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Covid-19: An urgent call for global “vaccines-plus” action

SARS-CoV-2 has infected more than 278 million people globally, with at least 5.4 million deaths recorded by the World Health Organisation as of 26 December 2021. The omicron (B.1.1.529) variant of concern is spreading rapidly.¹

Some countries view infection as a net harm and pursue strategies ranging from suppression to elimination.² They seek to sustain low infection rates through a combination of vaccination, public health measures, and financial support measures (vaccines-plus). Other countries implemented mitigation strategies that aim to prevent health systems from being overwhelmed by building population immunity through a combination of infection and vaccination. These countries rely on a vaccines-only approach and seem willing to tolerate high levels of infection provided their healthcare systems can cope.

The high transmissibility and degree of immune escape by the delta and omicron variants means sustained protective population immunity is unlikely to be achieved with the current vaccines based on the original strain.³ Compared to delta, omicron is much more likely to infect those who were vaccinated or exposed to previous SARS-CoV-2 variants, suggesting significant immune escape.⁴

Widespread transmission brings a degree of unpredictability to the pandemic response. High transmission risks more rapid adaptation of SARS-CoV-2, with outcomes that include increased transmissibility (seen with α , delta, and omicron), increased antibody immune escape (β and omicron) or greater pathogenicity (delta and α).⁵

There are other drawbacks to a vaccines-only strategy. Countries which tolerated high transmission have seen rises in both covid-specific and all-cause mortality, healthcare worker shortages, and repeated lockdowns to control surges in case numbers.^{2 6-9} Countries which suppressed transmission early saw reduced mortality and less economic damage.^{2 7 10 11}

While vaccination greatly reduces risks of serious illness and death, long covid remains a concern.^{12 13} Disruption to education as a result of staff and student sickness, and/or repeated lockdowns due to failure to control the virus, are likely to have a lasting impact on the wellbeing and prospects of the next generation.¹⁴

High levels of transmission also create a negative feedback loop, whereby important public health measures such as test, trace, isolate and support systems become overwhelmed, making them less effective, further fuelling transmission.¹⁵

For all these reasons, a vaccines-plus approach should be adopted globally. This strategy will slow the emergence of new variants and ensure they exist

in a low transmission background where they can be controlled by effective public health measures, while allowing everyone (including those clinically vulnerable) to go about their lives more freely.

We welcome the World Health Organisation's recent guidance on community and healthcare mask use, but believe more can be done to suppress transmission without adversely impacting economic or social activity.^{16 17} Accordingly, we call upon the World Health Organisation and national governments to:

- Unequivocally declare SARS-CoV-2 an airborne pathogen and stress the implications for preventing transmission.¹⁸ A clear message from the World Health Organisation will help to remove confusion that has been used to justify outdated policies.¹⁸
- Promote the use of high-quality face masks for indoor gatherings and other high-transmission settings. The significant benefits of community masking are now well established.^{19 20} Respirators (e.g. N95, P2/FFP2 or KF94) should be preferred in all indoor settings where people mix, and for healthcare workers at all times.^{20 21}
- Advise on effective ventilation and filtration of air. It is time to go beyond opening windows and aim for a paradigm shift to ensure all public buildings are optimally designed, built, adapted, and utilised to maximise clean air for occupants—strategies which have been shown to reduce SARS-CoV-2 transmission.²²⁻²⁴
- Set criteria for imposing or relaxing measures to reduce covid-19 spread based on levels of transmission in the community. Effective find, test, trace, isolate, and support will continue to be essential to intercept transmission. Low rates of transmission give all available measures the best chance of being effective, creating a positive, self-reinforcing cycle of disease control. Sufficient financial and practical support for isolation should be implemented everywhere, particularly in low- and middle-income countries and deprived parts of high-income countries.^{25 26}
- Support urgent measures to achieve global vaccine equity, including vaccine sharing, suspension of vaccine patents, removal of barriers to technology transfer, and establish regional production centres to create a plentiful local supply of high-quality vaccines everywhere.²⁷ Global vaccine rollout should include coordinated efforts to tackle misinformation to ensure people have access to timely, accurate data on vaccine effectiveness and protection.

Vaccines-plus is affordable and achievable. It is the policy advocated by the Director General of the WHO,

Tedros Adhanom Ghebreyesus in his statement of 14 December 2021: “I need to be very clear: vaccines alone will not get any country out of this crisis. Countries can and must prevent the spread of Omicron with measures that work today. It’s not vaccines instead of masks, it’s not vaccines instead of distancing, it’s not vaccines instead of ventilation or hand hygiene. Do it all. Do it consistently. Do it well.”

Trisha Greenhalgh, Nuffield Department of Primary Care Health Sciences, University of Oxford, UK; Stephen Griffin, Leeds Institute of Medical Research, School of Medicine, University of Leeds, UK; Deepthi Gurdasani, Queen Mary University of London, UK; Adam Hamdy, Independent researcher, Mauritius; Aris Katsourakis, Department of Zoology, University of Oxford, UK; Martin McKee, London School of Hygiene and Tropical Medicine, UK; Susan Michie, Department of Clinical, Health and Educational Psychology, University College London, UK; Christina Pagel, University College London, UK; Alice Roberts, Professor of Public Engagement in Science, University of Birmingham, UK; Kit Yates, Centre for Mathematical Biology, Department of Mathematical Sciences, University of Bath, UK

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On behalf of the full list of signatories:

World Federation of Public Health Associations, signing in an institutional capacity; Nisreen Alwan, University of Southampton, UK; Raymond Agius, University of Manchester, UK; Haitham Ahmed, AdvantageCare Physicians, New York, USA; Simon Ashworth, Imperial College Healthcare NHS Trust, UK; Charlotte Augst, National Voices, UK; Simon L. Bacon, Department of Health, Kinesiology, and Applied Physiology (HKAP), Concordia University; Emil J. Bergholtz, Department of Physics, Stockholm University, Sweden; David Blanchflower, Dartmouth College and University of Glasgow, UK; Arnold Bosman - Director Transmissible BV; Nissaf Bouaffif ép Ben Alaya, National Observatory of New and Emerging Diseases, Ministry of Health; Head of Department of Preventive Medicine, Faculty of Medicine of Tunis, University Tunis El Manar, Tunisia; Katherine Brown, Great Ormond Street Hospital and University College London, UK; Matthew Butler, Cambridge University Hospitals, UK; Molly Byrne, Health Behaviour Change Research Group, School of Psychology, National University of Ireland, Galway, Ireland; Roberto Cacciola, Department of Surgical Sciences, University of Tor Vergata, Rome, Italy; Danielle J. Cane, London School of Hygiene and Tropical Medicine, London, UK; Fidelia Cascini, Dipartimento di Scienze della vita e sanità pubblica, Catholic University of the Sacred Heart, Rome, Italy; Mohamed Chahed, Faculty of Medicine of Tunis, University Tunis El Manar, Tunisia; KK Cheng, Institute of Applied Health Research, University of Birmingham, UK; Anthony Costello, Institute of Global Health, University College London, UK; Andrew Conway Morris, University of Cambridge and European Society of Intensive Care Medicine, UK; Roz Davies, Managing Director, Thrive by Design, UK; Colin Davis, School of Psychological Science, University of Bristol, UK; Brendan Delaney, Imperial College, London, UK; Denise Dewald, Case Western Reserve University School of Medicine, Cleveland, Ohio, USA; David Drew, retired NHS Consultant Paediatrician, UK; John Drury, School of Psychology, University of Sussex, UK; Andrew Ewing, department of Chemistry and Molecular Biology, University of Gothenburg; Swedish Academy of Sciences, Sweden; David Fisman, Professor of Epidemiology, Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada; Sharon Friel, Australian National University, Australia; Malgorzata Gasperowicz, Faculty of Nursing, University of Calgary, Canada; David Robert Grimes, Dublin City University and University of Oxford, Ireland; Zubaida Haque, Independent SAGE, UK; William A Haseltine, ACCESS Health International, USA; Orla Hegarty, School of Architecture, Planning and Environmental Policy, University College Dublin, Ireland; Simon Hodes, Bridgewater Surgeries and Cleveland Clinic London, UK; Eilir Hughes, West Wales, UK; Zoë Hyde, Western Australian Centre for Health and Ageing, The University of Western Australia, Australia; Lisa Iannattone, University of Montreal, Canada; Alejandro R. Jadad, Centre for Global eHealth Innovation, Toronto, Canada; Neena Jha, Hertfordshire, UK; Jose Luis Jimenez, Department of Chemistry and Cooperative Institute for Research in the Environmental Sciences, University of Colorado, Boulder, CO, USA; John Johnson, Eastern Health, Melbourne, Australia; Abraar Karan, Division of Infectious Diseases and Geographic Medicine, Stanford University, USA; Kamlesh Khunti, University of Leicester, UK; Najwa Khuri-Bulos, University of Jordan; Adjunct Professor, Paediatric Infectious Disease, Vanderbilt University, Nashville, USA; Woo Joo Kim, Division of Infectious Diseases, Guro Hospital; Director, Chung Mong-koo Vaccine Innovation Center, College of Medicine, Korea University, Seoul, Republic of Korea; Matthew J Knight, West Hertfordshire Hospitals NHS Trust, UK; Kim L. Lavoie, Department of Psychology, University of Quebec at Montreal; Tom Lawton, Bradford Institute for Health Research; Bradford Teaching Hospitals NHS Foundation Trust, UK; Jeffrey V Lazarus, Barcelona Institute for Global Health (ISGlobal), Hospital Clinic, University of Barcelona, Spain; Anthony Joseph Leonardi, Johns Hopkins University Bloomberg School of Public Health, USA; Eyal Leshem, Tel Aviv University School of Medicine, Israel; Liz Lightstone, Imperial College Healthcare NHS Trust, London, UK; Peter V. Markov, London School of Hygiene and Tropical Medicine, London, UK; Jose M Martin-Moreno - Department of Preventive Medicine and Public Health and INCLIVA, University of Valencia, Spain; Petra Meier, University of Glasgow, UK; Jonathan Mesiano-Crookston, Partner Goldman Hine LLP, Canada; Asit Kumar Mishra, NUI Galway, Ireland; Michael Moore, The George Institute for Global Health; Sterghios A. Moschos, Cellular and Molecular Sciences, Northumbria University, UK; C David Naylor, University of Toronto, Toronto, Canada; Taylor Nichols, Sacramento, USA; David Nicholl, Sandwell and West Birmingham NHS Trust, UK; Ole F. Norheim, Department of Global Public Health and Primary Care, University of Bergen, Norway; Matthew Oliver, Association of Professional Engineers and Geoscientists of Alberta, Edmonton, Alberta, Canada; Christine Peters, QEUH NHS Greater Glasgow and Clyde, UK; Deenan Pillay, University College London, UK; Dominic Pimenta, Richmond Research Institute, UK; Kashif Pirzada, McMaster University, Canada; Catherine Pope - Professor of Medical Sociology, University of Oxford, UK; Kimberly A Prather, University of California, San Diego, La Jolla, CA, USA; Geraint Preest, Pencoe, Wales, UK; Zeshan Qureshi,

University of Cambridge, UK; Katrin Rabiei, Institution of Neuroscience and Physiology, Sahlgrenska Academy at Gothenburg University, Sweden; James Ray, NHS England, UK; K. Srinath Reddy, Public Health Foundation of India, India; Walter Ricciardi, Università Cattolica del Sacro Cuore Roma, Italy; Ken Rice, School of Physics and Astronomy, University of Edinburgh, UK; Eleanor Robertson, NHS Greater Glasgow and Clyde, UK; Kim Roberts, Department of Microbiology, Trinity College Dublin, Ireland; Tomás Ryan, Trinity College Dublin, Ireland; Helen Salisbury, Nuffield Dept of Primary Care Health Sciences, University of Oxford, UK; Gabriel Scally, Population Sciences, University of Bristol, UK; Robert T. Schooley, University of California San Diego, USA; Vipul Shah, R P Shah Memorial Trust, Lucknow, India; Joshua Silver, Department of Physics, University of Oxford, UK; Natalie Silvey, Imperial School of Anaesthesia, London, UK; Manoj Sivan, University of Leeds and Leeds Teaching Hospitals NHS Trust, UK; Luis Eugenio Souza, Federal University of Bahia; World Federation of Public Health Associations, Brazil; Anthony Staines, School of Nursing, Psychotherapy and Community Health, Dublin City University, Ireland; David Tomlinson, University Hospitals Plymouth NHS Trust and Fresh Air NHS, UK; Collin Tukuitonga, Faculty of Medical and Health Sciences, University of Auckland, New Zealand; Charles Vincent, University of Oxford, Oxford, UK; Joe Vipond, University of Calgary, Canada; Robert West, Institute of Epidemiology and Healthcare, University College London, UK; Angela C. Weyand, University of Michigan Medical School, Ann Arbor, MI, USA; Hisham Ziauddeen, Department of Psychiatry, University of Cambridge, Cambridge.

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