



THE LANCET GLOBAL HEALTH COMMISSION MEDICAL OXYGEN SECURITY

Commissioners

The *Lancet Global Health Commission* on Medical Oxygen Security was announced on 23 September 2022 to address major gaps in oxygen research, mobilize a broad coalition to implement best practices to close the gaps, and strengthen oxygen systems to reduce mortality and morbidity globally. The following experts, representing a variety of academic disciplines and geographic locations, will serve as Commissioners to guide the Commission report to publication in 2025 and to impact beyond.

Commissioners are listed in alphabetical order of last name.

Masooma Aqeel



Dr Masooma Aqeel is an Assistant Professor at the Aga Khan University Hospital (AKUH), Pakistan, where she has been faculty since 2017. Born and raised in Karachi, she completed her MBBS (AKUH, 2002-07) and subsequently travelled to the United States for clinical training in Internal Medicine (West Virginia University, 2011-14) and Pulmonary/Critical Care Medicine (Medical College of Wisconsin, 2014-17). On completion, Dr Aqeel returned home – inspired by a need for health professionals in Pakistan. During the COVID-19 pandemic, Dr Aqeel served as a frontline physician caring for patients in wards and ICUs and was part of AKUH’s country-wide initiative to develop and conduct training courses to enable physicians and allied-staff to deliver state-of-the-art respiratory care (i.e., proning, use of non-invasive/invasive respiratory support, etc.). She has co-authored National Guidelines for Efficient Utilization of Oxygen and is the Pakistan-site Principal Investigator for the WHO observational study on oxygen requirements for patients with COVID-19 in low- and middle-income countries. Dr Aqeel’s career focus is to contribute high-quality scientific data to inform clinical guidelines in respiratory medicine, and to guide health policy in reducing inequities in the delivery of healthcare globally.

Shams Arifeen



Dr Shams Arifeen is the first Senior Director of the Maternal and Child Health Division at icddr,b and also Chief of Party of USAID’s Research for Decision Makers (RDM) Activity at icddr,b. Dr Arifeen is also a Professor at the James P Grant School of Public Health at BRAC University in Bangladesh, where he teaches epidemiology. He is trained in medicine, public health, nutrition, and epidemiology and holds an MBBS from Dhaka Medical College and an MPH and DrPH from Johns Hopkins University. He has published over 390 scientific articles in peer-reviewed journals and has over 35 years of experience in maternal, newborn, and child health, health services, and health systems, including nine years in government health services, with a focus on health interventions for developing populations. He has extensive experience in research and evaluations, with expertise in community and facility-based evaluations of interventions and programs that address common causes of illness and death among mothers and children, implementation research to improve the delivery of services as well as develop monitoring systems. Dr Arifeen actively participates in national efforts to scale up evidence-based maternal, neonatal, and child health interventions and serves on a number of national technical and advisory committees and as well as on several global task/advisory groups and panels.

The Lancet Global Health Commission on Medical Oxygen Security is co-chaired by Makerere University, Uganda; the International Centre for Diarrhoeal Disease Research (icddr,b), Bangladesh, the University of Melbourne and the Murdoch Children’s Research Institute (MCRI), Australia, and Karolinska Institutet, Sweden, with support from the Every Breath Counts Coalition. For more information visit <https://stopppneumonia.org/latest/lancet-global-health-oxygen-commission/>

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Lúcio Brito



Dr Lúcio Flávio de Magalhães Brito is a mechanical engineer (UNIFEI), an occupational safety engineer (FEI) and a specialist in hospital administration and health systems (FGV-SP) in Brazil. He has 35 years of experience working in hospitals, both nationally and internationally. He is a certified clinical engineer by the American College of Clinical Engineering (ACCE) and the Association for the Advancement of Medical Instrumentation (AAMI). He is the author of books and book chapters on hospital safety and clinical engineering. He is internationally awarded by the Journal of Clinical Engineering and the American College of Clinical Engineering for his publications and contribution to the strengthening of the biomedical and clinical engineering profession, and for the work carried out during the pandemic in Latin American and Caribbean countries. He is a member of the Brazilian Society of Biomedical Engineering (SBEB) and the Brazilian Society for the Quality of Care and Patient Safety (SOBRASP) where he coordinates the Thematic Work Group on Non-Clinical Risks. He serves as a Professor in the undergraduate course in Biomedical Engineering at the Pontifical Catholic University of São Paulo and as an international consultant to the Pan American Health Organizations' (PAHO) Oxygen Technical Group.

Harry Campbell



Dr Harry Campbell is a Professor of Epidemiology and Public Health at the Usher Institute of Population Health Sciences and Informatics and Co-Director of the Centre for Global Health Research and the WHO Collaborating Centre on Population Health Research and Training at the University of Edinburgh. He trained in medicine in Edinburgh and worked in pediatrics for several years. He has over 30 years experience in child pneumonia research including setting up the Basse field station and pneumonia research program at MRC Gambia, developing pneumonia research and program implementation during three years at WHO Geneva and serving as a consultant to WHO, UNICEF, the Bill & Melinda Gates Foundation, and the UN High Commissioner for Refugees (UNHCR) on many occasions. In the past few years he has led pneumonia field studies in several countries, including India, Bangladesh, Pakistan, and Nigeria. He is currently joint-Director of the National Institute of Health Research (NIHR) Global Health Unit in Respiratory Health which has conducted many child pneumonia studies in Asia. He has authored over 600 research publications with many on childhood infections (and in particular pneumonia) and on molecular studies of diseases of public health importance. He has had a long term interest in the use of oxygen in children with lower respiratory infections in low- and middle-income countries. He has helped develop global estimates of the prevalence of hypoxemia, prepare clinical guidelines and training materials on the use of oxygen and assess the use of pulse oximetry in children.

Karen Czischke



Dr Karen Czischke is a physician-surgeon specializing in internal medicine with a subspecialty in adult respiratory diseases. She currently works at the Hospital Padre Hurtado and Clínica Alemana de Santiago in Chile, and she is also an Assistant Professor at the Universidad del Desarrollo. Her main area of practice and study is the management of obstructive lung diseases, especially bronchial asthma and chronic obstructive pulmonary disease (COPD). Dr Czischke was Executive Secretary of the Latin American Thorax Association (ALAT) from 2020 to 2022 and a member of the ALAT COPD 2019 guidelines development group and co-author of the ALAT Strategic Plan 2023 - 2026. Dr Czischke has completed clinical research training at Harvard School of Public Health and the Universidad de los Andes in Chile, and authored many publications and book chapters on respiratory semiology and pathophysiology, including a contribution to the Respiratory Research series on how the field of respiratory research and pulmonary medicine has benefited and will continue to benefit from the development of novel technologies, ranging from new in vitro culture systems to extracellular nanovesicles and to CRISPR-based genome-editing tools.

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Fatoumata Dicko



Dr Fatoumata Dicko is a pediatrician, neonatologist, and Professor at the Faculty of Medicine and Odontostomatology at the University of Sciences, Techniques, and Technologies of Bamako (USTTB) in Mali. She is also Head of the Neonatology Department at the Mohammed VI Perinatal Clinic in Bamako. She was the Chief of Neonatology at Mali's national University Teaching Hospital of Gabriel Touré. Dr Dicko holds several professional leadership positions including Secretary General of the Malian Association of Pediatrics and Secretary General of the Association of Pediatricians of Francophone Black Africa. She is deeply committed to training health care professionals and holds the position Family Physician/Community Physician Training Coordinator. Dr Dicko has published extensively on newborn and child health and advises the Malian Ministry of Higher Education and Scientific Research and the Health Ministry on newborn policies and programs and the training of health professionals working with these patient populations. She also works closely with several NGOs including Muso where she is a Board Director. During the pandemic, Dr Dicko was designated by the Health Minister to oversee the supply of medical oxygen to Mali's national and district hospitals.

Adegoke Falade



Dr Adegoke Falade is a Professor of Pediatric Respiratory Medicine at the College of Medicine at the University of Ibadan, Nigeria. He also serves as an honorary consultant paediatrician to the University College Hospital in Ibadan. His main interest is in the field of pneumonia and asthma. He has three decades of experience in conducting clinical research among Nigerian children and collaborated with world-renowned experts in the conduct of multiple clinical research projects. As a research clinician at the MRC Laboratories, The Gambia, Professor Falade explored the interface between childhood malnutrition and respiratory diseases. The work in this field culminated in a successfully defended Doctor of Medicine (MD) Thesis titled: Pneumonia in Malnourished Gambian Children. Professor Falade was an investigator in Nigeria in the International Study of Asthma and Allergy in Childhood (ISAAC), an international multicentre collaborative epidemiological study which provided the first prevalence data for these diseases in Nigeria. He has participated in a multi-centre study of invasive pneumococcal diseases among under-five children in Ibadan, Nigeria, an Oxygen Implementation Project targeting the reduction of under-five deaths from severe pneumonia through the provision of safe and effective oxygen therapy, and the Integrated and Sustainable childhood Pneumonia and Infectious disease Reduction In NiGeria (INSPIRING) project in Lagos and Jigawa States. He has 95 peer-reviewed original articles in PubMed and 2,143 citations.

Patricia Garcia



Dr Patty J. García, is a Professor at the School of Public Health at Cayetano Heredia University (UPCH) in Peru and member of the US National Academy of Medicine. She is the former Minister of Health of Peru, former Dean of the School of Public Health at UPCH, and former Chief of the Peruvian National Institute of Health (INS). She is affiliate professor of the Department of Global Health at University of Washington and of the School of Public Health at Tulane University. She has been a member of the Lancet Commission for the Education of Health Professionals for the 21st Century; member of the Lancet Commission on Diagnostics: No Treatment Without Accurate Diagnosis, and is chairing a new Lancet Commission on Cancer and Health Systems. She is actively involved in research and training in global health, implementation research, quality in health services, reproductive health, STI/HIV, HPV, diagnostics, and medical informatics. Dr Garcia has been a member of the advisory board of the Coalition for Epidemic Preparedness Innovations (CEPI) and during the pandemic she has been leading clinical trials in Peru and has been chairing the advising governmental committee on innovations to fight the pandemic. Dr Garcia is Chair of the Strategic and Technical Advisory Group on Disease Elimination (STAG-D) for PAHO, a member of the Strategic and Technical Advisory Committee on HIV, viral hepatitis and sexually transmitted infections (STAC-HHS) for WHO, and a member of the WHO Strategic Advisory Group of Experts on In-vitro Diagnostics (SAGE IVD).

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**Amy
Gray**



Dr Amy Gray is Deputy Head of The University of Melbourne Department of Pediatrics, Co-Chair of Melbourne Children's Global Health, a general pediatrician and Director of the Education Hub at the Royal Children's Hospital, Melbourne, Australia. She is a clinician, educator and researcher whose work has focused on strategies to strengthen health systems and improve quality of care for children and neonates in hospitals and other health facilities, with a particular focus on how we can design educational interventions for greater impact. Dr Gray has over ten years experience in global health focused in South East Asia, particularly Lao PDR and Vietnam where she has evaluated the impact of implementing the WHO Pocketbook of Hospital Care for Children on the quality of care in in Lao PDR, and the factors that influenced changes in practice. Following this she developed and continues to lead a program of collaboration with Lao Pediatricians and the University of Health Sciences Lao PDR to improve quality of pediatric care and medical education capacity in Lao PDR. The collaboration has led to work implementing and evaluating oxygen systems in district hospitals, implementing and evaluating Early Essential Newborn Care, redesigning educational approaches to the the WHO Pocketbook and IMNCI (Integrated Management of Newborn and Childhood Illnesses) and understanding learning and teaching needs in low income settings.

**Niranjan
"Tex" Kissoon**



Dr Niranjan "Tex" Kissoon is the Past President of the World Federation of Pediatric Critical and Intensive Care Societies and Professor, Pediatrics and Surgery (Emergency Medicine) Department of Pediatrics at the University of British Columbia in Vancouver. He also well holds the University of British Columbia Children's Hospital (UBC BCCH) Endowed Chair in Acute and Critical Care Global Health. He is the President of the Global Sepsis Alliance. Dr Kissoon's international work has included many areas of the world with limited resources and vulnerable critically ill children. He is fully committed to improving the health care of children nationally and internationally. As a recognized expert in the field of pediatric emergency and critical care, Dr. Kissoon has contributed to over 300 peer reviewed publications and authored over 70 book chapters. He has been a visiting professor at more than 75 institutions worldwide along with being a member of editorial boards for 10 journals. Dr Kissoon was awarded a Distinguished Career Award by the American Academy of Pediatrics in 2013 for his contribution to the society and discipline as well as the prestigious Society of Critical Care Medicine's (SCCM) Master of Critical Care Medicine award in 2015.

**Ramanan
Laxminarayan**



Dr Ramanan Laxminarayan is an economist and an epidemiologist and an expert on antibiotic resistance. He founded and directs One Health Trust - formerly known as the Center for Disease Dynamics, Economics & Policy (CDDEP) - in Washington, D.C. He is a senior research scholar at Princeton University, an affiliate professor at the University of Washington, and a senior associate at the Johns Hopkins Bloomberg School of Public Health. During the second Delta wave of COVID-19 in India during March and April 2021, Laxminarayan and a team of volunteers were instrumental in organizing imports of oxygen equipment to solve the challenge of last minute delivery of medical oxygen to patients. The campaign was supported by over 12,000 individual donors and large corporations including United Airlines, Logitech, UIPath, Yahoo and TechMahindra. OxygenForIndia, a volunteer driven campaign that eventually imported over 20,000 oxygen cylinders and 3,000 oxygen concentrators to alleviate the need for medical oxygen. Laxminarayan and Dr Indu Bhushan, the founding CEO of Ayushman Bharat, together lead OxygenForIndia's work on the formation of a national oxygen grid with the objective that no Indian will die because of lack of medical oxygen anytime, anywhere.

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Michael Lipnick



Dr Michael Lipnick is an anesthesiologist and intensivist at Zuckerberg San Francisco General Hospital and the University of California San Francisco (UCSF). He completed training programs in Internal Medicine (Harvard's Brigham and Women's Hospital), Anesthesia (UCSF), and Critical Care (UCSF). His interests center around the intersection on critical care, peri-operative care, medical education and health equity. He co-founded the UCSF Center for Health Equity in Surgery and Anesthesia (CHESA) and has helped lead multiple global health programs at UCSF. He is currently co-Director of the UCSF World Health Organization Collaborating Center for Emergency, Critical and Operative Care and is an Honorary Lecturer at Makerere University in Kampala, Uganda. During the COVID-19 pandemic, Dr Lipnick collaborated with USAID and implementing partners to support critical care and oxygen ecosystem strengthening in multiple settings. He continues to pursue interests in physiology research as an investigator in the UCSF Hypoxia Lab and as the Dive Medical Officer at the California Academy of Sciences. He leads active research projects including impacts of skin pigment on pulse oximetry performance (The OpenOximetry.org Project), tools for scaling oxygen infrastructure, examining mechanisms of hypoxia tolerance, as well as outcomes in critically-ill patients with acute respiratory distress syndrome (ARDS).

Tisungane Mvalo



Dr Tisungane Mvalo is a pediatrician based and practicing at Kamuzu Central Hospital in Lilongwe Malawi. He is the Director of Pediatric Research at the University of North Carolina Project Malawi, an Honorary Lecturer in the Department of Pediatrics and Child Health at the Kamuzu University of Health Sciences (KUHeS) and an Assistant Professor in the Department of Pediatrics of the University of North Carolina at Chapel Hill, USA. He has over twelve years of research experience in the fields of HIV/AIDS, malaria vaccine randomized clinical trials, evaluation of the piloted introduction of the RTSS malaria vaccine, childhood tuberculosis research, childhood pneumonia clinical trials, and more recently as the Lilongwe site Principal Investigator for the low birthweight infant feeding exploration (LIFE) trial. His interests in research are towards providing evidence targeted to improving the wellbeing of children by focusing on the diseases and illness with greatest morbidity and mortality, which are pneumonia, malaria, and malnutrition. He holds a medical degree from the KUHeS in Malawi, a Master of Medicine in Pediatrics from the University of Cape Town, and is a Fellow of the Colleges of Pediatricians of South Africa.

Jacquie Oliwa



Dr Jacquie Oliwa is a health systems/implementation science researcher. Her background is in pediatrics, and she additionally holds an MSc in Epidemiology from the London School of Hygiene and Tropical Medicine, and a PhD from the University of Amsterdam. She has over ten years of experience in health systems research and has collaborated with the Kenyan Ministry of Health in various quality improvement projects, clinical trials, quasi-experimental observational studies and systematic reviews - all of which have contributed to building evidenced-based care and policies for sick children in Kenya, as well as globally. She serves on the Kenya Paediatric TB Technical Working Group, is a member of the International Union of Lung Health, and the WHO Child TB Subgroup, providing technical expertise in policy development and advocacy for improved care for lung health in children. Dr Oliwa also has vast experience in medical education and lectures in Paediatrics and Child Health at the University of Nairobi; and is a guest lecturer on the Tropical Medicine course with the London School of Hygiene and Tropical Medicine as well as The University of Oxford's International Health Courses. Her expertise spans health services research, implementation science, curriculum development and medical education, clinical and observational studies, qualitative studies, mixed methods, quality improvement, monitoring and evaluation, policy formulation and implementation. She is passionate about capacity building and use of evidence to improve quality of health care.

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Stefan Swartling Peterson



Dr Stefan Swartling Peterson is a public health physician with degrees in medicine, public health, and a PhD in International Pediatrics. He is Professor of Global Transformations for Health at Karolinska Institutet, Sweden and Resident Visiting Professor at Makerere School of Public Health, Makerere University, Uganda. He is also a visiting professor at Uppsala University and an advisor to UNICEF Sweden. His formative work has been in East Africa over the last 30 years working on health systems and implementation science in the fields of child survival, perinatal quality of care, and capacity development. Dr Peterson served as the Global Chief of Health for UNICEF 2016-20, based in New York, where he co-led the Lancet Commission, A Future for the World's Children? As a health systems researcher and medical doctor, he has done extensive work in Tanzania and Uganda, and has worked with different Ministries of Health, international organizations including WHO, and implemented projects supported by Sida, the Bill & Melinda Gates Foundation, and the European Union. In academia he continues to advance the question of how the world's children can have optimal health and development now, but also a livable future, by addressing the social, commercial, and political determinants of health. Dr Peterson was also a co-founder of Médecins Sans Frontières Sweden and the Community Case Management (CCM) Task Force Operations Research Group.

Menaldi Rasmin



Dr Menaldi Rasmin is a Professor in Pulmonology and Respiratory Medicine at Universitas Indonesia and Persahabatan National Respiratory Hospital. He pioneered the establishment of Interventional Pulmonology and Respiratory Critical Care at the University and became a leader in the field. He founded Respiratory Care Indonesia (RESPINA) a society where 14 professional organizations collaborate to advance respiratory care in Indonesia through workshops, symposia, and scientific events. He has authored more than 30 scientific articles and four books on the topic of oxygen therapy. In 2018, Dr Rasmin created the Clinical Classification of Respiratory Distress, focusing on oxygen therapy, which is officially used by pulmonologists. As an educator and clinician, he is committed to advancing medical education and medical care in Indonesia. He was appointed as the Dean of the Faculty of Medicine Universitas Indonesia (2004-2008) and President of Indonesia Medical Council (2009-2014). Currently, he is serving as the Head of Academic Senate of the Faculty. He not only teaches medical students and residents, but also continues to take care of patients, especially those who need oxygen therapy.

Freddie Ssengooba



Dr Freddie Ssengooba is Professor of Health Economics and Health Systems Management at Makerere University School of Public Health, Uganda with over 20 years of teaching and research in health policy and systems. He is the Chair of Health Policy Planning & Management (HPPM) department and Director of the SPEED Project and the Center for Health Policy and Systems Development (CHPSD) at Makerere University. He has served on the National Scientific Advisory Committee for COVID-19 and Ebola Epidemics and led the National Roadmap and policy dialogues for Universal Health Coverage among other studies and research projects. Dr Ssengooba has worked as a hospital director and District Health Officer in Uganda's health system. His doctorate from the University of London covers the intersection of public health policy and institutional economics. In the last 17 years, Dr Ssengooba's teaching and research scholarship have focused health policies, program design and implementation and health system developments. His research draws on multiple lenses and disciplines including medicine, public health, health economics, political economy and systems thinking. Dr Ssengooba has published books, journal articles, working papers and Op-Eds. He has supervised to completion nine doctoral fellows and over 30 masters students and has provided technical and consultancy services to WHO, DFID, USAID, World Bank, Ministries of Health, the Uganda AIDS Commission and multi-lateral and bilateral agencies and foundations.

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Guangfa Wang



Dr Guangfa Wang is President and Director of the Department of Respiratory and Critical Care Medicine at Peking University First Hospital in Beijing, China and a leading respiratory expert. He graduated from Beijing Medical University in 1981 and subsequently majored in respiratory medicine at Jichi Medical University, graduating in 1996. He earned a master's degree from Peking University in 2001, and a doctorate in 2006. He has been working at Peking University First Hospital since 1998. During the SARS Outbreak, Dr Wang served as the chief examiner and expert group leader of SARS at Peking University First Hospital, responsible for all SARS treatment at the hospital. In January 2020, following the outbreak of an "unknown cause pneumonia" (later known as COVID-19) in Wuhan, Dr Wang joined the National Health Commission's expert group and visited Wuhan. Dr Wang has called for government and health authorities to help tertiary hospitals (which have the largest number of beds and provide comprehensive medical services) to increase their ICU beds to 10% of total capacity; and to improve their infrastructure, especially medical oxygen and electricity supplies, so that 10-20% of hospital beds can be converted to ICU beds to cope with public health incidents if necessary.

Rediet Shimeles Workneh



Dr Rediet Shimeles Workneh is an anesthesiologist and critical care and pain management physician. She has served as an Assistant Professor of Anesthesiology at Addis Ababa University, College of Health Sciences, Ethiopia and has lead the critical care unit and operation theater at the Ghandi Memorial Maternity and Child Hospital in Addis Ababa. She has served the Ethiopian Society of Anesthesiologists as a Secretary General and actively collaborated with the Surgical Society of Ethiopia. Dr Shimeles has received several awards from the American Society of Anesthesiologists, Canadian Society of Anesthesiologists, European Society of Regional Anesthesia, World Federation Society of Anesthesiologists, Association of Anesthetists of Great Britain and Ireland, and World Anesthesia Society. She had worked with the Ministry of Health on several initiatives including as a technical working group member of Saving Lives Through Safe Surgery and as a member of the critical care implementation guideline development team and critical care capacity building activities. She has consulted with Jhpiego and the Ethiopian Medical Association. Mentorship at the individual and institutional level is her passion and she has served as a mentor of the 3rd McCaskey Fellowship program of Lifebox. She is an advocate for global surgery and patient safety and aims to contribute for the betterment of anesthesia, critical care and pain management services in Ethiopia.

Heather Zar



Dr Heather Zar is Professor and Chair of the Department of Pediatrics and Child Health at Red Cross Children's Hospital and Director of the South Africa-Medical Research Council Unit (SA-MRC) on Child and Adolescent Health at the University of Cape Town. A global expert in childhood respiratory diseases, her work has focused on pneumonia, tuberculosis, asthma and HIV-associated lung diseases. She has established an African birth cohort study - the Drakenstein Child Health Study - to investigate the early life determinants of health. An NRF-A1 rated scientist, Dr Zar has published more than 550 peer reviewed publications and currently mentors or has mentored 50 PhD or masters students. She is President of the Forum of International Respiratory Societies (FIRS), immediate Past President of the Pan African Thoracic Society, and serves as an advisor to WHO, UNICEF, and the Bill & Melinda Gates Foundation. She has received the World Lung Health award from the American Thoracic Society, was awarded the L'Oréal-UNESCO for Women in Science Laureate for Africa and Arabia, and the SA-MRC Platinum Medal for contributions over a lifetime.