

4th International Conference on

PUBLIC HEALTH & HEALTH CARE RESEARCH



03-04

NOVEMBER 2025



BANGKOK, THAILAND



**Venue: Grand Mercure Bangkok Atrium
1880 New Petchaburi Rd, Bangkok, Khet Huai Khwang**

Day 1

Scientific Program

November 03, 2025 | Bangkok, Thailand
Conference Hall : 4th Floor– Studio Room

09:00 –09:15: Registrations

09:15 –09:30: Opening Ceremony

Keynote Presentations



09:30–10:10

Title: Public Health Intelligence in Practice: Three Decades of Global Experience in Turning Data into Impact

Kadhim Alabady

Public Health Principal Epidemiologist, United Arab Emirates

Session Introduction

Tracks

Mental Health and Mental Disorders | Public Health | Aging and Public Health | Epidemiology | Healthcare Management and Emerging Trends | Telemedicine and E-Health | Public Health Education | Public Health Nutrition | Health Care | Pediatrics

Session Chair: Dr. Kadhim Alabady Public Health Principal Epidemiologist, United Arab Emirates

Oral Presentations

10:10–10:30

Title: Gulf Collaborative Immunization Project: A Regional Model for Strengthening Immunization Systems and Policy Coordination

Salman Alhajri

Gulf Centre for Disease Prevention and Control, Saudi Arabia

Coffee Break 10:30-11:00@ Foyer

11:00–11:30

Title: Probing Into The Significance Of C Reactive Protein As A Quick Epiphanic Indicator Of The Presence And Severity Of Inflammation With Regard To The Anti Inflammatory Action Of Homoeopathic Drugs

Amir Ashraf

Homoeopathy Clinic, India

11:30–12:00

Title: ShuddhiCheck AI & Arya: AI-Powered Public Health and Mental Health Innovation for Global Impact
Amudha Ondiveerappan
ShuddhiCheck AI and Arya, USA

12:00–12:30

Title: Understanding the Causes of Procurement Deficit at the Ministry of Health & Social Services, Namibia
Ruben Shaanika Kanime
Intermediate Hospital Oshakati, Namibia

Lunch Break 12:30-13:30

Keynote Presentation



13:30–14:10

Title: Rethinking Sexual Health: Education, Prevention, and Public Health
Hasan Alkhudairi
KFSHRC, Saudi Arabia

Oral Presentations

14:10–14:40

Title: How Epidemiology Guides Personalized Health? Personalized Medicine in Epidemiology: Navigating Oncology and Cardiovascular Disease Challenges
Kadhim Alabady
Public Health Principal Epidemiologist, United Arab Emirates

14:40-15:20 Poster Presentations

P001

Title: Association Between Backward Walking Speed and Physical Balance and Fall Risk in the Community-Dwelling Older Adults
Ziming Gong
Kyushu University, Japan

P002

Title: Association Between Backward Walking Speed and Physical Balance and Fall Risk in the Community-Dwelling Older Adults
Chen Cen
Kyushu University, Japan

Coffee Break 15:20-15:40@ Foyer

Panel Discussion & Certificate Felicitation
Day –1 Ends

Day 2

Scientific Program

Virtual Mode Zoom Meeting
(GMT+7) Time in Bangkok, Thailand

November 04, 2025 | Virtual

Oral Presentations

13:00–13:20

Title: Regulating the Public Health Risks of Engineered Stone
Ian Freckelton
Monash University, Australia

13:20–13:40

Title: Development And Implementation of AaTheory-Based Mhealth Application to Enhance Physical Activity Among Sedentary Office Workers in Colombo, Sri Lanka
Upula Madhusankha Vishwamithra Amarasinghe
University of Colombo, Sri Lanka

13:40–14:00

Title: Reflections on Dr Eben Alexander's Book Proof Of Heaven (2012): Broader Implications for Quantum-Holographic Psychosomatics
Dejan Rakovic
University of Belgrade, Serbia

14:00–14:20

Title: Managing Healthcare Transformation Towards Intelligent and Ethical 5P Medicine Ecosystems
Habil Bernd Blobel
University of Genoa, Italy

14:20–14:40

Title: Thin Slicing Research: Improving Mental Health and wellbeing of University Students via the Rage Fitness App
Jana Rozehnalova
University of Greater Manchester, United Kingdom

14:40–15:00

Title: Feasibility and Acceptability of a Theory-Based Mhealth Intervention to Promote Physical Activity in Sri Lanka
Upula Madhusankha Vishwamithra Amarasinghe
University of Colombo, Sri Lanka

15:00–15:20

Title: Developing A Theory and Evidence-Based Intervention for Black African Women Using The COM-B Model and Behaviour Change Wheel: BALANCED Programme
Itse Olaoye
Health Sciences University, UK

15:20–15:40

Title: Pharmacokinetics and Stability of Antimicrobials Delivered via Elastomeric Devices in Paediatric Patients: A Systematic Review
Vissagan Sankaranarayanan
East Suffolk and North Essex NHS Foundation Trust, UK

15:40–16:00

Title: Association Between Occupational Health Nurse Staffing and Musculoskeletal Disorder Incidence in Minnesota: A Time-Series Study (2003–2010)
Takashi Gokita
Columbia University, USA

Panel Discussion





4th International Conference on

Public Health & Health Care Research

November 03-04, 2025 | Bangkok, Thailand

HYBRID EVENT

KEYNOTE PRESENTATIONS
DAY 1



Kadhim Alabady

Public Health Principal Epidemiologist, Public Health Protection
Department / Dubai Health Authority, United Arab Emirates

Public Health Intelligence in Practice: Three Decades of Global Experience in Turning Data into Impact

Background: Public Health Intelligence (PHI) is the process of converting health data into actionable knowledge to support timely, evidence-informed public health decisions. It enables early detection of health threats and guides effective responses. PHI professionals are central to gathering, analyzing, and interpreting information to inform public health strategies.

Objective: To highlight how understanding and applying health data, information, and intelligence enhances the ability to assess population health needs, manage uncertainty, and inform decisions in complex health systems.

Methodology: This abstract draws on over 30 years of cross-sectoral public health experience in academic, governmental, and international institutions, including:

UK (NHS): Waltham Forest, Hull, Hillingdon, Havering, Norfolk

Norfolk County Council

Qatar: National Health Authority

UAE: Dubai Health Authority

Academic: Erasmus University (Netherlands), Queen Mary University (UK), University of East Anglia (UK)

International: United Nations (US, Saudi Arabia)

The work spans settings across the Netherlands, UK, US, KSA, UAE, and Qatar from 1996 to 2025.

Key Findings: Data is raw and context-limited; information gives meaning to data; knowledge allows informed decision-making.

Public health intelligence is strengthened by multidisciplinary collaboration, data integration, and the ability to assess statistical significance and uncertainty.

PHI enables better understanding of population health trends and more effective health planning and intervention.

Conclusion: Public Health Intelligence is a vital bridge between data and policy. Harnessing long-term, multisectoral experience reveals the importance of applying intelligence-driven approaches to improve population health outcomes and drive proactive, evidence-based action in diverse global settings.

Keywords: Public Health, Epidemiology, Intelligence, Health Data, Decision-Making.

Biography:

Dr. Kadhim Alabady, MBBS; MPH; MSc; DrPH; FFPH (UK); FRCP (Glasgow)

Dr. Kadhim Alabady is a distinguished public health and epidemiology expert with over two decades of experience in academic, international, and national health systems. He is a Fellow of the Faculty of Public Health in the UK (FFPH) and a Fellow of the Royal College of Physicians and Surgeons of Glasgow (FRCP).

Dr. Alabady holds a Doctorate in Public Health and Epidemiology, a Master's in Clinical Epidemiology (MSc), and a Master's in Public Health (MPH), all awarded by universities in the Netherlands. He is also a registered Grade A Epidemiologist with the Netherlands Epidemiological Society.

Since 1999, Dr. Alabady has held prominent roles across diverse sectors, including:

Academia: Erasmus University (Rotterdam, Netherlands), Queen Mary University (London, UK), and the University of East Anglia (Norwich, UK)

International Organizations: United Nations

National Health Institutions: Qatar's National Health Authority, UK National Health Service (NHS), and the Dubai Health Authority

His work has been instrumental in shaping research and development (R&D) strategies, particularly in the field of non-communicable diseases (NCDs), including mental health, cancer, cardiovascular diseases, diabetes, and broader population health issues. Dr. Alabady has authored numerous publications in the UK, contributing significantly to public health knowledge and policy.



Hasan Alkhudairi

KFSHRC, Saudi Arabia

Rethinking Sexual Health: Education, Prevention, and Public Health

Sexual health is a critical component of overall well-being and public health, yet it remains an often stigmatized and overlooked topic in many societies. This presentation seeks to reframe sexual health beyond the narrow confines of disease prevention, addressing it as a comprehensive, rights-based concept that encompasses physical, emotional, mental, and social well-being.

"Rethinking Sexual Health" calls for a paradigm shift—one that moves from reactive, disease-centered interventions to proactive, inclusive, and educational approaches. Central to this shift is the integration of accurate, age-appropriate, and culturally sensitive sexual health education that empowers individuals to make informed decisions, reduces risky behaviors, and promotes respect, consent, and healthy relationships.

The presentation will explore the interconnection between education and prevention, highlighting how inclusive sexual health programs contribute to lowering rates of sexually transmitted infections (STIs), unplanned pregnancies, gender-based violence, and sexual stigma. Additionally, it will examine public health strategies that address structural barriers, such as access to care, inequality, and policy gaps, which disproportionately affect marginalized communities.

By advocating for a holistic and intersectional approach, this talk emphasizes the importance of collaboration across sectors—education, healthcare, policy, and community engagement—to create environments where sexual health is not only protected but also celebrated as an essential part of human dignity and health equity.

This session invites policymakers, educators, public health professionals, and advocates to consider innovative, evidence-based strategies that reflect the realities of today's diverse populations and build a foundation for a healthier, more informed society.

Biography:

Hassan Mohammed Alkhudairi Physician, media personality, and storyteller — Dr. Dr. Alkhudairi is a Saudi consultant whose journey bridges the worlds of medicine and media, science and compassion. He holds a Bachelor's degree in Medical Sciences (Laboratory Medicine) from Umm Al-Qura University, followed by a Bachelor's in Basic Medical Sciences from the Gulf University, and later earned his Doctor of Medicine (MD). Dr. Alkhudairi began his medical career specializing in Obstetrics and Gynecology. After becoming a consultant in Ob/Gyn, his passion for holistic care led him to explore the other side of medicine — Palliative Care. He completed both the Saudi and Canadian fellowships in Palliative Medicine and practiced in both specialties before fully dedicating himself in recent years to the field of Palliative Care at KFSHRC.



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HYBRID EVENT

SPEAKER PRESENTATIONS

DAY 1



Salman AlHajri

Gulf Centre for Disease Prevention and Control (Gulf CDC), Saudi Arabia

Gulf Collaborative Immunization Project: A Regional Model for Strengthening Immunization Systems and Policy Coordination

The Gulf Collaborative Immunization Project is an ongoing regional initiative aimed at strengthening immunization policies and practices across the Gulf Cooperation Council (GCC) countries. Coordinated by the Gulf CDC, this project was initiated by conducting a comprehensive survey of national immunization programs to identify systemic gaps, operational challenges, and areas for improvement. A key milestone has been the establishment of the Gulf National Immunization Technical Advisory Group (NITAG) Collaboration, a regional network enabling structured dialogue, joint policy development, and resource sharing among member states.

The project's 2025 focus is centered on three core pillars: addressing vaccine awareness and hesitancy, developing unified indicators for Adult vaccine uptake measurement, and facilitating the exchange of technical expertise through the Gulf NITAG collaborative platform. These efforts aim to standardize approaches to immunization, improve public trust in vaccines, and enhance the quality and comparability of immunization data across the region. By leveraging shared epidemiological insights and policy frameworks, the initiative seeks to build resilient immunization systems capable of responding effectively to emerging communicable disease threats.

This presentation will highlight the collaborative framework, methodologies, and early outcomes of the initiative, offering a scalable model for regional public health cooperation.

Biography:

Salman AlHajri is the Communicable Diseases Section Manager at the Gulf CDC. He previously served as a Senior Public Health Specialist and Epidemiology Team Lead at Johns Hopkins Aramco Healthcare, and as a Senior Specialist in Communicable Diseases at the Saudi Ministry of Health. He began his career as an Infection Control Practitioner and Quality Coordinator at Saad Specialist Hospital. Salman holds a Master of Public Health and a Bachelor's degree in Health Sciences and Management from the University of Sydney.



Amir Ashraf

Homoeopathy Clinic, India

Probing Into The Significance Of C Reactive Protein As A Quick Epiphanic Indicator Of The Presence And Severity Of Inflammation With Regard To The Anti Inflammatory Action Of Homoeopathic Drugs

C reactive protein is an acute phase serum protein is a surrogate for the pro-inflammatory interleukin IL-6. It is a member of pentraxin family of proteins and is synthesized by liver. C reactive protein is also produced by cells in the vascular wall such as endothelial cells, smooth muscle cells, and also by adipose tissue.

It was discovered by Tillett and Francis in 1930. C reactive protein is a 224-residue protein with a molecular weight of 25106 Da. The CRP gene is located on chromosome 1. C reactive protein was so named because of its capacity to precipitate the somatic C-polysaccharide of Streptococcus pneumonia. It has no relationship with protein C or C-peptide. It activates the complement system and binds to Fc receptors. Significant rise in C reactive protein indicates clinically relevant inflammation, and in contrast, the absence of a high C reactive protein helps in exclusion of infection/inflammation

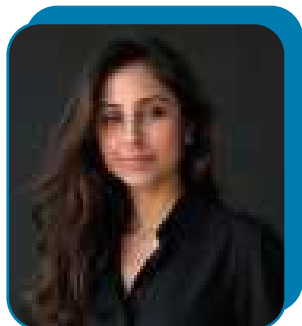
Sequential C reactive protein may provide a more accurate assessment of inflammatory changes in response to treatment. C reactive protein is very helpful in assigning a non-inflammatory cause to a markedly abnormal ESR. As for instance, in a patient with a monoclonal protein without any evidence of infection, ESR may be high (in 100) but C reactive protein will be normal.

- Presented a case study titled **"Exploratory study of Diabetic foot; case study with homoeopathic surgical medicines"** at 2nd world congress on Public health and healthcare management held during November 20-21 2024 in Rome, Italy.
- Presented a case study titled **"Effectiveness of Homoeopathic Medicine in Management for Bronchogenic Carcinoma"** at 1st International Conference on Cancer and Cancer Research, held during March 24-26 2025 in Singapore.
- Presented a case study titled **"Efficacy of Homeopathic Medicines in the treatment of Long term effects of Post Kawasaki Disease – Case Report"** at 3rd World congress on Public Health and Epidemiology held during August 04-05 2025 in Tokyo, Japan.
- Presented a case study titled **"Effectiveness of Homoeopathic Medicine in Management for Bronchogenic Carcinoma"** at 4th International Conference on Integrative Oncology, held during 8th and 9th Feb 2023, Kochi.

- Presented a series of cases titled **"Role of Homoeopathy in appendicitis: case study in depth with Alvarado score"** at international research, education and innovation summit held during November 24th 2023, manila.

Biography:

Dr Amir Ashraf has completed the Bachelor of Homoeopathic Medicine and Surgery from the Rajiv Gandhi University of Health Science, Bangalore in 2013 and completed the Internship Training programme for one year at the father Muller Homoeopathic Medical College and Hospital, Mangalore. He joined in the department of homoeopathy in Ashirvad Hospital, Kannur on 6th October 2014, Started Own hospital in 2019 June 17th "Dr Amir's Family Homoeopathy hospital. He completed his PG diploma in Reproductive health in 2018 under Apollo hospital Chennai and medvarsity and completed fellowship in diabetes in 2022 under Apollo hospital Chennai. He is a visiting consultant in RM Homoeopathic Multispecialty clinic, Aihms Multispecialty Homeopathic clinic across Kerala, India.



Amudha Ondiveerappan

ShuddhiCheck AI and Arya, USA

ShuddhiCheck AI & Arya: AI-Powered Public Health and Mental Health Innovation for Global Impact

ShuddhiCheck AI, launched on April 30, 2025, is a HIPAA-compliant compliance and risk assessment platform designed to empower rural hospitals, nearly-closed facilities, small clinics, public health centers, schools, and daycare centers with regulatory readiness and operational efficiency. It delivers real-time compliance scoring, predictive analytics, and facility-specific insights to help resource-limited organizations meet regulatory requirements, reduce costs, and improve patient outcomes.

Arya, scheduled for launch later this year, is an AI-powered mental health and behavioral epidemiology platform focused on loneliness prevention and emotional well-being, particularly in underserved and low-income communities. Integrating mindfulness, yoga, guided meditation, and culturally sensitive interventions in multiple languages, Arya adapts in real-time to user needs while protecting privacy and maintaining HIPAA compliance.

Together, ShuddhiCheck AI and Arya form a dual innovation portfolio that addresses both systemic compliance gaps and individual mental health needs, offering a holistic approach to public health. By leveraging AI, epidemiological insights, and human-centered design, these platforms create sustainable solutions that can scale globally—starting in the USA, India, Kenya, and Southeast Asia.

This presentation will explore how these platforms are transforming service delivery in underserved communities, and will invite collaboration from governments, NGOs, and private sector partners to expand their impact.

Keywords: AI in mental health, compliance technology, underserved communities, public health innovation, loneliness prevention

Biography:

Dr. Amudha Ondiveerappan, MD/MPH, is a physician and epidemiologist with over 15 years of combined experience in clinical practice and public health. Founder of ShuddhiCheck AI and creator of Arya, she specializes in AI-powered solutions for healthcare compliance and mental health. Her work bridges medicine, technology, and community engagement, with a commitment to serving underserved populations worldwide.



Ruben Shaanika Kanime

Medical Superintendent, Intermediate Hospital Oshakati
Managing Director, RC Empire Medical Practices

Understanding the Causes of Procurement Deficit at the Ministry of Health & Social Services, Namibia

Despite significant investments in Namibia's healthcare sector, the Ministry of Health and Social Services (MoHSS) continues to face procurement inefficiencies that undermine the timely delivery of essential medical supplies. These deficits directly impact healthcare outcomes in a country grappling with high burdens of HIV, tuberculosis, and non-communicable diseases.

This study investigates the underlying causes of procurement challenges within the MoHSS and explores strategies for improving efficiency. Adopting an interpretivist research philosophy, a qualitative case study approach was applied, with data collected through semi-structured interviews from key MoHSS stakeholders, including directors, regional health leaders, and procurement managers. Thematic analysis of the data revealed five recurring challenges: bureaucratic inefficiencies, resource and capacity gaps, collaboration challenges between clinical and non-clinical managers, supplier-related issues, and regulatory rigidities.

Findings highlight the centralization of procurement processes as a major barrier to responsiveness, particularly at regional levels, while limited training and technical expertise exacerbate inefficiencies. Poor collaboration between stakeholders often results in misaligned priorities, further weakening service delivery. Supplier-related challenges, such as delayed payments and insufficient vetting, disrupt supply chains, while overly rigid regulatory frameworks hinder adaptability during emergencies.

To address these systemic issues, the study recommends decentralizing procurement to regional levels, implementing targeted training programs, fostering structured collaboration between clinical and administrative teams, strengthening supplier partnerships, and revising regulatory frameworks to allow flexibility during crises.

This research contributes to the global discourse on healthcare procurement in resource-constrained settings by providing context-specific insights from Namibia. The recommendations align with Namibia's Vision 2030 and global best practices, offering actionable reforms to build a more resilient and responsive procurement system capable of strengthening healthcare service delivery.

Keywords: Healthcare procurement, Namibia, Public sector efficiency, Supply chain management, Policy reform

Biography:

Dr. Ruben Shaanika Kanime is a Medical Practitioner and healthcare leader serving as Medical Superintendent of Intermediate Hospital Oshakati, Namibia and Managing Director of RC Empire Medical Practices. He holds an MBA in Global Healthcare Management and has extensive experience in hospital leadership, clinical governance, and health systems strengthening. His professional focus is on optimizing healthcare delivery through innovation, capacity building, and policy reform. Dr. Kanime also served as Chairperson of the Namibia Medical Society, advocating for healthcare excellence and the welfare of medical professionals. His research interests include healthcare procurement, leadership, and sustainable health system reforms.



**Kadhim Alabady, MBBS; MPH; MSc; DrPH;
FRCP (Glasgow); FFPH (UK)**

Public Health Principal Epidemiologist, Public Health Protection
Department / Dubai Health Authority United Arab Emirates

How Epidemiology Guides Personalized Health? Personalized Medicine in Epidemiology: Navigating Oncology and Cardiovascular Disease Challenges

You can't dissociate the physical body from the psycho-emotional. The physical body is able to heal itself with its restorative system - DNA, enzymes - which is constantly acting. If the pain persists beyond three to four weeks, it is likely that an emotional conflict is associated with it, signalled by somatizations or changes in behavior. It is then a question of not only emptying the overflowing bucket but also identifying the leaking tap to help the patient reduce the flow or better close it.

The leaky faucet, RSP, Somato-Psychic Restoration, is able to identify it. It can originate in the first months of conception, imprinted in the epigenome. Through its palpatory listening, it can determine its nature. Then, through his reading of the body in several dimensions, to put words to the ailments. It thus provides the patient with an insight that facilitates his or her awareness between past events reactivated by recent ones. This is the starting point of the process of psychic healing that continues with understanding. To do this, RSP proposes possible solutions adapted to the identified mode of behaviour. It does not treat the pathology but helps the patient activate their own healing systems.

With RSP, it is not a question of opposing scientific medicine to that of emotions, but of encouraging them to collaborate so that the patient remains the priority.

Biography:

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Dr. Kadhim Alabady is a distinguished public health and epidemiology expert with over two decades of experience in academic, international, and national health systems. He is a Fellow of the Faculty of Public Health in the UK (FFPH) and a Fellow of the Royal College of Physicians and Surgeons of Glasgow (FRCP).

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- **International Organizations:** United Nations
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His work has been instrumental in shaping research and development (R&D) strategies, particularly in the field of non-communicable diseases (NCDs), including mental health, cancer, cardiovascular diseases, diabetes, and broader population health issues. Dr. Alabady has authored numerous publications in the UK, contributing significantly to public health knowledge and policy.

Ziming Gong^{1*}, Cen Chen¹, Lefei Wang¹, Ryuya Tanigawa¹, Eisei Harayama¹, Hiro Kishimoto^{1,2}

¹ Department of Behavior and Health Sciences, Graduate School of Human-Environment Studies, Kyushu University, Fukuoka, Japan

² Faculty of Arts and Science, Kyushu University, Fukuoka, Japan

Association Between Backward Walking Speed and Physical Balance and Fall Risk in the Community-Dwelling Older Adults

Background: Backward walking is increasingly recognized as a sensitive task for detecting balance deficits and fall risk in older adults. However, its utility as a functional indicator in healthy populations remains underexplored. This study aimed to investigate associations between backward walking speed (BWS), physical balance, and fall risk in community-dwelling older adults.

Methods: In this cross-sectional study, 90 healthy older adults were recruited. BWS was assessed alongside the Berg Balance Scale (BBS), Performance-Oriented Mobility Assessment (POMA), Fall Risk Index (FRI), the Falls Efficacy Scale-International (FES-I), and fear of backward walking (FoBW). Pearson correlations and multiple regression analyses were conducted.

Results: Eighty-four participants (mean age 75.7 ± 5.0 years; 72.6% women) were analyzed. Mean forward and backward walking speeds were 1.36 ± 0.23 m/s and 0.73 ± 0.24 m/s, respectively. BWS showed moderate correlations with TUG ($r = -0.52$), forward speed ($r = 0.49$), and grip strength ($r = 0.41$), and weaker correlations with BBS, MoCA, and FoBW. Participants with slower BWS had poorer cognitive scores, balance, and mobility. In adjusted regression models, BWS was significantly associated with higher BBS scores ($\beta = 3.744$, $p = 0.023$) and lower TUG times ($\beta = -1.488$, $p = 0.029$), but not with POMA-Total or FRI.

Conclusion: BWS may serve as a multidimensional indicator of physical and psychological vulnerability in older adults. Longitudinal studies with dynamic or dual-task assessments are needed to validate its predictive value for fall risk screening.

Keywords: Backward Walking, Balance, Fall Risk, Community-Dwelling Older Adults, Postural Control.

Ziming Gong¹, Cen Chen^{1*}, Lefei Wang¹, Ryuya Tanigawa¹, Eisei Harayama¹, Hiro Kishimoto^{1,2}

¹ Department of Behavior and Health Sciences, Graduate School of Human-Environment Studies, Kyushu University, Fukuoka, Japan

² Faculty of Arts and Science, Kyushu University, Fukuoka, Japan

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VIRTUAL PRESENTATIONS

DAY 2



Ian Freckelton

Monash University, Australia

Engineered stone – legislative prohibition – health and safety – risk of death

In mid-2024 Australia took the unparalleled public health law step of banning work with engineered stone, also known as artificial stone, a product made from crystalline silica-containing aggregates bonded with a polymer resin. It was the first and, so far is the only, country to take such robust legislative action.

The Australian initiative followed a substantial number of workers involved in manufacturing and installing the product in bathrooms and kitchens contracting the serious lung disease of silicosis. The controversial Australian initiative was a public health intervention that took place after the failure of softer forms of regulation that had sought unsuccessfully to encourage safe working practices in order to provide protection to workers.

This paper reviews the evidence base and the ineffective public health and safety measures that led to Australia's legislated preclusion on the product. It analyses the international evidence in relation to the risks posed by engineered stone and the knowledge that has grown about silicosis caused by this and other forms of respirable dust. It argues that the evidence that has continued to emerge in the aftermath of Australia's decision is growing stronger about the risks posed to workers from engineered stone. It contends that the need to take robust action to protect vulnerable workers from silicosis and associated diseases requires an international consensus on prohibiting manufacture, installation and imports of the product.

Biography:

Ian Freckelton is a King's Counsel in full time practice as a barrister throughout Australia. He took silk in 2007 and was admitted to the Bar in 1988. His practice is trial, appellate and advisory and principally in medico-legal matters across areas of disciplinary, personal injury, criminal and commercial law. He has also been a Judge of the Supreme Court of Nauru since 2017 and has been appointed a member of ten statutory tribunals at both Commonwealth and State level in Australia, including the Medical Practitioners Board of Victoria. He is a Professor of Law and a Professorial Fellow in Psychiatry at the University of Melbourne, where he is a Co-Director of the Masters of Health Law Programme, and an Honorary Professor of Forensic Medicine at Monash University, and an Honorary Professor at the Auckland University of Technology in New Zealand, La Trobe University and QUT. He has also been a Professor at Johns Hopkins University in the United States. He was the Commissioner at the Victorian Law Reform Commission which resulted in Australia's first legislation legalising medicinal cannabis.



**Amarasinghe A B U M V ^{1*}, De Silva Weliange S²,
Arambepola C²**

¹Food and Agriculture Organization of the United Nations, Samoa

²Department of Community Medicine, Faculty of Medicine, University of Colombo, Sri Lanka

Development and Implementation of a Theory-Based Mhealth Application to Enhance Physical Activity Among Sedentary Office Workers in Colombo, Sri Lanka

Sedentary behaviour among office workers is a significant driver of non-communicable diseases, with low motivation being a key barrier to increasing physical activity. This paper details the rigorous methodology adopted in the theory-based development and implementation of "Activa," an mHealth intervention for sedentary government employees in Sri Lanka. The study employed a quasi-experimental, pre-test, post-test design with 244 employees, utilizing cluster-randomization of four institutions to minimize contamination. This design established four parallel arms to test a dose-response relationship: a control group and three intervention groups receiving progressively intensive motivational content over three months. The development process was explicitly theory-driven; the application's architecture was designed to target the Motivation component of the COM-B model by operationalizing nine domains from the Theoretical Domains Framework (TDF). This involved a granular mapping of constructs to features; for example, the 'Behavioural Regulation' domain was translated into functions for personalized goal-setting and self-monitoring, while the 'Beliefs about Capabilities' were targeted by providing feedback on performance to enhance self-efficacy. The primary outcome, motivation, was assessed using the Behavioural Regulations in Exercise Questionnaire (BREQ-3), and the secondary outcome, physical activity, was measured via the International Physical Activity Questionnaire (IPAQ). Data analysis will follow an 'Intention to Treat' principle, providing a conservative and realistic estimate of the intervention's effectiveness. While a formative pilot prompted pragmatic refinements, such as shifting to paper-based data collection to ensure inclusivity, the core research demonstrates a transferable model for deploying theoretically-grounded mHealth interventions that are robust, valid, and executable within real-world constraints.

Keywords: Health, physical activity, behaviour change, formative evaluation, sedentary behaviour, COM-B model

Biography:

Upula Amarasinghe is a results-driven development professional currently serving as an International Program Monitoring and Evaluation Specialist with the Food and Agriculture Organization (FAO) of the United Nations in Samoa. He has extensive experience in designing and implementing programmes across the agriculture, health, and emergency sectors. His expertise includes leading digital transformation initiatives, developing M&E frameworks, and fostering strategic collaboration with government and UN partners. Upula holds a Master of Development Practice and a BSc in Health Promotion. He is currently an MPhil candidate at the University of Colombo's Faculty of Medicine, researching mHealth interventions to promote physical activity.

Dejan Rakovic^{1,2,3}

¹Faculty of Electrical Engineering, University of Belgrade (Serbia), in retirement

²Life activities advancement Institute (LAAI), Belgrade (Serbia)

³Whole–Self Discovery & Development Institute, Inc. International, Co–Director for Serbia

Reflections On Dr Eben Alexander's Book "Proof Of Heaven" (2012): Broader Implications For Quantum-Holographic Psychosomatics

The presentation will first discuss the incredible personal experiences of the American neurosurgeon Dr. Eben Alexander, in a state of prolonged coma. All of this will be then put into the broader theoretical context of our extended quantum-holographic theoretical framework of consciousness and psychosomatics, with numerous psychosomatic, spiritual-epistemological and social implications. It indicates the full importance of holistic education and behavior, demonstrating the necessity of reorientation towards holistic subtle actions for global solutions of the world risk society.

Keywords: Dr Eben Alexander's book "Proof of Heaven", coma, afterlife, quantum-holographic theoretical framework, consciousness, psychosomatics, spirituality, epistemology, society.



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Managing Healthcare Transformation towards Intelligent and Ethical 5P Medicine Ecosystems

Health and social care systems currently undergo a transformation from phenomenological through evidence-based, person-centered, and personalized care towards personalized, preventive, predictive, participative precision medicine (5PM), supported by technology. 5PM considers individual health status, conditions, genetic and genomic dispositions in personal social, occupational, environmental and behavioral context, that way understanding the pathology of diseases and turning health and social care from reactive to proactive. Thereby, we have to enable communication and cooperation between all actors of the ecosystem, participating in different knowledge spaces, representing different disciplines, using different methodologies, perspectives, intentions, languages, etc. Therefore, the knowledge-based, multidisciplinary, highly complex and dynamic 5PM ecosystem must be consistently and formally represented. The outcome is a system-theoretical, architecture-centric, ontology-based, policy-driven approach for designing and managing intelligent and sustainable 5PM ecosystems, developed by the author and meanwhile standardized as ISO 23903 Health informatics – Interoperability and Integration Reference Architecture – Model and Framework. The deployment of that standard is meanwhile mandatory for all projects at ISO, CEN, HL7, IEEE, etc., addressing more than one domain.

Biography:

Prof. Blobel studied Mathematics, Technical Cybernetics and Electronics, Theoretical Physics, Biocybernetics, Informatics, and Medicine at different universities in East Germany. He received the PhD degree in Physics, a habilitation in Medicine, and a habilitation in Medical Informatics. He was Head of the Physical Laboratory in Environmental Medicine at the Medical University Magdeburg and thereafter Head of the Medical Informatics Department and then Director of the Institute For Biometrics and Medical Informatics at the Medical Faculty of the Otto-von-Guericke University Magdeburg. In 2004, he became Founder and Head of the Health Telematics Project Group at Fraunhofer Society, Institute of Integrated Circuits (IIS), Erlangen, and thereafter Head of the German National eHealth Competence Center (eHCC) at the University of Regensburg. He is author of more than 500 scientific publications.



Jana Rozehnalova

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Thin slicing research: Improving mental health and well-being of university students via the Rage Fitness App

Introduction/Background/Rationale: This project was developed in collaboration with the Rage Fitness Wellbeing Group, a provider of fitness and well-being programmes for the local community. Their strategy is to enhance the impact of their services through a mobile app offering physical exercise routines and mindfulness content. The app uses AI to personalise content, contributing to a 97% user retention rate—far exceeding the 1–2% typical of generic well-being apps.

To date Rage Fitness has observed notable well-being improvements among users, which appear to correlate with high engagement. These early observations—akin to a “thin slice” of data—suggest promising outcomes and form the basis for this thin-slicing research. Given the established links between student well-being, attendance, and academic performance—and the increasing prioritisation of student mental health in UK Higher Education—this study aims to investigate whether daily use of the Rage Fitness app can improve students' well-being, attendance, and academic performance.

Methodologies/Expected Outcomes: A mixed-methods approach employing single-blinded RCT and focus group interviews will assess the app's effectiveness. Participants—students from the University of Greater Manchester—will use the app over eight weeks; prompts and notifications will be sent daily. Activities range from 1 minute to 1 hour 15 minutes. Every two weeks, users will complete in-app well-being questionnaires.

Expected outcomes include improvements in well-being (via the app's 7-item SWEMWBS scale and the ONS 4 questions) and positive correlations between well-being and: attendance, academic self-efficacy (GASE), and academic resilience (ARS-30) – measured pre- and post-intervention. The reward system is also expected to increase engagement.

Implications/Future Research or Practice: This project may offer personal benefits to students, including improved academic outcomes, attendance, and retention. Enhanced performance may also boost employability. If successful, the intervention could be scaled to large organizations to improve employee well-being, reduce absenteeism, and enhance workplace productivity.

Keywords: student well-being, course attendance, academic performance, well-being app, self-help

Biography:

Dr Jana Rozehnalova - PhD, PgCERT, BSc (Hons), MBPsS, CSAccred. (AAC); Lecturer in Health & Social Care, School of Health and Society; PhD in Psychology with a specialism in Positive Psychology; BPS accreditation in clinical supervision.



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Feasibility and Acceptability of a Theory-Based Mhealth Intervention to Promote Physical Activity in Sri Lanka

Physical inactivity among sedentary office workers is a significant public health problem, particularly in low- and middle-income countries where motivation is a crucial barrier. While mobile health (mHealth) applications offer a scalable solution, their effectiveness is often hindered by lack of attention to real-world feasibility and user acceptability. This study details the formative evaluation of "Activa," a theory-based mHealth application, to assess these critical factors among sedentary public sector employees in Colombo, Sri Lanka, with the objective of refining its implementation protocol for a larger trial. The research methods involved a formative pilot study with 70 employees, conducted alongside in-person biophysical measurements to gauge engagement. The results from this pilot, which included diverse age cohorts (n=9 aged <35, n=32 aged 35-45, and n=29 aged >45), revealed significant feasibility barriers, including a wide digital literacy gap, logistical challenges with group onboarding, and user trust issues arising from the APK installation. Data collection built into the application was found to be unacceptable for many users, risking poor data quality. Consequently, the study protocol was significantly refined into a hybrid human-digital model, incorporating expanded on-site support and paper-based data collection. This study concludes that rigorous formative evaluation is indispensable for adapting mHealth interventions to local contexts and contributes a validated, user-centered methodology demonstrating that combining digital tools with high-touch human support is critical for achieving feasibility and acceptability in public health research.

Keywords: Health, feasibility study, user-centered design, physical activity, implementation science, Sri Lanka

Biography:

Upula Amarasinghe is a results-driven development professional currently serving as an International Program Monitoring and Evaluation Specialist with the Food and Agriculture Organization (FAO) of the United Nations in Samoa. He has extensive experience in designing and implementing programmes across the agriculture, health, and emergency sectors. His expertise includes leading digital transformation initiatives, developing M&E frameworks, and fostering strategic collaboration with government and UN partners. Upula holds a Master of Development Practice and a BSc in Health Promotion. He is currently an MPhil candidate at the University of Colombo's Faculty of Medicine, researching mHealth interventions to promote physical activity.



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Developing A Theory and Evidence-Based Intervention for Black African Women Using The COM-B Model and Behaviour Change Wheel: BALANCED Programme

Background: Obesity is a major global health issue, increasing morbidity and mortality through its association with non-communicable diseases. Black African women experience disproportionately high obesity rates, reaching 37% in the UK. They face unique cultural, social, and systemic barriers to achieving sustainable lifestyle changes. To address these, the Black African Lifestyle and Nutrition Change for Empowerment and Development (BALANCED) intervention was developed.

Methods: A stepwise approach guided by the Behaviour Change Wheel (BCW) and COM-B model (Capability, Opportunity, Motivation – Behaviour) was used to develop the intervention. Formative research, including a systematic review, dietary pattern analysis and qualitative interviews, identified key behavioural determinants and barriers to healthy eating among black African women with overweight and obesity in the UK. These insights informed the selection of intervention functions and behaviour change techniques (BCTs), which were co-designed with key stakeholders to support their acceptability and feasibility.

Results: Formative research indicated that Black African women experience significant barriers to healthy behaviours, including limited access to culturally appropriate dietary guidance, time constraints, and systemic challenges in healthcare. The proposed intervention aimed to address these barriers through educational and training modules, culturally tailored counselling, and peer support systems, focusing on dietary and physical activity behaviours. Seven BCW intervention functions were applied, incorporating a variety of BCTs.

Conclusion: The BALANCED intervention represents an innovative, culturally tailored approach to promoting sustainable behaviour change among Black African women with overweight and obesity. Grounded in theory and informed by empirical evidence, it has potential to address multidimensional barriers and foster participant engagement. Future research will focus on piloting and evaluating its effectiveness and scalability to inform broader public health strategies aimed at reducing health disparities in this demographic.

Keywords: Obesity, Black African Women, COM-B Model, Behaviour Change Wheel, Dietary Behaviour

Biography:

Dr Itse Olaoye is an Associate Fellow of the Higher Education Academy (AFHEA), with great teaching experience in higher education. Prior to working in academia, she contributed to health initiatives across multiple levels, including national, state, local, and health facility levels, while working with the World Health Organization (WHO), the Centres for Disease Control and Prevention (CDC), and UNICEF. Her expertise spans public health, disease epidemiology, healthcare systems, and health policy. She has led and managed programs aimed at strengthening healthcare systems and improving public health outcomes. Her experience also includes data management across these health initiatives, ensuring the effective collection, analysis, and use of health data at all levels of the healthcare system.



Vissagan Sankaranarayanan, MBChB

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Pharmacokinetics and Stability of Antimicrobials Delivered via Elastomeric Devices in Paediatric Patients: A Systematic Review

Statement of the Problem: Elastomeric infusion devices (EDs) are portable, power-free pumps that enable continuous antimicrobial delivery in outpatient settings. Their use is established in adult outpatient parenteral antimicrobial therapy (OPAT), but paediatric application remains poorly characterised. Key concerns include drug stability, pharmacokinetics, device reliability, and clinical outcomes.

Methodology & Theoretical Orientation: A systematic review was conducted according to PRISMA guidelines (registered PROSPERO CRD42021237146). Databases searched up to December 2023 included Medline, Embase, CINAHL, PubMed, Cochrane Clinical Trials Library, ClinicalTrials.gov and WHO ICTRP. Eligible studies enrolled patients aged 0–21 years receiving antimicrobials via EDs. Outcomes included antimicrobial agents administered, infusion durations, stability and diluent requirements, pharmacokinetics, device/line complications, treatment completion, and patient-reported experiences.

Findings: Nine studies from six countries, including 567 patients and 657 treatment episodes, were identified. Fourteen antibiotics and one antiviral were delivered, predominantly as 24-hour continuous infusions with median treatment courses of 10–15 days (maximum 84 days). Stability testing showed molecule-specific constraints: β -lactams such as ceftazidime required shorter infusion windows, while buffering extended stability for agents including flucloxacillin. Pharmacokinetic data from 28 paediatric patients demonstrated ceftazidime steady-state concentrations ($56.2 \pm 23.2 \mu\text{g/mL}$) significantly above intermittent dosing troughs ($12.1 \pm 8.7 \mu\text{g/mL}$, $p < 0.05$). Device failures were rare ($< 5\%$), line complications occurred in $\sim 10\%$ of episodes, and adverse drug reactions were infrequent. Clinical success exceeded 90% across most cohorts, with families reporting strong preference for ED therapy due to convenience and reduced hospitalisation.

Conclusion & Significance: EDs appear to be a safe, feasible, and effective mode of antimicrobial delivery for children and young adults, ensuring sustained therapeutic exposure with high treatment success and minimal device-related issues. Integration into paediatric OPAT services may improve quality of life and reduce healthcare burden. Further research into pharmacokinetics and stability is needed to optimise paediatric dosing strategies.

Biography:

Vissagan Sankaranarayanan is a junior doctor with clinical and academic experience in paediatric and oncology research. He completed an MPhil in Paediatric Oncology at the University of Liverpool and has worked on projects investigating novel biomarkers and antimicrobial delivery systems. His research interests include drug delivery, translational immuno-oncology, and optimising outpatient care models in paediatrics. He has presented work at national and international meetings and is pursuing further research training in clinical oncology.



Takashi Gokita

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Association Between Occupational Health Nurse Staffing and Musculoskeletal Disorder Incidence in Minnesota: A Time-Series Study (2003–2010)

This study presents a time-series investigation exploring the relationship between occupational health nurse (OHN) staffing and musculoskeletal disorder (MSD) incidence among workers in Minnesota between 2003 and 2010. Using publicly available state-level data, annual MSD incidence rates per 100,000 workers were analyzed in relation to the number of OHNs per 100,000 workers. Both contemporaneous and one-year lagged associations were examined through visualization and linear regression models.

The results demonstrated a significant positive correlation between OHN staffing and MSD reporting within the same year (Adjusted $R^2 = 0.61$, $p = 0.013$), with an even stronger association observed in the lagged model (Adjusted $R^2 = 0.71$, $p = 0.011$). These findings suggest that higher OHN staffing levels may enhance the detection, reporting, and documentation of MSDs, rather than reflecting a genuine increase in incidence. Importantly, the observed lag effect emphasizes not only the role of OHNs in sustaining long-term workplace health improvements, ergonomic adjustments, and preventive interventions, but also the necessity of implementing health education that can more promptly promote awareness of prevention among workers.

This study provides preliminary but meaningful evidence underscoring the critical role of OHNs in occupational health surveillance, injury recognition, and prevention efforts. The results have implications for workforce planning, policy development, and the establishment of staffing benchmarks in occupational health services. Although limited by aggregated state-level data and a short timeframe, the study highlights the need for further longitudinal and multilevel research to confirm associations, clarify causal mechanisms, and broaden applicability across industries and regions.

Keywords: Occupational Health, Musculoskeletal Disorders, Nurse Staffing, Workplace Health, Lag Effect

Biography:

Takashi Gokita is a 2nd-year MPH candidate at Columbia University, specializing in Health Promotion Research and Practice within the Department of Sociomedical Sciences. His research focuses on occupational health and the impact of the built environment on physical health. He completed a three-month occupational health internship at Genentech, a biotechnology company in California and is a Registered Nurse and Public Health Nurse in Japan.

Index

Kadhim Alabady	9, 19
Hasan Alkhudairi	11
Salman Alhajri	14
Amir Ashraf	15
Amudha Ondiveerappan	17
Ruben Shaanika Kanime	18
Ziming Gong	21
Chen Cen	22
Ian Freckelton	25
Upula Madhusankha Vishwamithra Amarasinghe	26, 30
Dejan Raković	27
Habil Bernd Blobel	28
Jana Rozehnalova	29
Itse Olaoye	31
Vissagan Sankaranarayanan	32
Takashi Gokita	33



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