2nd APIC-ADVA Asia Pacific Summit on

INFECTIOUS DISEASES AND IMMUNIZATION

In the Era of Polycrises

11-13 February 2025 | Orchard Hotel, Singapore



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CONTENTS

Welcome Message	2
About Us	3
Organising Committee	4
Programme Schedule	5 - 13
Speakers / Panelists' Biographies	14 - 59
Chair & Moderator	60 - 73
Abstract	74 - 80
Sponsors	81



WELCOME MESSAGE

Since the inaugural APIC-ADVA Summit on Infectious Diseases and Immunization in 2023, the world continues to face a multitude of crises ranging from climate change, geopolitical upheavals, social and political polarization, humanitarian emergencies and the continued, evolving threat of pandemics of infectious diseases. In recent times, concern has been mounting for epidemic threats posed by mpox, avian influenza, a resurgence of polio and malaria, continued evolution of SARS-CoV-2, and increasing numbers of cholera outbreaks. It thus seems timely to convene the Second APIC-ADVA Summit on Infectious Diseases and Immunization in Singapore from February 11-13, 2025 to deliberate our responses to these looming threats to societies worldwide, especially in the Asia-Pacific region.

Beyond considering scientific advances in understanding pathogen biology and epidemiology, and advances in vaccine development, the Summit will provide a unique platform to broaden the discourse to include the impacts of climate change, major updates of relevant international health agreements and regulations, vaccine security, and the importance of evidence-informed policies. It will also highlight the need to overcome the misinformation and disinformation so prevalent in the world today, engage communities, and harness insights from behavioural and implementation sciences-all towards effective and equitable deployment of vaccines and other needed interventions to mitigate epidemic threats posed by infectious diseases. Underpinning all of the above and needed now, more than ever, is global solidarity and cooperation between key stakeholders at the global, regional and national levels to be prepared and respond collectively to these existential threats to humanity.

The Summit will be hosted by the Asia-Pacific Immunization Coalition (APIC), Asia Dengue Voice & Action (ADVA) group, and the Centre for Behavioural and Implementation Science Interventions (BISI) at the Yong Loo Lin School of Medicine, National University of Singapore. It will feature prominent and high-level speakers representing scientists, policy makers, and implementers from the region and from international organizations. We hope to welcome you in Singapore from February 11-13, 2025 to participate and contribute to the success of the Second APIC-ADVA Summit on Infectious Diseases and Immunization!



ABOUT US



Asia Pacific Immunization Coalition

Vaccination is regarded as one of the most successful and costeffective public health interventions which has prevented numerous deaths associated with infectious diseases. However, vaccine hesitancy and insufficient health system support are threatening to reverse the unprecedented progress made in combatting vaccinepreventable diseases.

To tackle the issue of vaccine confidence and the resilience of immunization programmes in the region, the Asia-Pacific Immunization Coalition (APIC) has recently been formed to protect and sustain the hard-fought vaccination gains and build confidence in new vaccines resilient immunization systems that are well-resourced, sustainable, equitable, and integrated into the wider national healthcare system. The coalition aims to achieve this by using an evidence-informed approach to advocacy, activities and research to instil the value of vaccines among consumers, policymakers and other heath stakeholders.

The coalition is hosted within the NUS Yong Loo Lin School of Medicine's Centre for Behavioural and Implementation Science Interventions (BISI) and is co-chaired by Prof Tikki Pangestu, a visiting professor at NUS Medicine, and Prof Heidi Larson, Director of the Vaccine Confidence Project at the London School of Tropical Hygiene and Medicine (LSTHM) and visiting professor at NUS. Other founding members of the coalition include thought leaders and experts from the Asia-Pacific region representing diverse fields of public health policy, immunization advocacy, behavioural science, implementation research and infectious diseases.



Asia Dengue Voice & Action Group

The Asia Dengue Voice & Action Group (ADVA) was officially set up in 2013 with a mission to identify opportunities to make practical recommendations in dengue-related areas such as improving surveillance and laboratory capacity for dengue disease confirmation with other relevant dengue initiatives, including V2V (vaccine to vaccination) and the Dengue Vaccine Initiative.

ADVA advocates for a collaborative approach to sharing surveillance data and relevant information to ensure the success of dengue prevention through vaccination across regions. ADVA also reinforces the importance of a united front against dengue, and presents a collaborative model for joint effort in the region to prevent the disease through the introduction and implementation of dengue vaccination.

The group has formulated recommendations with an ultimate aim of translating the science of dengue vaccination into messages for policy makers, general public and health care workers.



COMMITTEE

Asia-Pacific Immunization Coalition (APIC) Committee

Prof Tikki Pangestu

Prof Heidi Larson

Prof Ooi Eng Eong

Dr Tippi Mak

Dr Niharika Rustagi

Asia Dengue Voice & Action Group (ADVA) Steering Committee

Prof Zulkifli Ismail

Prof Sri Rezeki Hadinegoro

Emeritus Prof Lulu Bravo

Dr Maria Rosario Capeding

Prof Usa Thisyakorn

Prof Terapong Tantawichien

Emeritus Prof Sutee Yoksan

Associate Prof Daniel YT Goh

Dr Francis Kwong

Mr Dafydd Green

Mr Wilson Teo



Time	Programme	Convenor / Chair / Moderator
08:00 - 08:30	Registration	
08:30 - 09:00	Welcome and Opening Speeches Prof Heidi Larson Co-Chair, Asia Pacific Immunization Coalition Professor of Anthropology, London School of Hygiene and Tropical Medicine Prof Datuk Zulkifli Ismail Chairperson, Asia Dengue Voice and Action Group Secretary General, Asia Pacific Pediatric Association & Chairman, Immunise4Life Technical Committee, Malaysia Prof Chong Yap Seng Dean, Yong Loo Lin School of Medicine, National University of Singapore Guest of Honour - Dr Vivian Balakrishnan, Minister for Foreign Affairs, Singapore	Dr Niharika Rustagi Research Fellow, Asia Pacific Immunization Coalition, Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine, National University of Singapore
09:00 - 09:20	Keynote Plenary 1: Global Health is Dead. Long Live Global Health Ms Laurie Garrett Journalist, Pulitzer Prize and Peabody Winning Author of "The Coming Plague" and "Betrayal of Trust: The Collapse of Global Public Health", Member of the World Economic Forum Global Health, Member of the Council on Foreign Relations Security Advisory Board, United States	Prof Tikki Pangestu Co-Chair, Asia Pacific Immunization Coalition, Visiting Professor, Yong Loo Lin School of Medicine, National University of Singapore
09:20 - 09:40	Keynote Plenary 2: Global Health Leadership in a Post-Pandemic World Sir Ashley Bloomfield Former Director-General of Health New Zealand, Past Co-chair of the International Health Regulations Working Group, World Health Organization	Prof Hsu Li Yang Director, Asia Centre for Health Security, Vice Dean of Global Health, Saw Swee Hock School of Public Health, National University of Singapore
09:40 - 10:00	Tea Break, Poster and Exhibition Viewing, and Official P	hotograph Session
10:00 - 11:00	Panel 1: Roundtable perspectives from Director-Generals of Health Sir Ashley Bloomfield Former Director-General of Health New Zealand, Past Co-chair of the International Health Regulations Working Group, World Health Organization Prof Kenneth Mak Director-General of Health, Ministry of Health, Singapore Tan Sri Dr Noor Hisham Abdullah Former Director-General of Health Malaysia, Senior Consultant Surgeon at Putrajaya Hospital, Former President of Malaysia Medical Council Dr Enrique A. Tayag Former Undersecretary, Department of Health Public Health Services Cluster, the Philippines	Dr Louisa Sun Deputy Director, Centre for Infectious Disease Emergency Response, Yong Loo Lin School of Medicine, National University of Singapore



Time	Programme	Convenor / Chair / Moderator
11:00 - 12:00	Industry Symposium A – Takeda Pharmaceuticals International Emerging Markets Region From Trials to Implementation: Advancing the Integration of Immunization in Southeast Asia's Holistic Dengue Prevention Approach	Mr Azrul Mohd Khalib Founder & Chief Executive Officer, Galen Centre for Health & Policy, Malaysia
	Dr dr H Jaya Mualimin Head of East Kalimantan Provincial Health Office, Indonesia Dr Nakorn Premsri Director of National Vaccine Institute, Ministry of Public Health, Thailand Dr Nikki Kitikiti Vaccines External Engagement & Advocacy Lead, Takeda Pharmaceuticals International Emerging Markets Region	
12:00 - 13:00	Networking Lunch, Posters and Exhibition Viewing	
13:00 - 14:00	Industry Symposium B - Sanofi RSV: Now an immunization-preventable disease for all infants Prof Yung Chee Fu Senior Consultant, Paediatric Infectious Disease, KK Women's and Children's Hospital, Singapore Prof Terry Nolan Redmond Barry Distinguished Professor Emeritus, University of Melbourne, Australia and Former Head, Vaccine and Immunisation Research Group, Doherty Institute	Prof Daniel Goh Senior Consultant, Department of Paediatrics, National University Hospital Associate Professor, Department of Paediatrics, Yong Loo Lin School of Medicine, National University of Singapore
14:00 - 14:20	Innovations for more equitable access to endemic, epidemic and pandemic vaccines Prof David Heymann Professor, Infectious Disease Epidemiology, London School of Hygiene and Tropical Medicine Former World Health Organization Assistant Director for Health Security and the Director- General's Representative for Polio Eradication Distinguished Fellow at the Centre on Universal Health at Chatham House, London	Prof Tikki Pangestu Co-Chair, Asia Pacific Immunization Coalition Visiting Professor, Yong Loo Lin School of Medicine, National University of Singapore
14:20 - 14:40	Keynote Plenary 4: Regional and innovative approaches to global health security Dr Ahmed Razavi Indo- Pacific Regional Lead, UK Health Security Agency International Health Regulations Strengthening Project, Indonesia	Ms Ananta Seth Monitoring, Reporting, Evaluation and Learning Manager, UK Health Security Agency, United Kingdom



Time	Programme	Convenor / Chair / Moderator
14:40 - 15:40	Panel 2:	Prof Vernon Lee
	Advancing Pandemic Preparedness: policy and innovation lessons for the future	Executive Director, National Centre for Infectious Diseases, Singapore
	Sir Ashley Bloomfield	
	Former Director-General of Health New Zealand, Past Co-chair of the International Health Regulations Working Group, World Health Organization	
	Ms Laurie Garrett Journalist, Pulitzer Prize and Peabody Winning Author of "The Coming Plague" and "Betrayal of Trust: The Collapse of Global Public Health", Member of the World Economic Forum Global Health, Member of the Council on Foreign Relations Security Advisory Board, United States	
	Prof David Heymann Professor, Infectious Disease Epidemiology, London School of Hygiene and Tropical Medicine;	
	Former World Health Organization Assistant Director for Health Security and the Director- General's Representative for Polio Eradication;	
	Distinguished Fellow at the Centre on Universal Health at Chatham House, London	
	Dr Ahmed Razavi Indo- Pacific Regional Lead, UK Health Security Agency International Health Regulations Strengthening Project, Indonesia	
15:40 - 16:00	Tea Break, Posters and Exhibition Viewing	
16:00 - 16:20	Keynote Plenary 5: Addressing climate and health challenges with digital technology	Dr Amanda Zain Deputy Director, Centre for Sustainable Medicine; Assistant Dean of Sustainability, Yong Loo Lin School
	Prof Rachel Lowe ICREA Research Professor and Global Health Resilience Group Leader at Barcelona Supercomputing Center, Royal Society Dorothy Hodgkin Fellow at the London School of Hygiene & Tropical Medicine	of Medicine, National University of Singapore
16:20 - 17:20	Panel 3:	Prof Ooi Eng Eong Professor, Signature Research
	Mega Trends and Scientific Advances	Programme in Emerging Infectious
	Dr Sushant Sahastrabuddhe Associate Director General, Innovation, Initiatives & Enterprise Development, International Vaccine Institute, South Korea	Diseases, Duke-NUS Medical School, Singapore
	Prof Rachel Lowe ICREA Research Professor and Global Health Resilience Group Leader, Barcelona Supercomputing Center, Royal Society Dorothy Hodgkin Fellow at the London School of Hygiene & Tropical Medicine	
	Prof Datuk Zulkifli Ismail Chairperson, Asia Dengue Voice and Action Group	
	Secretary General, Asia Pacific Pediatric Association & Chairman, Immunise4Life Technical Committee, Malaysia	
	Prof Dale Fisher Director, Centre for Infectious Disease Emergency Response, Yong Loo Lin School of Medicine, National University of Singapore	
17:20 - 17:40	Keynote Plenary 6:	Prof Dale Fisher
	Lessons for the day	Director, Centre for Infectious Disease Emergency Response, Yong Loo Lin
	Dr Sylvie Briand Director, The Global Preparedness Monitoring Board, Former WHO Director, Epidemic and Pandemic Preparedness and Prevention Department	School of Medicine, National University of Singapore

Time	Programme	Convenor / Chair / Moderator
17:40 - 17:50	The National Immunization Programs (NIPs) in select ASEAN and SAARC countries: The Launch of a Study Report by VaxLab	Professor, Signature Research Programme in Emerging Infectious Diseases, Duke-NUS Medical School, Singapore
	Prof Shenglan Tang Mary D.B.T & James H. Semans International Distinguished Professor, School of Medicine Research Professor of Global Health, Duke Global Health Institute, Duke University, USA	
17:50 - 19:00	Industry (Dinner) Symposium C - Moderna	Dr Leong Choon Kit
	Transforming Adult Vaccination: Global Perspectives	Family Physician, Tampines Family Medicine Clinic
	and Policy Frameworks in Health Communication	Adjunct Assistant Professor, Duke-NUS and Yong Loo Lin school of Medicine,
	Prof David Heymann Professor, Infectious Disease Epidemiology, London School of Hygiene and Tropical Medicine;	NUS
	Former World Health Organization Assistant Director for Health Security and the Director- General's Representative for Polio Eradication;	
	Distinguished Fellow at the Centre on Universal Health at Chatham House, London	
	Prof Hsu Li Yang Director, Asia Centre for Health Security,	
	Vice Dean of Global Health, Saw Swee Hock School of Public Health, National University of Singapore	
	Mr Alexander Clark Head of International APAC, Behavioural Insights Team	
	All participants are welcome to join this complimentary symposium (Experience the rich culinary heritage of Singapore with an array of local delicacies)	



Day 2: Wednesday, 12 February 2025

Time	Programme	Convenor / Chair / Moderator
08:30 - 09:00	Registration	
09:00 - 09:20	Keynote Plenary 7:	Prof Ooi Eng Eong
	Current gaps in vaccine development: Focus on geography and market potential	Professor, Signature Research Programme in Emerging Infectious Diseaser, Duke-NUS Medical School,
	Dr Sushant Sahastrabuddhe Associate Director General, Innovation, Initiatives & Enterprise Development, International Vaccine Institute, South Korea	Singapore
09:20 - 09:40	Keynote Plenary 8:	Dr Tippi Mak
	Advancing ASEAN Vaccine Security and Self Reliance: Progress Through Collaboration	Consultant, Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine,
	Dr Sunate Chuenkitmongkol Deputy Director Scientific Affairs, National Vaccine Institute, Thailand	National University of Singapore
09:40 - 10:40	Panel 4:	Prof John Lim
	Closing gaps: Progress on vaccine security and cooperation in the region	Professor & Executive Director, Centre of Regulatory Excellence, Duke-NUS Medical School, Singapore
	Dr Sunate Chuenkitmongkol Deputy Director, Scientific Affairs, National Vaccine Institute, Thailand	
	Ms Jennifer Frances dela Rosa Assistant Director and Head of Health Division Human Development Directorate	
	ASEAN Socio-Cultural Community Department	
	Dr Neal Xiao Manager, International Business Department of Xiamen Innovax Biotech Co., Ltd	
	Mr Pandu Harimurti Senior Health Specialist	
	World Bank Jakarta, Indonesia	
	Dr Basil Rodriques Regional Health Adviser, UNICEF East Asia & Pacific Regional Office, Thailand	
	Ms Youngmi Cho Head of Global Affairs and Communications, International Vaccine Institute, South Korea	
10:40 - 11:00	Tea Break, Posters and Exhibition Viewing	
11:00 - 12:00	Industry Symposium D – Bavarian Nordic	Prof David Heymann Professor, Infectious Disease
	Mpox Emergency: Global Epidemiology and the Role of Vaccination with MVA-BN as a Critical Countermeasure	Epidemiology, London School of Hygiene and Tropical Medicine Former World Health Organization
	Mpox Epidemiology and PHEIC: Bridging Global Insights to the Asia-Pacific Region	Assistant Director for Health Security and the Director- General's Representative for Polio Eradication
	Prof Kay Choong See Adjunct Associate Professor, Yong Loo Lin School of Medicine, National University of Singapore	Distinguished Fellow at the Centre on Universal Health at Chatham House, London
	Advancing Mpox Prevention with the MVA-BN Vaccine: Research, Licensing, and Production Update	
	Dr Ralph Torgler Regional Medical Affairs Director, Bavarian Nordic	

Day 2: Wednesday, 12 February 2025

Time	Programme	Convenor / Chair / Moderator
12:00 - 13:00	Networking Lunch, Posters and Exhibition Viewing	
13:00 - 13:20	Keynote Plenary 9: Taking a life-course approach to immunization Ms Jody Tate Research Director, The Health Policy Partnership, United Kingdom	Dr Leong Hoe Nam Infectious Disease specialist, Mount Elizabeth Novena Hospital, Singapore
13:20 - 13:40	Keynote Plenary 10: Advancing equitable and sustainable immunisation in the face of global challenges Ms Anamaria Bejar Director Public Policy Engagement, Gavi, the Vaccine Alliance, Switzerland	Dr Tippi Mak Consultant, Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine, National University of Singapore
13:40 - 14:40	Panel 5: Vaccination for priority populations: ensuring all people everywhere receive vaccines Ms Jody Tate Research Director, The Health Policy Partnership, United Kingdom Mr Hamzah Zekrya Senior Manager, Civil Society and Partnerships,, Gavi, the Vaccine Alliance, Switzerland Prof Katie Attwell Professor, School of Social Sciences, University of Western Australia Dr Putri Herliana Associate Director for Country Support, Global Vaccines, at Clinton Health Access Initiative, Inc., Indonesia.	Prof Heidi Larson Co-Chair, Asia Pacific Immunization Coalition, Professor of Anthropology, London School of Hygiene and Tropical Medicine
14:40 - 15:00 15:00 - 16:00	APIC Educational Symposium RSV Reboot Revolutionizing RSV Management: From Wastewater to Immunization Prof Masaaki Kitajima Project Professor at the Laboratory of International Wastewater-based Epidemiology, The University of Tokyo Dr Pushpa Wijesinghe Programme Area Manager, World Health Organization, South-East Asia Prof See Kay Choong Adjunct Associate Professor, Yong Loo Lin School of Medicine, National University of Singapore	Dr Ng Lee Ching Group Director, Environmental Health Institute, National Environment Agency, Singapore
16:00 - 16:20	Keynote Plenary 11: Determinants of dengue vaccine confidence, intent to vaccinate, and history of vaccination across Asia Pacific and Latin America: a 10-country survey Prof Heidi Larson Co-Chair, Asia Pacific Immunization Coalition Professor of Anthropology, London School of Hygiene and Tropical Medicine	Mr Azrul Mohd Khalib Founder & Chief Executive Officer, Galen Centre for Health & Policy, Malaysia



Day 2: Wednesday, 12 February 2025

Time	Programme	Convenor / Chair / Moderator
16:20 - 16:40	Keynote Plenary 12: Vaccine risk communication in an era of polycrises	Prof Margie Danchin Clinician Scientist, University of Melbourne, and Murdoch Children's
	Prof Julie Leask Professor, School of Public Health, University of Sydney, Australia	Research Institute (MCRI)
16:40 - 17:40	Panel 6:	Prof Anna Ong Lim Professor and Attending Pediatrician
	Best Practices in Vaccine Risk Communication and Community Engagement	at the University of the Philippines and the Philippine General Hospital
	Prof Julie Leask Professor, School of Public Health, University of Sydney	
	Prof Anna Ong Lim Professor and Attending Pediatrician at the University of the Philippines and the Philippine General Hospital	
	Prof Lulu Bravo Professor Emeritus at the College of Medicine, University of the Philippines	
	Dr Leong Hoe Nam Infectious Disease specialist, Mount Elizabeth Novena Hospital, Singapore	



Day 3: Thursday, 13 February 2025

Time	Programme	Convenor / Chair / Moderator
08:30 - 09:00	Registration	
09:00 - 09:20	Keynote Plenary 13: COVID-19 Vaccine Mandates in Southeast Asia: A Comparative Study of Policies in Malaysia, the Philippines, Thailand, and Vietnam Prof Katie Attwell Professor, School of Social Sciences, University of Western Australia	Prof Nick Sevdalis Academic Director, Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine, National University of Singapore
09:20 - 09:40	Introduction: Implementation science: What it is, what it isn't and why it matters when implementing immunisation programmes at scale Prof Nick Sevdalis Academic Director, Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine, National University of Singapore	Prof Katie Attwell Professor, School of Social Sciences, University of Western Australia
09:40 - 10:00	Keynote Plenary 14: Planned hybrid studies and other innovative approaches to evaluate interventions to improve uptake of childhood vaccines: experience from LMIC settings in the Asia-Pacific Prof Margie Danchin Clinician Scientist at the University of Melbourne, and Murdoch Children's Research Institute (MCRI)	Prof Nick Sevdalis Academic Director, Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine, National University of Singapore
10:00 - 10:20	Keynote Plenary 15: The role of higher education institutions in strengthening vaccination programs as part of primary health care: facing challenges and harnessing opportunities Prof Vicente Belizario Adjunct Research Faculty, National Institutes of Health; Former Professor and Dean, College of Public Health, University of the Philippines Manila	Prof Margie Danchin Clinician Scientist at the University of Melbourne, and Murdoch Children's Research Institute (MCRI)
10:20 - 10:40	Keynote Plenary 16: Immunisation of Older Adults in the Asia-Pacific: Barriers, Facilitators, and Strategies to Improve Access to Vaccines - Phase II: Hong Kong and Japan Ms Susana Harding Senior Director, International Longevity Centre Singapore, Tsao Foundation	Ms Ananta Seth Monitoring, Reporting, Evaluation and Learning Manager, UK Health Security Agency, United Kingdom



Day 3: Thursday, 13 February 2025

Time	Programme	Convenor / Chair / Moderator
10:40 - 11:40	Panel 7:	Prof Robyn Mildon
	Implementation Science and Innovations for better data policies and scale up	Visiting Associate Professor, Yong Loo Lin School of Medicine, National University of Singapore
	Prof Margie Danchin Clinician Scientist, University of Melbourne, and Murdoch Children's Research Institute (MCRI)	Chief Executive Officer, Centre for Evidence and Implementation
	Prof Vicente Belizario Adjunct Research Faculty, National Institutes of Health; Former Professor and Dean, College of Public Health, University of the Philippines Manila	
	Dr Putri Herliana Associate Director for Country Support, Global Vaccines, at Clinton Health Access Initiative, Inc.	
	Prof Nick Sevdalis Academic Director, Centre for Behavioural and Implementation Science Interventions (BISI), Yong Loo Lin School of Medicine, National University of Singapore	
11:40 - 12:00	Closing remarks & Wrap Up-Reflections	Prof Tikki Pangestu Co-Chair, Asia Pacific Immunization Coalition
		Visiting Professor, Yong Loo Lin School of Medicine, National University of Singapore
12:00 - 13:00	Networking Lunch, Posters and Exhibition Viewing	





Dr Vivian BALAKRISHNAN

Minister for Foreign Affairs, Singapore

Dr Vivian Balakrishnan is the Minister for Foreign Affairs. He previously served as Minister-in-charge of the Smart Nation Initiative; Minister for the Environment and Water Resources; Minister for Community Development, Youth and Sports; Second Minister for Trade and Industry; Minister-in-charge of Entrepreneurship; Second Minister for Information, Communications and the Arts and Minister of State for National Development. He has been a Member of Parliament since 2001.

He studied Medicine at the National University of Singapore after being awarded the President's Scholarship in 1980. Following post-graduate specialist training in Ophthalmology, he was admitted as a Fellow of the Royal College of Surgeons of Edinburgh in 1991.

He was appointed Medical Director of Singapore National Eye Centre in 1999 and Chief Executive Officer of Singapore General Hospital in 2000. Concurrently, he was Commanding Officer of the 2nd Combat Support Hospital of the Singapore Armed Forces from 1999 to 2002.Dr Balakrishnan has helmed the Ministry of Foreign Affairs (MFA) since October 2015. Singapore was Chair of ASEAN in 2018. Singapore also hosted the landmark Singapore Summit between the leaders of the United States and the Democratic People's Republic of Korea in 2018. During the COVID-19 pandemic, MFA undertook its largest consular operation to bring home Singaporeans stranded overseas. Singapore also co-chairs the Friends of the COVID-19 Vaccine Global Access (COVAX) Facility, which supports vaccine multilateralism and access to COVID-19 vaccines for all.

Dr Balakrishnan was the Minister-in-charge of the Smart Nation Initiative from 2014 to 2021. He led the conceptualisation and implementation of key initiatives such as the National Digital Identity (Singpass), integrated digital services (LifeSG and MyInfo) and digital finance (PayNow and SGQR). He drove the adoption of new approaches within the Singapore Government, in particular, the use of digital contact tracing systems to combat COVID-19 (TraceTogether and SafeEntry), the streamlining of business applications (GoBusiness), and the adoption of agile in-house software development (SG Tech Stack). He also led the development of strategies and policy reviews that are foundational to Smart Nation, including the Digital Government Blueprint, National Artificial Intelligence Strategy, and Public Sector Data Security Review.

Dr Balakrishnan was a ministerial facilitator for many rounds of negotiations between 2011 to 2015 that led to the Paris Agreement on climate change at the United Nations. He initiated the Transboundary Haze Pollution Act in 2014 to deter offending local and overseas entities that cause haze.

Dr Balakrishnan rolled out numerous key initiatives and policies throughout his political career. At the Ministry of the Environment and Water Resources, he increased the capacity for desalination and NEWater production substantially. In 2011, he restarted the building of new hawker centres after 26 years, to ensure that everyone has access to a wide variety of good, fresh, and affordable food in an informal setting, and to enable local hawkers to make a good living. He initiated the Progressive Wage Model in 2014 for cleaners, who became the first group of workers to enjoy increased wages and better terms of employment. At the Ministry of Community Development, Youth and Sports, he established the ComCare system to enhance comprehensive social assistance for all Singaporeans in need. He also oversaw the redevelopment of the National Stadium in 2010. At the Ministry of Information, Communications and the Arts, he worked on the National Broadband Fibre Network project to bring ultra-high speed, low-cost, and efficient fibre broadband to all households and enterprises in Singapore.

Dr Balakrishnan also moved new legislation and amendments to existing legislation in Parliament, including the Mental Capacity Act, which provides for Lasting Power of Attorney so that seniors can nominate a proxy.



Prof Heidi Larson

Co-Chair, Asia Pacific Immunization Coalition Professor of Anthropology, London School of Hygiene and Tropical Medicine

Professor Heidi J. Larson is Director of The Vaccine Confidence Project and Professor of Anthropology, Risk and Decision Science at the London School of Hygiene & Tropical Medicine; Clinical Professor, Department of Health Metrics Sciences, University of Washington, Seattle; Guest Professor, University of Antwerp and KU Leuven, Belgium, and Visiting Professor, Department of Medicine, National University of Singapore. Prof. Larson previously headed Global Immunization Communication at UNICEF, chaired Gavi's Advocacy Task Force, and served on the WHO SAGE Working Group on vaccine hesitancy. She is author of STUCK: How Vaccine Rumors Start – and Why They Don't Go Away (Oxford University Press, 2020) and has published widely and lectured internationally on the drivers and enablers of vaccine confidence. She was awarded the 2021 Edinburgh Medal in recognition of her scientific work on the contagion of misinformation and its impact on human health.





Prof Datuk Zulkifli Ismail

Chairperson, Asia Dengue Voice and Action Group Secretary General, Asia Pacific Pediatric Association & Chairman, Immunise4Life Technical Committee, Malaysia

Prof. Zulkifli Ismail is a consultant paediatrician and paediatric cardiologist at a private hospital and Clinical Professor at the KPJ Healthcare University College. He was formerly a professor of paediatrics and paediatric cardiology in the Universiti Kebangsaan Malaysia (UKM). Dr Ismail has served as the head of the paediatric department and the director of Hospital Universiti Kebangsaan Malaysia (HUKM) as well as the medical director of its private wing, UKM Specialist Centre.

Prof. Zulkifli also served as a past president of the Malaysian Paediatric Association (MPA) and is currently the editor of Berita MPA, a quarterly newsletter publication distributed to fellow members of the Association. He chairs the Positive Parenting Management Committee (www.mypositiveparenting. org) and serves as the chief editor of the Positive Parenting Guide, a quarterly publication aimed to equip Malaysian parents with reliable and practical local information on maternal, child and family care since 2002. He is the Technical Chairman of Immunise4Life (www.ifl.my), a vaccination advocacy programme of the Ministry of Health Malaysia.

Prof. Zulkifli is currently the president of the Asia Pacific Paediatric Association (APPA) and current chairman of the Asian Strategic Alliance for Pneumococcal disease prevention (ASAP). He also serves as a board member of the National Population and Family Development Board (LPPKN), a member of the Ministry of Health Unrelated Transplant Approval Committee (UTAC) and in the editorial board of the Malaysian Journal of Paediatrics & Child Health (MJPCH). He has also served as a reviewer for the Medical Journal of Malaysia and the Philippines Paediatric Infectious Disease Journal.

Prof. Zulkifli has more than 35 publications in peer-reviewed international and local journals in addition to numerous abstracts and articles for the lay-public on various issues involving child health, paediatrics and vaccinology. He has authored or co-authored two books for parents, one for medical students and one for nurses. In 2008, he was conferred the Darjah Panglima Mahkota Wilayah by the Malaysian King that carries the honorific title of 'Datuk'.





Prof Chong Yap Seng

Dean, Yong Loo Lin School of Medicine, National University of Singapore

Professor Chong Yap Seng, a renowned gynaecologist and obstetrician, maternal health expert, and early childhood researcher, is the Dean of NUS Medicine, Singapore's first institute of higher learning and one of the leading medical schools in Asia. Since Professor Chong assumed the role of Dean in 2019, NUS Medicine has risen to rank 16th on the 2024 Times Higher Education World University rankings and 18th on the 2024 QS World University Rankings for Medicine.

In his recently appointed role as Deputy Chief Executive (Education and Research) of the National University Health System (NUHS), Professor Chong will be furthering NUHS' academic mission and augmenting the Academic Health System through his oversight of the academic and research development at all NUHS institutions.

As the former Executive Director (2015-2021) and now the Chief Clinical Officer at the Institute for Human Development and Potential, Agency for Science, Technology and Research's (A*STAR's) Singapore Institute for Clinical Sciences (SICS) was renamed to the A*STAR Institute for Human Development and Potential (IHDP) on 7 Aug 2024. These programmes include the Growing Up in Singapore Towards healthy Outcomes (GUSTO) and the Singapore Preconception Study of long-Term maternal and child Outcomes (S-PRESTO) longitudinal studies that examine how conditions in pregnancy and early childhood influence the health and development of women and children.

In addition to his special research interest in the developmental origins of health and disease, Professor Chong has co-authored more than 500 research publications in top journals including The Lancet, the Journal of the American Medical Association (JAMA) and the British Medical Journal (BMJ). He received the National Outstanding Clinician Scientist Award from Singapore's Ministry of Health in 2017 for his research efforts in early human development and nutrition, and was recently conferred the Public Administration Medal (Sliver) at the 2022 Singapore National Day Awards.

In recent years, Professor Chong, has dedicated efforts to developing national strategies to advance child and maternal health and well-being, promoting healthy living for families, and improving health resources equity in Singapore.

Professor Chong continues to care for mothers and babies in his role as a Senior Consultant in the Department of Obstetrics & Gynaecology at the National University Hospital (NUH) under the NUHS. As a dedicated gynaecologist and obstetrician, he still looks forward to welcoming newborn babies into the world.





Ms Laurie Garrett

Journalist, Pulitzer Prize and Peabody Winning Author of "The Coming Plague" and "Betrayal of Trust: The Collapse of Global Public Health", Member of the World Economic Forum Global Health, Member of the Council on Foreign Relations Security Advisory Board, United States

Author, speaker and *Foreign Policy* columnist Laurie Garrett was senior fellow for global health at the Council on Foreign Relations (CFR) in New York from 2004-2017. Ms. Garrett is the only writer ever to have been awarded all three of the Big "Ps" of journalism: the Peabody, the Polk (three times), and the Pulitzer (three times finalist, once recipient for her coverage of the 1995 Ebola epidemic in Zaire). Her expertise includes epidemics, pandemics, bioterrorism, microbiome impacts, planetary health and climate change. Throughout the COVID-19 pandemic Garrett was on contract with NBC News, providing on-air analysis of the virus and epidemics, worldwide.

Laurie Garrett wrote her first bestselling book, The Coming Plague: Newly Emerging Diseases in a World Out of Balance, while splitting her time between the Harvard School of Public Health and the New York newspaper, *Newsday*. During the 1990s Garrett continued tracking outbreaks and epidemics worldwide, noting the insufficient responses from global public health institutions in Zaire, India, Russia and most of the former USSR, Eastern Europe, and the United States. This resulted in publication in 2000 of the best-selling Betrayal of Trust: The Collapse of Global Public Health. The following year Garrett covered the attacks on the World Trade Center and subsequent anthrax mailings, leading to her third book, I Heard the Sirens Scream: How Americans Responded to the 9/11 and Anthrax Attacks.

A native of Los Angeles, Garrett graduated with honors in biology from the University of California, Santa Cruz. She attended graduate school in the Department of Bacteriology and Immunology at University of California, Berkeley and did immunology research in the Herzenberg Lab of Stanford University. During the 1980s Garrett was a science correspondent for National Public Radio, having previously covered health, wars and development issues in southern and eastern Africa as a freelance broadcast journalist. Among her most recent awards for her global health work and publishing are the 2014 NYU School of Medicine "Outstanding Contributions to Global Health," and the 2015 Internationalism Award from the American Women for International Understanding. In 2017 she was named one of 10 "Remarkable Women of UC," by the Board of Regents of the University of California. In 2024 she was named by the George C. Polk Awards one of the 16 "Greatest Investigative Journalists of the Last Half Century." Garrett has been awarded five honorary PhDs, honoris causa, from Wesleyan University (Illinois), University of Massachusetts (Lowell), Georgetown University, the Carl Icahn Mt. Sinai School of Medicine and Rutgers University.

Garrett currently serves as a judge for the Hiroshi Noguchi Africa Prize (Japan's version of the Nobel Prizes in science and medicine); as a Board member for the Francois Bagnold Center for Health and Human Rights at Harvard University; as a columnist for Foreign Policy; a lecturer and writer.

On a personal note, Garrett formerly co-owned Havens Winery in Napa, California, which produced renowned Merlot, Albariño, Cabernet, Syrah vintages and blends. An avid cyclist, Garrett has biketoured many places, including in Italy, Croatia, Montenegro, Sweden, Norway, Bosnia and Herzegovina, the United States and Canada. The bike is her primary mode of transportation in New York City, where she has resided since 1988, not owning an automobile since 1989.





Sir Ashley Bloomfield

Former Director-General of Health New Zealand, Past Co-chair of the International Health Regulations Working Group, World Health Organization

Sir Ashley Bloomfield has 25 years' experience in public health, policy and health leadership, including at the WHO in Geneva. He was New Zealand's Director-General of Health from June 2018 to July 2022 and led the country's health response to the COVID-19 pandemic. He was appointed a Knights Companion of the New Zealand Order of Merit (KNZM) in the 2023 New Year Honours for services to public health. Between 2022 and June 2024, Dr Bloomfield was Co-Chair of the Working Group for Amendments to the International Health Regulations (2005). He is now a Professor at the University of Auckland's School of Population Health and Interim Chief Executive at Environmental Science and Research (ESR).





Prof Kenneth Mak

Director-General of Health, Ministry of Health, Singapore

Professor Kenneth Mak is Director-General of Health at the Ministry of Health Singapore.

In this role, Professor Mak is the principal medical adviser to the Singapore Government and provides professional input and guidance to other Ministries and public agencies on health and healthcare related issues.

Professor Mak oversees the provision of all health services in Singapore. Within the Ministry of Health, he ensures that clinical services are delivered seamlessly across multiple settings by the public healthcare system. He leads in developing and implementing national healthcare policies in areas such as population health, healthcare regulation, communicable diseases and non-communicable diseases, healthcare professional standards as well as the development and enhancement of the performance of the nation's healthcare system and services. Professor Mak works closely with Singapore's Regional Health Systems and healthcare institutions on care integration as well as on Singapore's long-term healthcare transformation strategy.

During the COVID-19 pandemic, Professor Mak advised the Multi-Ministry Taskforce as well as other governmental agencies in crafting Singapore's overall strategy for managing the outbreak and oversaw the integrated public health response to control the spread of COVID-19 in our community. Professor Mak is a familiar face in Singapore as he appeared regularly in the media conferences of the COVID-19 Multi-Ministry Taskforce.

Professor Mak is the Registrar of the Singapore Medical Council, which is the Professional Board that ensures that medical practitioners, registered for clinical practice in Singapore, are competent and fit to practice medicine, upholding high standards of clinical practice and maintaining public confidence in the medical profession.

Professor Mak is a general surgeon with subspecialty interests in hepatobiliary and pancreatic surgery, as well as in trauma surgery. He maintains his clinical practice as a Senior Consultant surgeon in the Department of Surgery, at Khoo Teck Puat Hospital, Singapore. His previous administrative appointments include Chief of Surgery at three public hospitals in Singapore and Chairman of the Medical Board at Khoo Teck Puat Hospital, Singapore. Professor Mak was Deputy Director of Medical Services (Health Services Group) in MOH from 2015 to end-2019. He was appointed Director of Medical Services in 2020 and this appointment was redesignated in May 2023 to Director-General of Health to better reflect his role as the main overseer of clinical and public health of Singaporeans.

Professor Mak retired from voluntary military service in 2021, as a Colonel with the Singapore Armed Forces. He had held various command and staff appointments at Battalion, Brigade and Division level.





Tan Sri Dr Noor Hisham Abdullah

Former Director-General of Health Malaysia, Senior Consultant Surgeon at Putrajaya Hospital, Former President of Malaysia Medical Council

Dr Noor Hisham Abdullah is a distinguished Senior Consultant Surgeon in Breast and Endocrine Surgery with over 30 years of experience in the medical field. He served as the Director General of Health, Ministry of Health Malaysia, from March 2013 to April 2023.

Prior to that, he was the Deputy Director General of Health (Medical) from January 2008 to February 2013. Dr Hisham is widely recognized for his expertise in managing breast and endocrine cancers and has numerous published papers and textbook chapters on breast and endocrine surgery.

He completed his Master of Surgery and Medical Degrees from the National University of Malaysia (UKM). In addition, he underwent rigorous training in breast and endocrine surgery under the Royal Australasian College of Surgeons Fellowship training program.

Over the years, he has become a prominent figure in global health, with vast experience in the World Health Organization (WHO) and as a Board Member of the Drugs for Neglected Diseases initiative (DNDi).

He completed his 2017-2021 term as a Councillor-at-Large on the Executive Board of the International Society of Surgery (ISS) and Chair of the Global Surgery Committee of ISS. He also completed his 3-year term last year as the Chair of the WHO Standing Committee on Health Emergency Prevention, Preparedness and Response (SCHEPPR). He is currently the Chairman of the Asian Association of Endocrine Surgeons.

Dr Hisham has received numerous accolades for his exceptional contributions to healthcare. Most notably, he was awarded the prestigious Fellowship Ad Hominem of the Royal College of Surgeons of Edinburgh. Dr Hisham is passionate about promoting universal healthcare coverage to marginalized communities and bringing personalized healthcare back to the community through patient-centered care and creative innovation.





Dr Enrique A. Tayag

Former Undersecretary, Department of Health Public Health Services Cluster, the Philippines

Dr Enrique Amar Tayag, or Doc Eric, is an infectious diseases physician and epidemiologist who has served as Assistant Secretary in the Department of Health for the last 34 years. He was one of the three awardees of the Gawad Career Executive Services in 2017 as Bureau of Local Health Systems Development Director for his exemplary and dedicated service and significant contributions, loyalty, integrity, and overall work ethic.

Known as the DoH's "Dancing Doctor," Dr Tayag's medical expertise was tested in the midst of the Covid-19 pandemic when he spearheaded the government's vaccine drive to combat the deadly virus. He believes that the challenges Filipinos face today is how to overcome feelings of uncertainty about the future and how to conquer our fears because we do not know everything about the disease.

He has published several scientific articles in Infectious Diseases and is a much-sought speaker on numerous topics in Medicine and Public Health. He remains affiliated with various Non-governmental associations such as the Philippine Medical Association, the Philippine Society of Microbiology and Infectious Diseases, Philippine Foundation for Vaccination, South Asia Field Epidemiology and Technology Network, Inc.





Dr dr H Jaya Mualimin

Head of East Kalimantan Provincial Health Office, Indonesia

Dr Jaya Mualimin has served as the Head of the East Kalimantan Provincial Health Office since 2022 and is highly committed to public health issues in the region. Under his leadership, East Kalimantan has achieved numerous accolades for its public health programs, including tuberculosis and malaria control. He has also implemented various initiatives for dengue fever prevention, including a dengue vaccination program.





Dr Nakorn Premsri

Director of National Vaccine Institute, Ministry of Public Health, Thailand

Nakorn Premsri, MD., Director of National Vaccine Institute, has extensive experiences in health promotion, disease prevention and control as well as public health program management. He also proposed ASEAN Vaccine Security and Self-Reliance (AVSSR) initiative, endorsed in 2019, and coordinates the AVSSR Strategic and Action Plan 2021-2025 to ensure regional vaccine security.





Dr Nikki Kitikiti

Vaccines External Engagement & Advocacy Lead, Takeda Pharmaceuticals International Emerging Markets Region

Dr Nikki Kitikiti (MD, MPH, FAMS) is Vaccines External Engagement & Advocacy Lead at Takeda Pharmaceuticals International Emerging Markets Region which covers Asia-Pacific, Latin America, Africa and the Middle East. She is also an Associate Visiting Expert at the Duke-NUS Medical School Centre of Regulatory Excellence (CoRE). Dr Kitikiti completed her medical degree and Public Health Medicine specialist training in Singapore where she maintains full registration and part-time clinical practice. She has a diverse range of health system experience including roles in Singapore government health agencies, clinical practice, hospital administration, global health policy and outbreak management.





Prof Yung Chee Fu

Senior Consultant, Paediatric Infectious Disease, KK Women's and Children's Hospital, Singapore

Associate Prof Yung Chee Fu is a senior consultant in paediatric infectious diseases at KK Women's and Children's Hospital. He is also adjunct Associate Professor at Duke-NUS Medical School and LKC Medicine, Imperial College NTU. His clinical expertise spans a wide range of infectious diseases in children, with a particular focus on epidemiology, public health medicine, vaccinology and outbreak control. He graduated from the University of Bristol Medical School and completed his post-graduate training in Cambridge and London.

In addition to his contributions to clinical service, Prof. Yung is also extensively involved in research, with special interests on COVID-19 vaccination in children, RSV, outbreak control of Zika, Ebola and Influenza viruses and health economics. To date, he has authored > 80 publications in leading journals.





Prof Terry Nolan

Redmond Barry Distinguished Professor Emeritus, University of Melbourne, Australia and Head, Vaccine and Immunisation Research Group, Doherty Institute

Professor Terry Nolan is Redmond Barry Distinguished Professor Emeritus at the University of Melbourne, and was formerly head of the Vaccine and Immunisation Research Group (VIRGo) at the Peter Doherty Institute for Infection and Immunity and the Murdoch Children's Research Institute. He was the Foundation Head of the Melbourne University School of Population and Global Health between 2001 and 2019.

Prof. Nolan is a pediatrician and clinical epidemiologist, graduated in medicine and in medical science from the University of Western Australia, trained in paediatrics at the Royal Children's Hospital in Melbourne and at the Montréal Children's Hospital, and was awarded a PhD in epidemiology and biostatistics from McGill University in Montréal.

His expertise relates to immunisation, pandemic vaccine planning and response, and clinical trials of new vaccines. He has authored more than 270 publications in scientific journals. He has provided advice and expertise to many of the world's leading vaccine manufacturers and their scientists on the development and testing of dozens of new vaccines.

He was Chair of the Australian Technical Advisory Group on Immunisation (ATAGI) for a decade. He is a Fellow of the Australian Academy of Health and Medical Sciences, and a former member of SAGE, the World Health Organization's main advisory group on vaccines and Immunisation. Prof. Nolan is a recipient of several awards, including the prestigious Officer of Order of Australia.





Prof David Heymann

Professor, Infectious Disease Epidemiology, London School of Hygiene and Tropical Medicine

Former World Health Organization Assistant Director for Health Security and the Director- General's Representative for Polio Eradication

Distinguished Fellow at the Centre on Universal Health at Chatham House, London

David Heymann is a medical doctor and epidemiologist, and Professor of Infectious Disease Epidemiology at LSHTM. From 1989 to 2009 he held various leadership positions in infectious diseases at WHO including polio eradication, and in 2003 headed the WHO global response to SARS in his role as executive director of communicable diseases. In 1976, after spending two years working in India on smallpox eradication, he was a member of the CDC (Atlanta) team to investigate the first Ebola outbreak in DRC and stayed on in sub-Saharan Africa for 13 years in various field research positions on Ebola, monkeypox, Lassa Fever, malaria and other tropical diseases after which he was seconded by CDC to WHO. He has published over 275 peer reviewed articles and book chapters, is editor of the Control of Communicable Diseases Manual, and is an elected member of the UK Academy of Medical Sciences and the US National Academy of Medicine. In 2009 he was named an Honorary Commander of the Most Excellent Order of the British Empire for services to global health.





Dr Ahmed Razavi

Indo- Pacific Regional Lead, UK Health Security Agency International Health Regulations Strengthening Project, Indonesia

Dr Ahmed Razavi is the Indo-Pacific Regional Lead for UKHSA's International Health Regulations strengthening project, working closely with the ASEAN health sector on ASEAN Member State health security priorities. He is a medical doctor specialising in public health, having worked with a range of organisations such as Public Health England, WHO, University of Cambridge, Chatham House etc. and over a range of geographies including the Caribbean, UK Overseas Territories, Ethiopia, and Indonesia.





Prof Rachel Lowe

ICREA Research Professor and Global Health Resilience Group Leader at Barcelona Supercomputing Center, Royal Society Dorothy Hodgkin Fellow at the London School of Hygiene & Tropical Medicine

Rachel Lowe is an ICREA Research Professor and Global Health Resilience (GHR) Group Leader at the Barcelona Supercomputing Center (BSC) and a Royal Society Dorothy Hodgkin Fellow at the London School of Hygiene & Tropical Medicine. The GHR group co-develops policy-relevant methodological solutions, to enhance surveillance, preparedness and response to global health challenges, with a focus on climate-sensitive infectious diseases. Rachel coordinates two Wellcome Trust digital technology, climate, and health projects, HARMONIZE and IDExtremes, which aim to provide robust data and modelling tools to build local resilience against emerging infectious disease threats. Rachel is the co-coordinator of the Horizon Europe project IDAlert, which aims to tackle the emergence and transmission of zoonotic pathogens in Europe and beyond by developing novel indicators and innovative early warning systems. Rachel is a member of the World Meteorological Organization World Weather Research Programme (WWRP) and the Lancet Commission for Strengthening the Use of Epidemiological Modelling of Emerging and Pandemic Infectious Diseases.





Dr Sushant Sahastrabuddhe

Associate Director General, Innovation, Initiatives & Enterprise Development, International Vaccine Institute, South Korea

Dr Sushant Sahastrabuddhe (MD, MPH, MBA) is the Associate Director General for the Innovation, Initiatives and Enterprise Development unit at the International Vaccine Institute in Seoul, South Korea. Sushant is working at IVI since 15 years and has led multiple vaccine development programs involving typhoid conjugate, Chikungunya, and COVID-19 vaccines. Sushant is a medical graduate from India with Masters in Public Health from Johns Hopkins Bloomberg School of Public Health, Baltimore, USA and an MBA from the Indiana University, USA. Before joining IVI, Sushant worked with National AIDS Research Institute (NARI) under the umbrella of Indian Council of Medical Research (ICMR) and International AIDS Vaccine Initiative (IAVI).

Sushant has over 40 manuscripts and 2 book chapters and is affiliated with Yonsei University, Seoul, South Korea as Adjunct Professor in the College of Medicine; Research Fellow, at CIRI – Centre International de Recherche en Infectiologie, Team GIMAP, Université Jean Monnet, Université Claude Bernard Lyon 1, France and Visting Professor, Department of Infectious Disease Epidemiology and Dynamics, Institute of Tropical Medicine, Nagasaki University, Japan. Sushant has been awarded with Honorary citizenship from Seoul Metropolitan Government for his contributions to global public health in 2021.





Prof Dale Fisher

Director, Centre for Infectious Disease Emergency Response, Yong Loo Lin School of Medicine, National University of Singapore

Prof Dale Fisher moved from Australia to Singapore at the beginning of the SARS outbreak in 2003. In 2006 he became chair of infection prevention and control at NUH and in 2014 became national IPC committee chair. Since 2007 he has been affiliated with WHO and its Global Outbreak Alert and Response Network (GOARN), participating in outbreak responses including influenza 2009 H1N1 in countries including Mongolia, Malaysia and Myanmar as well as the Ebola response in West Africa, 2014-5. From 2018 to 2022 he chaired the network acting in an advisory role to the WHO Director General and ultimately receiving an award from him for outstanding Leadership. In Feb 2020 he was part of the WHO mission to Wuhan to investigate the COVID-19 Outbreak. He undertook around 750 local and international media engagements through the pandemic. He has just completed his book entitled "Infectious Disease Emergencies: Preparedness and Response." 2025 will see the inaugural MSc in Infectious Disease Emergencies at NUS.





Dr Sylvie Briand

Director, The Global Preparedness Monitoring Board, Former WHO Director, Epidemic and Pandemic Preparedness and Prevention Department

Before leading the Global Preparedness Monitoring Board (GPMB) secretariat which is co-convened by the **World Health Organization** and the **World Bank** Dr Briand was previously the Director of the Epidemic and Pandemic Preparedness and Prevention department (EPP) at the World Health Organization's (WHO) headquarters.

She has been at the fore front of managing epidemic and pandemic preparedness and response for more than 20 years including COVID-19, MERS, avian and pandemic influenza, Ebola, Zika, Chikungunya, yellow fever, plague, Nipah virus disease, cholera, smallpox, mpox, and many other Public Health emergencies of international concern. Before joining WHO in 2001, she worked as a public health project director for different global health agencies in various geographic regions (Europe, Africa, South America).

She recently published the "Managing Epidemic Hand book" (WHO, second edition) and the "Managing Infodemic in the 21st Century" (Springer). She also contributed to the book "Infectious Diseases Emergencies: Preparedness and Response (editor Prof D. Fisher, NUS)

She holds a Medical Doctor degree with a specialization in infectious diseases, a Ph.D in Health Systems' Analysis focusing on epidemiologic surveillance, a Master's degree in Sociology and Anthropology and a Master's degree in Public Health.





Prof Shenglan Tang

Mary D.B.T & James H. Semans International Distinguished Professor, School of Medicine Research Professor of Global Health, Duke Global Health Institute, Duke University, USA

Dr Shenglan Tang has more than 30 years of experience undertaking research on health systems reform, disease control, and maternal and child health in China and other countries and has provided consultancy services on health systems strengthening to many international organizations and governments of developing countries. In 2012, Dr Tang went to Duke University from the UNICEF/UNDP/World Bank/WHO Special Program for Research and Training in Tropical Diseases (TDR), based in Geneva, where he was Unit Leader for TB/HIV and Health Systems. Before his assignment at WHO, Dr Tang was a faculty member at the Liverpool School of Tropical Medicine in the UK and at the School of Public Health of Fudan University (formerly Shanghai Medical University).





Prof Hsu Li Yang

Director, Asia Centre for Health Security, Vice Dean of Global Health, Saw Swee Hock School of Public Health, National University of Singapore

Professor Hsu Li Yang is an infectious diseases physician and Vice Dean of Global Health at the NUS Saw Swee Hock School of Public Health. He leads the Asia Centre for Health Security currently, and has dedicated over a decade to researching antimicrobial resistance, emerging infectious diseases and global health. Formerly the Clinical Director at the National Centre for Infectious Diseases and Director of the Singapore Infectious Diseases Initiative, he has played a pivotal role in shaping Singapore's response to infectious disease threats, including the development of the National Strategic Action Plan on Antimicrobial Resistance. Professor Hsu holds an MBBS from the National University of Singapore and a Master of Public Health from Harvard University.





Mr Alexander Clark

Head of International APAC, Behavioural Insights Team

Alexander Clark is the Head of International APAC at the Behavioural Insights Team (BIT), where he oversees the organisation's work across the Asia-Pacific region. Since co-founding BIT's Singapore office in 2016, he has led projects on financial decision-making, healthcare planning, and public policy interventions. His work applies behavioural insights to diverse areas, including improving retirement savings in Singapore, tackling COVID-19 transmission in Indonesia and Bangladesh, and enhancing conservation efforts in China, Indonesia, and Vietnam. With expertise in choice architecture, Alexander has contributed to innovative solutions such as optimising handwashing facilities, improving waste segregation, and promoting vaccination uptake.





Dr Sunate Chuenkitmongkol

Deputy Director Scientific Affairs, National Vaccine Institute, Thailand

Dr Sunate Chuenkitmongkol is a medical doctor with a vaccine development background who is currently working as a Deputy Director at the National Vaccine Institute (NVI) Thailand.

She completed her M.D. degree from Mahidol University, Bangkok, followed by a Diplomat of internal Medicine from Faculty of medicine Ramathibodi hospital, Mahidol University. She has received advanced training in good clinical practices (GCP), Clinical development for Vaccine and Pharmaceutical Business perspective. Moreover, she has extensive experience in vaccine clinical trial study design and clinical operation from phase II-IV. She has published more than 10 research on Epidemiology, Vaccine immunogenicity & safety studies.

Before joining National Vaccine institute, Thailand, she worked as Vaccine Medical Director at private pharmaceutical sector for 19 years which worked closely with Ministry of Public Health (MOPH) on Vaccine preventable disease program. Dr Sunate Chuenkitmongkol carries a mix of Vaccine Advocacy experience and technical expertise. She has an in-depth of understanding of various aspects of Immunization programs in Thailand including program management, decision making processes, and technical support.

Currently, she supports National Advisory Committee on Immunization Program (ACIP) on technical, formative, operational and implementation on new vaccine i.e., COVID-19 Vaccines, HPV, Pneumococcal vaccines, Influenza vaccine in Thailand.

During COVID-19 Pandemic, she advises Clinical research development for Local developers receiving NVI funding: mRNA COVID vaccine, NDV-HXP-S (New castle disease virus recombinant S protein), Subunit Protein from Plant based etc. She supports to prioritize the investment of the development of certain vaccines that likely cause huge public health impact (potentially, dengue and influenza vaccines) Moreover, she supports COVID vaccine strategies, joining in NACIP and National Vaccine Committee and support updated Global scientific data on COVID Vaccines immunogenicity, Efficacy, RWE effectiveness to have decision on vaccine use amidst Delta outbreak in Mid-2021. For instance, support data justify booster for HCP who got 2 doses Sinovac during Delta surge. Provide scientific evidence to support Heterologous regimen implementation. Provide local evidence support adolescent COVID vaccination with mRNA vaccine.

She also supports MOPH to find efficacious vaccines and provide strategy to accelerate the delivery in time of Delta surge. Additionally, she supports COVID vaccine communication to HCP, medical organization, and lay public through webinar series, streaming live. Setting a collaboration with WHO, Academic as well as Private sector.

Bringing the vaccine security issue to international level to mobilize collective capacities through international platforms and bilateral collaborations in supporting vaccine security, such as International Vaccine institute IVI &NVI collaboration.





Ms Jennifer Frances dela Rosa

Assistant Director and Head of Health Division Human Development Directorate ASEAN Socio-Cultural Community Department

Jennifer has been working for the Association of Southeast Asian Nations (ASEAN) Secretariat in Jakarta, Indonesia since 2016. She has recently been promoted as the Assistant Director/ Head of the Health Division and is responsible for the overall programme management and supervision of the ASEAN Post 2015 Health Development Agenda 2021-2025, ASEAN Health Cooperation and the Health Division. In her past portfolio as Senior Officer, she managed and technically supported the work of ASEAN Health Cluster 3 on Strengthening Health Systems and Access to Care which includes ASEAN Vaccine Security and Self- Reliance and ASEAN Heath Cluster 4 on Food Safety.

Prior to joining the ASEAN Secretariat, she was a member of the academic community at the College of Public Health at the University of the Philippines in Manila, a health policy researcher and analyst at the Institute of Health Policy and Development Studies at the National Institutes of Health, then a programme coordinator of an EU-funded Decent Work Across Borders programme at the International Labour Organisation (ILO) in Manila.

She obtained her Master of Public Health from the University of the Philippines Manila and MSc in Health Policy, Planning and Financing from the London School of Economics and Political Science (LSE) and the London School of Hygiene and Tropical Medicine (LSHTM) in the United Kingdom.





Dr Neal Xiao

Manager, International Business Department of Xiamen Innovax Biotech Co., Ltd

Mr Neal is currently the Manager, International Business Department, Xiamen Innovax biotech. Innovax biotech is a leading company in the field of developing, manufacturing and marketing innovative vaccines with its headquarters and manufacture based in Xiamen, China. Innovax has established a unique Escherichia coli-based recombinant vaccine system for vaccine industrialization. Based on this platform, Innovax successfully launched the world's first recombinant hepatitis E vaccine (Hecolin®) in 2012 and the world's third HPV vaccine (Cecolin®) in 2019.

Mr Neal has more than 10 years of experience, working in leading vaccine manufacturers, and is responsible for global business development and market access for various vaccine products, including HPV2, PCV13, Meningitis & many more.

Mr Neal did his master's in Biotechnology, Bioprocessing and Business Management in the University of Warwick (UK).





Mr Pandu Harimurti

Senior Health Specialist World Bank Jakarta, Indonesia

Pandu Harimurti is a Senior Health Specialist at the World Bank Office Jakarta, in which he has been working for almost two decades. During his tenure at the Bank, Pandu has been working on various health system issues mostly in Indonesia but also on Eswatini, and other south-east Africa countries, and Brazil. His works are mainly on health financing, health service delivery, as well as other topics on digital health, health security and health resilience, and tobacco control. He has experience in designing, planning, and leading/co-leading the implementation of several WB lending operations, and analytical and advisory works, that covers a wide range of subjects from health professional education, COVID-19 emergency response, health system resilience, health financing and currently on disease specific programs such as TB and health system transformation agenda.





Dr Basil Rodriques

Regional Health Adviser, UNICEF East Asia & Pacific Regional Office, Thailand

Basil is a Public Health Professional with background in Epidemiology, Maternal and Child Health. He has served in several capacities with UNICEF across multiple continents and countries. Over the past 30 years, he has served as Regional Immunization Adviser for the East Asia and Pacific Region (based in Bangkok), and later as Senior Adviser for Emerging Infectious Diseases in UNICEF, New York. He continued in his Regional Health Adviser roles in East Asia & Pacific as well as Europe and Central Asia, based in Geneva, Switzerland. He has recently returned to the East Asia and Pacific Region, where he currently serves as the Senior Regional Health Adviser for East Asia & Pacific.





Ms Youngmi Cho

Head of Global Affairs and Communications, International Vaccine Institute, South Korea

Youngmi Cho is the Head of Global Affairs & Communications at IVI, leading membership engagement with governments, communications and media outreach, advocacy, and capacity-building programs. In this role, she oversees IVI's diplomatic affairs and donor state relationships in addition to the functions of the Global Council and IVI's Collaborating Centers. Her team also maintains the IVI brand, including editorial and design.

Ms. Cho joined IVI in 2013 as the Senior Manager of Government Relations, primarily managing IVI's relations with the Government of the Republic of Korea, IVI's first host country, and securing reoccurring core funding.

Prior to IVI, Ms. Cho held positions at the Embassy of Denmark in Korea and the Australian Trade Commission as a Commercial Officer and Business Development Manager, respectively. She has a 20+ year career in diplomacy and multilateral coalition-building with a passion for global health.

Ms. Cho holds a Master of International Relations from Macquarie University in Sydney, Australia and a Bachelor of Arts in Scandinavian Language and Culture from Hankook University of Foreign Studies in Seoul, Republic of Korea.





Prof See Kay Choong

Adjunct Associate Professor, Yong Loo Lin School of Medicine, National University of Singapore

Adj Assoc Prof Kay Choong See is currently a Senior Consultant Respiratory Physician and Intensivist at the National University Hospital, Singapore. He is also the Associate Designated Institutional Official for the National University Health System Residency Program. Adj Assoc Prof See completed Advanced Specialty Training in both Respiratory Medicine and Intensive Care Medicine in Singapore, a Master of Public Health at the Harvard School of Public Health, and a Master of Health Professions Education at Maastricht University. He is competent in bronchoscopy, endobronchial ultrasound, ultrasound-guided pleural procedures and thoracoscopy (pleuroscopy). His special interests include public health, medical education, and healthcare quality improvement.





Dr Ralph Torgler

Regional Medical Affairs Director, Bavarian Nordic

Dr Ralph Torgler is a molecular immunologist and works as Regional Medical Affairs Director at Bavarian Nordic. He holds a master's degree in microbiology and immunology from the University of Bern, Switzerland, and a PhD in Life sciences from the University of Lausanne, Switzerland. After his PhD and post-doc in the field of experimental malaria vaccine development, he started to work in industry in various R&D roles with a strong focus on infectious diseases.





Ms Jody Tate

Research Director, The Health Policy Partnership, United Kingdom

Jody Tate is Director of Research at The Health Policy Partnership (HPP), a specialist health policy research organisation based in London. Jody has worked at HPP since 2018 and in that time, in addition to her leadership role within the company, she has led policy initiatives on vaccination across the life-course, working with leading international multidisciplinary groups of experts to develop resources for policy- and decision-makers. Jody has also led research-based projects in other disease areas including BRCA-related breast cancer, rare diseases and personalised medicine.

Jody has more than 15 years' experience in public health, focusing on research and project management. Much of her work prior to joining HPP involved supporting clients to design, deliver and evaluate large-scale public health programmes in Africa and Asia, with a focus on health systems strengthening, access to medicines and communicable disease control. She has written or contributed to a range of reports and policy briefs for clients, including the UK and Australian governments, the United Nations, and philanthropic organisations. Jody has a Master's in Public Health (Global Health) from the University of Manchester and a Master's in Development Studies from the University of London's School of Oriental and African Studies.





Ms Anamaria Bejar

Director Public Policy Engagement, Gavi, the Vaccine Alliance, Switzerland

Anamaria started her career in Cusco Peru, where she worked at the Peruvian Ministry of Health and local NGOs on community programs for indigenous women and children. She is a social anthropologist with an MSc in Health Policy Planning and Financing obtained at the London School of Economics and Political Sciences and the London School of Hygiene and Tropical Medicine.

Anamaria is a renowned leader in advocacy and global health with years of experience working in HIV / AIDS. She has led teams and programs in the International HIV / AIDS Alliance and International Planned Parenthood Federation. She is currently serving as the Director of Public Policy Engagement at Gavi, the Vaccine Alliance.





Mr Hamzah Zekrya

Senior Manager, Civil Society and Partnerships, Gavi, the Vaccine Alliance, Switzerland

Hamzah Zekrya is development specialist with over 12 years of experience in building mechanisms to ensure cooperation across sectors and establish holistic approaches to peacebuilding and state-building as a steppingstone to sustainable development. He has built his career as an effective policy writer promoting country driven and country led transition towards resilience globally and across countries in Asia and Africa. This includes strengthening Health Systems, fund raising and donor relations, private sector engagements and employment generation, Peace and reconciliation among other areas. He's currently serving as Senior Manager Civil Societies and Partnerships at Gavi since 2016. Prior to joining Gavi, Hamzah served as a policy advisor to an intergovernmental group called g7+ specializing in peacebuilding in fragile settings where he coordinated the engagement between governments, donors, developing partners and CSOs.





Prof Katie Attwell

Professor, School of Social Sciences, University of Western Australia

Professor Katie Attwell is a political science and public policy scholar at the University of Western Australia, and a global expert in vaccine hesitancy and vaccination policies for childhood and COVID-19 vaccines. Katie has engaged in community, policy, and behavioural research in vaccination uptake since 2014, the year of her ground-breaking and internationally recognised "I Immunise" campaign, which drew on behavioural insights to address alternative lifestyle-based vaccine hesitancy in Fremantle, Western Australia. Katie led the interdisciplinary West Australian project "Coronavax: Preparing Community and Government", which engaged in community and government research for a vaccine roll-out for COVID-19. She currently leads "MandEval: Mandate Evaluation" exploring COVID-19 vaccine mandates and their impact in Australia, Italy, France, California and the United Kingdom. MandEval is funded by the Medical Research Future Fund of the Australian Government (\$4.7 million). A/Prof Attwell frequently shares her research and insights globally with the academic field, governments, technical specialists, and the media. She has published in Nature, Pediatrics, Milbank Quarterly, and Social Science and Medicine. With her team, she researches vaccination policymaking in Australia, the United States, the United Kingdom, Italy, France, Bangladesh, Vietnam and Malaysia.





Dr Putri Herliana

Associate Director for Country Support, Global Vaccines, at Clinton Health Access Initiative, Inc., Indonesia.

Putri is a public health professional with 9 years' experience on immunization program development, and a combined 11 years' experience in the public and private health system. In her current role, she oversees global team support to 17 focal countries where CHAI has active vaccines work. Putri manages a range of technical, strategic, and programmatic support provided across multiple workstreams within CHAI Vaccines program— including service delivery, new vaccine introduction, cold chain logistics, governance, as well as immunization financing and sustainability. Putri was previously CHAI's Senior Regional Manager for Southeast Asia Pacific, which includes India, Indonesia, and Cambodia offices amongst others. She holds a Master in Public Health from King's College London, and a Doctor of Medicine in Dentistry from Universitas Indonesia.





Prof Masaaki Kitajima

Project Professor at the Laboratory of International Wastewater-based Epidemiology, The University of Tokyo

Masaaki Kitajima is currently a Project Professor and Principal Investigator of the Laboratory of International Wastewater-based Epidemiology at the University of Tokyo. He earned his PhD from the University of Tokyo in 2011, following which he held postdoc positions at the University of Arizona from 2011 to 2013 and at the Singapore-MIT Alliance for Research and Technology from 2014 to 2016. After working as an Assistant and Associate Professor at Hokkaido University in Japan for 8 years, he started his current appointment at the University of Tokyo in March 2024. His research focuses on environmental virology, particularly in the field of wastewater-based epidemiology. His impactful contributions have led to his recognition as a Highly Cited Researcher for three consecutive years (2022 to 2024) and Japan Research Front Award by Clarivate.





Dr Pushpa Wijesinghe

Programme Area Manager, World Health Organization, South-East Asia

Dr Pushpa Ranjan Wijesinghe serves as the Program Area Manager for Infectious Hazard Management at the WHO Health Emergencies Programme in the WHO Regional Office for South-East Asia (SEARO). Prior to his current position, DR Pushpa Ranjan Wijesinghe worked as the Technical Officer for New and Underutilized Vaccines at the Immunization and Vaccines Development Unit at SEARO, and as the Medical Officer for Communicable Diseases, including Immunization, at the WHO Country Office for the Democratic People's Republic of Korea.

DR Wijesinghe is a physician (MD - General Medicine). Additionally, he holds a Doctorate (MD) and a Master's (MSc) in Public Health/Community Medicine, as well as an MPH in Epidemiology and Biosecurity. He contributed to evidence generation for the introduction of the JE live vaccine SA-14-14-2, as well as for rotavirus, invasive bacterial vaccine-preventable diseases, and influenza, while working at the Ministry of Health in Sri Lanka.

DR Wijesinghe has worked on new and underutilized vaccine introductions, new vaccine-related surveillance and evidence generation, immunization system strengthening, the Pandemic Influenza Preparedness Framework, and the implementation of the global influenza strategy at WHO.

In his current position, Dr Wijesinghe is responsible for coordinating preparedness, response, and networking for risk mitigation of priority high-threat pathogens within the context of resilient health systems. This includes the Pandemic Influenza Preparedness Framework, Preparedness and Resilience for Emerging Threats (PRET), and broad respiratory pathogen pandemic planning.





Prof Julie Leask

Professor, School of Public Health, University of Sydney, Australia

Julie Leask AO is professor and social scientist in the University of Sydney, School of Public Health where co-leads the Social and Behavioural Insights in Immunisation research group. Her research focuses the social aspects of vaccination, programs, policy, and risk communication. Professor Leask has qualifications in public health, nursing and midwifery. She is member of the Sydney Infectious Diseases Institute and visiting fellow at the National Centre for Immunisation Research and Surveillance. She has had advisory and committee roles with WHO, UNICEF, the US President's Cancer Panel, NHMRC, Australian Academy of Science, Australian Government and NSW Ministry of Health. She was appointed Officer of the Order of Australia in 2024 for "distinguished service to health and medical research, to policy advice, and to enhancing community understanding of immunisation".





Prof Anna Ong Lim

Professor and Attending Pediatrician at the University of the Philippines and the Philippine General Hospital

Prof. Ong-Lim has more than 20 years of experience in paediatric infections and tropical diseases. Following acquiring an MD from the University of Philippines, she completed her residency in paediatrics, followed by a fellowship in paediatric infectious disease from the Philippines General Hospital, University of Philippines (UP-PGH). She currently serves as Professor and Chief of the Division of Infectious and Tropical Disease in Pediatrics at UP-PGH.

Prof. Ong-Lim is extensively involved in clinical trials for paediatric vaccines against measles, mumps, rubella, polio, pneumococcal disease and influenza. She is a member of key infectious disease associations including the Infectious Disease Society of America and the Asian Society of Pediatric Infectious Disease. She has authored several publications focused on paediatric health and infectious disease and is a regular speaker on these topics at scientific congresses.





Prof Lulu Bravo

Professor Emeritus at the College of Medicine, University of the Philippines

Lulu Bravo is a Professor Emeritus at the College of Medicine, University of the Philippines Manila. She is the former Vice Chancellor for Research and Executive Director of the National Institutes of Health, University of the Philippines Manila (2005 – 2011) and current head of the Vaccine Study Group of the NIH – UPM.

She is the President of the Immunization Partners in Asia Pacific (IPAP), current Executive Director and past President of the International Society of Tropical Pediatrics (ISTP) 2008 - 2011, past Chair and Founder of the Asian Strategic Alliance for Pneumococcal Disease Prevention (ASAP) 2007 - 2011, and Executive Director, Sec-General (1998 - 2006) & past President of the Asian Society for Pediatric Infectious Disease (ASPID) 2006 - 2008. She has served in various capacities in many other Asian medical and professional societies and as WHO Technical Advisor. She has served as well in national medical organizations such as PMA, PPS, PIDPS, PSMID and the Philippine Foundation for Vaccination (PFV) of which she is the founding President and current Executive Director. In the international scene, she is a member of the Rota Council, Pneumococcal Awareness Council of Experts (PACE) and member of the Dengue Vaccine Initiative (DVI). Her work has earned for her various national and international honors and awards in the professional, academic and research fields, including the Outstanding Physician (2009) and the prestigious Dr Jose P. Rizal Memorial Award for Academe (2011) given by Philippine Medical Association, the 2012 Asian Outstanding Pediatrician Award given by the Asia Pacific Pediatric Association and 2018 Outstanding Professional in Medicine given by the Professional Regulation Commission of the Philippines. In 2008, she presented both written and oral evidence to the UK's House of Commons to justify the \$ 2.5 Billion vaccination advance market commitment to provide needed vaccines for the developing world. She was named Pneumonia Fighter in 2018 by the JustActions Organization, a US-based advocacy movement and corporation associated with People Empowerment.

Dr Lulu Bravo completed her MD, pediatric residency and subspecialty training in infectious disease at Philippine General Hospital-College of Medicine of the University of the Philippines Manila. She supplemented her fellowship in pediatric infectious disease at the University of Texas Southwestern Health Science Center in Dallas, USA in 1986. She has published more than 100 scientific articles, books and book chapters in both local and international circles.





Dr Leong Hoe Nam

Infectious Disease specialist, Mount Elizabeth Novena Hospital, Singapore

Dr Leong Hoe Nam is an Infectious Diseases Physician. He graduated from NUS in 1996, and obtained his MRCP and M Med in 2001. Thereafter, he began his advanced specialist training in infectious diseases. Dr Leong further pursued his interest in virology at the Royal Free and University College Medical School, London under a fellowship awarded by the National Medical Research Council. In 2008 he was awarded a second research fellowship to train at the University of Columbia, New York, on emerging pathogens.

Dr Leong was previously a consultant in the Department of Infectious Disease in SGH. Having left Singapore General Hospital, he continued his practice in Infectious Diseases at the private Raffles Hospital before setting up his own clinic at Mount Elizabeth Hospital at Novena. He has been directly involved in the care of transplant patients, individuals with multi-drug resistant organisms, tuberculosis, HIV, AIDS, surgical complications, viral infections, fungal infections including aspergillosis, cryptococcosis and mucormycosis, and complex medical problems. He had first-hand experience in managing outbreak situations including SARS and H1N1 pandemic infection. He has also published several research papers on virology.

Dr Leong has been frequently interviewed by live tv, radio presenters and various print journalists. He is frequently sought for an opinion on various infectious diseases (see newsroom).

Dr Leong was a clinical tutor at the Yong Loo Lin School of Medicine. He was a faculty member at the Duke-NUS Graduate Medical School and still maintains his adjunct position as assistant professor while working at Mount Elizabeth Novena Hospital. He remains a visiting consultant at the Singapore General Hospital, the National Cancer Centre Singapore, and the Dover Park Hospice Hospital.





Prof Nick Sevdalis

Academic Director, Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine, National University of Singapore

A psychologist by training, Professor Sevdalis serves as Academic Director for BISI and Executive Director of the CHILD research centres at the Yong Loo Lin School of Medicine, National University of Singapore. He is also the Co-Editor-in-Chief of the Frontiers in Health Services, Implementation Science Section peer-reviewed journal. Prior to his roles at NUS, Professor Sevdalis led the Centre for Implementation Science at King's College London (2015-23), and held several academic roles at the Imperial Patient Safety Translational Research Centre, in the Imperial College London (2004-15), both in the UK.

His key area of focus is implementation science, an inter-disciplinary field of study that investigates how best to implement research findings and evidence-based practices to be effectively integrated and scaled within routine healthcare services. Professor Sevdalis's vision is to achieve population health and high-quality healthcare delivery through application of psychological and behavioural sciences and partnership development between stakeholders in academia, health services, charitable organisations and industry. His research has been disseminated in over 450 publications to-date and presented in more than 120 lectures worldwide.





Prof Margie Danchin

Clinician Scientist at the University of Melbourne, and Murdoch Children's Research Institute (MCRI)

Professor Margie Danchin is a paediatrician, vaccinologist and Dame Kate Campbell Fellow at the Royal Childrens Hospital, University of Melbourne and Murdoch Childrens Research Institute (MCRI) and Associate Dean International for the Faculty of Medicine, Dentistry and Health Sciences (MDHS), University of Melbourne. As leader of the Vaccine Uptake and Clinical trials Group, MCRI, her research focuses on vaccine effectiveness, confidence and uptake, particularly amongst priority populations and in low resource settings, and on effective risk communication. In Australia, she is a member of the Australian Technical Advisory Group on Immunisation (ATAGI) and chair of the Social Science Advisory Board and a member of the Scientific Advisory Committee, National Centre for Immunisation Research and Surveillance (NCIRS).

Her research has significantly influenced immunisation policy and practice in Australia. Professor Danchin has secured over \$36 million in research funding and authored more than 170 publications. She is committed to efforts to improve child health and vaccine confidence and uptake globally and in the Asia Pacific Region and works closely with DFAT to provide technical immunisation support for the region. She is Deputy Chair, Australian Regional Immunisation Alliance (ARIA), on the steering committee for Melbourne Children's Global Health and Associate Dean International, University of Melbourne. During the pandemic, Margie worked closely with the Commonwealth and Victorian State Governments on the COVID-19 rollout, focusing on optimising uptake for priority populations and received several awards for her impact and leadership. She was also awarded the Bob and June Prickett Churchill Fellowship in 2020 to enhance vaccine communication and is a member of the Victorian Selection Committee for the Winston Churchill Memorial Trust. She is passionate about effective science communication, working closely with the media to communicate about child health issues and vaccines.





Prof Vicente Belizario

Adjunct Research Faculty, National Institutes of Health; Former Professor and Dean, College of Public Health, University of the Philippines Manila

Dr Belizario is a former Professor and Dean of the College of Public Health, University of the Philippines Manila, and former Centre Director of the SEAMEO TROPMED Regional Centre for Public Health (SEAMEO TROPMED Philippines). He is currently Chair of the Department of Micorbiology-Parasitology in the College of Medicine, University of the Perpetual Help in Laguna and an Adjunct Professor of Global Health in the University of Pittsburgh School of Medicine. He currently serves the World Health Organization in a few capacities - as Chair of TDR Global Working Group; Member, Scientific Working Group, Research Capacity Strengthening, WHO Special Programme for Research and Training in Tropical Diseases (WHO/TDR); and Member, Technical Advisory Group, Reaching the Unreached, WHO Western Pacific Region. He also currently serves as the Vice Chair of the Forum for Ethical Review Committees in Asia and the Western Pacific and President of the Philippine Academic Consortium for Public Health.

A physician with specialized training in Tropical Medicine and Public Health, he was former Vice Chancellor for Research and Executive Director of the National Institutes of Health in UP Manila. He has a long history of engagement with the WHO/TDR as Member of the Research Strengthening Group and later as Member of the Scientific and Technical Advisory Committee. After a short stint at the World Health Organization (WHO) Regional Office for the Western Pacific as Technical Officer for Neglected Tropical Diseases, he served as Undersecretary of the Department of Health of the Republic of the Philippines, where he headed the Office of Technical Services.

His academic work includes researches on: control of Neglected Tropical Diseases (Infectious Diseases of Poverty), Malaria, Tuberculosis and Vaccine Preventable Diseases; health systems and research capacity strengthening. A number of his research team's outputs have helped provide evidence for formulation and enhancement of disease control policy and planning at national and global levels.





Ms Susana Harding

Senior Director, International Longevity Centre Singapore, Tsao Foundation

Susana is Senior Director at the International Longevity Centre Singapore, an Initiative of Tsao Foundation. She is also Adjunct Senior Research Fellow at College of Nursing &Health Sciences at Flinders University. Last year, she was conferred the Gary Andrews International Fellow 2024 by the Australian Association of Gerontology (AAG).

Her policy and research interests are ageing and gender and its intersectionality, healthy ageing, caregiving, financial security, community resilience, active and successful ageing, long term care, empowerment, and community development.

Susana graduated Cum Laude from the University of Santo Tomas (Manila, Philippines) with a Bachelor of Arts degree in Economics and holds master's degree in public administration (MPA) from the Lee Kuan Yew School of Public Policy at National University of Singapore.

She is also the Honorary Treasurer of the Board of Directors at Centre for Seniors, a non-profit, Social Service Agency that is dedicated to helping seniors to remain meaningfully engage in work and in life, as well as a Council Member of the Gerontological Society of Singapore.





Dr Niharika Rustagi

Research Fellow, Asia Pacific Immunization Coalition Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine, National University of Singapore

Niharika is a social scientist whose research spans health, gender, and the political economy of development. Her work delves into the governance of digital health, immunization policy, vaccine fatigue, and vaccine security. She has also explored the implications of the pandemic on sexual and reproductive health, as well as initiatives focused on enhancing the skills, livelihoods, and financial inclusion of underprivileged women. Additionally, her research examines how women's participation in governance structures influences welfare outcomes across diverse population segments. With extensive experience in monitoring and evaluating large-scale projects, Niharika brings a rigorous, interdisciplinary approach to understanding and addressing complex social challenges.





Prof Tikki Pangestu

Co-Chair, Asia Pacific Immunization Coalition

Visiting Professor, Yong Loo Lin School of Medicine, National University of Singapore

Professor Tikki PANG is an Indonesian citizen and is presently Visiting Professor, Yong Loo Lin School of Medicine, National University of Singapore. He was previously Visiting Professor, Lee Kuan Yew School of Public Policy, National University of Singapore (2012-2020) and Director, Research Policy & Cooperation, World Health Organization (WHO), Geneva, Switzerland (1999-2012). Prior to joining WHO, he was Professor of Biomedical Sciences, Institute of Postgraduate Studies & Research, University of Malaya, Kuala Lumpur, Malaysia (1989-1999) and Lecturer/Associate Professor, Dept of Microbiology, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia (1977-1989). He was Co-Director of the WHO Collaborating Centre for Dengue & Dengue Haemorrhagic Fever at the University of Malaya, Kuala Lumpur, Malaysia (1982-1995). He holds a PhD in Immunology-Microbiology from the Australian National University, Canberra, Australia and is a Fellow of the Royal College of Pathologists (UK), Institute of Biology (UK), American Academy of Microbiology (USA), Academy of Medicine of Malaysia, and Academy of Sciences for the Developing World (TWAS). He is currently Chair of the Board of Directors, Asia Pacific Leaders Malaria Alliance (APLMA) and Co-Chair of the Asia Pacific Immunization Coalition (APIC). He has published >250 scientific articles and 12 books and was lead author on several major WHO reports including the World Health Report 2013: Research for Universal Health Coverage (2013), Knowledge for Better Health (2004) and Genomics and World Health (2002). Professor Pang has a recognisable profile as a public health expert both nationally and internationally. His research interests are in the epidemiology, pathogenesis, laboratory diagnosis and prevention of infectious diseases, biosecurity and dual-use research, genomics & health, and in health research policy, health research systems, global health governance, development of research capabilities in developing countries, linkages between research and policy, vaccine confidence and harm reduction approaches to mitigate health problems. He has >30 years of teaching experience at undergraduate & postgraduate levels in the fields of medical microbiology, immunology, global health policy & issues, and in evidence-informed policy development. He has supervised 20 Master's degree and 10 PhD candidates.





Dr Louisa Sun

Deputy Director, Centre for Infectious Disease Emergency Response, Yong Loo Lin School of Medicine, National University of Singapore

Dr Louisa Sun is an Infectious Diseases consultant and head of the Infection Prevention and Control and Epidemiology Unit at Alexandra Hospital. She also serves on multiple committees in MOH for infection control and antimicrobial resistance and is a part-time consultant to the Communicable Diseases Division.

She helmed various internal and external COVID-19 response measures and operations throughout the pandemic including being at the forefront of managing the dormitory outbreaks, leading risk communication and engagement efforts for migrant workers, and managing two community isolation and treatment facilities. For her contributions to the COVID-19 pandemic response, she was awarded the Public Administration Medal (Bronze) in the National Awards (COVID-19), and the Healthcare Humanity Award in 2023.

Dr Sun takes a special interest in emerging infectious diseases and outbreak response. Being conferred her Master of Public Health degree from the Saw Swee Hock School of Public Health (NUS) in 2022, she is currently pursuing her PhD in health policy research at Duke-NUS Medical School.





Mr Azrul Mohd Khalib

Founder & Chief Executive Officer, Galen Centre for Health & Policy, Malaysia

Azrul has worked as a public health policy specialist for more than 22 years. He works on health system issues related to access to healthcare and sexual reproductive health. He is currently the CEO of the Galen Centre for Health and Social Policy. and co-founder of the CodeBlue health news website. He is a writer and a co-presenter with BFM 89.9's Health & Living programme.





Prof Daniel Goh

Senior Consultant, Department of Paediatrics, National University Hospital

Associate Professor, Department of Paediatrics, Yong Loo Lin School of Medicine, National University of Singapore

Dr Daniel Goh completed medical studies at the National University of Singapore and trained in Paediatrics in Singapore. He underwent Paediatric Pulmonology and Sleep Fellowship at the Johns Hopkins Children's Centre, USA.

He served as Head of Paediatrics (2007 to 2017) and Paediatric Cluster Chair (2012 to 2019) at the National University Hospital. He was President of the Singapore Paediatric Society (2004 to 2011), President of the ASEAN Paediatric Federation (2011 to 2014), Council Member of the College of Paediatrics and Child Health, Singapore (2017 to 2021), and Standing Committee Member of the Asia Pacific Paediatric Association (2018 to date). He is also currently the Chief Wellbeing Officer in the National University Health System.

Among his many distinguished awards, he received the NUHS Mochtar Riady Pinnacle Award in 2015; Outstanding Asian Paediatrician Award (by the Asia Pacific Paediatric Association) in 2018; National Day Award (Public Administration Bronze Medal) in 2018, the Distinguished Senior Clinician Award, NUHS in 2019; National Medical Excellence Award – Clinician Mentor Award in 2022, and the NUHS Teaching Excellence Award in 2023.

His clinical interests include childhood respiratory conditions, asthma and allergies, sleep in childhood, sleep-related breathing disorders, fiberoptic bronchoscopy as well as vaccinology. He is a keen teacher of the next generation of doctors and paediatricians.





Ananta Seth

Monitoring, Reporting, Evaluation and Learning Manager, UK Health Security Agency

Ananta has over eight years of global health policy and evaluation experience across low-and-middle income countries in Asia and Africa. Currently, she leads on monitoring, evaluation and learning for the International Health Regulations Strengthening Project at the UK Health Security Agency. Previously, she was a founding staff of the Asia Pacific Immunization Coalition at the National University of Singapore. She has also worked on evidence uptake of impact evaluations aimed at improving vaccine uptake through demand-side interventions. Ananta holds a master's in public policy from the Lee Kuan Yew School and is a young India fellow.





Prof Vernon Lee

Executive Director, National Centre for Infectious Diseases, Singapore

Professor Vernon Lee is a preventive medicine physician with extensive global health experience in pandemic preparedness and response, infectious disease epidemiology and health policy and management. He played an instrumental role in developing and implementing Singapore's COVID-19 pandemic response, and has also responded to the 2003 SARS outbreak, 2009 influenza pandemic, and the 2016 Zika outbreak in Singapore.

Prof Lee previously served as Advisor to the Assistant Director General for Health, Security and Environment at the WHO headquarters in Geneva; Medical Epidemiologist in the WHO's Country Office in Indonesia; and Head of the Biodefence Centre in the Singapore Armed Forces. Through his work, Prof Lee has been involved in major global health security collaborations, and in developing pandemic preparedness plans, risk assessment and disease management programmes. He continues to serve on expert committees at the international level.

An avid supporter of evidence-based health policy, Prof Lee has published about 200 scientific papers, many in top journals, including the New England Journal of Medicine (NEJM), Journal of the American Medical Association (JAMA), and the Lancet journals. He is an Adjunct Professor at the Singapore's Saw Swee Hock School of Public Health.

Prof Lee graduated from medical school at the National University of Singapore. He also holds a PhD in epidemiology from the Australian National University, and the Master in Public Health and Master of Business Administration degrees from the Johns Hopkins University, USA.





Dr Amanda Zain

Deputy Director, Centre for Sustainable Medicine; Assistant Dean of Sustainability, Yong Loo Lin School of Medicine, National University of Singapore

Dr Amanda Zain is the Deputy Director at the Centre for Sustainable Medicine and Assistant Dean of Sustainability at NUS Medicine. A paediatric consultant at the National University Hospital (NUH), Singapore, Amanda obtained her MBBS and Master of Medicine (Paediatrics) at NUS and completed her paediatrics training at NUH. She is also a clinical tutor for medical and dental undergraduate and postgraduate students at NUS Medicine.

Dr Amanda previously served as Chief Resident of the Paediatric Residency Programme, and is an alumnus of the NUH Residency Leadership Development Programme. As a paediatric consultant and mother of two, her call to action was when she learned that 88% of the burden of climate change falls on children. She has since actively engaged in clinical sustainability projects and advanced the community of practice in sustainable healthcare among clinicians across Singapore. She currently leads the Green QI module of the NUH Residency Quality Improvement and Patient Safety Distinction Programme (QIPS).





Prof Ooi Eng Eong

Professor, Signature Research Programme in Emerging Infectious Diseases, Duke-NUS Medical School

Eng Eong trained in medicine at the University of Nottingham and then completed his PhD studies at the Department of Microbiology, National University of Singapore. He is a Professor in the Programme in Emerging Infectious Diseases and Associate Dean (Early Research Career Development) in the Office of Academic Medicine, Duke-NUS Medical School. He holds a joint Professorship at the Saw Swee Hock School of Public Health, at the National University of Singapore.

He received the Clinician-Scientist (Senior Investigator) Award by the National Medical Research Council of Singapore, in 2010, 2014 and 2019 and the Singapore Translational Research (STaR) Award in 2023. He was one of six to be named Straits Times Asians of the Year and a member of the team that was named Straits Times Singaporean of the Year, both in 2020. He is a member of the Scientific Advisory Board of Science Translational Medicine and an editorial board member of PLoS Biology





Dr Leong Choon Kit

Family Physician, Tampines Family Medicine Clinic Adjunct Assistant Professor, Duke-NUS and Yong Loo Lin school of Medicine, NUS

Dr Leong Choon Kit had his training in Public Health and Family Medicine, has his interest pique in public policy and social issues. He had co-authored the Adult Vaccination Guidelines with several Infectious Disease colleagues in 2016, 2018 and 2020, and has been a strong advocate for vaccination in the primary care.

His experiences in medical mission put him in touch with health promotion and disease prevention locally and overseas. He contributes his time in the community, schools, social services on top of healthcare institutions, committees and advocacy groups. Some of these interests he advocated strongly include but not limited to are healthcare systems and model of care, medical ethics, smoking control, issues related to teenage suicide, special needs children and their family and prevention of cancer via vaccine. He manages the Tampines Family Medicine Clinic and leads the Class Primary Care Network (PCN). He is also the founder and chairman of the GP+ Co-operative Limited in Singapore.

Besides clinical and consultancy work, Dr Leong is also an Adjunct Assistant Professor at Duke-NUS and Yong Loo Lin school of Medicine, NUS. and an adjunct clinical instructor at Lee Kong Chian School of Medicine. He is also involved in post graduate training with the College of Family Physician Singapore and Family Medicine Residency program with National Health Group Polyclinics and SingHealth Polyclinics. Dr Leong believes in developing the future generation and he is involved in mentoring younger students and doctors in medicine, technology as well as developing their medical practice in the private sector.





Dr Tippi Mak

Consultant, Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine, National University of Singapore

Dr Mak brings 25 years of infectious diseases and vaccine experience, from policymaking to programme deployment, in low- to high-income settings. She has served on various committees and boards.

She started in practice as a family physician for five years, with rural hospital-based and military base assignments in Canada. With an NGO, she was at the northern provincial hospital of Luganville, managing malaria, dengue, TB and all else. Following SARS, she completed public health and epidemiology training and was deployed at WHO country and regional levels to support communicable diseases (campaigns, EPI evaluations, outbreak response, epidemiology studies and anthelminthic clinical field trials) for four years.

Leaving the field, she moved to global level at WHO IVB, Switzerland as a regular consultant, trainer, and advisor on global vaccine reviews for its policymaking bodies (GACVS, SAGE) over eight years. During the H1N1 influenza pandemic, Swissmedic, the Swiss national regulatory agency invited her to become their full-time vaccine regulator. She led national vaccinovigilance, established and chaired the permanent Swiss National Vaccine Safety committee for EKIF (the Swiss ACIP) and HMEC (the Swiss CBER) for three years. One highlight was ratifying an inter-institute, multilevel communication strategy for pandemic vaccines to better coordinate public health messaging.

Singapore is now home for her and her family. Dr Mak pivoted to industry for five years, with regional experience as Sanofi's Asia Pacific Director for dengue vaccine policy and Janssen's Senior Director for infectious diseases during the COVD-19 pandemic. She had a short 1.5 year experience as Senior Deputy Director on noncommunicable diseases at the Health Promotion Board, a statutory board under the Ministry of Health.

Currently, Dr Mak is a consultant at the exciting Centre for Behavioural and Implementation Science Interventions (BISI), at the National University of Singapore, which aims to help close the know-do evidence gap and harnesses cross-discipline and cross-sectoral expertise.

Dr Mak has lived significant periods in Canada, Singapore, Vanuatu, Lao PDR, Thailand, Russia and Switzerland. She speaks English and German.



CHAIR & MODERATOR



Prof John Lim

Professor & Executive Director, Centre of Regulatory Excellence, Duke-NUS Medical School, Singapore

Professor John CW Lim is founding Executive Director of the Duke-NUS Centre of Regulatory Excellence (CoRE), inaugural Chairman of the Consortium for Clinical Research & Innovation Singapore (CRIS), Senior Advisor at Singapore's Ministry of Health (MOH), and Policy Core Lead at the SingHealth Duke-NUS Global Health Institute. He graduated in medicine from NUS and has postgraduate degrees in public health from NUS and health policy and management from Harvard University. Professor Lim has joint academic appointments at Duke-NUS and the NUS Saw Swee Hock School of Public Health. His expertise and interests focus on Asia-Pacific regulatory harmonisation and innovation initiatives, regulatory agility, and the converging of health products and health services regulation that impacts trending areas including Al/digital health, precision public health, advanced therapies and patient engagement.

Formerly Chief Executive Officer of Singapore's Health Sciences Authority and Deputy Director of Medical Services in MOH, Professor Lim has also held other senior positions in Singapore's Health and Education ministries. He is a member of the Singapore Food Agency Board, Singapore Medical Council, US Pharmacopoeia Council of the Convention as Asia-Pacific Regional Chapter Chair, Davos Alzheimer's Collaborative Leadership Group, APEC Harmonization Center Advisory Board, and St Andrew's Mission Hospital Board, among others. Professor Lim has been awarded the DIA Global Connector Inspire Award and the Regulatory Affairs Professional Society's Founder's Award for leadership in promoting global collaboration and shaping regulatory practice and policy throughout his career.



CHAIR & MODERATOR



Dr Ng Lee Ching

Group Director, Environmental Health Institute, National Environment Agency, Singapore

Associate Professor Ng Lee Ching is Group Director of National Environment Agency's Environmental Health Institute in Singapore and a WHO Collaborating Centre. She spent 20 years contributing to building laboratory capability for Singapore's public health and developing tools and strategies for mitigation of risks.

Dr Ng is also associated with the Nanyang Technological University; serves as Advisor to WHO for dengue and chikungunya surveillance and control and is Director of the WHO Collaborating Centre for Reference and Research of Arbovirus and their Associated Vectors.



CHAIR & MODERATOR



Prof Robyn Mildon

Visiting Associate Professor, Yong Loo Lin School of Medicine, National University of Singapore

Chief Executive Officer, Centre for Evidence and Implementation

Robyn Mildon, PhD, is an internationally recognised figure in the field of research translation and implementation science and program and policy evaluations. She is the Founding Chief Executive Officer of the Centre for Evidence and Implementation (CEI www.ceiglobal.org), a global social purpose organisation with offices in Australia, Singapore, the United Kingdom and Norway and whose work now spans across 18 countries. She is a Visiting Associate Professor at the Yoo Long Lin School of Medicine, National University of Singapore (NUS) where she helped establish The Centre for Holistic Initiatives for Learning and Development (CHILD) and the Behavioural and Implementation Science Interventions (BISI). Robyn is also an Adjunct Associate Professor at Monash University and is the Chair of the Evidence and Implementation Summit 2025 (www.eisummit.org).

Robyn's work has helped to advance the implementation of better evidence in policy and practice settings, improving the quality and effectiveness of health, education, and human services. She has authored or co-authored multiple peer-reviewed publications, commissioned evidence reviews and book chapters including being a co-author of an edited book Implementation Science 3.0 (Springer, 2020). In 2022, she was awarded the John Westbrook Award for Contributions to Knowledge Translation by the Campbell Collaboration. This international award recognises outstanding contributions to knowledge translation and the dissemination and implementation of evidence.



The delayed childhood immunization profiles in Chinese children under six: An analysis based on 7,946,943 records from 2017 to 2023

Linchen Chu MPH^{1,2}, Chuanxi Fu PhD^{1,2*}, Kan Chen MPH^{1,2}, Hongni Wang MPH^{1,2}, Yi Zhou MPH^{1,2}, Leesa Lin³⁻⁴

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- 4. Laboratory of Data Discovery for Health Limited (D24H), Hong Kong Science Park, Hong Kong SAR, China.
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Background:

Delays in childhood vaccination increase susceptibility to vaccine-preventable diseases and pose a significant public health challenge. This study aimed to assess the timeliness of immunization among Chinese children aged 0 to 6 years, focusing on critical vaccines, including diphtheria-tetanus-acellular pertussis-inactivated poliovirus-haemophilus influenzae type b combination vaccine (DTaP-IPV-Hib), 13-valent pneumococcal conjugate vaccine (PCV13), Rotavirus Vaccine (pentavalent RotaTeq, RV5; monovalent Lanzhou Lamb Rotavirus (LLR) vaccine), and enterovirus 71(EV71) vaccines, while examining the impact of the COVID-19 pandemic and socioeconomic disparities.

Methods

We conducted a retrospective cross-sectional study using 7,946,943 vaccination records from January 2017 to December 2023, collected from three Chinese cities—Guangzhou, Suzhou, and Yichang—representing diverse geographic and socioeconomic contexts. Eligible participants were children born in these cities during the study period, with vaccination records verified for completeness and plausibility. The main outcomes were the timeliness of individual vaccine doses and the proportions of mild, moderate, and severe delays. Delay rates were stratified by vaccine type, city, and time periods, including pre-pandemic, pandemic, and post-pandemic phases.

Results

Among the included records, 32.18% of children who received at least one dose experienced severe delays (>6 months). Delay rates were highest for LLR (62.12%) and lowest for RotaTeq (2.40%). Delays varied significantly by location, with higher risks in Guangzhou (IRR, 1.17) and lower risks in Yichang (IRR, 0.16). The COVID-19 pandemic exacerbated delays across all vaccines, particularly during strict lockdowns, highlighting geographic and socioeconomic disparities.

Conclusion

Our findings emphasize the urgent need for targeted interventions to improve vaccination timeliness, particularly for at-risk populations in urban areas. Strengthening immunization infrastructure and implementing tailored catch-up campaigns can mitigate delays and align with global public health goals, such as the Immunization Agenda 2030.



General Attitudes and Decision-making about Influenza Vaccination: a population survey of Chinese guardians

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Background:

Vaccine hesitancy has become increasingly complex in the post-COVID-19 era. This issue, particularly with non-National Immunization Program vaccines, continues to challenge the immunization efforts in many countries including China, where large-scale longitudinal studies are lacking. Guardians' vaccine attitudes may have shifted due to spillover effects of the pandemic. This study assesses their attitudes on general and influenza vaccines and decisions about influenza vaccination for themselves and their children in urban China.

Methods

In June and July 2024, we surveyed guardians of children aged 0-6 in 15 immunization clinics across 5 cities. The survey included modified versions of the General Vaccine Hesitancy Scale from the perspectives of childhood and adult vaccines, the influenza vaccine hesitancy (IVH) scale and the Vaccine Hesitancy Determinants Matrix. Scale reliability and validity were evaluated, and latent profile analysis was conducted to classify hesitant groups. Binary logistic regression analyses were used to identify factors influencing IVH.

Results

Among the 3,748 respondents, 3,199 valid questionnaires were obtained (response rate: 85%). The childhood and adult vaccine hesitancy rate among guardians was 4.1% and 6.4% respectively, while the influenza vaccine hesitancy rate was 22.4%. Additionally, 61.8% of children received the influenza vaccine in the past year. 26.4% of guardians decided to vaccinate both themselves and their children during the next influenza season, while 18.2% of guardians planned zto vaccinate only their children. Important factors contributing to vaccine hesitancy among guardians included social media (OR=11.78, 95% CI: 2.53-54.82), recommendations from clinicians (OR=0.40, 95% CI: 0.22-0.74), and long travel time to vaccination sites (OR=1.90, 95% CI: 1.23-2.94).

Conclusion

Vaccine attitude and uptake vary among different population groups. Guardians show higher hesitancy toward childhood vaccines than adult vaccines, with nearly one-fifth hesitant about the influenza vaccine for children. However, ac-ceptance of the influenza vaccine is increasing



SARS-CoV-2 Virus Infections in HIV Patients: Duration and Whole Genome Sequencing

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Background:

The global pooled prevalence of HIV among COVID-19 cases was 2%. HIV has been associated with prolonged shedding of SARS-CoV-2 virus. Evolution of virus in immunocompromised individuals may lead to emergence of new variants or immune escape. This study aimed to determine the variants of SARS-CoV-2 virus in HIV patients by whole genome sequencing (WGS) and the duration of infection.

Methods

Descriptive study from March 2020 until August 2023. A total of 149,191 tests were done at HCTM, comprising 65,486 RT-PCR, 77,857 RTK-Ag and 5,848 rapid molecular tests. Out of 8,649 positive tests, 28 were HIV patients. Variants and lineages were determined by WGS.

Results

27 HIV patients were included, with median age of 36 years (IQR 32-47). The majority (19/27, 70%) were not on anti-retroviral therapy during the diagnosis. CD4 cell levels ranged from 4 to 977 cells/mL, majority (17/27, 63%) belonged to the category of ≤200 cells/mL. HIV viral load ranged from 'not detected' to 7,530,000 copies/mL. The majority (17/27, 63%) had >400 copies/mL. Of the 13 patients' samples with successfully sequenced, six patients exhibited repeated positivity for the same variants and no cases of reinfection by different variants observed. The lineages repeatedly positive were B.1.351 (n=1), AY.79 (n=1), AY.59 (n=1), BA.2 (n=2) and BA.1.1 (n=1). Samples from four patients yielded 'unassigned lineage'. The median duration of positivity was 11 days (IQR 4-22). The longest duration of positivity from symptom onset to the last positive result was recorded at 98 days by Delta variant (AY.59 lineage). The WGS results from this study aligned with the national timelines and circulating lineages reported.

Conclusion

WGS showed that HIV patients with prolonged COVID-19 infections had the same virus variants and no evidence of reinfection. However, prolonged infection may lead to viral transmission and infectivity.



Behavioural Insights on Human Papillomavirus (HPV) Vaccination Decision-Making Among Adolescent Girls in Japan: A Qualitative Study

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Background:

The HPV vaccine program, introduced in 2013 for girls aged 12–16 in Japan, initially achieved high uptake but saw coverage drop below 1% for nearly a decade after the government suspended recommendations for the vaccine. Despite the resumption of recommendations in 2022, many girls remain undecided about HPV vaccination, reflecting persistent mistrust. This study examined which information sources girls trust and consult when deciding about HPV vaccination to inform targeted communication strategies.

Methods

Seven focus group discussions were conducted with 33 high school girls (aged 17-18) in Japan from February to July 2023. Participants used a circle mapping exercise to rank their information sources according to trust and consultation. Thematic analysis identified key patterns in their perspectives, while visual mapping captured social dynamics and interactions between the girls and various information sources. An HPV vaccine catch-up program is in place for girls aged 17-27, and participants were recruited from this cohort.

Results

The analysis revealed discrepancies between trusted and consulted information sources for HPV vaccination. Healthcare professionals were highly trusted but rarely consulted due to limited communication opportunities, stemming from Japan's lack of a GP system and adolescent healthcare programs. Similarly, school nurses were trusted but viewed primarily as providers of care for illness rather than as sources of vaccine information. In contrast, social media, despite low trust, was frequently consulted due to its accessibility and integration into daily life.

Conclusion

This study highlights the challenges in leveraging locally trusted information sources to address HPV vaccine mistrust. Enhancing adolescent health services through online consultations and financial incentives can strengthen communication opportunities between girls and healthcare professionals. Increasing awareness of school nurses' roles in vaccine communication and providing credible vaccine information through girls' preferred social media channels are key to bridging gaps in trust and consultation.



Insights into Healthcare Providers' Knowledge, Attitudes, and Practices on Dengue Vaccination: Results from a Multinational Survey

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Background:

This study aimed to assess healthcare providers' (HCPs) knowledge, attitudes, and practices (KAP) regarding dengue vaccination and identify key drivers of vaccine adoption and advocacy in some Asian and Latin American countries.

Methods

A cross-sectional survey was conducted between September and October 2024, in Argentina, Brazil, Colombia, Indonesia, Malaysia, and Thailand, involving 815 HCPs in adult and paediatric care. A structured 30-minute online questionnaire evaluated KAP domains.

Principal component analysis (PCA) was applied to derive composite scores for KAP. Univariate and multivariate regression analyses identified KAP predictors influencing HCPs' likelihood to recommend dengue vaccination to patients and advocate it to peers. Multivariate analyses were standardised for area of practice, specialty, dengue epidemiology, and vaccine availability. Statistical significance was set at p-value<0.05.

Results

Global KAP scores indicated moderate knowledge and strong attitudes and practices, with Latin America consistently outperforming Asian countries. Paediatric treaters scored higher in attitudes and practices than adult treaters. PCA identified subdomains within each KAP dimension: **Knowledge** (3), **Attitudes** (6), and **Practices** (2).

Multivariate regression analysis showed that no knowledge subdomain significantly influenced the "Likelihood to Recommend" dengue vaccination. However, knowledge of 'severity and risk of dengue' significantly impacted "Peer Advocacy" (coefficient: 0.13, p<0.03). Attitudes were the strongest predictors, with "belief in vaccines" (0.57, p<0.01), "urgency to protect" (0.31, p<0.01), and "perceived value of dengue vaccine" (0.40, p<0.01) significantly influencing "Likelihood to Recommend", while the same factors influenced "Peer Advocacy" with lower coefficients: 0.38 (p<0.01), 0.22 (p<0.01), and 0.26 (p<0.01), respectively. The practice of 'initiating vaccine discussions' was significantly associated with 'Peer Advocacy' (0.13, p<0.01) but not 'Likelihood to Recommend' (0.05, p=0.31).

Conclusion

Positive HCP attitudes were the strongest predictor for dengue vaccine recommendation and advocacy. Knowledge of dengue severity and comfort in vaccine conversations also supported strong advocacy. These insights may guide strategies to improve dengue vaccine adoption.

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Analyses of National Policies for Dengue Control across Southeast Asia

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Background:

Dengue remains a significant global health challenge, particularly in tropical regions where dengue is endemic. The incidence of dengue infection has surged in recent decades, driven by factors such as climate change, urbanisation, and rising global travel. 2023 saw a resurgence in dengue outbreaks,¹ exposing gaps in existing dengue case management measures. This study evaluates dengue management strategies in ten Asian countries – Singapore, Malaysia, Indonesia, the Philippines, Thailand, Vietnam, Cambodia, India, Sri Lanka, and Bangladesh – to identify policy strengths, limitations, and opportunities for improvement.

Methods

The dengue policy landscape in the ten countries was analysed through a targeted review of publicly available literature, national policies and interviews with in-country dengue experts. A policy mapping rubric assessed dengue control, prevention, and management, including vector control, entomological surveillance, case reporting, vaccination, diagnostics, patient care, and resource allocation.

Results

Among the ten countries analysed, all countries apart from Bangladesh, Cambodia and Sri Lanka have implemented dengue-related legislation and a national dengue programme. Education programmes, community-based vector control measures, entomological surveillance systems and case reporting systems exist in all countries, however, limited to select districts and not systematically adopted. Dengue vaccines are available in Singapore, Malaysia, Indonesia, Thailand and Vietnam, however only in the private sector on a nation-wide level with limited discussions about inclusion in National Immunisation Programmes. Diagnostics for dengue infection, subsequent sequelae and care management are accessible in all countries with public sector subsidies in Malaysia, Indonesia, Vietnam, India, Bangladesh and Sri Lanka.

Conclusion

Our analyses underscore the need for targeted improvements in dengue management efforts across Asia, particularly in the systematic implementation of education, vector control, surveillance and vaccination programmes. Our next step will be to develop a white paper to outline policy gaps, advocate for prioritising dengue control, and propose evidence-based strategies to enhance programmes and reduce disease burden regionally.



Global Trends in Vaccine Confidence Between 2015 and 2024: The Critical Role of Health Systems in the Post-Pandemic Era

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Background:

Since the Covid-19 pandemic was declared to be in its endemic phase, countries observed sharp increases in vaccine hesitancy around the world. Numerous efforts have been undertaken to restore vaccine confidence, both nationally and globally. Concurrently, several regional and local disease outbreaks, such as mpox in Africa and seasonal influenza and pertussis in many regions, have further raised and shifted the public's attention to vaccinations. Yet, research examining how these evolving dynamics have impacted shifts in vaccine confidence have been rare.

Methods

This study integrates data from two global survey initiatives—the Vaccine Confidence Project and the Global Listening Project—and uses 354,762 responses from 59 countries (2015-2024). A combination of visual trend analysis and multilevel regression modeling was employed to investigate the interplay between local disease outbreaks, health system performance, and vaccine confidence between 2023 and 2024.

Results

The results show that 51 out of the countries under investigation experienced marked declines in vaccine confidence since the beginning of the COVID-19 pandemic. However, post-pandemic trends between 2023 and 2024 showed divergent patterns across regions. Countries in Asia and Africa, particularly those impacted by outbreaks like mpox, seasonal influenza, and pertussis, presented notable rebounds in vaccine confidence. In contrast, many Eastern European countries reported further declines during the same period. This decline correlated with weaker performance in their health systems and lower spending in preventive healthcare compared to other regions within Europe.

Conclusion

These findings imply the critical role of a robust health system in fostering societal resilience against vaccine hesitancy, particularly in the face of disease outbreaks. Local disease outbreaks may provide opportunities to rebuild vaccine confidence in countries with strong health systems. Conversely, in circumstances where health systems are weak or public trust in the system is eroded, such opportunities may be lost, exacerbating declines in vaccine confidence.



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