah, MD^{*,§}, Pediatric Intensive Care Unit

Sonyah Terrason^{*,‡}, Getayeneh Antehunegn Tesema, MPH[§], Department of Epidemiology and Biostatistics

Zemenu Tadesse Tessema, MSc^{†,‡,§,¶}, Department of Epidemiology and Biostatistics

Bhaskar Thakur, PhD^{*,¶}, Massachusetts Veterans Epidemiology Research and Information Center (MAVERIC) & CSP Coordinating Center; University of Lisbon, Lisbon, Portugal; Division of Biostatistics and Epidemiology

Prof Kavumpurathu Raman Thankappan, MD^{*,†,‡}, Texas Tech University, El Paso, TX, USA; Department of Public Health and Community Medicine

Rekha Thapar^{*}, Prof Nihal Thomas, PhD^{*,†}, Central University of Kerala, Kasaragod, India; Department of Endocrinology, Diabetes and Metabolism

Azalea M Thomson[‡], Prof Amanda G Thrift, PhD[†], Department of Medicine

Prof George D Thurston, ScD[§],

Ateneo De Manila University, Pasig City, Philippines; Department of Environmental Medicine

Mariya Vladimirovna Titova, PhD^{*,†,§,¶},

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Christian Medical College and Hospital (CMC), Vellore, India; Timiryazev Institute of Plant Physiology

Boikhutso Tlou, DrPH^{*},

Ministry of Health, Hail, Saudi Arabia; Discipline of Public Health Medicine

Hamid Reza Tohidinik, PhD^{†,‡,§},

Department of Epidemiology and Biostatistics; HIV/STI Surveillance Research Center, and WHO Collaborating Center for HIV Surveillance

Prof Marcello Tonelli, MD^{*,†,‡,§,¶}, Department of Medicine

Roman Topor-Madry^{*,†,‡,§,¶}, Prof Fotis Topouzis, PhD^{†,§,¶}, Royal Liverpool University Hospital, Liverpool, UK; 1st Department of Ophthalmology

Anna E Torre^{*,‡,§}, Mathilde Touvier, PhD^{*,‡,§},

National Institute for Health and Medical Research (INSERM), Paris, France; Health, Medicine and Human Biology; Nutritional Epidemiology Research Team (EREN)

Marcos Roberto Tovani-Palone^{*,†,‡,§,¶}, Eugenio Traini, MSc[†], Institute of Human Virology Nigeria, Abuja, Nigeria; Institute for Risk Assessment Sciences (IRAS)

Bach Xuan Tran, PhD^{*,†,‡,§,¶}, Department of Health Economics

Ravensara Travillian^{*,†,‡,§,¶}, Sergi Trias-Llimós[†], Christopher E Troeger^{‡,¶}, Thomas Clement Truelsen, PhD^{†,‡}, Rigshospitalet

Alexander C Tsai, MD[‡],

Abu Dhabi University, Khalifa City, United Arab Emirates; Department of Psychiatry; Hanoi Medical University, Hanoi, Vietnam; Mbarara University of Science and Technology, Mbarara, Uganda

Prof Aristidis Tsatsakis, DSc^{‡,§}, Department of Medicine

Lorainne Tudor Car, PhD^{†,‡,§,¶}, Lee Kong Chian School of Medicine

Stefanos Tyrovolas, PhD^{‡,§}, Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain; St. John of God Health Park

Riaz Uddin, PhD^{*,‡,§,¶}, School of Health and Rehabilitation Sciences

Irfan Ullah, PhD^{*,¶},

University of Crete, Heraklion, Greece; Department of Microbiology; Iqra National University, Peshawar, Pakistan; TB Culture Laboratory

Saif Ullah, PhD[‡],

Food and Drug Administration of the Islamic Republic of Iran, Tehran, Iran; Institute of Soil and Environmental Sciences

Chukwuma David Umeokonkwo, MPH^{§,¶},

Mufti Mehmood Memorial Teaching Hospital, Dera Ismail Khan, Pakistan; Department of Community Medicine

Eduardo A Undurraga, PhD[‡],

Alex Ekwueme Federal University Teaching Hospital Abakaliki, Abakaliki, Nigeria; School of Government; Pontifical Catholic University of Chile, Santiago, Chile; Schneider Institutes for Health Policy

Bhaskaran Unnikrishnan^{*,†,‡,§,¶}, Era Upadhyay, PhD^{*,†,§,¶}, Brandeis University, Waltham, MA, USA; Amity Institute of Biotechnology

Olalekan A Uthman, PhD[¶], Division of Health Sciences

Marco Vacante, PhD^{*,†,‡,§,¶}, Department of General Surgery and Medical-Surgical Specialties

Regina Vaicekonyte, MSc^{*}, University of Jordan, Amman, Jordan; Delos Labs

Alireza Vakilian^{†,‡}, Prof Pascual R Valdez, MEd^{*,†,‡,§,¶}, Argentine Society of Medicine, Buenos Aires, Argentina; Amity University Rajasthan, Jaipur, India; Velez Sarsfield Hospital, Buenos Aires, Argentina

Alessandro Valli, PhD^{*,†}, Department of General Surgery and Medical-Surgical Specialties

Aaron van Donkelaar, PhD§,

Mayo Clinic Foundation for Medical Education and Research, Rochester, MN, USA; Department of Energy, Environmental and Chemical Engineering; Department of Physics and Atmospheric Science

Constantine Vardavas, PhD[†], Laboratory of Toxicology

Prof Santosh Varughese, FRCP^{‡,¶}, Department of Nephrology

Prof Tommi Juhani Vasankari, MD^{*,†,‡,§,¶}, UKK Institute, Tampere, Finland

Prof Ana Maria Nogales Vasconcelos, PhD[†], Department of Statistics

Yasser Vasseghian^{*,†,‡,§,¶}, Yousef Veisani, PhD^{†,§}, University of Brasilia, Brasilia, Brazil; Psychosocial Injuries Research Center

Prof Narayanaswamy Venketasubramanian, MBBS^{*,†,‡,§,¶}, Yong Loo Lin School of Medicine; Ilam University of Medical Sciences, Ilam, Iran; Raffles Neuroscience Centre

Simone Vidale, MD^{*,†},

Raffles Hospital, Singapore; Department of Neurology; Infermi Hospital, Rimini, Italy; Department of Neurology & Stroke Unit

Prof Francesco S Violante, MD^{*,†,‡,§,¶}, Directorate-General of Health; Sant'Anna Hospital, Como, Italy; Occupational Health Unit

Prof Vasily Vlassov, MD^{*,†,‡,§,¶},

University of Novi Sad, Novi Sad, Serbia; Department of Health Care Administration and Economics

Stein Emil Vollset^{*,†,‡,§,¶,||}, Avina Vongpradith^{*,‡,¶}, Theo Vos^{*,†,‡,§,¶}, Giang Thu Vu, BA^{*},

Ministry of Health and Medical Education, Tehran, Iran; Center of Excellence in Behavioral Medicine

Isidora S Vujcic, PhD[†], Faculty of Medicine Institute of Epidemiology

Ana Vukovic, DrPH^{†,‡}, Royal Melbourne Institute of Technology University, Melbourne, VIC, Australia; Department of Pediatric and Preventive Dentistry

Rade Vukovic, PhD^{†,‡,§}, School of Medicine

Sant'Orsola Malpighi Hospital, Bologna, Italy; Department of Pediatric Endocrinology

Feleke Gebremeskel W/hawariat, MPH^{*}, Department of Public Health

Prof Yasir Waheed, PhD^{*,†,‡,§,¶}, Mother and Child Healthcare Institute of Serbia "Dr Vukan Cupic", Belgrade, Serbia; Foundation University Medical College

Mitchell Taylor Wallin, MD^{†,§}, School of Medicine; Department of Neurology

Magdalene K Walters^{†,‡,¶}, Richard G Wamai, PhD^{*,¶}, School of Public Health; Xiamen University Malaysia, Sepang, Malaysia; Cultures, Societies and Global Studies, & Integrated Initiative for Global Health

Fang Wang, MA^{*}, George Washington University, Washington, DC, USA; School of Health Sciences

Haidong Wang, DipSocSc^{*,†,¶}, Wuhan University, Wuhan, China; Division of Social Science

Hongbo Wang[†], Jiayu Wang^{*,‡}, Yafeng Wang, PhD^{‡,§}, Department of Psychiatry; School of Population Health and Environmental Sciences

Yanzhong Wang, BSA^{*}, Department of Epidemiology and Biostatistics

Yuan-Pang Wang^{*,†,‡,§,¶}, Joseph L Ward, MSc[‡], Great Ormond Street Institute of Child Health

Alexandrea Watson^{*,‡,§}, Stefanie Watson[†], Jingkai Wei, PhD^{*,†,‡,§}, Foundation University Islamabad, Islamabad, Pakistan; Department of Epidemiology and Biostatistics

Melissa Y Wei Wei, MD[§], Medical School

Prof Robert G Weintraub, MB^{*,‡,§,¶}, Critical Care and Neurosciences Department; Hong Kong University of Science and Technology, Hong Kong, China; Cardiology Department

Daniel J Weiss, PhD[‡], Malaria Atlas Project

Jordan Weiss, MA^{*,†,‡,§,¶},

Royal Children's Hospital, Melbourne, VIC, Australia; Leonard Davis Institute of Health Economics; Population Studies Center

Fissaha Tekulu Welay, MSc*, Department of Midwifery

Girmay Teklay Weldesamuel, MSc[†], University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Andrea Werdecker, PhD^{*,†,§,¶}, Demographic Change and Aging Research Area

Prof J Jason West, PhD[§], Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Ronny Westerman, DSc^{*,†,‡,§,¶},

University of Campinas (Unicamp), Campinas, Brazil; Competence Center of Mortality-Follow-Up of the German National Cohort

Joanna L Whisnant^{‡,§}, Harvey A Whiteford^{*,†,‡,§}, Taweewat Wiangkham, PhD^{*,†,‡}, University of Pennsylvania, Philadelphia, PA, USA; Department of Physical Therapy

Nuwan Darshana Wickramasinghe, MD^{*}, Naresuan University, Phitsanulok, Thailand; Department of Community Medicine

Kirsten E Wiens^{†,‡,§}, Prof Tissa Wijeratne, MD^{†,‡}, Department of Neurology; Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka; Department of Medicine

Lauren B Wilner^{*,‡,¶}, Shadrach Wilson[‡], Prof Charles Shey Wiysonge, MD[†], South African Medical Research Council, Cape Town, South Africa; School of Public Health and Family Medicine

Bogdan Wojtyniak, DSc^{*,†,‡}, Department of Population Health Monitoring and Analysis

Gebremariam Woldu, MSc[¶], School of Pharmacy

Prof Charles D A Wolfe, MD^{*,†,‡,§,¶},

University of Rajarata, Saliyapura Anuradhapuraya, Sri Lanka; NIHR Biomedical Research Centre

Temesgen Gebeyehu Wondmeneh, MPH^{*}, National University of Singapore, Singapore, Singapore; Department of Public Health

Adam Belay Wondmieneh, MSc[†], School of Nursing and Midwifery; Autonomous University of Hidalgo State, Pachuca, Mexico; Department of Nursing

Eve E Wool^{†,‡}, Sarah S Wozniak[§], Prof Ai-Min Wu, MD^{*,†,‡,§,¶}, Guy's and St.Thomas' Hospital and Kings College London, London, UK; Department of Orthopaedics

Chenkai Wu, PhD^{*}, Duke Global Health Institute; Global Health Research Center

Junjie Wu^{†,§}, Sarah Wulf Hanson^{*,‡,§,¶}, Han Yong Wunrow^{*,‡,||}, Yang Xie, MD^{*,¶}, Wenzhou Medical University, Wenzhou, China; Department of Behavior and Operation Management

Prof Gelin Xu, MD^{†,‡,§},

Beijing Advanced Innovation Center for Big Data-based Precision Medicine, Beijing, China; School of Medicine

Rixing Xu^{‡,§,¶}, Simon Yadgir^{‡,§}, Seyed Hossein Yahyazadeh Jabbari, MD^{*,‡,§,¶}, Nanjing University, Nanjing, China; Clinical Cancer Research Center

Tomohide Yamada, MD[†], University of Glasgow, Glasgow, UK; Department of Diabetes and Metabolic Diseases

Prof Kazumasa Yamagishi, MD^{*,†,‡,§,¶},

Milad General Hospital, Tehran, Iran; Research and Development Center for Health Services; American Cancer Society, Atlanta, GA, USA; Graduate School of Medicine

Mousa Yaminfirooz, PhD^{‡,§}, General Education Department; Social Determinants of Health Research Center

Yuichiro Yano, MD^{†,‡,§,¶},

Newcastle University, Newcastle upon Tyne, UK; Department of Family Medicine and Community Health

Prof Sanni Yaya, PhD^{*,†,‡,§,¶},

The George Institute for Global Health; School of International Development and Global Studies

Vahid Yazdi-Feyzabadi^{*,†,‡,§,¶}, Jamal A Yearwood^{*,†,‡,¶}, Tomas Y Yeheyis, MSc^{*,†,‡,§},

National Cancer Institute, Bethesda, MD, USA; School of Nursing

Yordanos Gizachew Yeshitila, MSc^{*,‡,¶}, Department of Nursing

Christopher Sabo Yilgwan, MD^{†,§}, University of Tsukuba, Tsukuba, Japan; Pediatrics Department; University of Jos, Jos, Nigeria; Department of Pediatrics

Mekdes Tigistu Yilma, MPH[§], University of Burgundy, Dijon, France; Department of Public Health

Prof Paul Yip, PhD^{*,†,‡,§,¶}, Australian Catholic University, Melbourne, VIC, Australia; Centre for Suicide Research and Prevention; Department of Social Work and Social Administration

Naohiro Yonemoto, MPH^{*,†,‡,§,¶}, Jos University Teaching Hospital, Jos, Nigeria; Department of Neuropsychopharmaology; National Center of Neurology and Psychiatry, Kodaira, Japan; Department of Public Health

Seok-Jun Yoon^{*,†,‡}, Javad Yoosefi Lebni, MA^{†,‡}, Department of Health Education and Promotion

Hunter W York[†], Prof Mustafa Z Younis, PhD^{*,†,‡,§,¶}, Juntendo University, Tokyo, Japan; Department of Health Policy and Management; Jackson State University, Jackson, MS, USA; School of Medicine

Theodore Patrick Younker, BS^{*,†,‡,§}, Tsinghua University, Beijing, China; Department of Immunology

Prof Bahman Yousefi, PhD[§], Molecular Medicine Research Center

Prof Zabihollah Yousefi, PhD^{†,‡,§,¶}, Sebelas Maret University, Surakarta, Indonesia; Department of Environmental Health

Mahmoud Yousefifard, PhD[‡], Physiology Research Center

Taraneh Yousefinezhadi, PhD^{*,†,‡,§,¶}, Injury Prevention and Safety Promotion Research Center

Abdilahi Yousuf Yousuf, PhD^{†,‡,§}, Department of Public Health

Prof Chuanhua Yu, PhD^{*,‡,§}, Department of Epidemiology and Biostatistics; Global Health Institute

Yong Yu, MS^{*}, University of Pittsburgh, Pittsburgh, PA, USA; School of Public Health and Management Chun-Wei Yuan^{||}, Deniz Yuce, MD^{*}, Gazi University, Ankara, Turkey; Cancer Institute

Hasan Yusefzadeh, PhD^{*,†,‡,§,¶}, Qazvin University of Medical Sciences, Qazvin, Iran; Department of Health Care Management and Economics

Siddhesh Zadey, MS[¶], Duke Global Health Institute

Telma Zahirian Moghadam, PhD^{†,‡,§,¶}, Social Determinants of Health Research Center

Syed Saoud Zaidi, PhD^{*,¶}, Hubei University of Medicine, Shiyan, China; Department of Pharmaceutics

Leila Zaki, PhD^{‡,¶}, Department of Parasitology and Entomology

Josefina Zakzuk[†], Sojib Bin Zaman, MPH^{*,†,‡,¶}, The School of Clinical Sciences at Monash Health; Zhejiang University, Hangzhou, China; Maternal and Child Health Division

Mohammad Zamani, MD^{†,‡,§,¶}, Student Research Committee

Maryam Zamanian, PhD^{*,†,‡,§,¶}, McGill University, Montreal, QC, Canada; Department of Epidemiology

Hamed Zandian, PhD^{†,‡,§,¶}, University of Ibadan, Ibadan, Nigeria; Department of Community Medicine; Social Determinants of Health Research Center

Alireza Zangeneh^{*,‡}, Hadi Zarafshan, PhD^{*}, Psychiatry and Psychology Research Center

Prof Mikhail Sergeevich Zastrozhin, PhD^{*,‡,§,¶}, Laboratory of Genetics and Genomics; Dow University of Health Sciences, Karachi, Pakistan; Addictology Department

Kaleab Alemayehu Zewdie, MSc^{*,‡,¶}, School of Pharmacy

Jianrong Zhang, MD^{*},

Department of General Practice; Russian Medical Academy of Continuous Professional Education, Moscow, Russia; Victorian Comprehensive Cancer Centre, Melbourne, VIC, Australia

Yunquan Zhang, PhD^{*,‡,§,¶}, Hubei Province Key Laboratory of Occupational Hazard Identification and Control; School of Public Health

Zhi-Jiang Zhang, PhD^{*,†,‡,§}, School of Medicine

Jeff T Zhao^{‡,§}, Xiu-Ju George Zhao, PhD^{*,§,¶},

George Washington University, Washington, DC, USA; School of Health Sciences; Wuhan University of Science and Technology, Wuhan, China; School of Biology and Pharmaceutical Engineering

Yingxi Zhao, MPH^{*,‡,§,¶}, Nuffield Department of Medicine

Bistra Zheleva, MBA^{*}, Wuhan Polytechnic University, Wuhan, China; Global Strategy and Advocacy Unit

Peng Zheng^{†,*,‡,§,¶}, Maigeng Zhou, PhD^{†,‡,§}, Heidelberg University Hospital, Heidelberg, Germany; National Center for Chronic and Noncommunicable Disease Control and Prevention

Cong Zhu, MPH^{*,¶},

Children's HeartLink, Minneapolis, MN, USA; Department of Epidemiology, Human Genetics, and Environmental Sciences, University of Texas Health Science Center at Houston, Houston, TX, USA

Arash Ziapour^{*,†,‡,§,¶}, Stephanie R M Zimsen^{*,‡,§}, Bianca S Zlavog^{¶,||}, Prof Sanjay Zodpey, PhD[¶],

Indian Institute of Public Health

Stephen S Lim^{*,†,‡,§,¶}, Christopher J L Murray^{*,†,‡,§,¶,||}

Affiliations

Department of Juridical and Economic Studies

Department of Infectious Disease Epidemiology

Department of Internal Medicine

Clinical Research Development Unit

Social Determinants of Health Research Center

Advanced Diagnostic and Interventional Radiology Research Center

Department of Neurology

Department of Neurology

School of Pharmacy; The Institute of Pharmaceutical Sciences (TIPS)

Neuroscience Research Center

Department of Orthopaedic Surgery

School of Medicine; Neuroendocrine

University of Southern California, Los Angeles, CA, USA; Biostatistics Department; Near East University, Nicosia, Cyprus; Biostatistics and Health Informatics

Research Center for Immunodeficiencies; Madda Walabu University, Bale Robe, Ethiopia; Karolinska University Hospital, Huddinge, Sweden

Department of Public Health

Debre Berhan University, Debre Berhan, Ethiopia; Department of Cardiology; Dupuytren University Hospital, Limoges, France; University of Limoges, Limoges, France

Section of Allergy and Clinical Immunology; University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Department of Pediatric Dentistry

Federal University of Minas Gerais, Belo Horizonte, Brazil; Department of Research

Internal Medicine Department

Department of Neurology

Department of Clinical Sciences

University of Sharjah, Sharjah, United Arab Emirates; Department of Healthcare Policy and Research

Harvard Medical School; Department of Medicine

Center of Excellence in Public Health Nutrition

School of Public Health and Preventive Medicine

Hamadan University of Medical Sciences, Hamadan, Iran

Melbourne School of Population and Global Health

Department of Global Health; Cochrane South Africa

College of Medicine

University College Hospital, Ibadan, Ibadan, Nigeria; Department of Sociology

Olabisi Onabanjo University, Ago-Iwoye, Nigeria; School of Medicine

Institute for Health Metrics and Evaluation

School of Laboratory Medicine and Science; Institute of Cardiovascular Diseases

University of Melbourne, Melbourne, VIC, Australia; Centre of Excellence for Epidemiological Modelling and Analysis; Department of Global Health

School of Health

Ardabil University of Medical Science, Ardabil, Iran; Social Behavioral Research Branch; National Institute of Health, Bethesda, MD, USA; Department of Oncology

Endocrinology and Metabolism Research Center; Department of Dermatology

Mayo Clinic, Rochester, MN, USA; Department of Community Medicine

Department of Health Metrics Sciences, School of Medicine

Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Department of Family Medicine

Georgetown University, Washington DC, DC, USA; Department of Cardiovascular Medicine

Institute for Health Metrics and Evaluation

McMaster University, Hamilton, ON, Canada; Department of Epidemiology and Biostatistics

Urology Research Center

Qom University of Medical Sciences, Qom, Iran; Institute of Genomics and Integrative Biology; Council of Scientific & Industrial Research, Delhi, India; Internal Medicine

Baylor College of Medicine, Houston, TX, USA; Department of Epidemiology and Health Statistics

Department of Public Health; Department of Anesthesiology

Southeast University, Nanjing, China; Lincoln Medical School

Environmental Health Engineering; Environmental Technologies Research Center

Department of Ophthalmology; Ophthalmic Research Center

Infectious and Tropical Diseases Research Center

Department of Epidemiology; Jimma University, Jimma, Ethiopia; Australian Center for Precision Health

University of South Australia, Adelaide, SA, Australia; Faculty of Medicine and Public Health

Department of Epidemiology and Biostatistics

Institute for Advanced Medical Research and Training; University of Gondar, Gondar, Ethiopia; Institute of Neuroscience

Department of Population Health Sciences; Duke Global Health Institute

School of Public Health and Community Medicine

University of New South Wales, Sydney, NSW, Australia; Department of Public Health; The Intercountry Centre for Oral Health (ICOH) for Africa, Jos, Nigeria; Department of Public Health

Federal Ministry of Health, Garki, Nigeria; Mayo Evidence-based Practice Center

John T. Milliken Department of Internal Medicine

Griffith University, Nathan, QLD, Australia; Murdoch Business School

Dalhousie University, Halifax, NS, Canada; Prevention Division; Centre for Environment and Population Health Department of Veterans Affairs, St Louis, MO, USA; Department of Community Health and Epidemiology

Department of Community Health and Epidemiology

Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia

Health Information Management and Technology Department

Institute for Health Metrics and Evaluation

Murdoch University, Perth, WA, Australia; Center for Health System Research

Department of Pharmacy

Adigrat University, Adigrat, Ethiopia; College of Medicine and Health Science; Department of Midwifery

Department of Epidemiology and Biostatistics

Department of Cardiac Sciences

Institute of Health Research

University of Health and Allied Sciences, Ho, Ghana; Department of Biotechnology

Quaid-i-Azam University, Islamabad, Pakistan; Department of Information Systems, College of Economics and Political Science

Sultan Qaboos University, Muscat, Oman; Directorate for Social Statistics and Population Census

Social Determinants of Health Research Center

Qazvin University of Medical Sciences, Qazvin, Iran; Department of Health Care Management and Economics

Health Economics Department; Health Management and Economics Research Center

Urmia University of Medical Science, Urmia, Iran; Infectious and Tropical Disease Research Center

Department of Health Policy and Management; Kuwait University, Safat, Kuwait; International Centre for Casemix and Clinical Coding

National University of Malaysia, Bandar Tun Razak, Malaysia; Bordeaux School of Public Health

Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Bahir Dar University, Bahir Dar, Ethiopia; College of Medicine; University of Bordeaux, Bordeaux, France; Division of Gastroenterology & Hepatology

Department of Environmental Health Engineering

McGill University, Montreal, QC, Canada; Department of Epidemiology

Arak University of Medical Sciences, Arak, Iran; Physiotherapy Department

Medical Research Center

Philippine Institute for Development Studies, Quezon City, Philippines; College of Medicine

Sana'a University, Sana'a, Yemen; Research Program of Epidemiology and Public Health; Pompeu Fabra University, Barcelona, Spain; Department of Experimental and Health Sciences

Biomedical Research Networking Center in Epidemiology and Public Health (CiberESP), Madrid, Spain; Department of Community Medicine

Pediatric Intensive Care Unit

Health Information Management and Technology Department

Research Group in Health Economics

King Abdulaziz University, Jeddah, Saudi Arabia; Institute for Immunological Research

Arba Minch University, Arba Minch, Ethiopia; College of Medicine and Health Science; School of Medicine

Department of Pharmacology

Health Services Management Department

Non-communicable Diseases Research Center; Tehran Heart Center

Department of Radiology and Nuclear Medicine

University of Adelaide, Adelaide, SA, Australia; Department of Epidemiology and Biostatistics; School of Public Health

Johns Hopkins University, Baltimore, MD, USA; Maternal and Child Wellbeing

African Population and Health Research Center, Nairobi, Kenya; Lee Kuan Yew School of Public Policy

National University of Singapore, Singapore, Singapore; Department of Public Health

Pharmacy Department

Centre for Sensorimotor Performance; The University of Queensland, Brisbane, QLD, Australia; Neurology Department

Samara University, Samara, Ethiopia; Cardiology Department

Bucharest University of Economic Studies, Bucharest, Romania; Department of Medicine

University of Thessaly, Volos, Greece; School of Health and Related Research

Research Center for Evidence Based Medicine; University of Sheffield, Sheffield, UK; Razi Vaccine and Serum Research Institute

Agricultural Research, Education, and Extension Organization (AREEO), Tehran, Iran; Medical Students Research Committee

Zahedan University of Medical Sciences, Zahedan, Iran; Research Center on Public Health

Department of Health Policy and Administration; University of Milan Bicocca, Monza, Italy; Department of Applied Social Sciences

Hong Kong Polytechnic University, Hong Kong, China; Agribusiness Study Program

Department of Parasitology; Mazandaran University of Medical Sciences, Sari, Iran; Department of Parasitology

Department of Pathology

Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia; Department of Sociology and Social Work; Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Center for International Health

Health Management and Economics Research Center

Department of Applied Math

Birjand University of Medical Sciences, Birjand, Iran; Department of Nursing

Wolaita Sodo University, Wolaita Sodo, Ethiopia; Department of Public Health

Birmingham City University, Birmingham, UK; Regional Centre for the Analysis of Data on Occupational and Work-related Injuries and Diseases

Local Health Unit Tuscany Centre, Florence, Italy; Public Health and Healthcare Management; Tashkent Institute of Postgraduate Medical Education, Tashkent, Uzbekistan; Boston Children's Hospital, Boston, MA, USA

Social Determinants of Health Research Center; Saveh University of Medical Sciences, Saveh, Iran; Social Determinants of Health Research Center

Yasuj University of Medical Sciences, Yasuj, Iran; School of Health and Social Studies; Department of Neurobiology, Care Sciences and Society

Dalarna University, Falun, Sweden; Department of Epidemiology and Public Health; Swiss Tropical and Public Health Institute, Basel, Switzerland; Department of Epidemiology and Public Health

Monitoring Evaluation and Operational Research Project

School of Nursing and Midwifery; Babol University of Medical Sciences, Babol, Iran

Department of Plastic Surgery

Prevention of Metabolic Disorders Research Center

Department of Biostatistics and Epidemiology; Thomas Jefferson University, Philadelphia, PA, USA; Department of Biostatistics and Epidemiology

Department of Immunology

Department of Health System and Health Economics

Zanjan University of Medical Sciences, Zanjan, Iran; Faculty of Nursing

University of the Philippines Manila, Manila, Philippines; Center for Clinical Global Health Education; Philadelphia University, Amman, Jordan; D.Y. Patil Medical College, Hospital and Research Centre

D.Y. Patil Vidyapeeth, Pune, Pune, India; Department of Social Welfare

University of Leicester, Leicester, UK; Gastro-enterology Department

School of Business

University of Liège, Liège, Belgium; Epidemiological and Clinical Research; Bénin Clinical Research Institute (IRCB), Abomey-Calavi, Benin; Epidemiology and Clinical Research

The Judith Lumley Centre

School of Public Health

Department of Health Policy Planning and Management

Jenderal Soedirman University, Purwokerto, Indonesia; Department of Clinical Midwifery

Department of Nursing

Department of Pharmacology and Toxicology

Health Management and Economics Research Center

Department of Reproductive Health

Curtin University, Perth, WA, Australia; Global Adolescent Health Group; Burnet Institute, Melbourne, VIC, Australia; Wardliparingga Aboriginal Research Unit

Preventive Medicine and Public Health Research Center

Public Health Risk Sciences Division; Department of Nutritional Sciences

University of Toronto, Toronto, ON, Canada; Department of Forensic Science

Government Institute of Forensic Science, Nagpur, India; Chemistry Department

Sharif University of Technology, Tehran, Iran; Department of Ophthalmology; University Hospital of Ioannina, Ioannina, Greece; Institute of Molecular Biology & Biotechnology

Department of Healthcare Management and Education

Foundation for Research & Technology, Ioannina, Greece; Unit of Biochemistry

Sultan Zainal Abidin University, Kuala Terengganu, Malaysia; Centre for Community Medicine

Department of Anesthesiology

Department of Health Policy, Management, and Economics

Hamedan University of Medical Sciences, Hamadan, Iran; Department of Demography; University of Groningen, Groningen, Netherlands; Population Research Centre

Department of Medical Microbiology

Department of Psychology and Neurosciences

Auckland University of Technology, Auckland, New Zealand; Epidemiology Department

Institute for Physical Activity and Nutrition

Department of Epidemiology

Deakin University, Burwood, VIC, Australia; Department of Prevention

USL Tuscany Center, Florence, Italy; Department of Hypertension; Medical University of Lodz, Lodz, Poland; Polish Mothers' Memorial Hospital Research Institute, Lodz, Poland

School of Health Sciences

Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Department of Nursing

Department of Midwifery

Department of Epidemiology and Biostatistics

Bangladesh University of Health Sciences, Dhaka, Bangladesh; Department of Neurosciences; Costa Rican Department of Social Security, San Jose, Costa Rica; School of Medicine

T.H. Chan School of Public Health; Heidelberg Institute of Global Health (HIGH)

Heidelberg University, Heidelberg, Germany; Department of Industrial Engineering

Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Department of Occupational Health Engineering

Pontifical Javeriana University, Bogota, Colombia; School of Public Health and Community Medicine

Aden College, Aden, Yemen; Barcelona Institute for Global Health; University of Barcelona, Barcelona, Spain; Catalan Institution for Research and Advanced Studies (ICREA), Barcelona, Spain

Center for Primary Care; School of Public Health

Imperial College London, London, UK; Department of Psychiatry; University of Münster, Münster, Germany; Department of Psychiatry

Health Human Resources Research Center

Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Jazan University, Jazan, Saudi Arabia; University of North Carolina Chapel Hill, Chapel Hill, NC, USA; Department of Community Medicine

Department of Neuroscience

Social Determinants of Health Research Center

Lorestan University of Medical Sciences, Khorramabad, Iran; Department of Neurology; University Hospital of Dijon, Dijon, France; Dijon Stroke Registry - UFR Sciences Santé

University of Burgundy, Dijon, France; Department of Public Health

Wollega University, Nekemte, Ethiopia; School of the Environment

Yale University, New Haven, CT, USA; Department of Medicine

Nuffield Department of Population Health

Department of Internal Medicine

University of São Paulo, São Paulo, Brazil; Heart and Vascular Center

Department of Nutrition and Dietetics

Essentia Health, Duluth, MN, USA; Department of Medicine

Faculty of Dentistry, Oral & Craniofacial Sciences

Hubert Department of Global Health

Emory University, Atlanta, GA, USA; Department of Internal Medicine; Department of Social and Clinical Pharmacy

Department of Health Information Management; Manipal Academy of Higher Education, Mangalore, India

Charles University, Prague, Czech Republic; Institutes of Applied Health Research and Translational Medicine; Queen Elizabeth Hospital Birmingham, Birmingham, UK; Institute of Applied Health Research

School of Public Health; University of Birmingham, Birmingham, UK; Public Health Research Laboratory

All India Institute of Medical Sciences, New Delhi, India; Department of Community Medicine and Family Medicine

Datta Meghe Institute of Medical Sciences, Wardha, India; Division of General Internal Medicine

University of Massachusetts Medical School, Springfield, MA, USA; Department of Statistical and Computational Genomics; National Institute of Biomedical Genomics, Kalyani, India; Department of Statistics

University of Calcutta, Kolkata, India; Department of Global Health

Public Health Agency of Canada, Toronto, ON, Canada; Centre for Global Child Health; Global Institute for Interdisciplinary Studies, Kathmandu, Nepal; Centre of Excellence in Women & Child Health

Aga Khan University, Karachi, Pakistan; Institute of Soil and Environmental Sciences

Social Determinants of Health Research Center

Mario Negri Institute for Pharmacological Research, Milan, Italy

University of Agriculture Faisalabad, Faisalabad, Pakistan; Health Economics and Outcomes Research

Creativ-Ceutical, London, UK; National Centre for Epidemiology and Population Health; Australian National University, Canberra, ACT, Australia; Department of Clinical Pharmacy and Pharmacology

Department of General Surgery and Medical-Surgical Specialties

University of Catania, Catania, Italy; Ethiopian Public Health Institute, Adis Ababa, Ethiopia; Department of Nursing

Debre Tabor University, Debretabor, Ethiopia; Global Health Division; School of Medicine

Transport and Road Safety (TARS) Research Centre

School of Pharmacy

University of Bergen, Bergen, Norway; Cancer Registry of Norway, Oslo, Norway; Department of Global Public Health and Primary Care

European & Developing Countries Clinical Trials Partnership, Cape Town, South Africa; Department of Medicine

Department of Veterinary Medicine

Islamic Azad University, Kermanshah, Iran; Department of Computer Science and Information Technology; Institute for Advanced Studies in Basic Sciences, Zanjan, Iran; Department of Research and Innovation

School of Pharmacy

Petanux Research GmBH, Bonn, Germany; Department of Biomedical Sciences

Department of Internal Medicine

Nazarbayev University, Nur-Sultan City, Kazakhstan; Department of Epidemiology and Psychosocial Research

Department of Clinical and Experimental Medicine

Ramón de la Fuente Muñiz National Institute of Psychiatry, Mexico City, Mexico; Transport Global Practice

Department of Oncology

Transport and Road Safety (TARS) Research Centre

World Bank, Washington, DC, USA; Vision and Eye Research Unit

Department of Infectious Disease Epidemiology

Division of Hematology and Oncology

School of Population and Public Health

Anglia Ruskin University, Cambridge, UK; Department of Public Health and Primary Care

University of Cambridge, Cambridge, UK; Department of Psychology; Psychiatry and Behavioral Health Department

Ohio State University, Columbus, OH, USA; Institute for Medical Information Processing, Biometry, and Epidemiology; Ludwig Maximilian University of Munich, Munich, Germany; Institute of Epidemiology

German Research Center for Environmental Health, Neuherberg, Germany; Division of Clinical Epidemiology and Aging Research

German Cancer Research Center, Heidelberg, Germany; Institute of Medicine

School of Physiotherapy and Exercise Science

World Health Organization (WHO), Geneva, Switzerland; Department of Epidemiology and Evidence Based Medicine; I.M. Sechenov First Moscow State Medical University, Moscow, Russia; Department of Biomedical Technologies

Bauman Moscow State Technical University, Moscow, Russia; Neuroscience Unit; Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Keimyung University, Daegu, South Korea; Department of Health Sciences

Department of Epidemiology and Preventive Medicine; Monash Department of Clinical Epidemiology at Cabrini Hospital

Cabrini Institute, Melbourne, VIC, Australia; Population Studies Division

Health Canada, Ottawa, ON, Canada; Department of Community Medicine

Employee State Insurance Post Graduate Institute of Medical Sciences and Research, Bengalore, India; Department of Health Care Management

Technical University of Berlin, Berlin, Germany; School of Public Health and Health Systems; University of Waterloo, Waterloo, ON, Canada; Al Shifa School of Public Health

Al Shifa Trust Eye Hospital, Rawalpindi, Pakistan; Institute of Microengineering

Department of Nutrition; Department of Medicine

Federal Polytechnic School of Lausanne, Lausanne, Switzerland; Department of Sociology

Peruvian University Cayetano Heredia, Lima, Peru; Internal Medicine Department; Hospital Italiano de Buenos Aires, Buenos Aires, Argentina; Board of Directors

National Institute of Public Health, Cuernavaca, Mexico; School of Medicine

University of the Valley of Cuernavaca, Cuernavaca, Mexico; Centre for Population Health Sciences; Department of Primary Care and Public Health

Nanyang Technological University, Singapore, Singapore; Department of Health Care

Institute for Cancer Research, Prevention and Clinical Network, Florence, Italy

Department of Medical Epidemiology and Biostatistics

Research Unit on Applied Molecular Biosciences (UCIBIO)

National University of Colombia, Bogota, Colombia; Department of Medicine; University of Udine, Udine, Italy; Department of Mental Health

Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

Institute of Health Carlos III, Madrid, Spain; Clinical Epidemiology Program; Healthcare Agency "Friuli Occidentale", Pordenone, Italy; National School of Public Health

Department of Physiology and Pharmacology; Research Triangle Institute International, Research Triangle Park, NC, USA; National Institute of Health Research Nottingham Biomedical Research Centre

Ottawa Hospital Research Institute, Ottawa, ON, Canada; Mary MacKillop Institute for Health Research; School of Public Health

Queen Elizabeth Hospital Birmingham, Birmingham, UK; Institute of Applied Health Research

National Taiwan University Hospital, Taipei, Taiwan; Kidney Health Research Institute

University of Washington, Seattle, WA, USA

University of Hong Kong, Hong Kong, China; College of Medicine; National Taiwan University, Taipei, Taiwan; Department of Nursing

Geisinger Health System, Danville, PA, USA; Cooperative Institute for Research in Environmental Sciences; University of Colorado, Boulder, CO, USA; Chemical Sciences Division

Department of Pharmacology

Queensland Centre for Mental Health Research

Department of Medicine

National Oceanic and Atmospheric Administration Earth System Research Laboratory, Boulder, CO, USA; Research Department

Research School of Population Health

Department of Epidemiology and Preventive Medicine; Melbourne Medical School

Division of Plastic Surgery

Cayetano Heredia University, Lima, Peru; Biomedical Informatics

Seoul National University Hospital, Seoul, South Korea; Bispebjerg Hospital

University of Copenhagen, Copenhagen, Denmark; Faculty of Biology

Department of Otolaryngology

Department of Health Informatics; University College London, London, UK; Health Data Research UK, London, UK

School of Public Health and Preventive Medicine

School of Pharmacy and Medical Sciences; Mekelle University, Mekelle, Ethiopia; Adelaide Medical School

Wayne State University, Detroit, MI, USA; Department of Public Health

University of Naples Federico II, Naples, Italy; Department of Key Questions and International Cooperation; North Rhine-Westphalia (NRW) Centre for Health, Bochum, Germany; Bielefeld School of Public Health

Bielefeld University, Bielefeld, Germany; Health Effects Institute, Boston, MA, USA

Nuffield Department of Medicine

School of Medicine and Surgery

Geisinger Health System, Danville, PA, USA; Cooperative Institute for Research in Environmental Sciences; National Oceanic and Atmospheric Administration Chemical Sciences Laboratory, Boulder, CO, USA

Institute of Neuroscience

School of Medicine and Surgery

Research Unit on Applied Molecular Biosciences (UCIBIO)

Postgraduate Program in Epidemiology

Federal University of Rio Grande do Sul, Porto Alegre, Brazil; Department of Psychology

Department of Medicine; WHO Collaborating Centre for Viral Hepatitis

Office of the Director

Faculty of Medicine and Health

Division of Plastic & Reconstructive Surgery

Environmental Health Department

National Institutes of Health, Bethesda, MD, USA; Department of Cardiology; Central South University, Changsha, China; Department of Mathematics and Statistics; York University, Toronto, ON, Canada; College of Environmental Sciences and Engineering

Peking University, Beijing, China; Faculty of Medicine

Eduardo Mondlane University, Maputo, Mozambique; Clinical Dermatology, IRCCS Istituto Ortopedico Galeazzi; University of Milan, Milan, Italy; Department of Dermatology

University of Dhaka, Dhaka, Bangladesh; Department "G.F.Ingrassia"

Public Health Foundation of India, Gurugram, India

Public Health Foundation of India, Gurugram, India

Department of Pathology

Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health

Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Faculty of Life Sciences and Medicine; Department of Clinical Toxicology

Department of Information Technology

Toxoplasmosis Research Center

Division of Women and Child Health

University of Human Development, Sulaymaniyah, Iraq; Department of Epidemiology and Biostatistics; University of South Carolina, Columbia, SC, USA; James P Grant School of Public Health

Institute for Research and Innovation in Health; Institute of Biomedical Engineering (INEB)

BRAC University, Dhaka, Bangladesh; Central University Tami Nadu, Thiruvarur, India

Department of Global Health and Infection; School of Public Health

Department of Surgery and Cancer; Ear Institute

Department of General Surgery; Latin American Faculty of Social Sciences Mexico, Mexico City, Mexico; Department of Surgery

Clinical Emergency Hospital Sf. Pantelimon, Bucharest, Romania; Health Research Institute

Queensland Health, Brisbane, QLD, Australia; Australian Institute for Suicide Research and Prevention

Heidelberg Institute of Global Health (HIGH)

National Research University Higher School of Economics, Moscow, Russia; Department of Respiratory Medicine

National Drug and Alcohol Research Centre

Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

Dermatology Service; Al Farabi Kazakh National University, Almaty, Kazakhstan; Department of Dermatology

Department of Medical Laboratory Sciences

School of Pharmacy

Department of Pharmacy

Center for Nutrition and Health Research

School of Public Health; Aksum University, Aksum, Ethiopia; Department of Public Health

Wellcome Trust Brighton and Sussex Centre for Global Health Research; School of Public Health

Wachemo University, Hossana, Ethiopia; St Paul's Eye Unit; Department of Ophthalmology

Aristotle University of Thessaloniki, Thessaloniki, Greece; Division of Cardiology

School of Nursing and Midwifery

Department of Nursing

Zabol University of Medical Sciences, Zabol, Iran; Department of Global Public Health; National Centre for AIDS and STD Control

Save the Children, Kathmandu, Nepal; Department of Community Medicine

University of Peradeniya, Peradeniya, Sri Lanka; Department of Microbiology

University of Texas, Houston, TX, USA; Department of Epidemiology; Far Western University, Mahendranagar, Nepal; Department of Epidemiology and Biostatistics

Laboratory of Toxicology

Shahroud University of Medical Sciences, Shahroud, Iran; Center of Complexity Sciences; National Autonomous University of Mexico, Mexico City, Mexico; Faculty of Veterinary Medicine and Zootechnics

Tehran University of Medical Sciences, Tehran, Iran

Institute for Stroke and Dementia Research

Department of Public Health

Autonomous University of Sinaloa, Culiacan Rosales, Mexico; Swedish Family Medicine - First Hill, Seattle, WA, USA

Development of Research and Technology Center

Nguyen Tat Thanh University, Ho Chi Minh City, Vietnam; Department of Social Medicine and Health Care Organisation

Medical University of Varna, Varna, Bulgaria; Department of Population and Health

Centre for Tropical Medicine and Global Health; University of Tampere, Tampere, Finland; Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Faculty of Allied Medicine

Keck School of Medicine

School of Medicine

Department of Health Policy and Management

School of Population Health and Environmental Sciences

Urban Indian Health Institute

Seattle Indian Health Board, Seattle, WA, USA; School of Medicine; Health Sciences

Sydney School of Public Health

Institute of Microbiology and Immunology

Centre for Tropical Medicine and Global Health; University of Tampere, Tampere, Finland; Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Postgraduate Program in Epidemiology

School of Medicine; Federal University of Bahia, Salvador, Brazil; Department of Internal Medicine

Department of Global Health and Social Medicine; Escola Bahiana de Medicina e Saúde Pública, Salvador, Brazil; Department of Social Services

Liver and Pancreaticobilliary Disease Research Center; Non-communicable Diseases Research Center

Tufts Medical Center, Boston, MA, USA; Department of Epidemiology

School of Nursing and Midwifery; Florida International University, Miami, FL, USA; Department of Nursing

Umeå University, Umea, Sweden; Centre Clinical Epidemiology and Biostatistics

University of Newcastle, Newcastle, NSW, Australia; Department of Ophthalmology and Visual Sciences; Institute for Health Care Policy and Innovation

Department of Neurology

University of Michigan, Ann Arbor, MI, USA; Biomedical Informatics and Medical Statistics Department

Alexandria University, Alexandria, Egypt; Department of Clinical Pathology

Pediatric Dentistry and Dental Public Health Department

Mansoura University, Mansoura, Egypt; Department of Public Health

Cardiology Department; Division of Cardiology

Neurophysiology Department

Endemic Medicine and Hepatogastroentrology Department

Massachusetts General Hospital, Boston, MA, USA; Eijkman-Oxford Clinical Research Unit

Ophthalmic Epidemiology Research Center

Queensland Centre for Mental Health Research, Brisbane, QLD, Australia

Preventive Medicine and Public Health Research Center

Department of Medicinal Chemistry; Pharmaceutics Research Center

Multiple Sclerosis Research Center

Tehran Medical Sciences Branch; Department of Physiology

Department of Public Health

Endocrinology and Metabolism Research Center

Endocrinology and Metabolism Research Center

Maragheh University of Medical Sciences, Maragheh, Iran; Division of Cancer Epidemiology and Genetics

Unit of Medical Physiology

Hawassa University, Hawassa, Ethiopia; Independent Consultant, Awka, Nigeria; International Institute for Tropical Agriculture, Ibadan, Nigeria

School of Advanced International Studies

School of Public Health

Department of Political Science

Department of Health Policy and Administration

Iranshahr University of Medical Sciences, Iranshahr, Iran; College of Medicine

Department of Medical Parasitology

Dissemination Division; National Institute of Statistics, Lisbon, Portugal; Activity Planning and Control Unit

Directorate-General of Health (DGS), Lisbon, Portugal; Department of Medical and Surgical Sciences

University of Bologna, Bologna, Italy; Department of Biology and Biotechnology "Lazzaro Spallanzani"; University of Pavia, Pavia, Italy; Department of Biology

Salahaddin University-Erbil, Erbil, Iraq; Department of Psychology

Walden University, Minneapolis, MN, USA; Department of Non-communicable Diseases

Non-communicable Diseases Research Center

Department of Health Policy, Management, and Economics

Department of Environmental Health Engineering; Department of Environmental Health Engineering

National Institute for Stroke and Applied Neurosciences

Department of Neurobiology; Federal University of Sergipe, São Cristóvão, Brazil; Division of Neurology

Associated Laboratory for Green Chemistry (LAQV)

Zahedan University of Medical Sciences, Zahedan, Iran; Research Center on Public Health

Institute of Bone and Joint Research

Department of Health Education and Behavioral Sciences

Psychiatry Department; Kaiser Permanente, Fontana, CA, USA; School of Health Sciences

A.T. Still University, Mesa, AZ, USA; Institute of Gerontological Health Services and Nursing Research

James Cancer Hospital

Unit for Population-Based Dermatology Research

Ravensburg-Weingarten University of Applied Sciences, Weingarten, Germany; Sergio Arouca National School of Public Health, Rio de Janeiro, Brazil; Federal University of Espírito Santo, Vitória, Brazil

Institute of Gerontology

National Academy of Medical Sciences of Ukraine, Kyiv, Ukraine; Department of Child Dental Health

Obafemi Awolowo University, Ile-Ife, Nigeria; Department of Cell Biology and Biotechnology

Timiryazev Institute of Plant Physiology, Moscow, Russia; Department of Global Pediatric Medicine

School of Medicine and Surgery

St Jude Children's Research Hospital, Memphis, TN, USA; Abadan Faculty of Medical Sciences

Abadan School of Medical Sciences, Abadan, Iran; Department of Family Medicine and Primary Care

University of the Witwatersrand, Johannesburg, South Africa; College of Public Health, Medical, and Veterinary Sciences

James Cook University, Douglas, QLD, Australia; Department of Dermatology

Division of Ophthalmology

Gillings School of Global Public Health; Kobe University, Kobe, Japan; Department of Cardiovascular Medicine

Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine

Gandhi Medical College Bhopal, Bhopal, India; Department of Environmental Health Sciences

Cleveland Clinic, Cleveland, OH, USA; National Center for Disease Control and Public Health, Tbilisi, Georgia

Manhiça Health Research Center (CISM), Manhiça, Mozambique; Viral and Bacterial Infections Research Program

Department of Public Health

Department of Medical Laboratory Sciences

Brighton and Sussex Medical School, Brighton, UK; Department of Nursing and Midwifery

Department of Nursing; University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Department of Pharmacy; School of Pharmacy

Department of Clinical Pharmacy; School of Medicine and Public Health

Department of Reproductive Health

Department of Public Health

Institute for Social and Economic Change, Bengaluru, India; Department of Environmental Health

Clinical Hospital, Porto Alegre, Brazil; Department of Preventive Medicine

Department of Epidemiology; College of Medicine and Public Health

La Trobe University, Melbourne, VIC, Australia; Department of Public Health; Flinders University, Adelaide, SA, Australia; Telethon Kids Institute, Perth, WA, Australia

National Institute of Health, Bogota, Colombia; Department of Biostatistics

Department of Radiology and Radiological Science

Infectious Disease Research Center; Pediatric Department

Department of Parasitology and Entomology

Department of Medical Surgical Nursing

Endocrinology and Metabolism Research Center

Occupational Health Department

Health Management and Economics Research Center; Student Research Committee

Institute of Health Research

University of Exeter, Exeter, UK; Research Group for Genomic Epidemiology

University of Cape Town, Cape Town, South Africa; Department of Biology; Young Researchers and Elite Club

Institute for Global Health Sciences

University of California San Francisco, San Francisco, CA, USA; Department of Cardiovascular Endocrine-metabolic Diseases and Aging

Italian National Institute of Health, Rome, Italy; Faculty of Allied Health Sciences; The University of Lahore, Lahore, Pakistan; Afro-Asian Institute, Lahore, Pakistan

Medical School

Mekelle University, Mekelle, Ethiopia; Adelaide Medical School

University of Warwick, Coventry, UK; Department of Community and Family Medicine; Division of General Internal Medicine

Howard University, Washington, DC, USA; Family Medicine Research Center

Ministry of Health, Hail, Saudi Arabia; Discipline of Public Health Medicine; University of KwaZulu-Natal, Durban, South Africa

University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Laboratory of Neurological Disorders

Department of Public Health

Department of Epidemiology and Evidence-Based Medicine

Third Department of Neurology

School of Public Health and Community Medicine

Preventive Medicine and Public Health Research Center

Health Systems and Policy Research

Indian Institute of Public Health Gandhinagar, Gandhinagar, India; Center for the Studies in Regional Development (CSRD); UWA Public Policy Institute

Department of Oral Surgery and Pathology

University of Western Australia, Perth, WA, Australia; Department of Exercise and Health Sciences

University of Massachusetts Boston, Boston, MA, USA; Hudson College of Public Health; University of Oklahoma Health Sciences Center, Oklahoma City, OK, USA; Department of Health and Social Affairs

University of Washington, Seattle, WA, USA; University of Nigeria Nsukka, Enugu, Nigeria; Graduate School of Public Health

Metropolitan Autonomous University, Mexico City, Mexico; Oncological Network, Prevention and Research Institute

Government of the Federated States of Micronesia, Palikir, Federated States of Micronesia; Center for Environmental and Health Sciences; Department of Respiratory Medicine

Faculty of Nursing and Midwifery

University of Oxford, Oxford, UK; Center for Clinical and Epidemiological Research; Department of Internal Medicine

Postgraduate Program in Epidemiology

Department of Dermatology

Department of Primary Care and Public Health; Health Improvement Directorate

Institute of Public Health, College of Medicine and Health Sciences; United Arab Emirates University, Al Ain, United Arab Emirates; Department of Public Health and Preventive Medicine

Department of Biomedical and Biotechnological Sciences

Department of Family and Community Medicine

Department of Health Policy

University of Sulaimani, Sulaimani, Iraq; Department of Epidemiology; Department of Microbiology

Saint James School of Medicine, The Valley, Anguilla; School of Dentistry

State University of Montes Claros, Montes Claros, Brazil; Institute of Tropical Pathology and Public Health (IPTSP)

Federal University of Goias, Goiânia, Brazil; College of Medicine and Health Science

Department of Midwifery

Department of Epidemiology and Preventive Medicine; Jigjiga University, Jijiga, Ethiopia; Department of Epidemiology

Indian Institute of Technology Kanpur, Kanpur, India; Department of Preventive Cardiology; Eternal Heart Care Centre & Research Institute, Jaipur, India; Department of Medicine; Mahatma Gandhi University Medical Sciences, Jaipur, India; Medical Resources; March of Dimes, Arlington, VA, USA; Health Policy, Management and Leadership

Binzhou Medical University, Yantai City, China; Department of Community Medicine

Mahatma Gandhi Institute of Medical Sciences, Sevagram, India; Department of Civil Engineering

West Virginia University School of Public Health, Morgantown, WV, USA; Department of Public Health

Erasmus University Medical Center, Rotterdam, Netherlands; Clinical Neurological Sciences; The University of Western Ontario, London, ON, Canada; Lawson Health Research Institute, London, ON, Canada

College of Medicine

University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Department of Psychology

Kerman University of Medical Sciences, Kerman, Iran; Department of Anatomical Sciences

Umm AL Qura University, Makkah, Saudi Arabia; Department of Family and Community Medicine

Guy's and St. Thomas' NHS Foundation Trust, London, UK; College of Law and Political Science

University Institute of Public Health

Arabian Gulf University, Manama, Bahrain; School of Health and Environmental Studies

Mayo Clinic Foundation for Medical Education and Research, Rochester, MN, USA; Department of Energy, Environmental and Chemical Engineering; Department of Physics and Atmospheric Science

Aksum University, Aksum, Ethiopia; Department of Public Health

University Institute of Public Health

Medical School; Hamdan Bin Mohammed Smart University, Dubai, United Arab Emirates; Department of Neurology

Tabriz University of Medical Sciences, Tabriz, Iran

Research Unit; Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain

Department of Zoology and Entomology

Carol Davila University of Medicine and Pharmacy, Bucharest, Romania; ARC Centre of Excellence for Children and Families over the Life Course; Institute for Social Science Research

Tarbiat Modares University, Tehran, Iran; Department of Healthcare Management

Department of Microbiology; Department of Microbiology

Digestive Diseases Research Institute; Al Azhar University, Cairo, Egypt; Biology Department

Department of Public Health

Department of Neurology

University of Nottingham, Nottingham, UK; Center for International Health (CIH) and Bergen Center for Ethics and Priority Setting (BCEPS)

Utica College, Utica, NY, USA; Caspian Digestive Disease Research Center; Gastrointestinal and Liver Diseases Research Center

School of Nursing and Midwifery; Guilan University of Medical Sciences, Rasht, Iran; Independent Consultant, Tabriz, Iran

Skaane University Hospital

St John's Institute of Dermatology; Skaane County Council, Malmoe, Sweden; International Foundation for Dermatology, London, UK

Institute of Pharmaceutical Sciences; University of Veterinary and Animal Sciences, Lahore, Pakistan; Department of Pharmacy Administration and Clinical Pharmacy

Xian Jiaotong University, Xian, China; Center for Environmental and Respiratory Health Research

Endocrinology and Metabolism Research Center

University of Oulu, Oulu, Finland; Independent Consultant, Santa Clara, CA, USA

School of Public Health

Department of Public Health

Mizan-Tepi University, Mizan Teferi, Ethiopia; School of Business

Medical Biology Research Center

London South Bank University, London, UK; Department for Health

Department of Urban Planning and Design

Europe PMC Funders Author Manuscripts

Department of Psychiatry; Baker Heart and Diabetes Institute, Melbourne, VIC, Australia; Department of Epidemiology

Columbia University, New York, NY, USA; Department of Pediatrics

University of Texas Austin, Austin, TX, USA; Department of Health Economics, Lancaster University, Lancashire, UK

South Australian Health and Medical Research Institute, Adelaide, SA, Australia; Centre for Bio Cultural Studies (CBiCS)

Metrics and Evaluation; Operation Smile, Virginia Beach, VA, USA; Independent Consultant, Virginia Beach, VA, USA

National Human Genome Research Institute (NHGRI); Department of Pulmonology

Yokohama City University, Yokohama, Japan; Department of Epidemiology and Population Health

Albert Einstein College of Medicine, Bronx, NY, USA; Department of Pharmacology

Department of Epidemiology and Biostatistics; Pediatric Chronic Kidney Disease Research Center

Department of Computer Science; Institute of Research and Development

Department of Internal Medicine

Department of Legal Medicine and Bioethics; Duy Tan University, Da Nang, Vietnam; Clinical Legal Medicine Department

National Institute of Legal Medicine Mina Minovici, Bucharest, Romania; Division of Information and Computing Technology

University of Sydney, Sydney, NSW, Australia

Hamad Bin Khalifa University, Doha, Qatar; Faculty of Medicine of Tunis

Department of Health Services Administration

Department of Epidemiology and Health Statistics

China Medical University, Taichung, Taiwan; School of Public Health

Sydney School of Public Health; Zhejiang University, Hangzhou, China; Maternal and Child Health Division

National Research Council, Padova, Italy; Department of Preventive and Social Dentistry

International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh; Department of Public Health and Community Medicine

Shaikh Khalifa Bin Zayed Al-Nahyan Medical College, Lahore, Pakistan; School of Pharmaceutical Sciences

Department of Occupational Safety and Health

Wayne State University, Detroit, MI, USA; Department of Public Health

University of Science Malaysia, Penang, Malaysia; Nigerian Field Epidemiology and Laboratory Training Program; African Field Epidemiology Network, Abuja, Nigeria; Department of Public Health and Disease Control

Department of Health Promotion and Education

Ministry of Health, Umuahia, Nigeria; International Center for Nutrition and Information

Division of Allergy and Infectious Diseases

Department of Community Medicine; Cardiff University, Cardiff, UK; Department of Community Medicine

Faculty of Medicine

National Institutes of Biomedical Innovation, Health and Nutrition, Tokyo, Japan; Department of Epidemiology

University of Kragujevac, Kragujevac, Serbia; Division of Community Health and Family Medicine

Bangalore Baptist Hospital, Bangalore, India; College of Public Health

Research Institute for Endocrine Sciences

Department of Public Health; Graduate Institute of Biomedical Informatics

Institute for Physical Activity and Nutrition; Sydney Medical School

Taipei Medical University, Taipei, Taiwan; Surveillance and Health Services Research

Department of Social Medicine

School of Public Health and Community Medicine

Osaka University, Suita-city, Japan; Department of Biochemistry and Microbiology

Department of Global Health; South African Medical Research Council, Cape Town, South Africa

School of Population and Public Health; University of Fort Hare, Alice, South Africa; Knowledge Translation

Department of Environmental Health Engineering

Centre for Health Evaluation and Outcome Sciences, Vancouver, BC, Canada; Department of Global and Community Health

Department of Immunology

Social Determinants of Health Research Center

Safety Promotion and Injury Prevention Research Center; School of Management and Medical Education

et al.

N. A. Semashko Department of Public Health and Healthcare; Department of Global Health, Economics and Policy

Health Institute; Substance Abuse Prevention Research Center; Substance Abuse Prevention Research Center

Department of Environmental Health Engineering; Kermanshah University of Medical Sciences, Kermanshah, Iran

Manipal College of Pharmaceutical Sciences

Health Informatic Lab

Department of Medical Mycology

George Mason University, Fairfax, VA, USA; Postgraduate Institute of Medicine; University of Colombo, Colombo, Sri Lanka; Faculty of Graduate Studies

Institute for Violence and Injury Prevention, Colombo, Sri Lanka; Achutha Menon Centre for Health Science Studies

Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, India; Department of Community Medicine; Baba Saheb Ambedkar Medical College & Hospital, Delhi, India; Department of Community Medicine

George Institute for Global Health; Manipal Academy of Higher Education, Mangalore, India

Nicholas School of the Environment; Banaras Hindu University, Varanasi, India; Environmental Research Center

Duke Kunshan University, Kunshan, China; Department of Earth Observation Science

The George Institute for Global Health, Sydney, Australia; Independent Consultant, Eiksmarka, Norway

Duke University, Durham, NC, USA; Department of Medicine; University of Twente, Enschede, Netherlands; Renal and Cardiovascular Division

University of Auckland, Auckland, New Zealand; Department of Ophthalmology; Beijing Institute of Ophthalmology

Health Services Management Training Centre

All India Institute of Medical Sciences, Jodhpur, India; Department of Community Medicine and Family Medicine

Utica College, Utica, NY, USA; Caspian Digestive Disease Research Center; Gastrointestinal and Liver Diseases Research Center

Semmelweis University, Budapest, Hungary; Department of Family Medicine and Public Health

University of Opole, Opole, Poland; Institute of Family Medicine and Public Health

Minimally Invasive Surgery Research Center

University of Tartu, Tartu, Estonia; School of Public Health

Infectious Diseases Research Center

Department of Neurology

Health Services Management Research Center

Italian National Institute of Statistics, Rome, Italy; Health Services Management Department; Institute for Prevention of Non-communicable Diseases

Ain Shams University, Cairo, Egypt; Department of Anesthesiology & Pain Medicine

Department of Forensic Medicine and Toxicology

University of Toronto, Toronto, ON, Canada; Department of Forensic Science

Institute for Epidemiology and Social Medicine

Nuffield Department of Population Health; Golestan University of Medical Sciences, Gorgan, Iran; Centre for Therapeutic Target Validation

Social Determinants of Health Research Center; Department of Neuroscience; Department of Physiology; Wellcome Trust Sanger Institute, Cambridge, UK; Department of Health Management and System Sciences; University of Louisville, Louisville, KY, USA; Center for Health Equity

Department of Adult Health Nursing

Louisville Metro Department of Public Health & Wellness, Louisville, KY, USA; College of Health Sciences

Ain Shams University, Cairo, Egypt; Department of Anesthesiology & Pain Medicine

Debre Markos University, Debre Markos, Ethiopia; MRC/CSO Social and Public Health Sciences Unit

Department of Mental Health

University of Tokyo, Tokyo, Japan; International Research Center of Excellence; Julius Centre for Health Sciences and Primary Care

University of Alberta, Edmonton, AB, Canada; Big Data Institute

Open, Distance and eLearning Campus

Cleveland Clinic, Cleveland, OH, USA; National Center for Disease Control and Public Health, Tbilisi, Georgia

University of Nairobi, Nairobi, Kenya; Department of Public Health

Social Determinants of Health Research Center

Jordan University of Science and Technology, Irbid, Jordan; School of Food and Agricultural Sciences

Health Promotion Research Center

University of Management and Technology, Lahore, Pakistan; Department of Epidemiology and Biostatistics

Department of Medical Microbiology & Immunology

The University of Jordan, Amman, Jordan; Epidemiology Department

Health Services Academy, Islamabad, Pakistan; Department of Health Policy and Management; Institute of Health Policy and Management

Seoul National University, Seoul, South Korea; Faculty of Health and Wellbeing; Sheffield Hallam University, Sheffield, UK; College of Arts and Sciences

National Hepatology and Tropical Medicine Research Institute

Department of Medical Parasitology

Global Evidence Synthesis Initiative

Shahid Beheshti University of Medical Sciences, Tehran, Iran; Ohio University, Zanesville, OH, USA; The Iranian Academy of Medical Sciences, Tehran, Iran

Department of Psychiatry

Department of Public Health; Department of Public Health

Department of Health Policy and Management; Department of Public Health

Department of Nutrition and Health Science

Nuffield Department of Surgical Sciences

Department of Public Health

Department of Psychiatry; Ball State University, Muncie, IN, USA; Division of Child & Adolescent Psychiatry

Korea Health Industry Development Institute, Cheongju-si, South Korea

Department of Health Sciences

Clinical Hospital, Porto Alegre, Brazil; Department of Preventive Medicine; School of Traditional Chinese Medicine

Northeastern University, Boston, MA, USA; Department of Nutrition

Simmons University, Boston, MA, USA; Faculty of Health; University of Canberra, Canberra, ACT, Australia; College of Medicine

Oslo Metropolitan University, Oslo, Norway; School of Health Sciences; Kristiania University College, Oslo, Norway; Global Community Health and Behavioral Sciences

Qatar University, Doha, Qatar; Department of Nursing and Health Promotion

University of Manitoba, Winnipeg, MB, Canada; Department of Pediatrics

Europe PMC Funders Author Manuscripts

Jagiellonian University Medical College, Krakow, Poland; Department of Public Health; Hanoi National University of Education, Hanoi, Vietnam; Department of Epidemiology and Public Health

Division of Plastic Surgery

Krishna Institute of Medical Sciences, Karad, India; Centre for Disease Burden

Public Health Sciences Division

Department of Global Health; Fred Hutchinson Cancer Research Center, Seattle, WA, USA; Global Healthcare Consulting, New Delhi, India

Saw Swee Hock School of Public Health; Institute of Health Sciences

Heidelberg Institute of Global Health (HIGH)

Melbourne Medical School, Melbourne, VIC, Australia; Department of Public Health

Gadong, Brunei; Brain Engineering Research Center

School of Population and Public Health; Institute for Research in Fundamental Sciences, Tehran, Iran; Arthritis Research Canada, Richmond, BC, Canada

Federal Research Institute for Health Organization and Informatics of the Ministry of Health (FRIHOI), Moscow, Russia

Department of Epidemiology and Evidence-Based Medicine

Independent Consultant, Jakarta, Indonesia

Department of Global Health

Vancouver Virology Centre, Vancouver, BC, Canada; Department of Internal and Pulmonary Medicine

Barcelona, Spain; Sheri Kashmir Institute of Medical Sciences, Srinagar, India; Biomedical Research Networking Center for Mental Health Network (CIBERSAM)

Harvard Medical School; Department of Zoology

Research Center of Neurology, Moscow, Russia

San Juan de Dios Sanitary Park, Sant Boi de Llobregat, Spain; Department of Anthropology

Institute of Human Virology Nigeria, Abuja, Nigeria; Institute for Risk Assessment Sciences

Panjab University, Chandigarh, India; Department of Psychiatry; Government Medical College Thrissur, Thrissur, India; Kerala University of Health Scinces, Thrissur, India

Department of Social and Preventive Medicine; Department of Demography

University of Montreal, Montreal, QC, Canada; Department of Medical Education and Informatics

King Saud University, Riyadh, Saudi Arabia; Department of Family and Community Health

Public Health Foundation of India, Gurugram, India

Division of Psychology and Language Sciences; Utrecht University, Utrecht, Netherlands; Department of Psychiatry

International Institute for Population Sciences, Mumbai, India

Iran University of Medical Sciences, Tehran, Iran; Brigham and Women's Hospital

Mechanical and Industrial Engineering

Department of Medicine; Institute of Occupational and Environmental Medicine

Imperial College Business School; Indian Institute of Technology, Roorkee, Roorkee, India; Faculty of Public Health

Department of Clinical Sciences and Community Health

Nuffield Department of Population Health; University of Indonesia, Depok, Indonesia; National Institute for Health Research (NIHR) Oxford Biomedical Research Centre, Oxford, UK

Public Health Foundation of India, Gurugram, India

School of Dentistry

Jagiellonian University Medical College, Krakow, Poland; Department of Public Health

University of Ottawa, Ottawa, ON, Canada; Division of Research

Department of Community and Family Medicine

Maragheh University of Medical Sciences, Maragheh, Iran; Division of Cancer Epidemiology and Genetics

University of Baghdad, Baghdad, Iraq; Unit of Genetics and Public Health; Ministry of Health, Herrera, Panama

Centre for Surveillance and Applied Research

St John's Institute of Dermatology

Medical Director; HelpMeSee, New York, NY, USA; General Director

Mexican Institute of Ophthalmology, Queretaro, Mexico; Belo Horizonte City Hall

Department of Infectious Disease Epidemiology

Municipal Health Department of Belo Horizonte, Belo Horizonte, Brazil; Department of Medical Sciences; Uppsala University, Uppsala, Sweden; Department of Clinical Chemistry and Pharmacology

Uppsala University Hospital, Uppsala, Sweden; Department of Otorhinolaryngology

Robinson Research Institute

Institute of Clinical Physiology

Father Muller Medical College, Mangalore, India; Department of Neurology and Psychiatry; German Clinic of Santiago, Santiago, Chile; Faculty of Medicine

Barcelona Institute for Global Health, Barcelona, Spain

Epidemiology, Biostatistics and Occupational Health; Univeristy of Development, Santiago, Chile; Centre for Clinical Epidemiology

Jewish General Hospital, Montreal, QC, Canada; College of Optometry

School of Nursing

School of Pharmacy; Nova Southeastern University, Fort Lauderdale, FL, USA; School of Pharmacy

The Peter Doherty Institute for Infection and Immunity, Melbourne, VIC, Australia; Asbestos Diseases Research Institute

Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Center for Youth Substance Abuse Research

Deakin University, Burwood, VIC, Australia; Department of Prevention

Medical Research Council Population Health Research Unit; Nuffield Department of Population Health

Carlo Besta Neurological Institute IRCCS, Milan, Italy; Department of Sociology

School of Public Health and Preventive Medicine

Shenzhen University, Shenzhen, China; Department of Medicine; University of Malaya, Kuala Lumpur, Malaysia; Department of Medicine and Therapeutics

The Chinese University of Hong Kong, Shatin, China; Asbestos Diseases Research Institute, Concord, NSW, Australia; University Tunis El Manar, Tunis, Tunisia; College of Public Health

UCD Centre for Disability Studies

University College Dublin, Dublin, Ireland; School of Public Health

University of Haifa, Haifa, Israel; Department of Dentistry- Quality and Safety of Oral Health Care; Radboud University, Nijmegen, Netherlands; Department of Translational Health Economics

Chinese Center for Disease Control and Prevention, Beijing, China

Department of Epidemiology

Department of Systems, Populations, and Leadership

Rollins School of Public Health

Department of Paediatrics

Brown University, Providence, RI, USA; Department of Basic Medical Sciences, Neuroscience and Sense Organs; University of Bari Aldo Moro, Bari, Italy; Department Clinical Research in Neurology

Fondazione Cardinale Giovanni Panico Hospital, Tricase, Italy; Population Health Sciences

Melbourne School of Population and Global Health

Department of Nutrition; University of Bristol, Bristol, UK; Alliance for Improving Health Outcomes, Inc., Quezon City, Philippines

World Health Organization (WHO), Geneva, Switzerland; Department of Epidemiology and Evidence Based Medicine

Institute of Nutritional Sciences; Friedrich Schiller University Jena, Jena, Germany; Competence Cluster for Nutrition and Cardiovascular Health (nutriCARD), Jena, Germany

Department of Medicine

University of Alberta, Edmonton, AB, Canada; Big Data Institute

Gandhi Medical College Bhopal, Bhopal, India; Department of Environmental Health Sciences

Department of General Surgery; Liverpool University Hospitals NHS Foundation Trust, Liverpool, UK; Department of Surgery

University of Liverpool, Liverpool, UK; School of Medicine

Swansea University, Swansea, UK; Center for Integration of Data and Health Knowledge

University of the Free State, Park West, South Africa; Epidemiology

Pathology Department

Oswald Cruz Foundation (FIOCRUZ), Salvador, Brazil; Value-based Healthcare

Mansoura Faculty of Medicine, Mansoura, Egypt; Ophthalmology Department

IRCCS MultiMedica, Sesto San Giovanni, Italy; Radiology Department

Grants, Innovation and Product Development Unit

Social Determinants of Health Research Center; Ministry of Health & Population, Aswan, Egypt; Academy of Medical Science,

Radiology and Precision Health Program

Bangladesh Industrial Gases Limited, Tangail, Bangladesh; Institute for Global Health Innovations

Department of Primary Care and Public Health

El Bosque University, Bogota, Colombia; Department of Forensic Medicine; Rajiv Gandhi University of Health Sciences, Dharwad, India; Department of Forensic Medicine

Environmental Health Research Center

Universities of Nottingham & Lincoln, Lincoln, UK; Clinical Research Development Center

Digestive Diseases Research Center; Non-communicable Disease Research Center

Department of Maternal and Child Nursing and Public Health

Institute for Social Science Research

Kurdistan University of Medical Sciences, Sanandaj, Iran; Department of Surgery

Department of Ophthalmology; Ophthalmology Department

Department of General Surgery; University of Virginia, Charlottesville, VA, USA; General Surgery Department I

Substance Abuse Prevention Research Center; Substance Abuse Prevention Research Center

Department of Epidemiology and Biostatistics

Eijkman Institute for Molecular Biology, Jakarta, Indonesia; Psychiatric Epidemiology and Burden of Disease Research

Emergency University Hospital Bucharest, Bucharest, Romania; Department of Population Studies

Institute for Social Science Research

Department of Physics and Atmospheric Science; University of Zambia, Lusaka, Zambia; Department of Energy, Environmental, and Chemical Engineering

Washington University, St Louis, NS, USA; Faculty of Public Health; Airlangga University, Surabaya, Indonesia; Indonesian Public Health Association, Surabaya, Indonesia

Federal Institute of Education, Science and Technology of Ceará, Caucaia, Brazil; Faculty of Health and Education

Department of Clinical Neurosciences and Mental Health; Botho University-Botswana, Gaborone, Botswana; Department of Neurology

Division of Plastic & Reconstructive Surgery

Health Policy Research; Institute of Population Health Sciences

Department of Epidemiology

School of Medicine; Research Division

Medical College of Georgia at Augusta University, Augusta, GA, USA; Department of Twin Research and Genetic Epidemiology

University Hospital Center de Sao Joao, Porto, Portugal; Department of Ophthalmology

Queensland Brain Institute; Singleton Hospital, Swansea, UK; National Centre for Register-based Research

Aarhus University, Aarhus, Denmark; Academic Area of Dentistry

Department of Pharmacy

Wollo University, Dessie, Ethiopia; Neurology Department; Janakpuri Super Specialty Hospital Society, New Delhi, India; Department of Neurology

Tehran Heart Center

Nutrition Health Research Center

Govind Ballabh Institute of Medical Education and Research, New Delhi, India; India Cancer Research Consortium

Lund University, Malmö, Sweden; Department of Epidemiology and Biostatistics

Department of Public Health and Mortality Studies

Indian Council of Medical Research, New Delhi, India; Department of Nutrition

Department of Medical Laboratory Sciences

University of Oslo, Oslo, Norway; Institute of Human Virology

University of Maryland, Baltimore, MD, USA; College of Medicine; Alfaisal University, Riyadh, Saudi Arabia; Research & Innovation Center

Ministry of Health, Riyadh, Saudi Arabia; Peru Country Office

Forensic Medicine Division

Department of Reproductive Health and Population Studies

Department of Midwifery

Department of Medicine; Center for Translation Research and Implementation Science

Clinical Emergency Hospital Sf. Pantelimon, Bucharest, Romania; Health Research Institute; United Nations Population Fund (UNFPA), Lima, Peru; Department of Cardiovascular Surgery

Department of Environmental Health Sciences and Technology

School of Health Sciences; Neurology Unit

University of Helsinki, Helsinki, Finland; Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan; Breast Surgery Unit

Helsinki University Hospital, Helsinki, Finland; Clinical Microbiology and Parasitology Unit; Zora Profozic Polyclinic, Zagreb, Croatia; University Centre Varazdin

University North, Varazdin, Croatia; Center for Innovation in Medical Education; Pomeranian Medical University, Szczecin, Poland

Department of Propedeutics of Internal Diseases & Arterial Hypertension

Department of Women-Mother-Child

Department of Epidemiology and Biostatistics

School of Public Health; Vaud University Hospital Center, Lausanne, Switzerland; Pacific Institute for Research & Evaluation, Calverton, MD, USA

Karolinska Institutet, Stockholm, Sweden; Department of Health Research Methods, Evidence and Impact

Jawahar Lal Nehru University, New Delhi, India; Department of Computer Science and Software Engineering

Global Institute of Public Health; Ananthapuri Hospitals and Research Institute, Trivandrum, India; Women's Institute for Social and Health Studies, Trivandrum, India

Department of Environmental Health; Non-Communicable Diseases Research Centre

Sabzevar University of Medical Sciences, Sabzevar, Iran; Internal Medicine Programme; Kyrgyz State Medical Academy, Bishkek, Kyrgyzstan; Department of Atherosclerosis and Coronary Heart Disease

National Center of Cardiology and Internal Disease, Bishkek, Kyrgyzstan; Research Center for Biochemistry and Nutrition in Metabolic Diseases

Department of Rehabilitation and Sports Medicine

Water Quality Research Center; Comprehensive Research Laboratory

School of Psychiatry

Heidelberg Institute of Global Health (HIGH); Kashan University of Medical Sciences, Kashan, Iran; Institute of Addiction Research (ISFF)

Biotechnology Research Center; Molecular Medicine Research Center

Non-communicable Diseases Research Center

Department of Radiation Oncology

Health Equity Research Center

Department of Medicine; Department of Forestry

Internal Medicine Department

McMaster University, Hamilton, ON, Canada; Department of Epidemiology and Biostatistics; Neuroscience Research Center

Isfahan Cardiovascular Research Institute

Shahrekord University of Medical Sciences, Shahrekord, Iran; Kashmar Center of Higher Health Education

School of Pharmacy

Mashhad University of Medical Sciences, Mashhad, Iran; Department of Public Health

National University of Singapore, Singapore, Singapore; Department of Public Health

Health Systems and Policy Research Unit; Heidelberg Institute of Global Health (HIGH)

National Institute of Health Research (NIHR); Non-communicable Diseases Research Center

Ahmadu Bello University, Zaria, Nigeria; Pediatric Neurorehabilitation Research Center

Faculty of Life Sciences and Medicine

Singleton Hospital, Swansea, UK; National Centre for Register-based Research; Singleton Hospital, Swansea, UK; National Centre for Register-based Research

University of Social Welfare and Rehabilitation Sciences, Tehran, Iran; Clinical Epidemiology and Public Health Research Unit

Burlo Garofolo Institute for Maternal and Child Health, Trieste, Italy; Department of Biomedical and Dental Sciences and Morphofunctional Imaging

Health Sciences Research Center

Shri Dharmasthala Manjunatheshwara University, Dharwad, India; Department of Epidemiology and Biostatistics; Social Determinants of Health Research Center

McGill University, Montreal, QC, Canada; Department of Epidemiology

Department of Mathematical Sciences

Center for Poplulation Health Research

Iran Health Insurance Organization, Tehran, Iran; International Laboratory for Air Quality and Health

Institute for Scientific Research and High Technology Services, Panama City, Panama; Gorgas Memorial Institute for Health Studies, Panama, Panama

University Hospital Center of Porto

Division of Plastic & Reconstructive Surgery

Abt Associates Nepal, Lalitpur, Nepal; Department of Clinical Biochemistry; Department of Clinical Biochemistry

Social Determinants of Health Research Center

Department of Health Policy, Management, and Economics

Queensland University of Technology, Brisbane, QLD, Australia; Department of Food Science

Federal Institute for Population Research, Wiesbaden, Germany; Center for Population and Health, Wiesbaden, Germany

Department of Endocrinology & Metabolism

School of Economics

Seth Sukhlal Karnani Memorial Hospital, Kolkata, India; School of Medical Sciences

Science University of Malaysia, Kubang Kerian, Malaysia; Department of Pediatric Medicine; The Children's Hospital & The Institute of Child Health, Multan, Pakistan; Department of Pediatrics & Pediatric Pulmonology

Department of Microbiology and Immunology

Department of Urology

Department of Obstetrics and Gynecology; Institute of Mother & Child Care, Multan, Pakistan; Knowledge Translation and Utilization Unit

Universities of Nottingham & Lincoln, Lincoln, UK; Clinical Research Development Center

Egyptian Center for Evidence Based Medicine, Egypt; Research and Analytics Department; Initiative for Financing Health and Human Development, Chennai, India; Department of Research and Analytics

Bioinsilico Technologies, Chennai, India; Institute of Epidemiology and Medical Biometry

Department of Cardiology

Ulm University, Ulm, Germany; Comprehensive Cancer Center

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Moscow Institute of Physics and Technology, Dolgoprudny, Russia; Experimental Surgery and Oncology Laboratory

Kursk State Medical University, Kursk, Russia; Department of Pulmonary Medicine; Government Medical College Trivandrum, Trivandrum, India; Health Action by People, Trivandrum, India

Epidemiology and Biostatistics Department

San Bortolo Hospital, Vicenza, Italy; Study Center of the Italian Group for Epidemiologic Research in Dermatology; Department of Dermatology

Nuffield Department of Medicine

Suraj Eye Institute, Nagpur, India

Department for the Control of Disease, Epidemics, and Pandemics; Department of Public Health

Mental Health Research Center; Preventive Medicine and Public Health Research Center

Department of Pediatrics

University of Yaoundé I, Yaoundé, Cameroon; Disease Control and Environmental Health

Cochrane South Africa

Department of General Surgery; Makerere University, Kampala, Uganda; Department of General Surgery

Department of Anatomy and Embryology; Emergency Hospital of Bucharest, Bucharest, Romania; Cardio-Aid, Bucharest, Romania

School of Nursing; School of Health Sciences, Department of Surgical Nursing

University of Cape Coast, Cape Coast, Ghana; Department of Health Sciences

Research & Statistics Unit

Synotech Consultants, Nairobi, Kenya; Department of Biological Sciences

Faculty of Pharmacy

Ministry of Health and Medical Education, Tehran, Iran; Center of Excellence in Behavioral Medicine

Malaria Atlas Project

Department of Reproductive Health and Population Studies

University of Embu, Embu, Kenya; Institute for Mental Health Policy Research; Centre for Addiction and Mental Health, Toronto, ON, Canada; Department of Clinical Epidemiology

Obesity Research Center

Hormozgan University of Medical Sciences, Bandar Abbas, Iran

South African Medical Research Council, Cape Town, South Africa; School of Public Health and Family Medicine

Department of Global Health Policy; Institute for Clinical Evaluative Sciences, Ottowa, ON, Canada; Department of Health Policy and Management

Europe PMC Funders Author Manuscripts

Department of Global Health and Population; Department of Global Public Health and Primary Care

Technical University of Denmark, Copenhagen, Denmark; Department of Clinical Sciences

Centre for Heart Rhythm Disorders

Department of Public Health

Department of Neurobiology, Care Sciences and Society

Department of Global Health, School of Public Health

Keio University, Tokyo, Japan; Administrative and Economic Sciences Department

Translational Health Research Institute

Department of Obstetrics and Gynecology

University of Bucharest, Bucharest, Romania; Department of Preventive Medicine

Kyung Hee University, Dongdaemun-gu, South Korea; Disease Surveillance and Epidemic Response

Gorgan Congenital Malformations Research Center

Department of Psychiatry and Behavioural Neurosciences; Ministry of Health, Nairobi, Kenya; Department of Psychiatry

University of Lagos, Lagos, Nigeria; Centre for Healthy Start Initiative, Lagos, Nigeria

University of Lagos, Lagos, Nigeria; Centre for Healthy Start Initiative, Lagos, Nigeria

Department of Health Promotion and Education

Diplomacy and Public Relations Department

Department of Public Health

Pantai Jerudong Specialist Centre, Bandar Seri Begawan, Brunei; Noncommunicable Disease Prevention Unit; Early Detection and Cancer Prevention Services

Ministry of Health, Bandar Seri Begawan, Brunei; Department of Pharmacology and Therapeutics

Substance Related Harms Division; School of Epidemiology and Public Health

National Public Health Institute, Cuernavaca, Mexico; Department of Medicine; Autonomous University of Madrid, Madrid, Spain; Department of Nephrology and Hypertension

The Institute for Health Research Foundation Jiménez Díaz University Hospital, Madrid, Spain; Department of Environmental Management and Toxicology

Faculty of Geo-Information Science and Earth Observation; University of Benin, Benin City, Nigeria; Department of Mathematics and Statistics

University of Energy and Natural Resources, Sunyani, Ghana; Biomedical Sciences

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Department of Project Management

Department of Psychosocial Science; Division of Mental and Physical Health

Department of Medicine; Department of Medicine

Department of Forensic Medicine

Department of Medicine

All India Institute of Medical Sciences, Jodhpur, India; Department of Community Medicine and Family Medicine

Department of Parasitology and Mycology

Department of Primary Care and Public Health; Wayne State University, Detroit, MI, USA; Department of Public Health

Jagadguru Sri Shivarathreeswara Academy of Health Education and Research, Mysore, India; Department of Health Metrics

Case Western Reserve University, Cleveland, OH, USA; Department of Research

Center for Health Outcomes & Evaluation, Bucharest, Romania; National Institute of Health Research and Development

Ministry of Health, Jakarta, Indonesia; Department of Medical Humanities and Social Medicine

Department of Biostatistics

Haramaya University, Harar, Ethiopia; Department of Biostatistics and Epidemiology; National Institute for Stroke and Applied Neurosciences

Department of Psychiatry; Stellenbosch University, Cape Town, South Africa; Alcohol, Tobacco & Other Drug Research Unit

Kosin University, Busan, South Korea; Division of General Internal Medicine

University of Pittsburgh Medical Center, Pittsburgh, PA, USA; Department of Epidemiology

University of Arkansas for Medical Sciences, Little Rock, AR, USA; Department of Poverty, Gender and Youth

Department of Global Public Health-Health Systems and Policy; Kalinga Institute of Medical Sciences, Bhubaneswar, India; Department of Pediatrics

University of Sinu, Cartagena, Colombia; Research & Development Department

RD Gardi Medical College, Ujjain, India; Community Health Sciences Department

Department of Paediatrics; Population Health Theme

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Center for International Health; Atlanta Veterans Affairs Medical Center, Decatur, GA, USA; Health, Nutrition, and HIV/AIDS Program

Murdoch Childrens Research Institute, Melbourne, VIC, Australia; Public Health Youth Society of Nepal, Pokhara, Nepal; Public Health Update, Pokhara, Nepal

Department of Physiology; Physiology Research Center

School of Public Health and Community Medicine; University of the Witwatersrand, Johannesburg, South Africa; College of Public Health, Medical, and Veterinary Sciences

Center for Research and Innovation

School of Global Public Health

Department of Genetics; Laboratory of Genetics and Molecular Cardiology

New York University, New York, NY, USA; Department of Orthopedics

Mario Negri Institute for Pharmacological Research, Milan, Italy

Yenepoya Medical College, Mangalore, India; Center for Integration of Data and Health Knowledge

School of Optometry and Vision Science

Department of Psychiatry; Oswaldo Cruz Foundation, Salvador, Brazil; Shanghai Mental Health Center

Shanghai Jiao Tong University, Shanghai, China; SSD Epidemiology Screening

City of Health and Science University Hospital of Turin, Turin, Italy; Department of Cardiology

Department of Chemistry

Research Center of Neurology, Moscow, Russia

Non-communicable Diseases Research Center; Uro-oncology Research Center

University of Bern, Bern, Switzerland; Department of Environmental Hygiene

German Environment Agency, Dessau-Roßlau, Germany; HIV and Mental Health Department

Department of Epidemiology and Evidence-Based Medicine

Department of Public health

Department of Medicine

Discipline of General Practice

School of Economics and Business; University Medical Center Groningen

Pharmacology Department

Shahed University, Tehran, Iran; Dietary Supplements and Probiotic Research Center; Department of Nutrition and Food Sciences

School of Population and Public Health

Department of Emergency Medicine

Digestive Diseases Research Institute

Department of Population Health Monitoring and Analysis

Integrated Development Foundation Nepal, Kathmandu, Nepal; Clinical Research Center; Valle del Lili Foundation; Center for Studies in Social Protection and Health Economics

Charotar University of Science and Technology, Anand, India; Department of Neurology

ICESI University, Cali, Colombia; Askok & Rita Patel Institute of Physiotherapy

Smt. B.K.S. Medical Institute and Research Center, Vadodara, India; Department of Nephrology

Department of Infectious Diseases; Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India; National Institute of Infectious Diseases, Bucuresti, Romania

Health Sciences Department

Department of Neuroscience

Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine

Muhammadiyah University of Surakarta, Sukoharjo, Indonesia; Biomedical Engineering Department

Government Institute of Forensic Science, Nagpur, India; Chemistry Department

Amirkabir University of Technology, Tehran, Iran; College of Medicine

Yale University, New Haven, CT, USA; Department of Medicine

Department of Immunology; Molecular and Cell Biology Research Center

Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Metabolomics and Genomics Research Center; Thalassemia and Hemoglobinopathy Research Center

School of Nursing and Midwifery; University of Central Florida, Orlando, FL, USA; Department of Community Medicine; Maharishi Markandeshwar Institute of Medical

RUDN University, Moscow, Russia; European Office for the Prevention and Control of Noncommunicable Diseases

Division of Cardiology

School of Pharmacy

University Institute of Public Health; Federation University Australia, Berwick, VIC, Australia; Public Health Department

University of Health Sciences, Lahore, Pakistan; Research Department; Policy Research Institute, Kathmandu, Nepal; Health and Public Policy Department

Global Center for Research and Development, Kathmandu, Nepal; Department of Medicine; University of Otago, Wellington, New Zealand; Department of Neurology

Capital & Coast District Health Board, Wellington, New Zealand; Department of Oral Pathology

University of Belgrade, Belgrade, Serbia; Institute of Collective Health

Tehran Institute of Psychiatry

Department of Radiation Oncology; All India Institute of Medical Sciences, Bhopal, India; Department of Radiation Oncology, All India Institute of Medical Sciences, New Delhi, India

WHO Collaborating Centre for Public Health Education and Training; Srinivas Institute of Dental Sciences, Mangalore, India; University College London Hospitals, London, UK

Department of Primary Care and Public Health; Boston University, Boston, MA, USA; Academic Public Health England

School of Health, Medical and Applied Sciences

Hokkaido University, Sapporo, Japan; Department of Computer Science

Hacettepe University, Ankara, Turkey; Department of Mathematical Demography & Statistics

School of Public Health

CQ University, Sydney, NSW, Australia; School of Nursing and Midwifery

School of Social Sciences and Psychology; Translational Health Research Institute

School of Optometry and Vision Science; Royal College of Surgeons in Ireland -Bahrain, Muharraq Governorate, Bahrain; Brien Holden Vision Institute, Sydney, NSW, Australia Endocrinology and Metabolism Research Center; Non-communicable Diseases Research Center; Research Center for Immunodeficiencies; Network of Immunity in Infection, Malignancy and Autoimmunity (NIIMA)

Pediatric Infectious Diseases Research Center

Health Management and Economics Research Center

Ludwig Maximilians University, Munich, Germany; Cardiovascular Diseases Research Center

University of British Columbia, Vancouver, BC, Canada; Centre of Telehealth; Department of Internal Medicine

School of Physiotherapy

Department of Chemical Sciences

Universal Scientific Education and Research Network (USERN), Tehran, Iran; Department of Surgery; University of Minnesota, Minneapolis, MN, USA; Department of Surgery

Director General

National Institute for Stroke and Applied Neurosciences

Western Sydney University, Sydney, VIC, Australia; Department of Psychology

Center for Nutrition and Health Research

University Teaching Hospital of Kigali, Kigali, Rwanda; Department of Clinical Research

Federal University of Uberlândia, Uberlândia, Brazil; Department of Neuroscience; University of Perugia, Perugia, Italy; Department of Neurology

University of Social Welfare and Rehabilitation Sciences, Tehran, Iran; Clinical Epidemiology and Public Health Research Unit

Foundation for Scientific Research (FORS), Cotonou, Benin; Centre for Alcohol Policy Research; Rimini "Infermi" Hospital - AUSL Romagna, Rimini, Italy; Centre for Social Research on Alcohol and Drugs

University College Cork, Cork, Ireland; Golestan Research Center of Gastroenterology and Hepatology (GRCGH)

Stockholm University, Stockholm, Sweden; School of Medicine

Division of Cardiology

Gonabad University of Medical Sciences, Gonabad, Iran; Agrosavia, Palmira, Colombia

Malaria Atlas Project; Department of Health Statistics

National Institute for Medical Research, Dar es Salaam, Tanzania; Department of Internal Medicine

Georgetown University, Washington DC, DC, USA; Department of Cardiovascular Medicine

School of Psychiatry; University of Botswana, Gaborone, Botswana; Neuropsychiatric Institute

Department of Family and Community Medicine

Cairo University, Cairo, Egypt; Cardiac Rehabilitation Research Center

Non-communicable Diseases Research Center

Ophthalmic Epidemiology Research Center; Ophthalmic Research Center

Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran; Aging Research Institute; Department of Community Medicine

Department of Psychiatry

Neurogenic Inflammation Research Center; Prince of Wales Hospital, Randwick, NSW, Australia; Halal Research Center of IRI

Multiple Sclerosis Research Center

University of Agriculture, Faisalabad, Faisalabad, Pakistan; Department of Phytochemistry; Soran University, Soran, Iraq; Department of Nutrition

Department of Anatomical Sciences

Cihan University-Erbil, Kurdistan Region, Iraq; Department of Microbiology

Health Hub

Sina Trauma and Surgery Research Center

Department of Radiology and Nuclear Medicine; Central University of Punjab, Bathinda, India; Research Department

Urology Department

Public Health and Community Medicine Department

Department of Epidemiology and Biostatistics

Digestive Diseases Research Institute

Taleghani Hospital, Kermanshah, Iran; Global Health Institute

American University of Beirut, Beirut, Lebanon; Center for Health Policy & Center for Primary Care and Outcomes Research

Stanford University, Stanford, CA, USA; Health and Disability Intelligence Group

Department of Medicine; Department of Medicine

Drug Applied Research Center

South African Medical Research Council, Cape Town, South Africa

Weill Cornell Medical College in Qatar, Doha, Qatar; Department of Entomology

Department of Nutrition and Preventive Medicine; Ministry of Health, Wellington, New Zealand; Department of Surgery

West Moreton Hospital Health Service

University of Oxford, Oxford, UK; Center for Clinical and Epidemiological Research; Department of Internal Medicine

Center for Health Technology and Services Research; Marshall University, Huntington, WV, USA; Public Health Unit, ACES Grande Porto VIII - Espinho/Gaia

Northern Region Health Administration, Vila Nova de Gaia, Portugal; Department of Community Medicine; PSG Institute of Medical Sciences and Research, Coimbatore, India; PSG-FAIMER South Asia Regional Institute, Coimbatore, India

University of Applied and Environmental Sciences, Bogota, Colombia; National School of Public Health; Faculty of Medicine

Isfahan Cardiovascular Research Institute; School of Population and Public Health

Isfahan University of Medical Sciences, Isfahan, Iran; Colorectal Research Center

Carlos III Health Institute, Madrid, Spain; Department of Geriatrics and Long Term Care; Hamad Medical Corporation, Doha, Qatar; Faculty of Health & Social Sciences

Population Health Research Institute

Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Bournemouth University, Bournemouth, UK; GSK Biologicals, Wavre, Belgium

Department of Paediatrics; University of Calgary, Calgary, AB, Canada; Centre for Adolescent Health

Tribhuvan University, Kathmandu, Nepal; Department of Community Medicine; Department of Epidemiology

School of Public Health

Indian Institute of Public Health, Gandhinagar, India; Market Access

Taylor's University Lakeside Campus, Subang Jaya, Malaysia; Neurology, Public Health and Disability Unit

Dobney Hypertension Centre; University of Bath, Bath, UK; Hypertension and Kidney Disease Laboratory

Postgraduate Program in Epidemiology

University of New South Wales; Bayer, Istanbul, Turkey; Unit for Hypertension and Cardiovascular Disease

Department of Psychology

North-West University, Potchefstroom, South Africa; Oral Diagnosis, Digital Health and Health Services Research

Department of Psychiatry

Charité University Medical Center Berlin, Berlin, Germany; Department of Medical Statistics, Epidemiology and Medical Informatics; University of Zagreb, Zagreb, Croatia; Department of Epidemiology and Prevention of Chronic Noncommunicable Diseases

Department of Food Science and Nutrition

Croatian Institute of Public Health, Zagreb, Croatia; Emergency Department

Digestive Diseases Research Institute; Non-communicable Disease Research Center

School of Public Health; Manian Medical Centre, Erode, India; Environmental Health Associates LLC, Englewood, CO, USA

Department of Environmental Sciences and Engineering

Center for Biomedical Information Technology

Non-communicable Diseases Research Center; Department of Cardiology

Department of Radiology and Radiological Science

Health Policy Research Center

Shenzhen Institutes of Advanced Technology, Shenzhen, China; Public Health Division

An-Najah National University, Nablus, Palestine; Independent Consultant, Karachi, Pakistan

Department of Neurology

Department of Rehabilitation and Sports Medicine

Faculty of Caring Science, Work Life, and Social Welfare

University of Borås, Borås, Sweden; Department of Community Medicine

Razi Herbal Medicines Research Center

HIV/STI Surveillance Research Center, and WHO Collaborating Center for HIV Surveillance

BLDE University, Vijayapur, India; University School of Management and Entrepreneurship

Division of General Internal Medicine; Delhi Technological University, Delhi, India; Centre for Medical Informatics

Health Information Management

Institute for Population Health

Dalla Lana School of Public Health; University of Embu, Embu, Kenya; Institute for Mental Health Policy Research

Department of Nursing

Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India; National Institute of Infectious Diseases, Bucuresti, Romania

University of Edinburgh, Edinburgh, UK; College of Medicine

Korea University, Seoul, South Korea

Yonsei University, Seoul, South Korea; Finnish Institute of Occupational Health, Helsinki, Finland

Cancer Biology Research Center; Cancer Research Institute

Faculty of Dental Sciences

Harvard University, Boston, MA, USA

University College Dublin, Dublin, Ireland; School of Public Health

Department of Health Education and Health Promotion; Department of Health Education and Health Promotion; School of Health

University of Technology Sydney, Sydney, NSW, Australia; Medical Research Agency, Warsaw, Poland; School of Medicine

Department of Health and Behavior Studies; Cardinal Wyszynski University, Warsaw, Poland; Department of Psychology

Cardinal Wyszynski University, Warsaw, Poland; Department of Psychology

Reykjavik University, Reykjavik, Iceland; Department of Physical Education

Research Unit on Applied Molecular Biosciences (UCIBIO)

Federal University of Santa Catarina, Florianopolis, Brazil; Department of Law, Economics, Management and Quantitative Methods; University of Sannio, Benevento, Italy; WSB University, Gda sk, Poland

US Department of Veterans Affairs; University of Tasmania, Hobart, TAS, Australia; Global Patient Outcome and Real World Evidence

School of Medicine; Medicine Service

Department of Humanities and Social Sciences

Eli Lilly and Company, Indianapolis, IN, USA; Department of Epidemiology; School of Preventive Oncology, Patna, India; Department of Epidemiology

Healis Sekhsaria Institute for Public Health, Mumbai, India; Department of Ophthalmology

Hywel Dda University Health Board, Llanelli, UK; Department of Sports Science and Clinical Biomechanics; University of Southern Denmark, Odense, Denmark; Department of Physiotherapy and Occupational Therapy

Næstved-Slagelse-Ringsted Hospitals, Slagelse, Denmark; Department No.16

Hatter Institute Department of Medicine

Institute of Bone and Joint Research; Pain Management Research Institute (PMRI)

Ministry of Public Health, Yaoundé, Cameroon; Department of Internal Medicine and Specialties; Moscow Research and Practical Centre on Addictions, Moscow, Russia; Department of Endocrinology and Diabetes

Yaoundé Central Hospital, Yaoundé, Cameroon; Nursing Care Research Center

Semnan University of Medical Sciences, Semnan, Iran; Department of Infectious Diseases

Kharkiv National Medical University, Kharkiv, Ukraine; Demography and Population Studies Department

Department of Global Health

University of Witwatersrand, Johannesburg, South Africa; Centro de Investigación Biomédica en Red Enfermedades Respiratorias (CIBERES), Madrid, Spain

Department of Public Health

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Department of Research Development

Hull York Medical School

Department of Parasitology and Mycology

University of Hull, Hull City, UK; Division of Community Medicine

International Medical University, Kuala Lumpur, Malaysia; David Geffen School of Medicine

University of California Los Angeles, Los Angeles, CA, USA; Centre for Global Health Inequalities Research (CHAIN)

Public Health England, London, UK; Norwegian University of Science and Technology, Trondheim, Norway; Department of Primary Care and Public Health

Management Department

Postgraduate Program in Epidemiology

Risk and Resilience in Mental Disorders Research Unit

Division of Brain Sciences; Department of Neuromedicine and Movement Science

University of East Anglia, Norwich, UK; Occupational and Environmental Medicine Department

Local Health Authority of Florence, Firenze, Italy; Department of Psychology

Europe PMC Funders Author Manuscripts

Department of Neuromedicine and Movement Science; University of Gothenburg, Gothenburg, Sweden; Department of Neurology and Clinical Neurophysiology

Barcelona Institute for Global Health, Barcelona, Spain; St. Olavs Hospital, Trondheim, Norway; Schiller Institute

Department of Epidemiology & Biostatistics; Boston College, Boston, MA, USA; Department of Population Health

Department of Psychiatry

King's College London, London, UK; Department of Pediatrics

Nursing Department

Dire Dawa University, Dire Dawa, Ethiopia; Department of Community Medicine

Monash University, Melbourne, VIC, Australia; Department of Agriculture and Food Systems

Luxembourg Institute of Health, Strassen, Luxembourg; Department of Statistics; National Institute of Epidemiology

Norwegian Institute of Public Health, Bergen, Norway

Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli, India; Pediatric Services; King Hussein Cancer Center, Amman, Jordan; Pediatrics Department

University of Jordan, Amman, Jordan; Delos Labs

Delos Living, New York, NY, USA; Department of Criminology, Law, and Society

Beijing Tongren Hospital, Beijing, China; Faculty of Health and Public Administration

University of California Irvine, Irvine, CA, USA; Minister of Health

University of Valencia, Valencia, Spain; School of Social Work

University of Illinois, Urbana, IL, USA; Cancer Control Center

School of Dentistry and Oral Health

Osaka International Cancer Institute, Osaka, Japan; Department of Pharmacy

University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Arbaminch College of Health Sciences, Arbaminch, Ethiopia; Institute of Public Health, Lahore, Pakistan

Tehran Heart Center

The Chinese University of Hong Kong, Shatin, China; Asbestos Diseases Research Institute, Concord, NSW, Australia

International Comion on Occupational Health, Monteporzio Catone, Rome, Italy; University of Cape Coast, Cape Coast, Ghana; Department of Health Sciences

Department of Midwifery

University of KwaZulu-Natal, Durban, South Africa; Africa Health Research Institute, Berea, South Africa

Department of Population Science and Human Resource Development

University of Rajshahi, Rajshahi, Bangladesh; Research and Development Center for Humanities and Health Management

National Institute of Health Research & Development, Jakarta, Indonesia; University Institute Egas Moniz, Monte da Caparica, Portugal; Research Institute for Medicines

National Eye Institute

Department of Public Health

University of Basel, Basel, Switzerland

Department of Clinical Pharmacy

Department of Public Health

School of Public Health

Pediatric Intensive Care Unit

Department of Epidemiology and Biostatistics

Department of Epidemiology and Biostatistics

Massachusetts Veterans Epidemiology Research and Information Center (MAVERIC) & CSP Coordinating Center; University of Lisbon, Lisbon, Portugal; Division of Biostatistics and Epidemiology

Texas Tech University, El Paso, TX, USA; Department of Public Health and Community Medicine

Central University of Kerala, Kasaragod, India; Department of Endocrinology, Diabetes and Metabolism

Department of Medicine

Ateneo De Manila University, Pasig City, Philippines; Department of Environmental Medicine

University of Alabama at Birmingham, Birmingham, AL, USA; Laboratory of Public Health Indicators Analysis and Health Digitalization; Christian Medical College and Hospital (CMC), Vellore, India; Timiryazev Institute of Plant Physiology

Ministry of Health, Hail, Saudi Arabia; Discipline of Public Health Medicine

Department of Epidemiology and Biostatistics; HIV/STI Surveillance Research Center, and WHO Collaborating Center for HIV Surveillance

Department of Medicine

Royal Liverpool University Hospital, Liverpool, UK; 1st Department of Ophthalmology

National Institute for Health and Medical Research (INSERM), Paris, France; Health, Medicine and Human Biology; Nutritional Epidemiology Research Team (EREN)

Institute of Human Virology Nigeria, Abuja, Nigeria; Institute for Risk Assessment Sciences (IRAS)

Department of Health Economics

Rigshospitalet

Abu Dhabi University, Khalifa City, United Arab Emirates; Department of Psychiatry; Hanoi Medical University, Hanoi, Vietnam; Mbarara University of Science and Technology, Mbarara, Uganda

Department of Medicine

Lee Kong Chian School of Medicine

Biomedical Research Networking Center for Mental Health Network (CiberSAM), Barcelona, Spain; St. John of God Health Park

School of Health and Rehabilitation Sciences

University of Crete, Heraklion, Greece; Department of Microbiology; Iqra National University, Peshawar, Pakistan; TB Culture Laboratory

Food and Drug Administration of the Islamic Republic of Iran, Tehran, Iran; Institute of Soil and Environmental Sciences

Mufti Mehmood Memorial Teaching Hospital, Dera Ismail Khan, Pakistan; Department of Community Medicine

Alex Ekwueme Federal University Teaching Hospital Abakaliki, Abakaliki, Nigeria; School of Government; Pontifical Catholic University of Chile, Santiago, Chile; Schneider Institutes for Health Policy

Brandeis University, Waltham, MA, USA; Amity Institute of Biotechnology

Division of Health Sciences

Department of General Surgery and Medical-Surgical Specialties

University of Jordan, Amman, Jordan; Delos Labs

Argentine Society of Medicine, Buenos Aires, Argentina; Amity University Rajasthan, Jaipur, India; Velez Sarsfield Hospital, Buenos Aires, Argentina

Department of General Surgery and Medical-Surgical Specialties

Mayo Clinic Foundation for Medical Education and Research, Rochester, MN, USA; Department of Energy, Environmental and Chemical Engineering; Department of Physics and Atmospheric Science

Laboratory of Toxicology

Department of Nephrology

UKK Institute, Tampere, Finland

Department of Statistics

University of Brasilia, Brasilia, Brazil; Psychosocial Injuries Research Center

Yong Loo Lin School of Medicine; Ilam University of Medical Sciences, Ilam, Iran; Raffles Neuroscience Centre

Raffles Hospital, Singapore; Department of Neurology; Infermi Hospital, Rimini, Italy; Department of Neurology & Stroke Unit

Directorate-General of Health; Sant'Anna Hospital, Como, Italy; Occupational Health Unit

University of Novi Sad, Novi Sad, Serbia; Department of Health Care Administration and Economics

Ministry of Health and Medical Education, Tehran, Iran; Center of Excellence in Behavioral Medicine

Faculty of Medicine Institute of Epidemiology

Royal Melbourne Institute of Technology University, Melbourne, VIC, Australia; Department of Pediatric and Preventive Dentistry

School of Medicine

Sant'Orsola Malpighi Hospital, Bologna, Italy; Department of Pediatric Endocrinology

Department of Public Health

Mother and Child Healthcare Institute of Serbia "Dr Vukan Cupic", Belgrade, Serbia; Foundation University Medical College

School of Medicine; Department of Neurology

School of Public Health; Xiamen University Malaysia, Sepang, Malaysia; Cultures, Societies and Global Studies, & Integrated Initiative for Global Health

George Washington University, Washington, DC, USA; School of Health Sciences

Wuhan University, Wuhan, China; Division of Social Science

Department of Psychiatry; School of Population Health and Environmental Sciences

Department of Epidemiology and Biostatistics

Great Ormond Street Institute of Child Health

Foundation University Islamabad, Islamabad, Pakistan; Department of Epidemiology and Biostatistics

Medical School

Critical Care and Neurosciences Department; Hong Kong University of Science and Technology, Hong Kong, China; Cardiology Department

Malaria Atlas Project

Royal Children's Hospital, Melbourne, VIC, Australia; Leonard Davis Institute of Health Economics; Population Studies Center

Department of Midwifery

University of Colorado Denver, Aurora, CO, USA; Department of Nursing

Demographic Change and Aging Research Area

Ambo University, Ambo, Ethiopia; Department of Environmental Sciences and Engineering

University of Campinas (Unicamp), Campinas, Brazil; Competence Center of Mortality-Follow-Up of the German National Cohort

University of Pennsylvania, Philadelphia, PA, USA; Department of Physical Therapy

Naresuan University, Phitsanulok, Thailand; Department of Community Medicine

Department of Neurology; Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka; Department of Medicine

South African Medical Research Council, Cape Town, South Africa; School of Public Health and Family Medicine

Department of Population Health Monitoring and Analysis

School of Pharmacy

University of Rajarata, Saliyapura Anuradhapuraya, Sri Lanka; NIHR Biomedical Research Centre

National University of Singapore, Singapore, Singapore; Department of Public Health

School of Nursing and Midwifery; Autonomous University of Hidalgo State, Pachuca, Mexico; Department of Nursing

Guy's and St.Thomas' Hospital and Kings College London, London, UK; Department of Orthopaedics

Duke Global Health Institute; Global Health Research Center

Wenzhou Medical University, Wenzhou, China; Department of Behavior and Operation Management

Beijing Advanced Innovation Center for Big Data-based Precision Medicine, Beijing, China; School of Medicine

Nanjing University, Nanjing, China; Clinical Cancer Research Center

University of Glasgow, Glasgow, UK; Department of Diabetes and Metabolic Diseases

Milad General Hospital, Tehran, Iran; Research and Development Center for Health Services; American Cancer Society, Atlanta, GA, USA; Graduate School of Medicine

General Education Department; Social Determinants of Health Research Center

Newcastle University, Newcastle upon Tyne, UK; Department of Family Medicine and Community Health

The George Institute for Global Health; School of International Development and Global Studies

National Cancer Institute, Bethesda, MD, USA; School of Nursing

Department of Nursing

University of Tsukuba, Tsukuba, Japan; Pediatrics Department; University of Jos, Jos, Nigeria; Department of Pediatrics

University of Burgundy, Dijon, France; Department of Public Health

Australian Catholic University, Melbourne, VIC, Australia; Centre for Suicide Research and Prevention; Department of Social Work and Social Administration

Jos University Teaching Hospital, Jos, Nigeria; Department of Neuropsychopharmaology; National Center of Neurology and Psychiatry, Kodaira, Japan; Department of Public Health

Department of Health Education and Promotion

Juntendo University, Tokyo, Japan; Department of Health Policy and Management; Jackson State University, Jackson, MS, USA; School of Medicine

Tsinghua University, Beijing, China; Department of Immunology

Molecular Medicine Research Center

Sebelas Maret University, Surakarta, Indonesia; Department of Environmental Health

Physiology Research Center

Injury Prevention and Safety Promotion Research Center

Department of Public Health

Department of Epidemiology and Biostatistics; Global Health Institute

University of Pittsburgh, Pittsburgh, PA, USA; School of Public Health and Management

Gazi University, Ankara, Turkey; Cancer Institute

Qazvin University of Medical Sciences, Qazvin, Iran; Department of Health Care Management and Economics

Duke Global Health Institute

Social Determinants of Health Research Center

Hubei University of Medicine, Shiyan, China; Department of Pharmaceutics

Department of Parasitology and Entomology

The School of Clinical Sciences at Monash Health; Zhejiang University, Hangzhou, China; Maternal and Child Health Division

Student Research Committee

McGill University, Montreal, QC, Canada; Department of Epidemiology

University of Ibadan, Ibadan, Nigeria; Department of Community Medicine; Social Determinants of Health Research Center

Psychiatry and Psychology Research Center

Laboratory of Genetics and Genomics; Dow University of Health Sciences, Karachi, Pakistan; Addictology Department

School of Pharmacy

Department of General Practice; Russian Medical Academy of Continuous Professional Education, Moscow, Russia; Victorian Comprehensive Cancer Centre, Melbourne, VIC, Australia

Hubei Province Key Laboratory of Occupational Hazard Identification and Control; School of Public Health

School of Medicine

George Washington University, Washington, DC, USA; School of Health Sciences; Wuhan University of Science and Technology, Wuhan, China; School of Biology and Pharmaceutical Engineering

Nuffield Department of Medicine

Wuhan Polytechnic University, Wuhan, China; Global Strategy and Advocacy Unit

Heidelberg University Hospital, Heidelberg, Germany; National Center for Chronic and Noncommunicable Disease Control and Prevention

Children's HeartLink, Minneapolis, MN, USA; Department of Epidemiology, Human Genetics, and Environmental Sciences, University of Texas Health Science Center at Houston, Houston, TX, USA

Indian Institute of Public Health

Acknowledgments

L Abreu acknowledges support from Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Brazil, Finance Code 001 and Conselho Nacional de Desenvolvimento Científico e Tecnológico. A Agrawal acknowledges support from the Wellcome DBT Senior Fellowship IA/CPHS/14/1/501489. S Aljunid acknowledges the Department of Health Policy and Management, Faculty of Public Health, Kuwait University 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. A Badawi acknowledges support from the Public Health Agency of Canada. J Carrero acknowledges support from the Swedish Research Council (2019-01059). F Carvalho

acknowledges UID/MULTI/04378/2019 and UID/QUI/50006/2019 support with funding from FCT/MCTES through national funds. A Cohen acknowledges support from the Health Effects Institute, Boston, MA, USA, V Costa acknowledges grant (SFRH/BHD/110001/2015), received by Portuguese national funds through Fundação para a Ciência e Tecnologia, IP, under the Norma Transitória DL57/2016/CP1334/CT0006. K Deribe acknowledges a grant from the Wellcome Trust (grant number 201900/Z/16/Z) as part of his International Intermediate Fellowship. M Freitas acknowledges the financial support from the European Union (FEDER funds through COMPETE POCI-01-0145-FEDER-029248) and National Funds (Fundação para a Ciência e Tecnologia) through project PTDC/NAN-MAT/29248/2017. P Hoogar acknowledges Centre for Bio Cultural Studies, Manipal Academy of Higher Education, Manipal and Centre for Holistic Development and Research, Kalaghatagi. B-F Hwang was supported by China Medical University (CMU108-MF-95), Taichung, Taiwan. M Jakovljevic acknowledges the Serbian part of this GBD Project related contribution was co-funded through Grant OI175014 of the Ministry of Education Science and Technological Development of the Republic of Serbia. C Kieling is a Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq; a Brazilian public funding agency) researcher and a UK Academy of Medical Sciences Newton Advanced Fellow. Y J Kim acknowledges support from the Research Management Centre, Xiamen University Malaysia (XMUMRF/2018-C2/ITCM/0001). K Krishan is supported by a DST PURSE grant and UGC Center of Advanced Study (CAS II) awarded to the Department of Anthropology, Panjab University, Chandigarh, India. M Kumar is supported by FIC/NIH K43 TW010716. B Lacey acknowledges support from the National Institute for Health Research Oxford Biomedical Research Centre and the British Heart Foundation Centre of Research Excellence, Oxford. T Lallukka is supported by the Academy of Finland (Grant #319200). I Landires is member of the Sistema Nacional de Investigación, which is supported by the Secretaría Nacional de Ciencia tecnología e Innovación, Panama. S Lorkowski is funded by the German Federal Ministry of Education and Research (nutriCARD, grant agreement number 01EA1808A). J McGrath acknowledges support from the Danish National Research Foundation (Niels Bohr Professorship). W Mendoza acknowledges employment with Population and Development at the United Nations Population Fund, Country Office in Peru, which does not necessarily endorse this study. U Mueller acknowledges funding from the German National Cohort Study BMBF grant # 01ER1801D. S Nomura acknowledges the Ministry of Education, Culture, Sports, Science, and Technology of Japan (18K10082). G Patton is supported by an National Health and Medical Research Council Fellowship. M Phillips acknowledges partial support from the National Natural Science Foundation of China (NSFC, No 81371502 and 81761128031). M Pinheiro acknowledges FCT Fundação para a Ciência e Tecnologia for funding through program DL 57/2016, Norma Transitória. A Raggi, D Sattin, and S Schiavolin acknowledge support by a grant from the Italian Ministry of Health (Ricerca Corrente, Fondazione Istituto Neurologico C Besta, Linea 4 -Outcome Research: dagli Indicatori alle Raccomandazioni Cliniche). D Ribeiro acknowledges support from The Sir Charles Hercus Health Research Fellowship - Health Research Council of New Zealand (18/111). A Ribeiro acknowledges partial support by Conselho Nacional de Desenvolvimento Científico e Tecnológico (310679/2016-8 and IATS: 465518/2014-1) and by Fundação de Amparo à Pesquisa do Estado de Minas Gerais (PPM-00 428-17). P Sachdev acknowledges funding support from NHMRC Australia. A Samy received a fellowship from the Egyptian Fulbright Mission program. M Santric-Milicevic acknowledges the Ministry of Education, Science and Technological Development of the Republic of Serbia (Contract No 175087). S Islam received funding from the National Heart Foundation of Australia and Deakin University. A Sheikh acknowledges Health Data Research UK. K Shibuya acknowledges the Japan Ministry of Education, Culture, Sports, Science and Technology. J Soriano acknowledges support from Centro de Investigación en Red de Enfermedades Respiratorias, Instituto de Salud Carlos III, Madrid, Spain. R Tabarés-Seisdedos was supported in part by grant PI17/00719 from ISCIII-FEDER. S Tadakamadla acknowledges support from National Health and Medical Research Council Early Career Fellowship, Australia. M Tonelli acknowledges the David Freeze research chair in health services research at the University of Calgary. See the component GBD 2019 capstone papers for acknowledgements specific to each part of the study.

References

- Murray CJL, Callender CSKH, Kulikoff XR, et al. Population and fertility by age and sex for 195 countries and territories, 1950-2017: a systematic analysis for the Global Burden of Disease Study 2017. Lancet. 2018; 392:1995–2051. [PubMed: 30496106]
- 2. UN Millennium Proje. Investing in development: a practical plan to achieve the millennium development goals. New York, NY: United Nations Development Programme; 2005.
- GBD 2019 Demographics Collaborators. Global age-sex-specific fertility, mortality, healthy life expectancy (HALE), and population estimates in 204 countries and territories, 1950-2019: a comprehensive demographic analysis for the Global Burden of Disease Study 2019. Lancet. 2020; 396:1160–203. [PubMed: 33069325]
- Murray CJL, Ortblad KF, Guinovart C, et al. Global, regional, and national incidence and mortality for HIV, tuberculosis, and malaria during 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. Lancet. 2014; 384:1005–70. [PubMed: 25059949]

- Komatsu R, Korenromp EL, Low-Beer D, et al. Lives saved by Global Fund-supported HIV/AIDS, tuberculosis and malaria programs: estimation approach and results between 2003 and end-2007. BMC Infect Dis. 2010; 10:109. [PubMed: 20433714]
- 6. Institute for Health Metrics and Evaluation. Financing global health 2018: countries and programs in transition. Seattle, WA: Institute for Health Metrics and Evaluation; 2019.
- GBD 2019 Diseases and Injuries Collaborators. Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020; 396:1204–22. [PubMed: 33069326]
- GBD 2019 Universal Health Coverage Collaborators. Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020; 396:1250–84. [PubMed: 32861314]
- 9. United Nations. [accessed Jan 27, 2020] SDG Indicators—Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development. https://unstats.un.org/sdgs/indicators/indicators-list/
- Dieleman JL, Cao J, Chapin A, et al. US health care spending by payer and health condition, 1996-2016. JAMA. 2020; 323:863–84. [PubMed: 32125402]
- United Nations General Assembly. Political declaration of the third high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. New York, NY: United Nations; 2018.
- Nugent R, Bertram MY, Jan S, et al. Investing in non-communicable disease prevention and management to advance the Sustainable Development Goals. Lancet. 2018; 391:2029–35. [PubMed: 29627167]
- WHO. [accessed Jan 27, 2020] Noncommunicable diseases. 2018. Jun 1, https://www.who.int/ news-room/fact-sheets/detail/noncommunicable-diseases
- Cottingham MD, Kalbaugh CA, Fisher JA. Tracking the pharmaceutical pipeline: clinical trials and global disease burden. Clin Transl Sci. 2014; 7:297–99. [PubMed: 24816032]
- Fisher JA, Cottingham MD, Kalbaugh CA. Peering into the pharmaceutical "pipeline": investigational drugs, clinical trials, and industry priorities. Soc Sci Med. 2015; 131:322–30. [PubMed: 25159693]
- Long, G. The biopharmaceutical pipeline: innovative therapies in clinical development. Boston, MA: Analysis Group; 2017.
- 17. National Institutes of Health. [accessed Jan 27, 2020] Estimates of funding for various research, condition, and diseases categories (RCDC). 2019. https://report.nih.gov/categorical_spending.aspx
- GBD 2019 Risk Factors Collaborators. Global burden of 87 risk factors in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020; 396:1223–49. [PubMed: 33069327]
- WHO. WHO framework convention on tobacco control. Geneva: World Health Organization; 2003.
- Maximova K, Raine KD, Czoli C, et al. Monitoring progress toward United Nations commitments: characteristics of Canadian legislation to promote tobacco control, physical activity and healthy eating. A descriptive study. CMAJ Open. 2019; 7:E745–53.
- Yach D, McKee M, Lopez AD, Novotny T. Improving diet and physical activity: 12 lessons from controlling tobacco smoking. BMJ. 2005; 330:898–900. [PubMed: 15831879]
- 22. Afshin A, Forouzanfar MH, Reitsma MB, et al. Health effects of overweight and obesity in 195 countries over 25 years. N Engl J Med. 2017; 377:13–27. [PubMed: 28604169]
- 23. Pineda E, Sanchez-Romero LM, Brown M, et al. Forecasting future trends in obesity across Europe: the value of improving surveillance. Obes Facts. 2018; 11:360–71. [PubMed: 30308509]
- Lopez AD, Adair T. Is the long-term decline in cardiovascular-disease mortality in high-income countries over? Evidence from national vital statistics. Int J Epidemiol. 2019; 48:1815–23. [PubMed: 31378814]
- Vollset S, Goren E, Yuan C-W, et al. Fertility, mortality, migration, and population scenarios for 195 countries and territories from 2017 to 2100: a forecasting analysis for the Global Burden of Disease Study. Lancet. 2020; 396:1285–306. [PubMed: 32679112]

- 26. Graetz N, Woyczynski L, Wilson KF, et al. Mapping disparities in education across low- and middle-income countries. Nature. 2020; 577:235–38. [PubMed: 31875853]
- 27. Lozano R, Fullman N, Abate D, et al. Measuring progress from 1990 to 2017 and projecting attainment to 2030 of the health-related Sustainable Development Goals for 195 countries and territories: a systematic analysis for the Global Burden of Disease Study 2017. Lancet. 2018; 392:2091–138. [PubMed: 30496107]
- 28. The Kremlin. [accessed Jan 27, 2020] The President signed executive order on national goals and strategic objectives of the Russian Federation through to 2024. 2018. May 7, http://en.kremlin.ru/ events/president/news/57425
- 29. Bricker, D, Ibbitson, J. Empty planet: the shock of global population decline. New York, NY: Crown; 2019.
- Swee-Hock, S. Population policies and programmes in Singapore. 2nd edn. Singapore: ISEAS Yosof Ishak Institute; 2016.
- Lee, C. [accessed Jan 27, 2020] Parents of children 5 and under get 100,000 won monthly allowance in South Korea. 2018. Sep 19, http://annx.asianews.network/content/parents-children-5and-under-get-100000-won-monthly-allowance-south-korea-82056
- 32. The Government of Japan. [accessed Aug 29, 2019] Abenomics. https://www.japan.go.jp/ abenomics/index.html
- Lee, M, Lin, Y-H. Transition from anti-natalist to pro-natalist policies in TaiwanLow fertility, insitutions, and their policies: variations across industrialized countries. Rindfuss, R, Choe, M, editors. Honolulu, HI: Springer; 2016. 259–81.

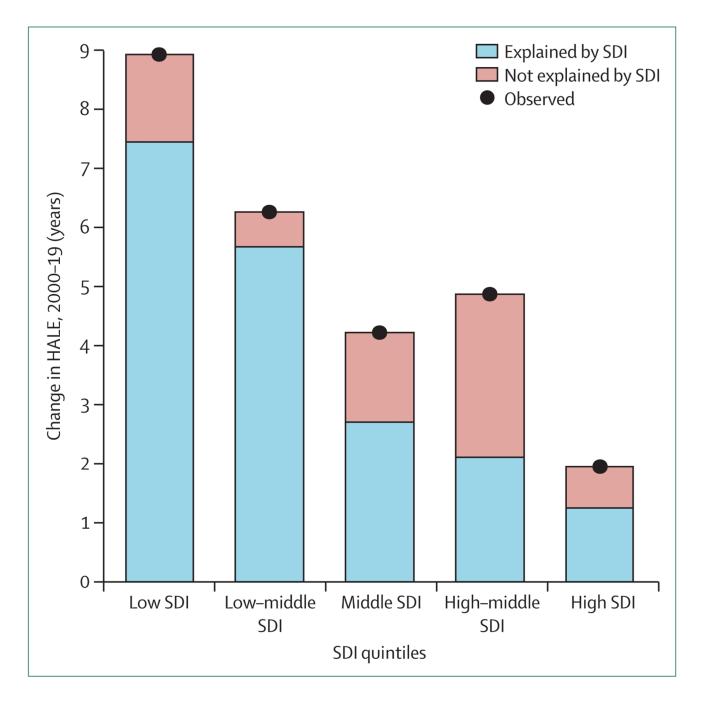


Figure 1. Change in HALE disaggregated by SDI quintiles, 2000–19

SDI quintiles as assessed in 2019. Expected change in HALE related to change in SDI is based on fitting spline functions to the relationship between age-specific mortality and SDI, and age-specific years lived with disability per capita and SDI. HALE=healthy life expectancy. SDI=Socio-demographic Index.

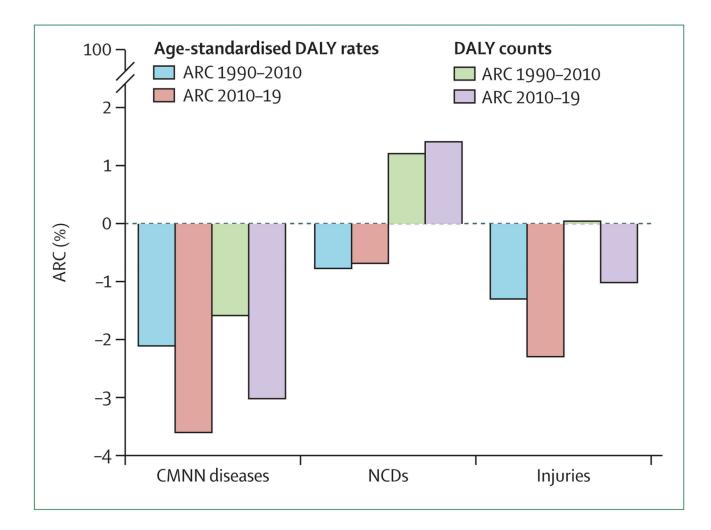


Figure 2. Global ARC for age-standardised DALY rates and DALY counts, 1990–2010 and 2010–19

Results are shown for three broad cause groups: CMNN diseases, NCDs, and injuries. ARC=annualised rate of change. CMNN=communicable, maternal, neonatal, and nutritional. DALY=disability-adjusted life-year. NCDs=non-communicable diseases.

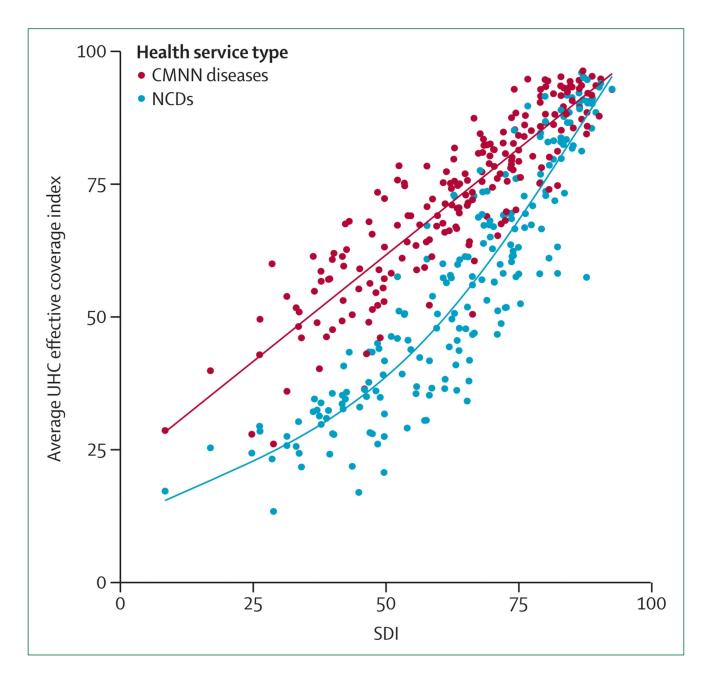


Figure 3. Relationships of UHC effective coverage in 204 countries and territories for health services targeting CMNN diseases and NCDs versus SDI, 2019 CMNN=communicable, maternal, neonatal, and nutritional. NCDs=non-communicable

diseases. SDI=Socio-demographic Index. UHC=universal health coverage.

ARC	
High SBP	0.51
Smoking	-1.20
Dietary risks	-0.28
High fasting plasma glucose	1.32
Low birthweight and short gestation	-0.21
High body-mass index	1.83
Ambient particulate matter pollution	1.47
High LDL cholesterol	-0.07
Alcohol use	0.52
Household air pollution from solid fuels	-3.54
Child growth failure	-1.96
Unsafe water, sanitation, and handwashing	-0.59
Kidney dysfunction	0.19
Occupational risks	-0.07
Drug use	0.53
Low temperature	-0.17
Low physical activity	0.36
Suboptimal breastfeeding	-0.40
High temperature	0.12
Intimate partner violence	0.40
Childhood sexual abuse and bullying	0.81

Figure 4. Global ARC in exposure for select risks, 2010–19

Risk factors are ordered by global attributable DALYs. Values are shaded by change in exposure, from dark blue (largest decrease) to dark red (largest increase). Exposure is measured as the age-standardised summary exposure value. Summary exposure value is an integrated measure of risk exposure that allows comparison across continuous, polytomous, and dichotomous risk factors. ARC=annualised rate of change. DALYs=disability-adjusted life-years. SBP=systolic blood pressure.

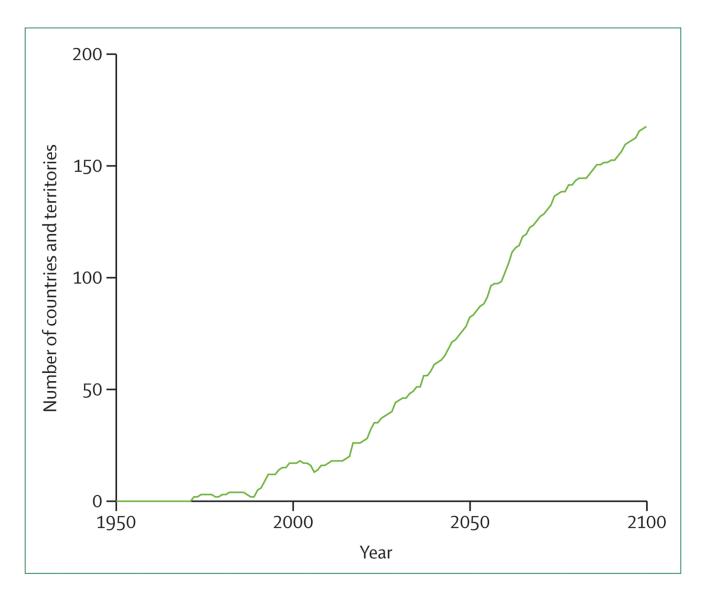


Figure 5. Number of countries and territories with negative natural rate of population increase, 1950–2019, and in the reference forecast scenario, 2020–2100

The natural rate of increase is negative when the crude death rate exceeds the crude birth rate.