

# WHO Guideline on Mass Drug Administration of Azithromycin to Children Under Five Years of Age to Promote Child Survival: An Update

## Biographies of the GDG

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**Surname, first name(s) and initial:** Amos, Omokore Oluseyi  
**Institutional affiliation** Federal Ministry of Health, Nigeria  
**Academic degrees** MBBS, FWACP Fam Med,  
**Residence** Abuja, Nigeria

### **Professional Profile**

I am a Medical Doctor and a Postgraduate Fellow of the West African College of Physicians (FWACP, Family Medicine). I possess special expertise in designing, developing, implementing, and monitoring Newborn health, Child health, immunization, and nutrition interventions. I have extensive national and international experience in coordinating public health policies centered on Newborn health, Child health, Mass drug Administration, and nutrition interventions for children under the age of five years. My unwavering commitment lies in advancing quality, data-driven, and evidence-based interventions that are aimed at reducing Newborn and Under-five morbidity mortality.

### **Areas of Expert**

- Health policy and guideline formulation, analysis, and utilization
- Health programme implementation design, assessment and evaluation
- Advocacy and Resource mobilization
- Quality improvement

### **Developmental Areas**

- Newborn and Child Survival Health
- Quality of Care
- Immunization
- Maternal and Child Nutrition
- Mass Drug Administration specialist
- Health System Strengthening
- Humanitarian emergency and Public Health Response
- Epidemiology

### **Strength and Skills**

- Strong Interpersonal and leadership Skills
- Excellent Project Management Skills
- Team Building
- Training and facilitation
- Systematic Review and Evidence Generation for Healthcare
- Excellent interpersonal and communication skills

**Surname, first name(s) and initial:** Agustin, Ruth Divine D.

**Institutional affiliation(s):** Department of Health, Philippines; National University of Singapore

**Academic degrees:** MD, MBA, MPH Candidate (NUS)

**City and country of primary residence:** Manila, Philippines

## **Biography**

Dr. Ruth Divine D. Agustin is an internist-cardiologist and public health specialist currently serving as Division Chief at the Disease Prevention and Control Bureau of the Department of Health in the Philippines, where she provides national leadership in evidence-informed policy development and primary health care strengthening. She has expertise in guideline development and integration of preventive and essential services into primary care platforms in a low- to middle-income country setting.

Dr. Agustin served as Chief Editor of the Philippine Omnibus Health Guidelines, including the child health editions to reduce under-five mortality, and led multidisciplinary technical working groups to appraise evidence, formulate recommendations, and ensure alignment with universal health coverage and frontline service delivery. Her work focuses on institutionalizing evidence-informed decision-making and translating evidence into feasible, scalable interventions delivered through primary care, with attention to equity, quality, and implementation at scale.

**Surname, first name(s) and initial:** Berkley, James A.

**Institutional affiliation(s):** Centre for Tropical Medicine & Global Health, University of Oxford, UK, KEMRI/Wellcome Trust Research Programme, Kilifi, Kenya

**Academic degrees:** MBBS MTropMed MRCP MD FRCPCH FMedSci

**City and country of primary residence:** Wylam, Northumberland, UK

**Biography:**

I have spent 25 years based in Kenya at the KEMRI/Wellcome Trust Research Programme. The focus of my research is serious infection and survival in vulnerable groups of young infants and children. I lead a large research group based in Kenya addressing aetiology, clinical features and risks for mortality from infections in infants and children; antimicrobial resistance, immunology, metabolomics and proteomics; and clinical trials, including early phase trials, and large international multicentre phase III trials on antimicrobial and nutritional interventions in vulnerable paediatric populations.

I am the Founder and co-Director of the Childhood Acute Illness & Nutrition (CHAIN) Network of partners in Africa (Kenya, Uganda, Malawi, Burkina Faso), South Asia (Pakistan, Bangladesh). We aim to better understand infectious, immune, metabolic, nutritional, health systems and social pathways to childhood mortality to identify actionable interventions.

I am a member of WHO committees and working groups: Strategic and Technical Advisory Group of Experts (STAGE) on Maternal, Newborn, Child and Adolescent Health, and Nutrition (MNCAHN); Paediatric Clinical Trials Working Group (PCTWG); Paediatric Drug Optimization (PADO) Group; WHO Risk Stratification Working Group (WHO-RSWG); and Guidelines Development Group (GDG) for malnutrition. I have also chaired the data safety monitoring committee for 6 external clinical trials.

**Surname, first name(s) and initial:** Bielicki, Julia A.

**Institutional affiliation(s)** Professor of Paediatric Infectious Diseases, City St George's (formerly St George's), University of London, UK; Deputy Lead Paediatric Infectious Diseases and Vaccinology and Medical Lead Paediatric Research Centre, University Children's Hospital Basel, University of Basel, Switzerland.

**Academic degrees** MA(hons), MB/BChir, MD, MPH, PhD

**City and country of primary residence** Basel, Switzerland

## **Biography**

I graduated from the University of Cambridge, UK with a degree in social and political sciences and a Medical degree. I also hold a Medical Doctorate from the University of Zurich, Switzerland, a Master of Public Health and PhD from the London School of Hygiene and Tropical Medicine, UK. I am a Professor of Paediatric Infectious Diseases at City St George's, University of London and the Lead for Infection Prevention and Control and the Deputy Lead Paediatric Infectious Diseases and Vaccinology at the University Children's Hospital Basel. My research focuses on observational and interventional studies that aim to improve the use of antibiotics to treat neonates and children in the light of an increasing burden of antimicrobial resistance and the need to conserve antibiotics for future generations. I have a particular interest in optimal antibiotic use and prescribing practices as well as innovative approaches to infection prevention and control across high-income and lower-and- middle-income countries (LMICs) with high prevalence of multidrug-resistant bacteria. Most of my research comprises randomised controlled trials, including cluster RCTs, platform trials and innovative designs, aiming to provide robust evidence in my area of research to inform health policy.

**Surname, first name(s) and initial** Black, Robert E

**Institutional affiliation(s)** Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

**Academic degrees** MD, MPH

**City and country of primary residence** Severna Park, MD, USA

## **Biography**

Robert Black is a Professor and Director of the Institute for International Programs at the Johns Hopkins Bloomberg School of Public Health. He is a physician with specialty Boards in Internal Medicine and Infectious Diseases and a MPH in epidemiology. He has worked for 50 years on the important infectious diseases and nutritional problems of children in low-income settings. He has particular expertise in the conduct of large-scale community-based trials, the synthesis of research evidence and the conduct and evaluation of disease control programs. He has served on and chaired numerous reviews of evidence leading to recommendation by the US National Academy of Medicine, the World Bank and other international agencies. He has chaired WHO Guideline Development Groups, including co-chairing the GDG that developed the current recommendations for mass distribution of azithromycin for reduction of mortality in children.

**Surname, first name(s) and initial** Duke, Trevor D  
**Institutional affiliation(s)** University of Melbourne  
**Academic degrees** MBBS MD  
**City and country of primary residence** Melbourne, Australia

### **Biography**

Professor Trevor Duke, paediatrician, clinical director of the general intensive care unit at the Royal Children's Hospital in Melbourne. Professor in the University of Melbourne Department of Paediatrics. Professor of Child Health at the School of Medicine and Health Sciences, University of Papua New Guinea. Member of WHO STAGE committee for maternal, newborn and child health 2020-2025. Member or co-chair of several GDGs on child health and quality of paediatric care. Co-editor of the *WHO Pocketbook of Hospital Care for Children* (2005, 2013), the WHO guideline Oxygen therapy for children (2016), and the WHO guideline for facility-based audit and review of paediatric mortality (2019). Editor of *Randomised trials in child and adolescent health in developing countries*, up to 22<sup>nd</sup> annual edition: <https://pngpaediatricsociety.org/research-2/>  
YouTube channel: <https://www.youtube.com/@trevorduke3951/videos>

**Surname, first name(s) and initial:** Garg Charu C

**Institutional affiliation(s):** Syzygy Consulting LLC, World Health Organization, UNICEF, Asian Development Bank, Results for Development, Management Sciences for Health

**Academic degrees:** Masters (Economics and Econometrics); Ph.D. ; Post Doctoral

**City and country of primary residence-** Costa Mesa, California, United States

### **Biography**

Charu C. Garg Ph.D. is a Delhi University and Harvard-trained health economist with over 40 years of experience in global health, health financing, and public finance. Her work focuses on economic evaluations, assessing costs and benefits, financial protection, and policy implications of large-scale interventions. She has led and contributed to multiple cost-effectiveness studies on management of possible serious bacterial infections (PSBI) in young infants, pneumonia, severe malnutrition, and scaling up Kangaroo Mother Care, directly relevant to evaluating population-level interventions.

Dr. Garg has served on WHO technical and guideline initiatives, including participation in the WHO committees on neonatal infection management, rehabilitation expenditures, and Child and National Health Accounts. She has developed economic evaluation frameworks informing clinical and public health recommendations. She has extensive experience using randomized trial data and implementation research to estimate program costs, health outcomes, and policy trade-offs. She has led development of costing and financing strategies for maternal, child health, and immunization program in multiple countries.

Through collaborations with WHO, UNICEF, Development Institutions and governments, she regularly translates evidence into policy and capacity building. Her expertise in cost-effectiveness analysis, financial sustainability, and health system strengthening makes her well suited to support guideline development on child survival strategies.

**Surname, first name(s) and initial** Harbarth, Stephan J

**Institutional affiliation(s)** Geneva University Hospitals and Faculty of Medicine

**Academic degrees :** MD MS

**City and country of primary residence:** Geneva, Switzerland

## **Biography**

Professor Stephan Harbarth obtained his medical degree from the University of Munich in 1993. After serving as a clinical research fellow in infectious diseases at Geneva University Hospitals (HUG), he pursued postgraduate studies in epidemiology at Harvard School of Public Health, earning a Master of Science in Epidemiology in 1999. He became Chief of the IPC Division at HUG and Director of the WHO Collaborating Center in 2022, and Chairman of the Clinical Section of the Faculty of Medicine in 2025.

Professor Harbarth was promoted to Full Professor at the Faculty of Medicine in 2018. His research focuses on the epidemiology and prevention of antibiotic-resistant infections, as well as on antibiotic stewardship. A renowned expert in this field, he serves on numerous national and international expert committees. His work has received multiple awards, including the prestigious Robert Koch Award for hospital hygiene and infection prevention in 2022. Since 2022, he is also member of the Coordinating Committee of the European Clinical Research Alliance on Infectious Diseases (ECRAID) and the Senate of the Swiss Academy of Medical Sciences (SAMW). He was included in the Highly Cited Researchers™ 2022 list.

**Surname, first name(s) and initial** Hoppu, Kalle

**Institutional affiliation(s)** Helsinki University Hospital, University of Helsinki

**Academic degrees** MD, PhD, Docent (Associate Professor)

**City and country of primary residence** Helsinki, Finland

### **Biography**

M.D. University of Bern, Switzerland, Licensed Physician in Finland 1975. Certified Paediatrician (1982) and Clinical Pharmacologist (1988), Finnish Board of Health. Doctor of Medical Sciences (PhD) 1988, and Docent (Associate Professor) of Paediatric Clinical Pharmacology 1993, University of Helsinki. Awarded the title of Professor (Honorary title) by the President of Finland 2011. 1977-1986 and 1990-1997 clinical and academic positions in paediatrics at the Helsinki University Children's Hospital, and 1986-1987 in clinical pharmacology at Dept. of Clinical Pharmacology, University of Helsinki. 1989 Visiting Scientist (post-doc), at Dept. of Clinical Pharmacology, Karolinska Hospital, Stockholm, Sweden. Retired 1.7.2017, after 20 years as the Medical and Administrative director of the National Finnish Poison Information Centre. Currently external Senior Adviser for the Children's Hospital, Helsinki University Hospital for the EU IHI funded c4c European Paediatric Clinical Trial Network.

Dr Hoppu has been an external expert for the WHO since 1989 and a member of the WHO Expert Advisory Panel on Drug Evaluation (2007-2028). He has served as a member of the 2 EML Paediatric Subcommittees (2007-2008) EML Expert Committees (2007, 2009, 2011, 2015). Member of many WHO Expert working groups relating to paediatric medicines. since 2002.

**Surname, first name(s) and initial:** Howie, Stephen R.C.

**Institutional affiliation(s)** University of Auckland, Fiji National University

**Academic degrees:** BHB, MBChB, Dip Obs, Dip Paeds, PhD, FRACP, FRCP

**City and country of primary residence:** New Zealand

## **Biography**

**Stephen Howie** is a graduate of the University of Auckland School of Medicine and completed specialist paediatric training in New Zealand, becoming a Fellow of the Royal Australasian College of Physicians. He worked for more than a decade at the UK Medical Research Council unit in The Gambia, West Africa, most recently as Programme Leader for Child Survival. He holds a PhD in clinical epidemiology from the London School of Hygiene and Tropical Medicine.

His research, teaching, clinical practice and leadership focus on the prevention and treatment of high-morbidity, high-mortality child health conditions, including pneumonia, bacterial infections and vaccine-preventable diseases, using transdisciplinary clinical, epidemiological and public health approaches. He is a recognised expert in the clinical, research and

health-system aspects of child survival in low- and middle-income countries and has served on multiple international child-health groups, including the WHO guideline development group for the latest pneumonia and diarrhoea management guideline.

He is Associate Dean International, Faculty of Medical and Health Sciences, and Associate Professor of Paediatrics at the University of Auckland, and Adjunct Professor of Paediatrics, Public Health and Epidemiology at Fiji National University.

**Surname, first name(s) and initial:** Jacobs, Choolwe  
**Institutional affiliation(s) :** University of Zambia  
**Academic degrees:** PhD, MPH, BScN  
**City and country of primary residence:** Lusaka. Zambia

## Biography

Choolwe Jacobs is a global health expert and epidemiologist, and an Associate Professor in the School of Public Health at University of Zambia, with over 15 years of experience in research, teaching, and postgraduate supervision and mentorship. She is a co-founder and leads Women in Global Health Zambia. Her work spans collaboration with governments and United Nations agencies across maternal, newborn, child, and adolescent health and nutrition (RMNCAH-N), gender and health, non-communicable diseases, and HIV/AIDS.

Her expertise is highly relevant to child health guideline development, with a strong focus on reproductive, maternal, newborn, child, and adolescent health, health equity, and health systems strengthening. She has extensive experience in research, programme evaluation, and scientific publishing, applying health equity and implementation science approaches to address health system and service delivery challenges. Her methodological expertise includes surveys, implementation research, observational studies, randomized controlled trials, and qualitative research, generating evidence to improve maternal and child health outcomes.

She has successfully coordinated and managed major internationally funded research and training programmes, working with World Health Organization, United Nations Population Fund, UNICEF, Bill & Melinda Gates Foundation, EU-Erasmus, and Wellcome Trust, providing strong scientific and implementation leadership.

## Selected Publications

1. **Jacobs C**, Michelo C, Chola M, Oliphant N, Halwiindi H, Maswenyeho S, et al. Evaluation of a community-based intervention to improve maternal and neonatal health service coverage in the most rural and remote districts of Zambia. *PLoS One*. 2018;13(1):e0190145. doi:10.1371/journal.pone.0190145.
2. **Jacobs C**, Musukuma M, Sikapande B, Blanchard A, et al. How Zambia reduced inequalities in under-five mortality rates over the last two decades: a mixed-methods study. *BMC Health Serv Res*. 2023;23:215.
3. **Jacobs C**, Nkwemu S, Ngambi BB, Silavwe V, et al. Outcomes of children aged 2–59 months with chest indrawing pneumonia managed on an outpatient basis in selected primary health facilities in Zambia. *J Glob Health*. 2025;15:04089.
4. **Jacobs C**, Musukuma M, Sikapande B, et al. How Zambia reduced inequalities in under-five mortality rates over the last two decades: a mixed-methods study. *BMC Health Serv Res*. 2023;23:170. doi:10.1186/s12913-023-09086-3.
5. **Jacobs C**, Musukuma M, Hamoonga R, et al. Trends and inequalities in maternal and newborn health services for unplanned settlements of Lusaka City, Zambia. *J Urban Health*. 2024;101(Suppl 1):125–137. doi:10.1007/s11524-024-00837-z.
6. **Jacobs C**, Michelo C, Hyder A. Understanding maternal choices and experiences of care by skilled providers: voices of mothers who delivered at home in selected communities of Lusaka City, Zambia. *Front Glob Womens Health*. 2023;3:916826. doi:10.3389/fgwh.2022.916826.

Detail of additional publications can be found on:

<https://scholar.google.com/citations?user=RexMmOwAAAAJ&hl=en>

**Surname, first name(s) and initial:** Jehan, Fyezah

**Institutional affiliation(s):** The Ruby and Karim Bahadar, Ali Jessani Endowed Chair  
Department of Pediatrics and Child Health, Professor & Consultant Paediatrics Infectious  
Diseases The Aga Khan University, Karachi, Pakistan

**Academic degrees:** MSc in Epidemiology and Biostatistics, The Aga Khan University,  
Pakistan, FCPS Paediatrics, College of Physicians and Surgeons Pakistan

MBBS, Baqai Medical College, Karachi University

**City and country of primary residence:** Karachi, Sindh, Pakistan

## **Biography**

Dr. Jehan is a Professor and The Ruby and Karim Bahadur Ali Jessani Endowed Chair of the Department of Paediatrics and Child Health at The Aga Khan University. Dr. Jehan is a clinician, researcher and educator with a diverse international research portfolio with over 152 publications in the field of global Maternal, Newborn and Child Health,

A focus of Dr Jehan's work has revolved around understanding the multifactorial aetiology of adverse birth outcomes and early infant mortality. Through her AMANHI (Alliance for maternal and child health improvement) Pakistan biorepository study and then Multi Omics of Mothers and Infants (MOMI) Consortium study, she works with a group of leading experts on innovative 'omics' technologies to accelerate solutions for adverse pregnancy outcomes and optimize health for mothers and infants in LMICs. She has recently published her trials on the role of infant azithromycin on linear growth and azithromycin in pregnancy on birth weight.

She was recently recognized as ASTMH Distinguished International Fellow and a Goalkeeper for the Sustainable Development Goals, an initiative by the Bill & Melinda Gates Foundation.

<b>Surname, first name(s) and initial</b>	Kebede, Fikreab
<b>Institutional affiliation(s)</b>	Ministry of Health-Ethiopia
<b>Academic degrees</b>	MD, MPH
<b>City and country of primary residence</b>	Addis Ababa, Ethiopia

## **Biography**

Dr Fikreab Kebede is a Senior Technical Advisor for trachoma and neglected tropical diseases at the Ministry of Health-Ethiopia. Dr Kebede has close to 40 years of experience in clinical, public health and community development endeavors. At present, he is fully dedicated to the control and elimination of neglected tropical diseases (NTDs), and in particular the elimination of trachoma as a public health problem.

Dr Kebede contributed in various global health initiatives that include health campaign effectiveness Collaborative Action Strategy by the Task Force for Global Health and the revision of the WHO Trachoma control: a guide for programme managers. He further led and contributed in the development of different national technical guidelines which, among other things, include Guideline for the elimination of persistent and recrudescing trachoma (more frequent than annual mass drug administration (MDA) implementation) in Ethiopia; Standard operating procedure for MDA for NTDs in the context of COVID-19; Standard operating procedures for prevention and mitigation of COVID-19 during trachoma surveys; Quality assurance of trichiasis (TT) management - supportive supervision, surgeon's audit, and outcome assessment; and Full geographic coverage (FGC) of trichiasis case finding and service provision.

Dr Kebede has demonstrated skills in leadership, coordination, team work, critical thinking, problem solving facilitation, communication, etc. He has over 17 scientific papers published per reviewed journals.

**Surname, first name(s) and initial:** Lodha, Rakesh

**Institutional affiliation(s)** All India Institute of Medical Sciences (AIIMS), New Delhi, INDIA

**Academic degrees:** MD (Pediatrics)

**City and country of primary residence:** New Delhi, INDIA

### **Biography**

Dr Lodha is Professor of Pediatrics at the All India Institute of Medical Sciences, New Delhi, India. He obtained MD degree in Pediatrics from the same institute.

He is in-charge of the Division of Pediatric Pulmonology & Intensive Care.

Dr Lodha has research interest in acute & chronic respiratory diseases, pediatric sepsis, pediatric critical care, and infectious diseases.

He has been a member of the SCCM Taskforce on Pediatric Sepsis definitions.

Dr Lodha has been a member of various WHO GDGs including COVID, childhood pneumonia & diarrhea, Influenza, Sepsis.

His publications can be viewed at <https://pubmed.ncbi.nlm.nih.gov/?term=Lodha+R>

**Surname, first name(s) and initial** Meda, Nicolas

**Institutional affiliation(s)** Université Joseph KI-ZERBO, Ouagadougou, Burkina Faso

**Academic degrees: MD, MPH, PhD, HDR**

**City and country of primary residence:** Ouagadougou, Burkina Faso

**Biography** [Based in Burkina Faso, Dr Meda is a medical epidemiologist, senior research scientist, trialist, evaluator, Professor of Public Health, international expert on health and development, particularly, in infectious diseases, nutrition, and women & children's health. He established an international reputation in the field of the Prevention of Mother-to-Child Transmission (PMTCT) of HIV & other viruses through collaboration with various northern academic & research networks and institutions. His research results were instrumental in launching the first PMTCT programmes in Sub-Saharan Africa. He held several high-level positions in his career, including coordinator of French National Agency for AIDS Research (ANRS) activities in Burkina Faso, Director-General of Centre MURAZ, the national health research centre, Health Minister, Special Advisor to Burkina Faso President. He has accumulated more than 30 years' experience of working in health research, higher education, international consultancy, and senior management interacting with high-profile actors in global health landscape. He has conducted extensive multicentre international clinical trials funded by ANRS, DFID, EU, EDCTP, Grand Challenges Canada, the last one was EBOVAC2/JnJ/Janssen vaccine trial against Ebola & Marburg virus diseases. Leading the Ministry of Health, he oversaw and validated the development of several guidelines for the provision of health services. As Director of different master's degrees in Epidemiology and Public Health, he developed several curricula. He is a former member of UNAIDS/WHO Monitoring & Evaluation Reference Group and delivered more than 35 scientific reports from consultancies carried out in different African countries on epidemic-prone diseases surveillance and response, Global Fund health interventions impact assessments, and on effectiveness of institutional health research partnerships. He is the author of more than 350 articles published in international journals, a reviewer and member of editorial boards for several different scientific journals, and member of several national and international public health programmes steering committees, scientific review committees and networks.]

**Surname, first name(s) and initial** Miño León, Greta

**Institutional affiliation(s)** (current and in the prior four years)

- Hospital Alcívar, Guayaquil, Ecuador — Paediatric Infectious Disease Specialist, (1997–present)
- Hospital del Niño "Dr. Francisco De Ycaza Bustamante", Guayaquil, Ecuador — Head, Infectious Diseases Department (1997 – 2019)
- Hospital Alcívar, Guayaquil, Ecuador — Advisor, Infection Control Department (2013–2016)
- Universidad Católica de Santiago de Guayaquil, Guayaquil, Ecuador — Coordinator and Professor, Paediatric Internship (2012 – 2019)

#### **Academic degrees**

- Medical Doctor (MD) — School of Medicine, Universidad de Guayaquil, Ecuador (1973–1980)
- Postgraduate Fellowship in Paediatrics — Instituto Nacional de Pediatría, Mexico City, Mexico (1982–1985)
- Diploma in Clinical Epidemiology — Centro Médico Nacional / UNAM, Mexico City, Mexico (1996)
- Postgraduate Fellowship in Paediatric Infectious Diseases — Hospital Infantil de México, Mexico City, Mexico (1995–1997)
- Studies in Medical Sciences, Specialisation in Nosocomial Infections and Hospital Epidemiology — Universidad de Valparaíso, Chile (2006–2009)
- Master's Degree in HIV Infection Update — Universidad Rey Juan Carlos / Ministry of Health, Social Policy and Equality, Spain (2010–2011)

**City and country of primary residence:** Guayaquil, Ecuador

#### **Biography**

Dr. Greta Miño León is a Paediatric Infectious Disease Specialist based in Guayaquil, Ecuador, with over 35 years of clinical, research, and public health experience in child health and infectious diseases. She holds postgraduate fellowships in Paediatrics (Instituto Nacional de Pediatría, Mexico) and Paediatric Infectious Diseases (Hospital Infantil de México), and advanced studies in Nosocomial Infections and Hospital Epidemiology (Universidad de Valparaíso, Chile).

Dr. Miño León brings directly relevant expertise to the core objectives of this guideline, with a sustained commitment to evidence-based antibiotic stewardship, child survival, and antimicrobial resistance surveillance. She has served multiple times as a Temporary Advisor to PAHO, contributing to the expert update of the PAHO Clinical Guide for the Treatment of Infectious Diseases (2006, 2009), the Assessment of Antibiotic Resistance Surveillance and Hospital Infection Control in Ecuador (2006), and a Regional Workshop on Therapeutic Guidelines to Improve Antimicrobial Use in Hospitals (MSH, 2003). She was co-investigator in the WHO/SPEAR multicentre randomised trial on antibiotic treatment for very severe pneumonia in children aged 2–59 months, and contributed to the WHO PREPARE global database informing pneumonia management algorithms. Her research includes a Pfizer Prize-

winning study on antibiotic resistance patterns of *Streptococcus pneumoniae* in children. As former President of the Latin American Society of Paediatric Infectious Diseases (SLIPE, 2009–2011) and a previous WHO GDG member for COVID-19 therapeutics guidelines, she brings critical regional expertise in evaluating antibiotic interventions for child survival in low- and middle-income settings.

**Surname, first name(s) and initial** Molyneux Elizabeth M, Emeritus

Professor of paediatrics and Child Health

**Institutional affiliation(s)** Kamuzu University of Health Sciences

**Academic degrees** MBBS, MRCS,LRP, FRCP, FRCPC, FRCPC (hons), DSc h.c.

**City and country of primary residence** Oxford UK

**Biography** Elizabeth Molyneux is emeritus professor of paediatrics at the Kamuzu University of Health Sciences in Blantyre Malawi. She lived and worked in Malawi for over 33 years. She is a co-founder of APLS (Advanced Paediatric Life Support course and ETAT (Emergency Triage Assessment and Treatment) for WHO. In Blantyre she developed the emergency unit, started palliative care for children, the KMC unit and oncology services. She undertook several therapeutic trials including in sepsis, bacterial meningitis, seizure control. More recently she is one of the NEST360 team trying to reduce preventable neonatal mortality in 5 African countries. Her research interests are wide and include neonatal care, infectious diseases, ‘tropical’ oncology, emergency care, health care delivery and health care systems.

She is chair of several trial steering committees and co-chair of 2 WHO guideline committees. Elizabeth was a member of the first guideline committee on mass azithromycin distribution following the MORDOR trial.

**Surname, first name(s) and initial:** Osorio Marcial

**Institutional affiliation(s)** Institutional affiliation(s) Associated Professor Universidad del Desarrollo

**Academic degrees**

**City and country of primary residence:** Santiago, Chile

## **Biography**

I am a pediatrician with subspecialty training in neonatology and a Master of Science in Bioethics from Ramon Llull University (Barcelona, Spain), with additional training in philosophy applied to bioethics at Universidad del Desarrollo. My academic and clinical career has been dedicated to integrating ethical analysis into pediatric and neonatal practice, with a particular focus on clinical decision-making, research ethics, and conflicts of interest in medicine.

Since 2006, I have served as Associate Professor at Universidad del Desarrollo, where I teach bioethics and pediatrics at both undergraduate and graduate levels. I have led bioethics courses and contribute to the Master's Program in Bioethics, supervising graduate theses in clinical ethics and health research. My institutional roles include serving as Chair of the Scientific Ethics Committee at Clínica Alemana de Santiago since 2012, where I have participated in the ethical oversight of clinical research and contributed to strengthening review standards and processes.

At the national level, I have advised the Chilean Ministry of Health on ethical aspects of COVID-19 vaccine research protocols. My scholarly work includes peer-reviewed publications and book chapters in pediatric and bioethics, as well as active participation in national and international academic forums.

My long-term goal is to advance ethically grounded clinical practice and research in pediatrics and neonatology, contributing to policy development and education in bioethics.

**Name:** Sam-Agudu, Nadia A.

**Institutional Affiliations (current and in past 4 years):** University of Maryland Baltimore (2010-2023), Institute of Human Virology Nigeria (2010 – present), University of Cape Coast, Ghana (2014 – present), University of Minnesota (2023 to present)

**Academic degrees:** BA, MD, CTropMed

**City and Country of Primary Residence:** Minneapolis, USA

Prof. Nadia Sam-Agudu is a clinician-scientist, Professor of Pediatrics in Infectious Diseases and the Director of the Global Pediatrics Program at the University of Minnesota Medical School, USA. Her research and public health work is focused in West and Central Africa, where she conducts research with the Institute of Human Virology Nigeria and the University of Cape Coast in Ghana. She began her career in the immunology of pediatric malaria and has over 20 years' experience in conducting pediatric research in several African countries.

Prof. Sam-Agudu's research focuses on implementation science methods for the prevention and treatment of major infectious diseases affecting children in African countries, such as malaria, HIV, TB, COVID-19, mpox. Her work also provides evidence and supports advocacy for the needs of children and pregnant women in pandemic responses.

She leads the Central and West Africa Implementation Science Alliance (CAWISA), which aims to facilitate the generation of critical health evidence in the region. Prof. Sam-Agudu has been a member of several working groups and guideline committees on child health in Nigeria, with the Africa Centers for Disease Control and Prevention, and with the World Health Organization and the Global Alliance.

**Surname, first name(s) and initial** Singh, Jerome Amir

**Institutional affiliation(s)** Academy of Science of South Africa; World Health Organisation, University of Toronto, University of KwaZulu-Natal

**Academic degrees:** BA, LLB, LLM, MHS, PhD

**City and country of primary residence:** Durban, South Africa

## **Biography**

Jerome Amir Singh serves as the Principal Investigator of the Scientific Advisory Group on Emergencies (SAGE), which operates under the auspices of the Academy of Science of South Africa. He is Adjunct Professor in the Dalla Lana School of Public Health, University of Toronto, Toronto, Canada, and Honorary Research Fellow at the Howard College School of Law, University of KwaZulu-Natal, Durban, South Africa. He serves on several advisory and oversight bodies related to research, policy, humanitarian, and emergency issues, including the International Ethics Review Board of Médecins Sans Frontières (MSF), WHO's Emergencies Ethics Review Committee, the WHO Technical Advisory Group for Emergency Use Listing, and the WHO Expert Group on the Ethics & Governance of Infectious Disease Outbreaks and Other Emergencies of Public Health Importance. Dr Singh chairs the Ethics Working Group of the US NIH-funded HIV Prevention Trial Network, serves as a member of the South African National AIDS Council Legal and Human Rights Technical Task Team, and the Bioethics Advisory Panel of the South African Medical Research Council. He has previously provided support to the Bill and Melinda Gates Foundation (BMGF), BMGF partners, and BMGF grantees.

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**Academic degrees** MA, MSc, PhD

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## **Biography**

Sarah Walker (FMedSci, OBE) is Professor of Medical Statistics and Epidemiology at the Medical Research Council Clinical Trials Unit at University College London (MRC CTU at UCL) (40%) and at the Nuffield Department of Medicine at Oxford University (60% FTE).

At UCL she has responsibility for the statistical design, management and analysis of a portfolio of randomised controlled trials and other interventional and non- interventional studies in the field of infectious diseases, particularly HIV, Hepatitis C, the acutely sick child in Africa and bacterial infections, including as Trial Statistician for 15 randomised trials in high-, middle- and low-income countries over the last 10 years. She has a track record in applying efficient but complex and challenging designs, including factorial and multi-arm multi-stage, and novel Personalised RAndomised Controlled Trial (PRACTical) and Multi-Arm Multi-Stage Response Over Continuous Outcome (MAMS-ROCI) designs, to address multiple questions within each trial.

At Oxford, she has been at the forefront of translating advances in genetic sequencing into microbiology services, and linking this sequence data to electronic health records for large-scale epidemiology, with a particular focus on 'big data' from routinely collected electronic health records and antimicrobial resistance, as part of the “Modernising Medical Microbiology” Unit.