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# APRU Global Health Conference 2025

## Towards Planetary Health Equity: A Global Call for Shared Solutions

28th - 31st October 2025 | Universiti Malaya, Kuala Lumpur, Malaysia

### Abstract Book





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# **APRU** Global Health Conference 2025

Towards Planetary Health Equity: A Global Call for Shared Solutions

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28th - 31st October 2025 | Universiti Malaya, Kuala Lumpur, Malaysia



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## A CORRELATIONAL STUDY ON PSYCHOLOGICAL ADAPTATION AMONG PARENTS OF CHILDREN WITH ASTHMA AND CHRONIC CARDIOVASCULAR DISEASES

**Abstract ID: 89 (Oral)**

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**Background:** Among the most common pediatric chronic conditions are asthma and chronic cardiovascular diseases (CVD), each presenting unique management challenges. The study aimed to analyze and understand the correlation of six Family Management Measure key subscales: (1) Child's Daily Life and View of Condition Impact, (2) Condition Management Ability and Condition Management Effort, and (3) Parental Mutuality and Family Life Difficulty, among parents of children with asthma and those of children with CVD at the University of the East Ramon Magsaysay Memorial Medical Center.

**Methods:** With a quantitative descriptive correlational design, the study gathered data using the Family Management Measure (FaMM), a validated tool assessing six domains of family management chronic illness, from 64 parents (32 from each group) who met the criteria from the outpatient clinic.

**Results:** Significant correlations were found among parents of children with asthma across all tested relationships. Condition Management Effort and Child's Daily Life ( $r = -0.483$ ,  $p = 0.005$ ), Condition Management Ability and View of Condition Impact ( $r = -0.754$ ,  $p = 0.000$ ), Condition Management Effort and Parental Mutuality ( $r = -0.411$ ,  $p = 0.041$ ), and Condition Management Ability and Family Life Difficulty ( $r = -0.746$ ,  $p = 0.000$ ). No significant correlations were observed among parents of children with chronic CVD ( $p > 0.05$ ).

**Conclusion:** These findings suggest that psychological adaptation among asthma parents is closely related to their perceived caregiving competence and family management dynamics. Conversely, the absence of similar correlations in the CVD parents indicated the potential need for more specialized psychosocial interventions due to more complex stressors. This highlights the importance of caregiver psychological support into pediatric chronic care and suggests that condition-specific approaches may enhance caregiver well-being and improve health outcomes for families affected by the chronic illnesses.

**Keywords:** chronic cardiovascular diseases, family management, pediatric asthma, psychological adaptations



## A PERSONALIZED AIR QUALITY MONITORING APPROACH TO SUPPORT ASTHMA CONTROL IN ENVIRONMENT AFFECTED BY AIR POLLUTION

**Abstract ID: 146 (Oral)**

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**Background:** Exposure to PM2.5 is linked to more frequent and severe asthma exacerbations, especially in children. Around 10% of children in Asia have asthma, and short-term spikes in PM2.5 can raise exacerbation risk within three days. While public air quality monitoring networks exist, localized PM2.5 levels may vary significantly from central monitoring data, limiting the ability of individuals to make timely personalized health decisions. This highlights the urgent need for real-time, localized air quality monitoring to support personalized asthma management in environments affected by air pollution.

**Methods:** A health innovation project was undertaken to design, develop and evaluate a portable, user-centered air quality monitoring device aimed at supporting asthma management among children living in pollution-affected environments. The design process starts with problem identification, algorithm creation and features selection. Next, the development process included low-fidelity prototype creation and preliminary early-adopters user interaction components to support symptom tracking and potential early medication adjustments.

**Results:** The design process identified several key stakeholders, including children as primary users, along with parents and healthcare providers who play important roles in the deployment of the device. The design of the dashboard required a short and succinct pop-up message with colorful buttons that increase users' interaction. The first version of the prototype demonstrated technical feasibility in collecting and transmitting PM2.5 data. The prototype will enable personalized monitoring, which may help increase symptom awareness and support timely behavioural changes. This could inform earlier adjustments to asthma management plans and improve disease control under fluctuating air quality conditions.

**Conclusion:** Personalized monitoring tools may offer a complementary approach to existing public air quality systems by providing more individualized exposure insights. Such innovations may help vulnerable populations, in this case children, to better manage pollution related health risks, advance planetary health equity, and support adaptation strategies to mitigate the health impacts of climate change.

**Keywords:** air pollution, asthma, climate Health, planetary health



## A QUANTITATIVE STUDY OF THE PREVALENCE OF HEPATITIS B AMONG GARBAGE COLLECTORS IN BAGUIO CITY, PHILIPPINES

**Abstract ID: 192 (Poster)**

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**Background:** Hepatitis B virus (HBV) remains a pressing occupational health issue, especially among waste collectors who are often overlooked despite high exposure to biohazards. In Baguio City, the lack of PPE, limited access to healthcare, and minimal vaccination coverage suggest increased vulnerability, yet data on this population remains scarce. This study aimed to determine the prevalence of HBV among garbage collectors and to identify whether occupational exposure, knowledge about HBV, and workplace conditions are associated with HBsAg positivity.

**Methods:** A quantitative correlational design was used among 59 registered male garbage collectors under the Baguio City General Services Office. Data collection included a structured questionnaire and rapid HBsAg testing. Chi-square analysis determined associations between variables. Ethical clearance was secured through institutional approval, and informed consent was obtained.

**Results:** The study found a 3.4% HBV prevalence rate. While knowledge and exposure levels were not statistically associated with infection, poor workplace conditions showed significant correlation ( $\chi^2 = 6.65$ ,  $p = 0.01$ ). Results emphasize the need for structural interventions like PPE provision, vaccination drives, and routine screening.

**Keywords:** Hepatitis B, garbage collectors, occupational health, public health, vaccination access, workplace conditions



## A RAPID GLOBAL REVIEW OF CLIMATE ACTION STATEMENTS AND ACTIVITIES ACROSS THE CLINICAL SPECIALTIES

**Abstract ID: 110 (Poster)**

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**Background:** Climate change is increasingly recognized as one of the greatest threats to global health in the 21st century. While healthcare systems are both vulnerable to and significant contributors to climate change, the roles and responses from clinical specialty societies remains largely under-recognized. Understanding how these societies engage with climate action is critical to strengthening the health sector's role in climate mitigation and adaptation. This study aimed to assess the extent and nature of climate-related statements, declarations, and initiatives issued by international clinical specialty societies, with a focus on their roles in promoting climate mitigation and adaptation within healthcare.

**Methods:** A rapid review was conducted to identify climate-related actions from major international specialty societies between January 2019 and December 2024. Using the Association of American Medical Colleges (AAMC) classification, societies were systematically reviewed through their official websites. Identified materials were categorized by thematic focus (education, advocacy, research, clinical care, and operations) and by their alignment with mitigation and/or adaptation strategies.

**Results:** The findings, summarized in structured tables and a chronological figure, reveal uneven but growing engagement from clinical specialties. While general practice and public health societies demonstrated strong advocacy, fewer concrete actions were observed among specialty fields. Some societies addressed mitigation through low-carbon healthcare initiatives, while others focused on adaptation, including health system resilience and climate-informed clinical guidance.

**Conclusions:** Despite growing awareness, significant gaps remain in the integration of climate action into clinical practice across specialties. Stronger implementation, interdisciplinary collaboration, and integration of climate education into medical training are urgently needed. As the climate crisis intensifies, transforming climate action from a voluntary commitment into a professional obligation is essential to safeguarding human and planetary health.

**Keywords:** climate adaptation, climate mitigation, sustainable health care



## A STUDY ON URBAN RESILIENCE BUILDING UNDER THE CONTEXT OF CLIMATE CHANGE: INTEGRATING THE INDICATOR FRAMEWORKS OF THE SDGS AND ISO 37123

**Abstract ID: 64 (Oral)**

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**Background:** Climate change is increasingly impacting urban environments, posing significant risks to public health, infrastructure, and social equity. Urban areas, due to their population density, complex systems, and vulnerability to heat island effects, are at the front line of these challenges. In response, this study proposes an urban resilience indicator framework that integrates the United Nations Sustainable Development Goals (SDGs) with ISO 37123: Indicators for Resilient Cities, aiming to guide local governments in enhancing resilience under climate stress.

**Methods:** The framework is built upon four SDGs—SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate Action), SDG 3 (Good Health and Well-being), and SDG 16 (Peace, Justice, and Strong Institutions)—and is structured around three dimensions: environmental, social, and governance. It consists of 12 primary indicators and 36 sub-indicators, initially developed through literature analysis. To refine the indicators, the study adopted the Fuzzy Delphi Method (FDM), conducting two rounds of expert consultation with 15 professionals from urban planning, disaster risk reduction, and public health. Based on Fuzzy Consensus Values (FCVs), 28 sub-indicators were finalized. High-consensus areas include climate risk management (e.g., heatwave alerts, green infrastructure), health system preparedness (e.g., medical accessibility, inclusive shelters), and governance transparency (e.g., disaster information systems, budget openness).

The framework has been piloted in Taipei's West District Gateway Project, demonstrating its policy relevance and practical applicability.

**Results:** The findings highlight the importance of integrating infrastructure, public health, and governance to build holistic urban resilience.

**Conclusion:** This study contributes to the evolving discourse on planetary health by offering a structured tool for cities to adapt to climate change while promoting health and sustainability.

**Keywords:** climate change, ISO 37123, planetary health, SDGs, urban resilience



## A WHOLE-OF-SYSTEM APPROACH TO STRENGTHENING ZOOONOTIC DISEASE PREPAREDNESS IN SINGAPORE

**Abstract ID: 126 (Oral)**

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**Presenter:**

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**Background:** Climate change and environmental disruptions have increased the potential for both novel and re-emerging zoonotic diseases to spill over into human populations. It is crucial to understand the intersections between climate change, animal, and human health, particularly in island states such as Singapore, to strengthen existing systems for early detection and long-term prevention and preparedness against zoonotic disease risks. We aimed to prioritise potential areas for action and feasible responses to strengthen zoonotic disease prevention and risk mitigation efforts in Singapore.

**Methods:** We conducted a Delphi analysis informed by: (i) online public and expert surveys with 129 participants exploring knowledge, practices, and risk perceptions of zoonotic diseases, analysed using descriptive statistics; and (ii) 40 semi-structured interviews to expand on zoonotic disease risk perceptions and existing initiatives, analysed thematically. Delphi panel members, including animal and human healthcare providers, animal welfare group representatives, and public health specialists, joined three rounds of consultations to examine the evidence, identify and prioritise risks, and propose implementable strategies to strengthen national risk mitigation and preparedness.

**Results:** While existing measures appeared effective in mitigating major zoonotic disease risks, participants emphasised the importance of adopting a whole-of-system approach for better communication, collaboration, and overall preparedness. Expert consensus focused on strengthening cross-sectoral capacity and collaboration, adopting context-sensitive health messaging, and investing in community empowerment as priority strategies to enhance zoonotic preparedness in Singapore.

**Conclusions:** Findings highlight the importance of adopting a whole-of-system approach centering the interconnectedness of human, animal, and environmental health, positive public engagement, and sustainable and adaptive approaches to addressing zoonotic and ecological threats.

**Keywords:** zoonotic preparedness, one health, empowerment, health systems, whole-of-system



## ACCEPTABILITY OF MEDICATION FOR EARLY VASCULAR AGEING (EVA) IN MALAYSIA: A FOCUS GROUP STUDY

Abstract ID: 231 (Poster)

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### Presenter:

Haridah Binti Alias

**Background:** There has been extensive recent effort to identify potential drug candidates targeting cellular senescence to treat ageing-related comorbidities. In Malaysia, where cardiovascular diseases (CVDs) remain a major public health concern, such interventions may be especially valuable. Despite the growing relevance of early vascular ageing (EVA) in clinical research, little is known about how Malaysians perceive this concept or their views on the acceptability of related preventative medications. This qualitative study aimed to explore Malaysian young adults' understanding of the concept of EVA, as well as their attitudes and acceptance of medication for EVA.

**Methods:** Six online focus group discussions were conducted with 31 Malaysian adults (aged 18–50) of diverse backgrounds between January and May 2024. Transcripts were analyzed thematically to explore perceptions, concerns, and acceptance of EVA medication.

**Results:** The awareness about EVA was low although some participants had heard of known of premature death from sudden heart attacks among their friends or relatives. In general, older participants expressed higher perceived risk of EVA than the younger. Participants expressed concern over safety profile, long-term side effect, and efficiency of the medication. The acceptance of medication for EVA was moderate among younger participants and high among older participants. Some conditions that increase their acceptance were the physicians' recommendation, convenient administration route, and affordable pricing.

**Conclusion:** Findings provide insights the need to raise awareness about EVA, particularly among younger adults in Malaysia. Addressing concerns about medication safety and effectiveness, alongside clear guidance from healthcare providers, may enhance public acceptance. Interventions to reduce negative perceptions of new therapies and improve awareness about EVA may enhance acceptance of medication.

Keywords: cardiovascular, FGD, premature ageing, senotherapy, young adults



## ACCULTURATION, SOCIAL SUPPORT, AND OUTPATIENT CARE USE AMONG INDONESIAN MIGRANT WORKERS IN MALAYSIA: A CROSS-SECTIONAL STUDY

**Abstract ID: 72 (Oral)**

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**Presenter:**

Amirah Zafirah Zaini

**Background:** Equitable access to healthcare is a fundamental human right. However, for many migrant workers, this right remains unattainable due to persistent legal, economic, and social barriers. While socio-environmental determinants of health are increasingly acknowledged, there is limited evidence on how acculturation and social support influence migrant workers' access to healthcare in low- and middle-income countries. This study examined how acculturation (language proficiency and social interaction) and social support (from family, friends, and third parties) are associated with outpatient care use among Indonesian migrant workers in Malaysia. It also explored whether social support mediates the relationship between acculturation and healthcare access.

**Methods:** A cross-sectional survey was conducted with 322 Indonesian migrant workers in the Klang Valley region of Peninsular Malaysia from October 2024 to February 2025. Participants were recruited through convenience and snowball sampling methods, with support from community-based organisations. Analysis involved descriptive statistics and Partial Least Squares Structural Equation Modelling (PLS-SEM).

**Results:** Most participants were middle-aged, Javanese, Muslim, and had completed secondary education. The majority were documented workers employed in the services sector, with about eight years of work experience and a monthly income of RM1,700. Acculturation and social support showed limited influence on outpatient care use. Better language proficiency was significantly associated with greater support from friends ( $\beta=0.198$ ,  $P=0.016$ ), but it was not linked to support from family or third parties, nor did it predict outpatient care use. No significant mediation effects of social support were observed. However, greater social interaction ( $\beta=-0.165$ ,  $P=0.019$ ) and undocumented status ( $\beta=-0.143$ ,  $P=0.005$ ) were significantly associated with lower use of outpatient care services.

**Conclusion:** These findings highlight the complex pathways through which socio-environmental factors influence healthcare access for migrant workers. Ensuring equitable healthcare access for migrant workers requires inclusive, affordable health services and culturally responsive policies to build trust and encourage engagement with formal healthcare systems.

**Keywords:** health equity, acculturation, social support, migrant workers



## ADAPTING TO E-HEALTH SYSTEMS: A DESCRIPTIVE QUALITATIVE STUDY ON NURSES' EXPERIENCES IN THE OUTPATIENT DEPARTMENT OF A PRIVATE HOSPITAL IN THE PHILIPPINES

**Abstract ID: 179 (Oral)**

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**Background:** The increasing shift from paper-based documentation to Electronic Health Record (EHR) systems in healthcare has significantly impacted clinical workflows, especially in outpatient departments. In the Philippines, limited studies have explored the learning curve and real-time adaptation experiences of nurses in these settings. This study was conducted to address this gap by understanding how nurses navigate the challenges of EHR implementation while maintaining quality patient care.

**Methods:** A descriptive qualitative research design was employed. Five registered nurses from a private hospital's outpatient department were selected using criterion sampling. The inclusion criteria required that participants had at least six months of experience using the Electronic Health Record (EHR) system to ensure sufficient exposure to the adaptation process. Semi-structured interviews were conducted, transcribed, and analyzed using thematic analysis to identify patterns in adaptation experiences. Four major themes were identified: integrating digital tools into workflow, user efficiency, integrity and accessibility of records, and the role of healthcare professionals in EHR implementation.

**Results:** Four major themes emerged: (1) Adapting and Integrating Digital Tools within the Clinical Workflow, (2) Exploring User Efficiency and System Proficiency in EHR Use, (3) Maintaining Integrity and Accessibility of Electronic Health Records, and (4) Understanding the Work of Healthcare Professionals in EHR Implementation. Nurses highlighted both the benefits of digital systems such as faster documentation and improved coordination, and persistent challenges, including technical glitches, inadequate training, and digital literacy gaps, particularly among older staff. Informal supportsystems and self-initiated learning were crucial for overcoming these hurdles.

**Conclusion:** EHR implementation in outpatient nursing practice presents both promise and complexity. Successful adaptation depends not only on system infrastructure but also on human factors such as user training, peer support, and management responsiveness. These findings underscore the need for user-centered implementation strategies, continuous training programs, and institutional policies to improve EHR integration and support quality care.

**Keywords:** digital transition, e-health system, Electronic Health Records (EHR), nurse



## ADOLESCENT ELOPEMENT IN CHILD MARRIAGE CONTEXTS: COUNTER- NARRATIVES OF RESISTANCE, RELIEF, AND RISK FROM ROHINGYA REFUGEE YOUTH IN MALAYSIA

Abstract ID: 56 (Oral)

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### Presenter:

Ong Zhen Ling

**Background:** Child marriage and early unions (CMEU) affect around 640 million girls worldwide. Global health narratives often frame CMEU as gender-based violence—family-driven and inherently harmful—linked to risky pregnancies, school dropout, and domestic violence. However, these discourses frequently overlook how adolescents assess their circumstances and exercise agency, particularly among forcibly displaced populations. This study, co-produced with stateless Rohingya refugee and asylum-seeking adolescents, examines how they use elopement to navigate adversity within a context of precarious legal status and restricted access to education and livelihoods in Malaysia.

**Methods:** This qualitative study aimed to investigate the drivers, trajectories, and outcomes of elopement among Rohingya boys and girls (10-19 years) in Malaysia. Collaborating with refugee-led organisations and 13 Rohingya youth advisors, we conducted semi-structured interviews and focus groups with 32 participants. Fifty-eight accounts of elopement, child marriage, and dating were compiled and analysed thematically.

**Results:** Common reasons adolescents elope include: (i) pursuit of love against contested social norms; and (ii) responses to adversity (e.g., poverty, family restrictions, forced marriage, or intimate partner violence from a first spouse). Elopement unfolded in three stages: (i) secret partnership formation, often facilitated by online interactions in early adolescence; (ii) rapid progression to elopement; and (iii) post-elopement outcomes, with many unions dissolving due to severe financial hardship, marital strain, abuse, and family estrangement—leaving adolescents viewing elopement as a “mistake.”

**Conclusions:** This study broadens understandings of CMEU by highlighting the significant but structurally constrained role of adolescent agency. Rohingya adolescents use elopement to seek autonomy, love, safety, and relief from financial hardship, yet such choices often heighten vulnerability and introduce new protection risks. Findings suggest that interventions should build on adolescents’ strong preference for education. Policies expanding refugees’ right to stay, work, and study could reduce pressures to enter premature and precarious unions by creating viable alternatives.

**Keywords:** child marriage, adolescent health, refugee and asylum seekers, LMIC, migration, participatory, peer-led unions, love marriage



## ADVANCING HEALTH EQUITY THROUGH CHINA'S DOMESTIC HPV VACCINE STRATEGY: PROGRESS AND STRUCTURAL BARRIERS

Abstract ID: 88 (Poster)

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**Presenter:**

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**Background:** Cervical cancer remains a leading cause of morbidity and mortality among women in China. New incident cases reached 155,700, with 55,700 deaths annually. In recent years, domestic HPV vaccine development has been prioritized as part of a national strategy to improve vaccine accessibility and reduce health disparities. However, the extent to which this strategy addresses structural health inequities remains underexplored. This scoping review aims to explore the implementation and equity impacts of China's domestic HPV vaccine strategy, focusing on policy milestones, market dynamics, and structural barriers affecting vaccine access.

**Methods:** Following PRISMA-ScR guidelines, we searched international databases (PubMed, Scopus, Web of Science) and Chinese databases (CNKI, Wanfang) for peer-reviewed articles, policy documents, government reports, and market analyses published between 2015 and 2025. Inclusion criteria targeted literature related to HPV vaccine access, domestic manufacturing, public financing, and equity-related outcomes. Data were charted and thematically synthesized.

**Results:** Key milestones included the 2019 approval of Cecolin® (bivalent), the 2023 National Cervical Cancer Action Plan, and the anticipated 2025 launch of Cecolin 9 (9-valent). Domestic vaccine production improved affordability (e.g., ¥700–800 per dose, compared to ¥1,300–1,500 for imported vaccines). Pilot programs expanded regional coverage, though challenges persist: low national coverage, regional inequities (e.g., Beijing vs. Tibet), exclusion from the national immunization program, and limited public awareness in underserved areas.

**Conclusions:** China's domestic HPV vaccine strategy shows strong potential to mitigate structural inequities in cervical cancer prevention. However, national-level financing gaps, uneven rollout, and persistent public trust barriers remain. Policy efforts should prioritize cross-sector coordination, tiered pricing models, insurance integration, and the deployment of digital health tools to advance equitable vaccine access nationwide.

Keywords: cervical cancer prevention, HPV vaccine, health equity, immunization coverage



## ADVANCING HEALTH EQUITY THROUGH INSTITUTIONAL HEALTH SCREENING: A UNIVERSITY-BASED APPROACH TO METABOLIC SYNDROME PREVENTION IN INDONESIA

**Abstract ID: 223 (Poster)**

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**Presenter:**

Mutiara Tirta Prabandari Lintang Kusuma

**Background:** University communities represent a critical setting for advancing population health and addressing rising non-communicable disease (NCD) burdens. In Indonesia, the Health Promoting University (HPU) framework has guided institutional efforts to embed health into university systems, policies, and culture. This study explores how a university-based annual Medical Check-Up (MCU) program contributes to health equity and chronic disease prevention among academic staff, with a focus on early detection and management of metabolic syndrome (MetS).

**Methods:** A qualitative descriptive design was employed, drawing on the CIPP (Context, Input, Process, Product) evaluation model. Data were gathered from two MCU providers at a major Indonesian public university through in-depth interviews with key informants (n=4), document analysis, and reflective journals. Thematic analysis was used to examine the program's development and institutional alignment with HPU principles. This study received ethical approval from the Medical and Health Research Ethics Committee, Universitas Gadjah Mada (KE/FK/0057/EC/2025).

**Results:** The MCU program has evolved over time, demonstrating improvements in inputs—such as expanded interprofessional teams (e.g., nutritionists, lab personnel), enhanced infrastructure (e.g., mobile units, on-site labs), and updated MetS screening parameters. The COVID-19 pandemic accelerated innovation, prompting mobile service delivery and safety-driven layouts. Key enablers included institutional leadership, policy integration, and sustainable financing. Nonetheless, gaps in documentation, health communication, and participation persist, particularly among younger staff.

**Conclusion:** Embedding preventive health screening within a university's ecosystem fosters equitable access to NCD risk assessment and supports institutional health literacy. The findings underscore the role of HPUs in promoting long-term health outcomes and system resilience, aligning with global health goals and regional commitments to equity and prevention.

**Keywords:** CIPP model, health promoting university, medical check-up, metabolic syndrome, program evaluation



## ANTENATAL CARE UTILIZATION AMONG INDONESIAN YOUTH: EVIDENCE FROM THE 2012 AND 2017 DEMOGRAPHIC HEALTH SURVEYS

**Abstract ID: 151 (Oral)**

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**Presenter:**

Rizqie Putri Novembriani

**Background:** Antenatal care (ANC) is an essential aspect of maternal health, particularly for young women aged 15–24, who face an elevated risk of maternal problems. Comprehending the determinants affecting ANC attendance within this demographic can enhance maternal outcomes in Indonesia.

**Aim:** The objective of this study was to identify and assess the factors influencing the frequency of antenatal care (regular versus irregular) among young pregnant women in Indonesia, utilising data from the 2012 and 2017 Indonesia Demographic and Health Surveys (IDHS).

**Methods:** We performed a secondary data analysis utilising weighted samples of women aged 15–24 years who experienced a live birth within the five years prior to each survey. A total of 3,202 participants from 2012 and 2,591 from 2017 were included. Multivariate logistic regression was employed to evaluate the relationships between sociodemographic variables and the frequency of antenatal care (ANC).

**Results:** In both years, the prompt commencement of the initial ANC visit (according with WHO guidelines) was the most significant predictor of consistent ANC attendance (aOR 12.3 [9.2–15.7] in 2012; aOR 13.1 [10.1–17.1] in 2017). Urban residency was markedly correlated with increased ANC frequency in both surveys (aOR 2.6 [1.9–3.5] in 2012; aOR 1.4 [1.1–1.9] in 2017). In 2012, advanced age (20–24 years) was strongly correlated with frequent antenatal care (aOR 1.9 [1.3–2.7]), whereas in 2017, having an employed spouse (aOR 2.6 [1.3–5.4]) and seeing the distance to healthcare facilities as manageable (aOR 1.7 [1.2–2.4]) were significant factors.

**Conclusions:** Timely commencement of antenatal care is a crucial factor influencing sufficient antenatal care among Indonesian adolescents. Sociodemographic characteristics fluctuate annually, indicating the necessity for context-specific interventions to enhance ANC utilisation.

**Keywords:** Indonesia, antenatal care, health service access, maternal health, youth



## ANTIBIOTIC RESISTANCE PATTERN OF ESCHERICHIA COLI FROM SELECTED WATER SOURCES: A PRELIMINARY STUDY IN UPPER SITIO PINTOR, RODRIGUEZ, RIZAL

Abstract ID: 106 (Poster)

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**Background:** Rodriguez, Rizal, now the relocation site of the former Payatas landfill, faces environmental and public health challenges due to the presence of an unregulated open dumpsite near residential areas in Upper Sitio Pintor. Communities in this area rely on untreated water sources, including groundwater, which may harbor harmful bacteria such as *Escherichia coli* (*E. coli*). A known fecal coliform, *E. coli*, has the potential to develop antibiotic resistance in aquatic environments. This study aimed to detect the occurrence of *E. coli* in leachate, groundwater, and tap water near the dumpsite, describe the resistance profiles of antibiotic-resistant isolates, and compare resistance patterns across different antibiotic classes and water sources.

**Methods:** A total of 58 water samples were collected in duplicates from 29 sampling sites: 13 from leachate, 13 from groundwater, and 3 from tap water. All samples were cultured for *E. coli* and subjected to antibiotic susceptibility testing using the Kirby-Bauer disk diffusion method. Descriptive statistics and Repeated Measures ANOVA were conducted using SPSS to compare resistance patterns across water sources. A  $P < 0.05$  was considered statistically significant.

**Results:** *E. coli* was detected in 69.2% of leachate and 61.5% of groundwater samples, while all tap water samples tested negative. Leachate isolates showed the highest resistance to Penicillin (100%) and Aztreonam (44.4%), while groundwater isolates showed the highest resistance to Penicillin (87.5%) and Nitrofurantoin (68.8%). Significant differences in resistance were observed for Ceftriaxone ( $P=0.006$ ) and Nitrofurantoin ( $P=0.003$ ) across sources.

**Conclusions:** This preliminary study highlights the presence of antibiotic-resistant *E. coli* in water sources near an open dumpsite. Results emphasize the need for improved water monitoring and waste management. Findings may guide future research and public health interventions on antibiotic resistance.

Keywords: *Escherichia coli*, antibiotic resistance, groundwater, leachate, open dumpsite



## ARE PEOPLE LIVING WITH DIABETES USING MORE OUTPATIENT HEALTHCARE? INSIGHTS FROM MALAYSIA

Abstract ID: 269 (Poster)

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**Background:** Diabetes mellitus has markedly increased demand for outpatient healthcare services (OPHCU) in Malaysia's mixed public-private system, driven by high prevalence and frequent comorbidities. Understanding utilisation patterns and associated factors enables improved health system planning.

**Methods:** A cross-sectional study was conducted using data from 18,616 Malaysian adults aged 18-90 years, drawn from the 2015 National Health and Morbidity Survey. Diabetes is identified through self-report, laboratory results, or medication use. OPHCU is defined as visits to non-hospital outpatient care providers within the past 2 weeks. Sociodemographic and clinical variables (age, sex, ethnicity, income, marital status, education, comorbidities) were analysed. Multivariable logistic and multinomial regression examined associations and effect modification.

**Results:** Diabetes prevalence was 21.8%. OPHCU occurred in 11.8% (95% CI: 10.45-13.28) of people living with diabetes, versus 8.1% (95% CI: 7.47-8.81) of non-diabetics. Diabetes was associated with 23% higher odds of OPHCU (aOR 1.23, 95% CI: 1.05-1.43; p=0.008). Greater utilisation was observed in Malay ethnicity (aOR 1.28), lower income (<RM1,500; aOR 1.25), unmarried status (aOR 1.34), and absence of hypercholesterolemia (aOR 1.73). Age, sex, and education did not have a significant effect. Public outpatient services were accessed by 8.8% of people with diabetes, compared to 4.4% of non-diabetics. Private OPHCU was higher in non-diabetics (3.6%) than in people with diabetes (2.9%), with minimal mixed use. Relative risk analysis confirmed people with diabetes were 1.44 times more likely to use public OPHCU and private services complemented rather than substituted for public services.

**Conclusion:** People living with diabetes utilised outpatient healthcare more than non-diabetics, with disparities by ethnicity, income, and marital status. Public sector OPHCU predominated, while private services complemented care for select groups. Addressing utilization disparities through integrated policies is key to optimizing diabetes management in Malaysia.

Keywords: healthcare utilisation, diabetes, Malaysia



## ASSESSING HOSPITAL EXECUTIVE'S AWARENESS OF CLIMATE CHANGE AND PROPOSING SUSTAINABLE STRATEGIES: SURVEY-BASED APPROACHES

**Abstract ID:** 137 (Oral)

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**Presenter:**

Phantira Saphankaew

**Background:** Climate change presents significant threats to human health and is exacerbated by the healthcare sector, which contributes 5–10% of global carbon emissions. Despite its critical role in safeguarding health, the sector remains a substantial emitter, accounting for 9.58% of Thailand's total emissions. Hospital executives, as key decision-makers, are positioned to lead mitigation efforts. The objective of this study is to understand the perspectives and awareness of Thai hospital Executive about the nexus of climate change and healthcare.

**Methods:** An online self-administered cross-sectional survey (in Thai) was conducted among 60 healthcare executives across 12 Area Health regions in Thailand between May and June 2023. The questionnaire, informed by a literature review, assessed their knowledge, attitudes, and strategies for adaptation and mitigation of climate change. Data was analyzed using Microsoft Excel and R version 4.4.2

**Results:** 55 healthcare executives (56.4% Directors, 43.6% Deputy Directors) responded. Among them, 83.6% showed strong concern about climate change, and 54.6% believed cross-sectoral policies need more cohesion. Over half reported lacking electricity usage records, indicating no baseline for greenhouse gas emissions. Key emission sources included electricity, transportation, waste, and lab testing. Support for climate action was strong—54.5% for the Ministry of Health's leadership and 100% for hospitals' role. Proposed solutions included solar power, electric vehicles, waste management, and telemedicine, though budget and implementation barriers remain.

**Conclusion:** Our findings indicate strong awareness and readiness among Thai hospital executives to adopt sustainable practices. Coherent cross-sectoral policies with adequate funding and support are crucial. Hospitals must also establish reliable baseline data on energy use and emissions to effectively track and guide climate actions. Future research can inform strategic plans and cost-effective interventions to help hospitals achieve net zero goals.

**Keywords:** awareness study, climate change and health, greenhouse gas emissions, healthcare sector



## ASSESSING THE IMPACT OF ESSENTIAL SURGICAL CARE TRAINING ON EMERGENCY SURGICAL SERVICE DELIVERY IN GHANA: EVIDENCE FROM INTERRUPTED TIME SERIES ANALYSIS IN THE UPPER EAST REGION

Abstract ID: 47 (Oral)

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### Presenter:

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**Background:** Access to safe and timely surgical care remains a major challenge in low- and middle-income countries, including Ghana, where district hospitals often face shortages of skilled personnel, infrastructure, and essential supplies. In response, the Ghana Health Service, with support from KOICA, implemented Essential Surgical Care (ESC) training in selected district hospitals within the Upper East Region to build local capacity for emergency surgical interventions.

**Methods:** This study evaluated the impact of ESC training on surgical service delivery using a quasi-experimental multi-group Interrupted Time Series Analysis (ITSA) design. Monthly routine health data from May 2022 to April 2025 were analyzed from four intervention hospitals (Bongo, Fumbisi, Talensi, and Zebila) and two control hospitals (Kasena-Nankana West and Builsa South). Key outcomes included the number of emergency surgeries, surgical referrals, and surgical site infections (SSI).

**Results:** A statistically significant post-intervention increase in emergency surgical volume was observed in Bongo District Hospital ( $\beta = 1.17$ ;  $p = 0.019$ ). However, no significant changes were detected in the other intervention hospitals or in the pooled analysis ( $\beta = -0.74$ ;  $p = 0.414$ ). The intervention had no significant effect on surgical referrals or SSIs across sites, though marginal SSI improvements were noted in Talensi ( $\beta = -0.063$ ;  $p = 0.098$ ).

**Conclusion:** ESC training may enhance surgical service delivery where facility readiness is high. Broader systems support, including mentorship, infrastructure, and resource investments, is essential to ensure consistent and sustainable improvements across district hospitals.

Keywords: CHPS+, essential surgical care, Ghana, health systems, interrupted time series, surgical access



## ASSESSING THE KNOWLEDGE, PERCEPTION AND UTILIZATION OF ADOLESCENTS TOWARDS ADOLESCENT FRIENDLY HEALTH SERVICES IN MALAYSIA: STUDY PROTOCOL

**Abstract ID: 219 (Poster)**

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**Presenter:**

Natasya Nasir MN

**Background:** Adolescent Friendly Health Services (AFHS) are essential in addressing the unique health challenges faced by adolescents. However, their uptake and utilization remain significantly lower compared to other mainstream health services. This underutilization is influenced by multiple factors, including limited awareness among adolescents, cultural and legal constraints, logistical challenges, financial barriers, and notably, the poor quality or unwelcoming nature of services provided. Recognizing these gaps, there is currently no study in Malaysia that specifically examines the Knowledge, Perception, and Utilization (KPU) of AFHS as a whole among adolescents, particularly those who have never accessed these services in public primary healthcare settings.

**Objectives:** This study aims to assess the level of Knowledge, Perception, and Utilization of Adolescent Friendly Health Services among late adolescents in Malaysia.

**Methods:** This study employs a quantitative approach. The tool will be adapted from existing international instruments and refined with input from subject matter experts to ensure contextual relevance and content validity. Respondent eligibility criteria are embedded within the tool. Data collection will be conducted through online distribution via social media platforms and in partnership with non-governmental organizations to enhance reach and participation.

**Results:** This study will help to determine the proportion of adolescents who are knowledgeable about AFHS, as well as their perceptions and patterns of utilization. These findings are anticipated to provide valuable insights into improving adolescents' awareness towards the AFHS and identify the strategies to strengthen their engagement with AFHS. In addition, it also helps as a foundational reference to the development of a comprehensive interview guide for the subsequent qualitative phase, grounded in the selected framework.

**Keywords:** adolescent friendly health service, health services access, youth health services



## ASSESSMENT OF ONE HEALTH CORE COMPETENCIES AMONG MALAYSIAN ONE HEALTH WORKFORCE

Abstract ID: 153 (Oral)

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**Presenter:**

Muslimah Ithnin

**Background:** The Competency Framework and Evaluation Toolkit, developed under the One Health Workforce – Next Generation (OHW-NG) initiative, supports cross-sectoral, skill-based training and evaluation. This study assessed core One Health competencies among Malaysia's workforce. Identifying competency gaps is vital for evidence-based human resource development.

**Methods:** A One Health Core Competency (OHCC) assessment questionnaire was developed based on the Competency Framework and Evaluation Toolkit. The tool was adapted for local relevance, incorporating six priority domains identified by experts from both government and academia. The questionnaire was administered to participants of the 2023 and 2024 MyOHUN Field Epidemiology Training and Tabletop Simulation Exercise Programme. Participants self-assessed their proficiency using a five-point scale, ranging from 0 ("Not relevant") to 4 ("Proficient"). Data were analysed using SPSS version 26.

**Results:** A total of 123 participants completed the survey. Most were female (68%), aged 30–39 (62%) and had no prior OH experience (64%). Respondents were primarily from human health (62%), followed by animal health (26%), environmental health (8%), and others (4%). Limited or no knowledge were reported in OH Risk Analysis (72%), Principles and Concepts (62%), and Epidemiology (60%). The remaining three domains also showed over 50% reporting limited or no knowledge. Age was negatively correlated with OH Principles and Concepts ( $r^2 = -0.194$ ,  $p=0.032$ ). While years of OH experience were positively correlated with OH Epidemiology ( $r^2 = -0.182$ ,  $p=0.044$ ) and OH Risk Analysis ( $r^2 = 0.193$ ,  $p=0.032$ ). The assessment found substantial gaps in OH competencies, especially in risk analysis, epidemiology, and OH concepts. This highlights the value of using competency-based assessments to guide capacity-building efforts.

**Conclusion:** Addressing these gaps will enhance Malaysia's readiness for health threats and offer a model to strengthen OH workforce capacity in other regions, supporting global health security and sustainability.

Keywords: core competencies, Malaysia, MyOHUN, one health, workforce



## ASSESSMENT OF THE KNOWLEDGE, ATTITUDES, AND PRACTICES (KAP) ON FASCIOLIASIS AMONG FARMERS IN NUEVA ECIJA

Abstract ID: 194 (Poster)

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### Presenter:

Audrey Nadine C. Mendoza | Juliana Loraine C. Mondala | Nikko Gabriel D. Manipula

**Background:** Nueva Ecija, a key agricultural province in the Philippines, heavily depends on farming and carabao (water buffalo) husbandry to sustain its rural economy. However, fascioliasis—a neglected zoonotic parasitic disease—poses a threat to livestock productivity, agricultural output, and farmer livelihoods. This study assessed the knowledge, attitudes, and practices (KAP) of carabao-owning farmers toward fascioliasis, emphasizing socio-behavioral and environmental factors influencing disease management and control.

**Methods:** A mixed-methods research design was employed. Quantitative data were gathered through a structured KAP survey of 57 purposively and snowball-sampled farmers and caretakers, analyzed using SPSS. Qualitative data were collected via semi-structured interviews with 19 participants and examined thematically. Triangulation integrated both data sets.

**Results:** ANOVA revealed significant differences in knowledge based on marital status ( $P = 0.001$ ) and monthly income ( $P = 0.026$ ), while attitudes ( $P = 0.438$ ) and practices ( $P = 0.611$ ) showed no significant variation across sociodemographic variables. Spearman's rho indicated no significant correlations among the KAP domains ( $P = 0.647$ ,  $P = 0.123$ ,  $P = 0.093$ ). Four themes emerged from qualitative analysis: (1) foundational knowledge and information sources, (2) belief systems guiding prevention, (3) practical disease management strategies, and (4) experiences with carabao morbidity and mortality. The integration of findings led to the development of the Snail Shell Model of Fascioliasis Control, identifying key points for effective intervention in the community.

**Conclusion:** Farmers demonstrated low knowledge but moderately positive attitudes and practices regarding fascioliasis control. Sociodemographic factors influenced knowledge but not the relationships among KAP elements. Strengthening community-based education and engagement initiatives is recommended to enhance disease control and protect both animal and public health, leading towards a One Health approach.

Keywords: animal husbandry, attitudes, fascioliasis, knowledge, practices



## ASSOCIATION BETWEEN ORGANISATIONAL SUPPORT, JOB SATISFACTION AND TURNOVER INTENTION AMONG MALAYSIAN HEALTHCARE WORKERS

**Abstract ID: 222 (Oral)**

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Ruthashini R Selvasingam

**Background:** Healthcare workforce retention is a global priority, with an estimated shortfall of 10 million workers by 2030. In Malaysia, public sector healthcare workers face increasing job dissatisfaction and burnout, contributing to rising turnover intention. While perceived organizational support (POS) is known to influence turnover, the mechanisms particularly through different job satisfaction dimensions remain underexplored in Malaysia's public health context. Investigating this mechanistic pathway is crucial for designing effective retention policies. The objective of this study is to determine whether job satisfaction mediates the association between perceived organisational support and turnover intention.

**Methods:** A cross-sectional online survey was conducted among healthcare workers from hospitals, health clinics, district health offices, and dental facilities under the Selangor State Health Department. Validated instruments measured POS, turnover intention, and nine job satisfaction facets. Structural Equation Modelling with 5000 bootstrap resamples was used to test direct and indirect effects.

**Results:** POS had significant positive effects on all nine job satisfaction facets ( $\beta = 0.415-0.550$ ,  $p < .001$ ) and a negative direct effect on turnover intention ( $\beta = -0.279$ ,  $p < .001$ ). Among satisfaction facets, only Promotion, Contingent Reward, and Nature of Work significantly predicted TOI. Mediation analysis revealed POS indirectly reduced Turnover Intention via Nature of Work ( $\beta = -0.079$ ) Contingent Reward ( $\beta = -0.076$ ) and Promotion ( $\beta = -0.029$ ).

**Conclusions:** Perceived organisational support influences turnover intention both directly and indirectly through specific job satisfaction facets. Interventions aimed at enhancing intrinsic job satisfaction and fair reward systems, alongside a critical review of promotion structures, are essential for improving retention among public healthcare workers in Malaysia. These findings contribute to the global understanding of workforce sustainability in health systems.

**Keywords:** job satisfaction, perceived organization support, mediation, turnover intention



## ASSOCIATIONS BETWEEN GLOBALIZATION INDEX AND CANCER BURDEN: A GLOBAL ANALYSIS

**Abstract ID: 51 (Oral)**

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**Presenter:**

Junjie Huang

**Background:** Globalization is a multifaceted phenomenon with potential implications for global cancer patterns, both by disseminating lifestyle risk factors and by enabling the transfer of medical knowledge and technology. This study aimed to investigate the associations between the KOF Globalisation Index and key national-level cancer metrics.

**Methods:** We conducted an ecological study using country-level data. Cancer incidence and mortality rates were obtained from the WHO Global Cancer Observatory (GLOBOCAN), and the Mortality-to-Incidence Ratio (MIR) was calculated. The KOF Globalisation Index, socioeconomic data (GDP, HDI), and risk factor prevalence (smoking, alcohol, obesity, etc.) were sourced from international databases. Uni- and multi-variable linear regression analyses were performed to examine these relationships.

**Results:** A higher KOF Globalisation Index was significantly associated with increased cancer incidence (Adjusted Beta=1.529,  $p<0.001$ ) in models controlling for major risk factors. However, it was also independently associated with a more favorable Mortality-to-Incidence Ratio (Adjusted Beta=-0.002,  $p<0.001$ ), suggesting better survival outcomes. Behavioral risk factors smoking and alcohol consumption demonstrated strong, independent associations with both higher incidence and mortality.

**Conclusion:** This study reveals a dual role of globalization in the cancer landscape. It is associated with an elevated burden of cancer cases, likely through the diffusion of risk factors, but also with markedly improved cancer survival, likely mediated through advanced healthcare infrastructure and services. Public health strategies must therefore focus on curbing the uptake of risk factors while promoting the transfer of cancer control capacities to mitigate the global cancer burden.

Keywords: globalization, cancer burden, health



## AWARENESS AND UTILIZATION OF HEALTH AND LONG-TERM CARE SERVICES AMONG ELDERLY IMMIGRANTS IN JAPAN

**Abstract ID: 96 (Oral)**

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**Presenter:**

Mai Fujii | Maki Chinen

**Background:** The number of non-Japanese residents in Japan reached a record 3.77 million in 2024, including approximately 220,000 aged 65 and over—a 1.5-fold increase over the past decade. This demographic shift raises critical questions about how services for the elderly in Japan should be transformed for people who have various backgrounds. In Okinawa Prefecture, which hosts a large concentration of U.S. military bases, 46% of elderly foreign residents are U.S. citizens, highlighting the need to evaluate their access to and satisfaction with Japanese health and social care systems. This study explores healthcare utilization, awareness of the long-term care insurance (LTCI) system, and future expectations among elderly foreign nationals in Okinawa to inform future support measures and policy development.

**Methods:** Eligible participants were foreign nationals aged 65 and older, residing in Okinawa Prefecture, who had no cognitive impairments. Using snowball sampling, semi-structured interviews were conducted in English. Topics included experiences with medical and long-term care services, aging-related concerns, awareness of the LTCI system, social connections with co-nationals, and desired forms of future support.

**Results:** Seven individuals were interviewed—six men and one woman, all U.S. nationals with varying residency statuses (Permanent Resident, Working Visa, Spouse or Child of Japanese, and Long-Term Resident). Most reported positive experiences with Japan's healthcare system, while only three participants were aware of the LTCI system by name and none had used it. A need for English-language information on LTCI was consistently expressed. Regarding social networks, one participant noted the loss of peers due to age, while another reported stronger engagement with local community members than with compatriots.

**Conclusion:** While participants generally trusted Japan's healthcare system, awareness of LTCI was limited. The findings indicated a need for more multi-lingual information and potential vulnerabilities in future care, particularly if current support from Japanese spouses becomes unavailable.

**Keywords:** cross-cultural, elderly, foreign residents, health literacy, immigrants, the long-term care insurance (LTCI)



## BEHAVIOURAL NUDGES TO ENHANCE MENTAL HEALTH HELP-SEEKING BEHAVIOUR AMONG SECONDARY SCHOOL STUDENTS - A RANDOMIZED CONTROLLED TRIAL PROTOCOL

**Abstract ID: 183 (Oral)**

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**Presenter:**

Logeswary Krisnan

**Background:** Adolescents often face barriers in seeking mental health support due to stigma, lack of awareness, and limited help-seeking skills. Despite growing mental health needs among secondary school students in Malaysia, many remain reluctant to access available services. Behavioural insights approaches, such as nudging and boosting, may reduce stigma and increase help-seeking intentions cost-effectively. This study applies an integrative behavioural science framework, drawing on the Social Ecological Model (SEM), the COM-B Model, and PRIME Theory, to design and test a multilevel intervention addressing individual, social, and contextual drivers of secondary school students' help-seeking behaviour. This study aims to evaluate the effectiveness of combined nudging and boosting interventions in improving mental health help-seeking behaviours and related competencies among secondary school students.

**Methods:** A three-arm randomized controlled pilot trial will be conducted in selected Malaysian secondary schools with students aged 13-16. Participants will be randomly allocated to one of three groups: (1) Control - no exposure to behavioural nudges; (2) Basic Nudge - exposure to strategically placed visual and educational posters for four weeks; or (3) Enhanced Nudge - exposure to the same posters plus an additional interactive skill-building session designed to strengthen mental health communication skills and self-efficacy. Guided by SEM, COM-B, and PRIME Theory, outcomes will be analyzed using a validated self-administered questionnaire (Cronbach's alpha = 0.89), with descriptive and comparative analyses will be conducted in SPSS. Ethical approval has been obtained from the Medical Review & Ethics Committee [NMRR ID-25-02340-U1L (IIR)] and Educational Research Application System by Ministry of Education.

**Results:** Expected to show that behaviourally informed nudges and boosting strategies can significantly improve students' help-seeking intentions, awareness of mental health resources, and confidence while reducing internal stigma. Findings will generate empirical evidence for scalable, school-based interventions and inform future strategies to strengthen adolescent mental health support systems.

**Keywords:** adolescents, barriers, help-seeking, mental health, stigma



## BEYOND THE FOOD TRAY: LINKING SCHOOL NUTRITION AND FEEDING PROGRAMS TO STUDENT HEALTH AND ACADEMIC OUTCOMES THROUGH HEALTH LITERACY AND MENTAL HEALTH

**Abstract ID:** 10 (Oral)

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**Presenter:**

Priscilla Adomako Gyasi

**Background:** In resource-constrained settings, school nutrition and feeding programs are often implemented to tackle both health and educational disparities. However, their broader psychosocial and academic impacts, particularly the roles of health literacy and mental health, remain insufficiently understood. This study aims to investigate the pathways through which school nutrition and feeding programs influence student health and academic outcomes, with a focus on health literacy and mental health as mediating variables.

**Methods:** Guided by the Health-Promoting Schools (HPS) framework, this study employed a cross-sectional design using data from students in basic and junior high schools. Structural Equation Modeling (SEM) was used to examine the relationships among school feeding programs, health literacy, mental health, physical health, and academic performance. Effect size analysis was conducted to evaluate the magnitude of observed associations.

**Results:** Findings indicate that school nutrition and feeding programs significantly enhance academic outcomes by improving students' health literacy and mental health. Health literacy emerged as a key mediator between feeding programs and physical health, highlighting the educational value of health-promoting interventions. The programs demonstrated stronger effects in socioeconomically disadvantaged communities.

**Conclusions:** School feeding initiatives serve as effective dual-purpose interventions that promote student health and educational achievement. By advancing Sustainable Development Goals 3 (Good Health and Well-being) and 4 (Quality Education), integrating nutritional support with health education can offer sustainable strategies to address intergenerational cycles of poor health and limited academic attainment in low-resource settings.

**Keywords:** academic performance, health literacy, mental health, physical health, School Nutrition and Feeding Programs



## BEYOND THE WORKDAY: EXPLORING MENTAL HEALTH AND WELLBEING AMONG INDONESIAN MIGRANT DOMESTIC WORKERS IN OLDER ADULT CARE ROLES

**Abstract ID: 168 (Oral)**

**Author(s):**

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**Presenter:**

Andrian Liem

**Background:** Indonesian migrant domestic workers (IMDWs) play a vital role in the care of older adults across Asia, yet they are subject to extended working hours, restricted autonomy, and social isolation. These challenges have been shown to have a detrimental effect on their mental health and wellbeing. However, the extent of this impact remains underexplored, thus highlighting the need for further research in order to inform the provision of more effective support and policies. The present study aims to examine the mental health and wellbeing of IMDWs who care for older adults in Asian countries, as their contribution is rarely recognised.

**Methods:** An online cross-sectional survey was conducted with 872 IMDWs in Malaysia, Singapore, Hong Kong, Macau, and Taiwan (August-December 2022). The survey examined the caregiving impact, depressive and anxiety symptoms, loneliness, perceived social support, perceived control and autonomy, caring self-efficacy, and resiliency among participants. Descriptive analyses were performed in addition to inferential tests in order to examine the association between variables.

**Results:** The average participant age was 36.8 years, with a mean workday of 14.2 hours—half spent on elderly care. Most (96%) lived in their employers' homes, but only 59% had private bedrooms. The majority reported a medium caregiving impact. Between 60.2% and 78.6% experienced varying levels of depressive and anxiety symptoms. Participants also reported moderate levels of perceived loneliness, social support, control, autonomy, and caregiving self-efficacy. Overall, the findings suggest that while participants face significant mental health challenges, they maintain moderate resilience and coping abilities in their caregiving roles.

**Conclusion:** This study highlights the challenges faced by IMDWs in delivering care to older adults in Asia. This underscores the necessity of identifying and addressing these issues to promote optimal outcomes.



## BLESSED MONTH? PRENATAL EXPOSURE TO RAMADAN AND MUSLIMS' EDUCATION IN MALAYSIA

**Abstract ID: 76 (Oral)**

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**Presenter:**

Jarud Romadan Bin Khalidi

**Background:** During Ramadan, Muslims fast during the day for about a month, and this nutritional disruption is expected to affect fetal development with long-term implications. This research ascertains whether Muslims in Malaysia prenatally exposed to Ramadan are more likely to be out of school than unexposed children. Without data on health, we test on human capital outcomes, which are influenced by health.

**Methods:** Using Malaysia's 1991 Census data, we adopt a difference-in-differences (DD) strategy and compare Muslims against non-Muslims according to prenatal Ramadan exposure status. Our identification strategy relies on the assumption that birth timing is independent of Ramadan. The DD estimate presents marginal effects on Muslims only.

**Results:** We find no evidence that exposed Muslims are more likely to drop out relative to unexposed children. Although not statistically precise, estimates for Muslims suggest Ramadan is beneficial to Muslims. Heterogeneous results indicate that the potential protective effects of Ramadan on Muslims are more pronounced for precarious households, hinting at mechanisms such as increased assistance during Ramadan. We also conclude that non-Muslim children are negatively affected by Ramadan despite not being required to fast.

**Conclusion:** Our results hint at additional mechanisms at play and contribute to understanding how religious events may create differing environments that influence well-being. As Islam is adhered to by billions, research on Ramadan is pertinent to discussions on public health.

**Keywords:** Islam, Ramadan, education, fetal origins, human capital, natural experiment, nutrition, pregnancy, prenatal exposure



## BLOOD LEAD LEVELS AMONG CHILDREN IN SOUTHEAST ASIA AND MECHANISMS FOR ROUTINE BLL SURVEILLANCE: RAPID REVIEW

Abstract ID: 227 (Oral)

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### Presenter:

Nicola S. Pocock

**Background:** Lead (Pb) is a neurotoxic heavy metal with no safe exposure level. Globally, one in three children is exposed, leading to irreversible damage, including developmental delays and cognitive impairments. Blood Lead Level (BLL) surveillance is crucial to develop interventions. In ASEAN countries, an estimated 15 million children under five have a BLL above 5 µg/dL, the WHO intervention threshold. Yet only four out of eleven ASEAN countries are conducting or planning national BLL surveys, and ongoing surveillance is not institutionalised in most countries. The objective of this study is to describe BLLs and health effects of lead exposure in children under 18, describe clinical management protocols and explore mechanisms for integrating routine BLL surveillance in ASEAN countries.

**Methods:** Searches will be conducted in MEDLINE, EMBASE, Global Health, CINAHL, PsychINFO databases for studies published since January 2005 that report BLL and health effects of lead exposure in ASEAN resident children, with a minimum of 30 participants. Data will be narratively synthesised and studies critically appraised using JBI tools. A policy review to identify potential mechanisms for integrating routine BLL surveillance into public health systems will also be conducted. The protocol will be registered in OSF.

**Results:** Few nationally representative BLL studies exist for children in ASEAN. Health effects include stunting, anemia, underweight, and neurodevelopmental delays. Most countries lack specific BLL reference values and clinical protocols for lead exposure. Some countries have mechanisms for routine BLL surveillance through existing health surveys.

**Conclusions:** There is an urgent need for routine BLL surveillance and enhanced laboratory capacity and interoperability of health information systems in ASEAN countries. We urge environmental and public health experts, toxicologists, and research funders to collaborate on local initiatives to combat childhood lead exposure in the region.

Keywords: early childhood development, lead exposure, lead poisoning, blood lead level surveillance



## BRIDGING THE GAP: ENHANCING DRUG ALLERGY KNOWLEDGE AND MANAGEMENT CONFIDENCE IN NON-ALLERGIST PHYSICIANS WITH ADAPT-2 - A MULTINATIONAL, AI-ASSISTED, EDUCATIONAL INITIATIVE

Abstract ID: 152 (Oral)

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### Presenter:

Hugo WF Mak

**Background:** Mislabelled drug allergy (DA) is a public health challenge worldwide. Unfortunately, many non-Allergist physicians remain suboptimally equipped with the necessary knowledge and confidence to evaluate and manage DA. A randomised crossover trial, Advances in Drug Allergy & Penicillin Testing (ADAPT; NCT06399601), was first conducted in late 2023 and demonstrated promising outcomes in improving physicians' DA knowledge and confidence through an intensive educational programme. Following ADAPT's success, we commenced a multinational phase in 2024 — the ADAPT-2.

**Methods:** Non-Allergist physicians were recruited from 4 localities, namely Australia, Hong Kong, mainland China and Sri Lanka, and received a 1-day intensive training in DA. The training programme in mainland China was translated into Mandarin with artificial intelligence (AI) assistance. Participants' DA knowledge, confidence, and practice were evaluated by structured surveys (scored on a 0–100 scale) before and after the course. Subgroup analysis was performed between physicians from Advanced and Emerging Economies (AE and EE).

**Results:** A total of 181 physicians (13 [7.2%] from Australia, 25 [13.8%] from Hong Kong, 98 [54.1%] from mainland China and 45 [24.9%] from Sri Lanka) were included. At baseline, physicians' knowledge and confidence level for DA were unsatisfactory ( $53.5 \pm 17.2$  and  $47.5 \pm 22.7$ , respectively). In particular, physicians from EE (mainland China and Sri Lanka) showed significantly lower scores than those from AE (Australia and Hong Kong) in DA knowledge ( $49.1 \pm 15.5$  vs.  $70.1 \pm 12.7$ ,  $P < 0.001$ ), but not in confidence ( $46.8 \pm 23.2$  vs.  $50.2 \pm 20.9$ ,  $P = 0.413$ ). After ADAPT-2, there were significant improvements in DA knowledge ( $53.5 \pm 17.2$  to  $72.5 \pm 16.0$ ,  $P < 0.001$ ) and confidence ( $47.5 \pm 22.7$  to  $71.2 \pm 17.6$ ,  $P < 0.001$ ). AI-assisted translation was non-inferior to the native programme in effectiveness ( $P > 0.05$ ) and had high satisfaction (98% somewhat clear or better).

**Conclusions:** Lack of DA knowledge among non-specialists remains ubiquitous with significant disparities between AE and EE. An intensive, structured, AI-assisted training is effective to significantly enhance participants' knowledge levels.

Keywords: artificial intelligence, delabelling, disparities, drug allergy, education



## BRIDGING VERTICAL GAPS: INTEGRATING DEWORMING AND MICRONUTRIENT POWDERS TO TACKLE CHILDHOOD ANAEMIA IN BANGLADESH

Abstract ID: 18 (Oral)

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### Presenter:

Haribondhu Sarma

**Background:** Anaemia and soil-transmitted helminth (STH) infections are major public health challenges among children in low- and middle-income countries. In Bangladesh, anaemia affects 61% of children under two, while STH prevalence remains significant. Although micronutrient powder (MNP) supplementation and deworming interventions are implemented separately, integrating them through community-based platforms may enhance health outcomes and program efficiency. The objective of this study is to assess the acceptability of integrating periodic deworming into an existing MNP program for children aged 6–59 months delivered by BRAC's community health workers (CHWs).

**Methods:** A qualitative study was conducted in Comilla and Feni districts using the Theoretical Framework of Acceptability (TFA). We collected data through 16 in-depth interviews with caregivers, four focus group discussions with 33 CHWs, and four key-informant interviews with BRAC program managers. Data were analysed thematically using a combination of deductive (TFA-based) and inductive approaches.

**Results:** The integrated intervention was generally perceived as acceptable, practical, and beneficial for child health. CHWs and caregivers welcomed the potential for improved outcomes but highlighted challenges including caregiver affordability, community misconceptions, and the need for CHW refresher training. CHWs also raised concerns over increased workload without compensation, which blurred the lines between perceived burden and opportunity cost. No significant ethical or cultural objections were reported.

**Conclusion:** Integrating deworming with MNP delivery through CHWs is feasible and acceptable in Bangladesh. To ensure successful scale-up, implementers must address community awareness, CHW support, and financial accessibility. These findings offer actionable insights for designing integrated child health interventions in resource-constrained settings.

Keywords: acceptability, anaemia, Bangladesh, community health workers, deworming, micronutrient powder



## BUILDING BETTER YOUTH PROGRAMS THROUGH EVIDENCE: THE YPAR-DMS INNOVATION

**Abstract ID: 31 (Poster)**

**Author(s):**

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John Oliver Tablazon, Provincial Youth Development Office, Province of Sarangani

**Presenter:**

Cindy Grace Guerbo

**Background:** The Sangguniang Kabataan (SK) Reform Act of 2015 requires each of the Katipunan ng Kabataan maintain a youth registry to support evidence-based policymaking and program design. However, most SK units still rely on manual lists with limited demographic data, hindering the ability to assess youth participation meaningfully. This initiative aimed to enhance youth profiling and improve program targeting by developing a system that measures youth engagement across nine centers of participation: Health, Education, Economic Empowerment, Social Inclusion and Equity, Peacebuilding and Security, Governance, Active Citizenship, Environment, and Global Mobility.

**Methods:** To address these gaps, the Zuellig Family Foundation (ZFF), with UNFPA support, created the Youth Participation Action Record (YPAR) tool. It was later digitized as the YPAR Data Management System (YPAR-DMS) in response to COVID-19 restrictions. The pilot was conducted in seven (7) local government units (LGUs) in Sarangani Province. Using KoBoToolbox, the digital survey captured detailed data from SK officials, youth leaders and youth in the community. Local youth development officers and ICT staff were engaged to ensure usability and contextual fit. The YPAR-DMS produced real-time analytics and visual reports for local decision-makers

**Results:** The system significantly improved youth profiling and program responsiveness. In one LGU, data revealed high rates of depression and suicidal ideation among youth, leading to the immediate launch of mental health interventions. The platform fostered collaboration among LGUs, youth groups, and ICT teams, highlighting its adaptability for broader use.

**Conclusion:** The YPAR-DMS demonstrated strong potential for scaling up youth data systems. It enabled timely, evidence-based interventions and promoted intersectoral collaboration. Continued refinement, training, and policy integration will be key to its sustainable implementation nationwide.

**Keywords:** data management system, digital governance, evidence-based, governance, technology, youth engagement, youth participation, youth profiling



## CAPACITATING LOCAL GOVERNMENT UNITS FOR IMPROVED HEALTH OUTCOMES: A TRI-SECTORAL COLLABORATION MODEL FOR HEALTH LEADERSHIP DEVELOPMENT IN THE PHILIPPINES

**Abstract ID: 52 (Oral)**

**Author(s):**

Philip Jerome A. Flores, Zuellig Family Foundation

**Presenter:**

Philip Jerome A. Flores

**Background:** The Tri-Sectoral Collaboration Model, grounded in the Triple Helix Innovation framework (Etzkowitz 2008), strategically aligns the Department of Health (DOH), academic institutions, and the Zuellig Family Foundation (ZFF) to deliver leadership development programs that strengthen local health governance. This partnership enhances the capacities of local chief executives and municipal health officers by applying frameworks such as Bridging Leadership and the Health Change Model.

**Methods:** The leadership programs combine instructional and experiential learning through classroom sessions, structured practicum, and a monitoring and evaluation system. ZFF leads program design and builds the capacity of academic institutions, which handle classroom instruction and provide field coaching and mentoring. DOH, through its Centers for Health Development, supports implementation, monitoring, and technical assistance aligned with the practicum plans of local government units. This collaboration ensures interventions remain context-specific and sustainable (Palompon et al., 2024).

**Results:** The Tri-Sectoral Collaboration Model promotes shared ownership, accountability, and collaborative leadership among government, academic, and non-government organization partners. It has proven to be an effective approach for capacitating local health leaders and sustaining improvements in health outcomes through multisector engagement.

**Conclusions:** The model will be scaled up by further capacitating partners to take on expanded roles in innovation. This includes strengthening systems for documentation, data management and analytics, and dissemination of results to inform evidence-based planning and support local government units in sustaining health leadership gains.

**Keywords:** academic partnerships, capacity building, health leadership and governance



## CARBON AND ECONOMIC SAVINGS FROM REDUCING LOW-VALUE CARE: CASE OF APPENDICITIS IN THAILAND

**Abstract ID: 87 (Oral)**

**Author(s):**

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**Presenter:**

Nishanta Sharma

**Background:** Health sector is responsible for around 5-10% of the global greenhouse gas (GHG) emissions. WHO estimates 20-40% of current medical care is low value. Reducing such care can result in health, economic, and environmental co-benefits. The objective of this study is to estimate carbon and economic savings from reducing low value appendicitis treatment in Thailand.

**Methods:** We analyzed appendicitis cases from Thailand's national database during three periods: pre-pandemic (March-June 2019), lockdown (March-June 2020), and post-lockdown (March-June 2021). Carbon emissions related to appendicitis treatment were extracted from published literature: CT scans (9.2 kg CO<sub>2</sub>e), ultrasound (0.5 kg CO<sub>2</sub>e), open surgery (22.7 kg CO<sub>2</sub>e), and laparoscopic surgery (27.4 kg CO<sub>2</sub>e). Economic impact was estimated using the social cost of carbon at \$0.185 per kg CO<sub>2</sub>e.

**Results:** Appendicitis cases dropped by 13.4% and 16.4% during lockdown and post-lockdown respectively. As a result, carbon emissions decreased by 11.6% during lockdown and 13.9% by 2021. However, CT scan use increased by 71.8% by 2021, creating 18.4 times more emissions than ultrasound. While treatment costs per case increased by 14.2% in 2021, total healthcare cost fell by 4.5% due to reduced appendicitis cases. Economic savings from averted social cost of carbon was estimated to be 458,921 THB (~ \$13,000) from 2019 to 2021.

**Conclusions:** Reducing low-value appendicitis care can save money and reduce carbon emissions. Effective use of the updated World Society of Emergency Surgery (WSES) Jerusalem guidelines can help optimise diagnosis and treatment of appendicitis.

**Keywords:** low-value care, appendicitis, carbon footprint, co-benefits, healthcare sustainability, overdiagnosis, social cost of carbon



## CARBON QUEST: AN EDUCATIONAL GAMING APP TO PROMOTE PRO-ENVIRONMENTAL LIFE CHOICES

**Abstract ID: 138 (Poster)**

**Author(s):**

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**Presenter:**

Yin May Tun

**Background:** Climate change is an existential threat to humanity, driven largely by accelerating anthropogenic greenhouse gas (GHG) emissions. Pro-environmental life choices at the individual level can significantly reduce emissions and mitigate this threat. Gamification has gained traction as a tool to educate individuals and induce behaviour change. Incorporating local context into these tools can enhance uptake and effectiveness.

**Methods:** By reviewing existing gaming tools and assembling a multidisciplinary team, we developed 'Carbon Quest' - a free user-friendly game in English and Thai, aimed at raising public awareness regarding their individual carbon footprint. Players, guided by a bear acting as environmental police, input their daily activity data, for example, commuting to and from work. The bear demonstrates how carbon footprint is calculated for each activity. Players are either rewarded or punished after each stage depending on their emissions level relative to the average. The bear highlights environmentally friendly actions the players can take to reduce their emissions. Depending on the total emissions, players are either set free or kept back for further education by the bear. Players can see their emission hotspots and where they rank relative to others.

**Results:** Since its launch in August 2024, over 1000 people have played Carbon Quest (50% female, 44% male, 6% non-binary) with an average emission of 7.8 kg CO<sub>2</sub> per player and 76% completion rate. The top four users were students (25%), healthcare professionals (17%), researchers (8%), and government officials (7%). The game has received positive feedback largely owing to its educational, interactive, and simplistic features.

**Conclusion:** Simple, interactive, and inexpensive gaming tools like Carbon Quest have the potential to educate and induce pro-environmental lifestyle choices among lay citizens who consume information differently compared to researchers and policymakers.

**Keywords:** carbon Footprint, climate and health, educational tool, gamification, raise awareness



## CHALLENGES IN ASSESSING MALNUTRITION AND ANAEMIA AMONG ORANG ASLI CHILDREN UNDER FIVE IN RURAL PENINSULAR MALAYSIA

Abstract ID: 161 (Oral)

**Author(s):**

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**Presenter:**

Mohamad Borhanuddin Helmy Bin Zanail

**Background:** Malnutrition and anaemia remain pressing public health concerns among indigenous Orang Asli children, particularly in rural and remote settlements with limited healthcare access. Conducting research with indigenous Orang Asli children in rural Malaysia presents unique challenges, requires navigating complex logistical, ethical, cultural, linguistic barriers, and historical mistrust of external researchers. This paper reflects on the unforeseen challenges encountered during a study on malnutrition and anaemia among Orang Asli children under five in Malaysia's most remote settlements in which these indigenous population often excluded from conventional surveys due to geographic and systemic barriers.

**Methods:** A cross-sectional study was conducted in four rural districts in Peninsular Malaysia, involving 700 Orang Asli children. Interviews were conducted, anthropometric measurements were taken, and anemia was assessed using point-of-care photometry.

**Results:** This research presented with unexpected hurdles that challenged every aspect of our study. From logistical nightmares to cultural complexities and methodological dilemmas, each step revealed critical gaps in conventional research approaches. These obstacles ultimately transformed into valuable lessons about what truly works, and what doesn't, when studying vulnerable indigenous populations. The experience taught us that successful research in these communities requires more than scientific rigor, it demands flexible approaches, deep cultural sensitivity, and meaningful collaboration.

**Conclusions:** Research among Orang Asli communities demands flexibility, humility, and adaptive methodologies. Therefore, by sharing these challenges, we hope to prepare future teams for the realities of Indigenous health fieldwork, where ideal protocols often collide with on-ground realities, yet the need for equitable data remains urgent.

Keywords: ethical fieldwork, Indigenous health research, Orang Asli, remote data collection, research methodology challenges



## CLIMATE CHANGE AND CHRONIC KIDNEY DISEASE (CKD) FOR MIGRANT WORKERS

**Abstract ID:** 243 (Poster)

**Author(s):**

Lynn Tang, Vital Strategies

**Presenter:**

Lynn Tang

**Background:** Rising temperatures and heat waves, driven by climate change, are putting the safety and health of workers worldwide at risk. This is particularly true for outdoor laborers, whose exposure to extreme heat has become a significant social determinant of health, leading to long-term health consequences and even death. Heat significantly impacts cardiovascular health and increases the risk of heart-related issues. For example, in Nepal - which is a sending country of workers to the gulf states, we have observed that in the fiscal year 2020/21 alone, 1,242 Nepali workers lost their lives due to cardiovascular diseases, heat-related illnesses, workplace injuries, and falls—many of these deaths linked to rising ambient wet-bulb globe temperatures.

Heat stress, resulting from prolonged exposure to high temperatures, is also increasingly recognized as a cause of kidney failure. Workers in hot environments, such as agriculture and construction, frequently experience excessive sweating and dehydration. This reduces blood volume, which in turn decreases blood flow to the kidneys, potentially leading to acute kidney injury. In response to dehydration, the body produces hormones that make the kidneys reabsorb more water, concentrating the urine and further increasing the risk of kidney damage. Heat stress also prompts the production of harmful molecules that cause inflammation and damage to kidney tissues. These factors contribute to the rise of a type of kidney disease not linked to traditional causes like diabetes or high blood pressure. Known as chronic kidney disease of non-traditional origin (CKD-nT), this condition increasingly affects workers exposed to heat stress worldwide. CKD already affects roughly 10% of the global population and is a major burden on global health and economies. It is the 10th leading cause of death worldwide and the third fastest-growing cause. Climate change and the increasing prevalence of CKD-nT among workers worldwide will add to this existing burden.

**Keywords:** climate change, heat, migrant Workers



## CLIMATE CHANGE AND HEALTH: EMERGING CONSENSUS AT THE WHO AND THE UNFCCC-COP

**Abstract ID: 44 (Oral)**

**Author(s):**

Yasushi Katsuma, Waseda University

**Presenter:**

Yasushi Katsuma

**Background:** Since the resolution “Climate Change and Health” was adopted at the 61st World Health Assembly in 2008, adaptation measures have been discussed at the WHO. On the other hand, at the conferences of the parties (COP) convened under the United Nations Framework Convention on Climate Change (UNFCCC), serious discussion on health started only at the COP26 in Glasgow in 2021. At the COP28 in Dubai, the first joint meeting of environment ministers and health ministers was held, in which the “COP28 UAE Declaration on Climate and Health” was adopted. First, the historical process leading to the “UAE Declaration on Climate and Health” has been reviewed. Second, WHO’s priority areas have been identified. Third, reasons why health was highlighted at the COP26 have been explored.

**Methods:** Policy analysis was conducted, reviewing documents issued at the WHO, UNFCCC-COP, and other relevant global conferences, such as the UN High-Level Forum on Sustainable Development.

**Results:** First, at the COP26, the UK Government and the WHO promoted a health program. Second, the WHO supports the member states to conduct climate change and health vulnerability and adaptation assessment (V&As). The Alliance on Transformative Action on Climate and Health (ATACH) was also launched. Third, particularly since the COP21 in 2015, in which the Paris Agreement was adopted, mitigation measures have been the focus.

**Conclusion:** The mitigation measure to reduce the greenhouse gas (GHG) will attract more attention in the health and medical sector.

Keywords: climate change, UAE Declaration, UNFCCC, WHO, adaptation measures, health



## COMMUNITY-BASED THYROID SCREENING PROGRAM: A PRIMARY CARE EXPERIENCE IN PAMPANGA, PHILIPPINES

**Abstract ID: 68 (Oral)**

**Author(s):**

Arthur Gallo, University of the Philippines Manila

**Presenter:**

Arthur Gallo

**Background:** Thyroid diseases such as hypothyroidism and hyperthyroidism are prevalent endocrine disorders with serious health implications, yet they remain widely underdiagnosed in the Philippines. These conditions may present with vague symptoms and are often missed until advanced. Thyroid Stimulating Hormone (TSH) is the gold standard for screening. Despite the availability of effective treatment, outdated national prevalence data and limited community-based surveillance hinder early diagnosis, especially among high-risk populations such as women, the elderly, and those with metabolic conditions.

**Methods:** From December 2024 to March 2025, community-based screening was implemented using a mobile-based thyroid screening initiative in Pampanga. Adults aged  $\geq 18$  years were screened using point-of-care TSH tests. Pre-screening was based on the presence of signs and symptoms of thyroid disease, history of thyroid nodules or surgery, pregnancy, miscarriage, primary infertility, autoimmune disease, dyslipidemia, BMI  $\geq 30$  kg/m<sup>2</sup>, elderly status, type 2 diabetes, family history, or being part of an indigenous population. Individuals with abnormal TSH were referred for further testing and care.

**Results:** A total of 2,137 individuals were tested—1,772 (83.2%) females and 358 (16.8%) males. The most common reasons for testing were family history, elderly status, and BMI  $\geq 30$ . Thyroid dysfunction was found in 239 individuals (11.2%): subclinical hypothyroidism (5.82%), true hyperthyroidism (2.96%), true hypothyroidism (1.27%), and subclinical hyperthyroidism (1.17%). Women had higher prevalence than men. Symptomatic presentation was the strongest predictor across all categories.

**Discussion:** This initiative highlights the value of targeted screening among high-risk groups using mobile outreach. The findings support prioritizing women, elderly individuals, and those with metabolic risk factors. Community-based thyroid screening, paired with education and referral, offers a scalable and impactful approach to early detection, especially in resource-limited settings. Policy support for updated surveillance and sustained implementation is urgently needed.

**Keywords:** community-based screening, primary care, thyroid screening



## COMMUNITY'S PERSPECTIVE ON IMPLEMENTING HEALTH KIOSKS IN LOW URBAN AREAS: A MIXED- METHODS STUDY

**Abstract ID: 240 (Poster)**

**Author(s):**

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**Presenter:**

Sandeep Charan Suri

**Background:** Overcrowding and long waiting times at Klinik Kesihatan remain as a critical issue in Malaysia's public healthcare system. With increasing interest in digital health innovations, it is still unclear whether community in low urban areas trust or are willing to use health kiosks as an alternative service point. To explore community perspective on the use of health kiosks in low urban areas, including their level of acceptance and perceived barriers.

**Methods:** A mixed-methods study will be conducted in PPR Ampang Hilir among residents aged 40 to 60. Data will be collected using structured surveys and semi-structured interviews guided by the Technology Acceptance Model (TAM). Quantitative data will be analysed using descriptive statistics, while qualitative data will be examined through thematic analysis. Ethical approval is pending.

**Results:** The study is expected to generate both quantitative and qualitative insights into factors influencing health kiosk acceptance. Quantitative findings may reveal associations between perceived usefulness, ease of use, and intention to use, based on TAM constructs. Thematic analysis of qualitative data is anticipated to uncover contextual themes such as digital literacy, trust in system reliability, perceived relevance to chronic disease management, and socio-cultural attitudes toward self-service health technologies. These findings will help explain not only the statistical trends but also the underlying experiences shaping patient perspectives.

**Conclusions:** Understanding patient perspectives is essential for the successful implementation of health kiosks in underserved urban communities in Malaysia. The insights gained may inform targeted strategies to reduce congestion at Klinik Kesihatan, enhance access to basic health services, and support chronic disease management. These findings can contribute to shaping patient- centered digital health initiatives aligned with national healthcare transformation efforts.

**Keywords:** digital Health, health kiosks, mixed-methods, patient perspectives, primary care access



## CONFIDENCE OVER COGNITION: A CROSS-SECTIONAL STUDY ON HEALTHCARE PROFESSIONALS' ENGAGEMENT IN BRIEF TOBACCO CESSATION INTERVENTIONS IN MALAYSIAN PRIMARY CARE

Abstract ID: 100 (Oral)

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### Presenter:

Mohd Faris Mahmud

**Background:** In Malaysia, 21.3% of adults smoke, with Kedah reporting the highest prevalence at 27.6%. Brief interventions using the 5As framework (Ask, Advise, Assess, Assist, Arrange) can support cessation efforts through structured advice and timely referrals. Although healthcare providers have a strong role in delivering this intervention to patients in primary care settings, factors influencing implementation remain underexplored. This study aimed to measure healthcare providers' practice of the brief intervention based on the 5As framework and identify associated factors, including self-efficacy, knowledge, and attitudes.

**Methods:** A cross-sectional survey was conducted among 131 healthcare providers (doctors, nurses, pharmacists, and medical assistants) across eight primary care facilities in Kota Setar, Kedah, from February to April 2025. Data was collected using the validated FACTBIT tool, grounded in Social Cognitive Theory and the Theory of Planned Behaviour, via REDCap. Predictors included knowledge, self-efficacy, and attitudes. Analyses were conducted using Python 3, with statistical significance set at  $P < 0.05$ .

**Results:** Of the 131 participants, 91.6% (95% CI: 85.6–95.6%) achieved good practice scores. Doctors and medical assistants (100%) scored higher than nurses (90.3%) and pharmacists (72.2%) ( $P = 0.004$ ). "Ask" (73.3%) and "Arrange" (68.7%) were most frequently practiced, while "Assess" (56.5%) and "Assist" (41.2%) were less common. Self-efficacy was a strong predictor of practice ( $\beta = 0.470$ ,  $P < 0.001$ ), while pharmacists scored lower compared to other professions ( $\beta = -0.210$ ,  $P = 0.005$ ). Knowledge (median=9/10, 67.9%  $\geq 9$ ) and attitudes (median=20/25) showed ceiling effects, limiting predictive value ( $P = 0.593$  and  $P = 0.089$ , respectively).

**Conclusion:** Although overall practice in delivering brief smoking cessation interventions was high among primary care providers, the underutilization of the "Assess" and "Assist" components indicates implementation gaps. Notably, pharmacists demonstrated lower performance compared to others, underscoring the need for targeted, role-specific interventions. Self-efficacy emerged as a key predictor, thus suggesting that training programs should prioritise building confidence in delivering cessation support to patients.

Keywords: 5As framework, tobacco cessation, health workforce, primary care, self-efficacy



## CONTROL OF TUBERCULOSIS AMONG SUSPECTED CASES AT A MACHINE REPAIR SERVICE COMPANY

**Abstract ID: 26 (Oral)**

**Author(s):**

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**Presenter:**

Chyntia Ayu Andarini

**Background:** The tuberculosis (TBC) cases among workers poses a health challenge that affects productivity and the economy. This study aims to describe TBC management programs at Company X, particularly for TBC suspects.

**Methods:** This descriptive study was conducted in a machine repair service company with a total of 86 employees. Data were collected through interviews and supporting documents, such as follow-up examination results and annual employee health check reports, and analyzed using a qualitative approach referring to the Ministry of Manpower Regulation No. 13 of 2022 on Tuberculosis Control in the Workplace and an epidemiological screening approach.

**Results:** The results revealed challenges including limited access to healthcare services, lack of worker awareness, and difficulties in ensuring treatment continuity. Although the government's early screening program is in place, case detection and follow-up rates remain low due to insufficient dissemination of the program.

**Conclusion:** This study concludes that optimizing policies that integrate education, access to healthcare services, and sustainable monitoring systems is essential. Recommendations include strengthening training and socialization for occupational health personnel and fostering collaboration between companies and local government healthcare facilities.

**Keywords:** case identification, disease control, disease follow-Up, occupational health policy, pulmonary tuberculosis, work environment



## CRITICAL ANALYSIS ON THE IMPACT OF ALGORITHM-DRIVEN NUTRITION CONTENT ON GLOBAL YOUTH HEALTH AND WELLNESS

**Abstract ID: 149 (Poster)**

**Author(s):**

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**Presenter:**

Elijah Wen

**Background:** With the rapid rise of short-form video platforms like TikTok, Instagram Reels, and YouTube Shorts, social media has become a dominant source of health and nutrition information, particularly among adolescents and young adults. These platforms use engagement-based algorithms to amplify content, often prioritizing viral appeal over scientific accuracy. This critical analysis examines the global health implications of algorithm-driven nutrition content, specifically its impact on the behaviours, beliefs, and wellness outcomes of young people.

The study evaluates both harmful and constructive trends, with a focus on widely circulated content, such as "What I Eat in a Day," "Girl Dinner," and influencer-led dietary advice like carnivore, keto, and detox diets.

**Methods:** A qualitative content analysis was conducted on high- engagement videos, assessing nutritional accuracy, cultural framing, and target demographics.

**Results:** Findings reveal that misleading or restrictive diet content disproportionately targets young women, normalizes disordered eating behaviours, and distorts public understanding of evidence-based nutrition. However, social media also serves as a platform for positive trends, including cultural food revival, affordable meal prep education, and accessible gut health promotion.

**Conclusion:** This duality highlights the need for public health interventions that enhance youth media literacy, promote culturally relevant health messaging, and advocate for greater transparency in algorithms. By addressing the risks and amplifying the benefits of digital nutrition environments, global health practitioners can more effectively engage with youth populations and promote healthier, more informed dietary behaviours across diverse cultural and socioeconomic contexts.

**Keywords:** adolescent health, algorithm-driven content, digital media literacy, nutrition misinformation, social media and health



## CROSS-COUNTRY INEQUALITIES IN DISEASE BURDEN AND QUALITY OF CARE OF TUBERCULOSIS, 1990-2021: A SYSTEMATIC ANALYSIS OF THE GLOBAL BURDEN OF DISEASE STUDY 2021

Abstract ID: 79 (Oral)

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### Presenter:

Danni Li

**Background:** Tuberculosis (TB) remains a major global health threat, characterized by highly heterogeneous distributions in disease burden and quality of care (QoC) worldwide.

This study aimed to comprehensively assess the cross-country inequalities in TB burden and QoC at global, regional, and national levels from 1990 to 2021.

**Methods:** Data on TB were derived from the Global Burden of Disease (GBD) 2021 study, covering the globe, five sociodemographic index (SDI) regions, and 204 countries/territories. Disease burden was measured via the age-standardized disability-adjusted life years rate (ASDR). The Quality of Care Index (QCI) is a composite metric calculated through principal component analysis, scaled from 0 to 100, where higher values indicate better quality. Gender disparities were quantified by the Gender Disparity Ratio (GDR), defined as the female-to-male ratio. Cross-country inequalities in ASDR and QCI were evaluated using the Slope Index of Inequality (SII) for absolute disparities and the Concentration Index for relative disparities.

**Results:** From 1990 to 2021, the global ASDR of TB decreased from 1,650.59 to 580.26/105, while the age-standardized QCI improved from 54.41 to 66.83. The low-SDI region consistently faced a triple disadvantage: the heaviest TB burden, poorest quality of care, and most pronounced gender disparity in QCI. For ASDR, the SII decreased from -5863.34 to -2587.73, while the Concentration Index increased from -0.6889 to -0.7332, indicating that inequality persisted among lower SDI countries. Regarding QCI, although the Concentration Index decreased from 0.1384 to 0.1152, the SII increased from 42.74 to 45.27, suggesting a worsening inequality trend favoring higher SDI countries.

**Conclusions:** Over the past three decades, the global burden of TB has decreased, and care quality has improved. However, significant disparities existed between genders and across SDI regions. Lower SDI countries continued to bear a disproportionately high TB burden and suffer from suboptimal care quality, marked by significant gender disparities.

Keywords: disability-adjusted life years, global burden of disease, inequality, quality of care, tuberculosis



## CULTURAL ADAPTATION OF MENTAL HEALTH ASSESSMENT SCREENING MEASURES

**Abstract ID: 174 (Oral)**

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**Presenter:**

Judith McCool

**Background:** Globally, standardised mental health screening tools are critical for early diagnosis and treatment, as well as for population-level surveillance. However, most commonly used mental health screening and assessment tools have been developed in high- income, Western contexts.

**Methods:** Systematic scoping review of published empirical papers which included an analysis or reflection on how these tools have been culturally adapted for use with adult populations from different settings and languages. Results: Seventy-three studies were identified, with adaptations occurring across 31 languages. Most studies reported adequate psychometric validation, yet, many required further modifications, including item removal, adjusted cut-off scores, and the development of a novel tool to be used alongside the adapted tool. Only a small number of studies focused on African or Latin American contexts, exposing a significant geographic gap.

**Conclusion:** Despite the availability of multiple adaptation guidelines, no gold standard was identified. Additionally, it remains unclear whether current procedures ensure cultural equivalence. There is an urgent need to examine the rigor and cultural validity of adaptation practices. Future research should also critically evaluate whether existing adaptation processes capture culturally grounded expressions of mental distress and support equitable mental health assessment across communities.

Keywords: adaptation, assessment, cultural, mental health, screening



## DAILY TEMPERATURE EFFECTS ON CHILDREN RESPIRATORY HOSPITALIZATION IN MALAYSIA

**Abstract ID: 147 (Oral)**

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**Presenter:**

Vera Ling Hui Phung

**Background:** Epidemiological studies have demonstrated a J- or U-shaped non-linear exposure-response relationship between temperature and adverse health outcomes. However, in tropical countries, the exposure-response relationship might differ, due to exposure to hot- and humid conditions throughout the year. Both cold and heat are anticipated to trigger respiratory health conditions, and the effects might be worse among vulnerable populations. This study examines the association temperature and respiratory hospitalizations among children in Malaysia.

**Methods:** This study included daily all-cause respiratory hospitalizations among children (age 0-14) in Klang Valley and Sarawak, spanning from 2017 to 2019. Temperature data were extracted from the ERA5-Land dataset, aggregated into daily average in each district. We performed a conditional quasi-Poisson regression model through case-time-series design to estimate the relative risks associated with heat (97.5th percentile) and cold (2.5th percentile). A distributed lag non-linear model (DLNM) was incorporated into the model to address lagged effects. Lags up to 14 days were considered after examining the fits of the models.

**Results:** A total of 493,845 cases were included in this study, with a daily mean of 21.5 respiratory hospitalizations. The minimum morbidity temperature (MMT) was identified at 27.1°C. The relative risk due to heat effect was 1.002 (95% CI: 0.981, 1.024), while those for cold effect was 1.057 (95% CI: 1.022, 1.094). Heat effects were observed at short lags (lag 0 and 1 days), whereas cold effects were prominent from lags 5 to 10.

**Conclusions:** This study demonstrated the temperature-health relationship among children in a tropical climate country, revealing stronger cold effects and health risks over shorter lags. Recognizing this pattern may support the development of climate change adaptation and mitigation strategies.

**Keywords:** temperature; morbidity; respiratory; tropical climate; Southeast Asia



## DECISION-MAKING FOR CHILDREN'S PARTICIPATION IN RESEARCH: PERSPECTIVES OF MALAYSIAN CHILDREN AND THEIR PARENTS

**Abstract ID: 139 (Oral)**

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**Background:** Research involving children presents unique ethical challenges, requiring a delicate balance between parental authority and respect for the evolving autonomy of the child. This study aims to explore the perspectives of Malaysian children and their parents regarding decision-making for children's participation in research.

**Methods:** Children under 18 years and their parents visiting outpatient clinics (as patients or visitors) at two tertiary hospitals in the Klang Valley, Kuala Lumpur, were recruited between April and May 2021. A qualitative study was conducted using semi-structured, in-depth interviews focusing on four domains: (1) children's involvement in decision-making, (2) commonly requested information, (3) appropriate minimum age for assent, and (4) preferred sequence of approach during recruitment. Interviews were audio-recorded, transcribed verbatim, and analyzed manually using both deductive and inductive thematic approaches.

**Results:** Ten children and eight parents participated. Four key themes emerged: (1) Decision-maker, (2) Consent and assent processes, (3) Decision age, and (4) Person-approach sequence. While parental consent was considered necessary, most participants supported a shared decision-making model that incorporates the child's voice. Participants suggested 17-24 years as the appropriate age for independent consent. Notably, both groups preferred researchers to first seek the child's assent before approaching parents. Influencing factors included the research topic, perceived risks and benefits, prior findings, child interest, time commitment, cost, and data confidentiality.

**Conclusion:** Although parents play a pivotal role in decision-making, children wish to be actively involved in decisions regarding their research participation. These findings underscore the need to review and strengthen current research ethics guidelines, particularly by formalizing the assent process and encouraging shared decision-making.

**Keywords:** assent, children, decision-making, perspective, research



## DELINEATING “FAMILIAL INFLUENCE” IN CLINICAL RESEARCH: WHEN IS IT “DUE” OR “UNDUE”?

**Abstract ID: 103 (Oral)**

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**Presenter:**

Foo Kar Fai

**Background:** Obtaining valid individual informed consent is necessary to respect participants’ autonomy in research ethics. However, there are uncertainties in accounting for interpersonal influence that unduly influences participants’ voluntariness, especially by close family members. As authors increasingly adopt the theory of relational autonomy to justify the interpersonal decision-making model, researchers and Institutional Review Boards (IRBs) require principled guidance to safeguard against undue familial influence. Particularly, feminist philosophers’ long-concerned “total deference” decision-making style has direct ramifications for research ethics: how to determine participants’ voluntariness, and by whom, in the case that participants unconditionally defer decisions to their close family member?

This article advocates a responsible use of relational autonomy within research ethics. To achieve these, this article claims: (1) following the procedural school of relational autonomy, assessment about voluntariness must take participants’ true belief and desire for reference, thus, voluntariness qua authenticity; and (2) by utilizing Andrea Westlund’s dialogical account of relational autonomy, frontline researchers must sensitively observe the dynamic interplay between participants and their family members.

As such, a total deference pattern is a credible flag to check participants’ voluntariness. When frontline researchers observe misaligned reasoning and unusual nonverbal clues, they are obligated to pose subtle “challenges” to the dyad and reorient the decision-making. The IRBs could also perform audits and provide advice for accommodating cultural practices. Practically, an uncritical adherence to a “collective” or “family-oriented” consent model would exacerbate power differences within families and hinder participants’ true preferences.

**Keywords:** Andrea Westlund, authenticity, deference, relational autonomy, voluntariness



## DENGUE FEVER: AWARENESS, KNOWLEDGE, ATTITUDES, AND PRACTICES OF URBAN COMMUNITIES IN THE CITY OF SANTA ROSA, LAGUNA, PHILIPPINES

Abstract ID: 35 (Oral)

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### Presenter:

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**Background:** Dengue fever remains a pressing global health concern, particularly in tropical and subtropical regions, where urban and semi-urban communities face recurring outbreaks. In the Philippines, dengue is endemic and continues to pose significant threats to public health, particularly in densely populated areas like Santa Rosa, Laguna. This study assessed the awareness, knowledge, attitudes, and practices (AKAP) of adult residents in the City of Santa Rosa regarding dengue fever. It aimed to identify gaps in community understanding and behaviors to inform targeted, community-based interventions for sustainable dengue control.

**Methods:** An analytic cross-sectional study was conducted in 2023 in two high-incidence barangays—Tagapo and Dita. A total of 230 adult residents were selected through cluster sampling. Data were collected via a structured, pretested, interviewer-guided questionnaire translated into the local language. Variables such as awareness, knowledge, attitudes, and practices were measured using validated scales. Data were encoded in Excel, cleaned in SPSS, and analyzed using descriptive statistics and Chi-square tests, with significance set at  $p \leq 0.05$ .

**Results:** The majority of respondents demonstrated high awareness (43.48%), high knowledge (60.43%), positive attitudes (85.22%), and adequate dengue prevention practices (93.04%). However, disparities in knowledge were noted across gender, education, and income levels. A weak but statistically significant correlation was found between knowledge and practices ( $r = 0.189$ ,  $p = 0.04$ ), suggesting that information alone may not sufficiently drive behavior change.

**Conclusion:** Despite high overall AKAP scores, socioeconomic and educational disparities present significant barriers to equitable dengue prevention. As global urbanization intensifies and climate change expands mosquito habitats, localized risk communication strategies rooted in community engagement are critical. This study underscores the urgent need for inclusive public health interventions that address both informational and structural inequities to prevent future outbreaks—not just in Santa Rosa, but in vulnerable communities worldwide.

Keywords: dengue, dengue fever



## DEPRESSION STATUS AND ITS ASSOCIATED FACTORS AMONG MIDDLE AGED WOMEN OF MADHYABINDU MUNICIPALITY OF NAWALPUR DISTRICT, NEPAL

**Abstract ID:** 189 (Oral)

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**Presenter:**

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**Background:** This study aimed to assess depression and its associated factors among middle-aged women in western Nepal.

**Methods:** A cross-sectional study was conducted among 350 women aged 40–60 years using a multistage sampling method. Probability proportionate to size sampling was used to select wards, followed by random sampling of sub-wards. Face-to-face interviews were conducted using a structured questionnaire, and depression was measured with the Beck Depression Inventory (BDI-21). Logistic regression analysis was performed using SPSS.

**Results:** Overall, 31.6% of participants experienced depression: mild (17.42%), moderate (10.57%), and severe (2.97%). While 58.6% had good knowledge of mental illness, illiteracy significantly increased the risk of depression (AOR = 2.12, 95% CI: 1.01–4.5). Women with insufficient income (less than six months' coverage) were more likely to be depressed (AOR = 6.76, 95% CI: 2.04–22.31). Those sleeping less than six hours (AOR = 3.88, 95% CI: 1.95–7.70) and those with chronic illness (AOR = 2.08, 95% CI: 1.17–3.44) were also at higher risk.

**Conclusion:** Nearly one-third of middle-aged women in western Nepal suffer from depression. Enhancing mental health awareness and improving access to mental health services for this population is critical to addressing this growing public health issue.

**Keywords:** BDI-21, depression status, knowledge on mental illness, middle-aged women, Western Nepal



## DESIGN OF A COMMUNITY-BASED INTERVENTION TO THE ERADICATION OF FEMALE GENITAL MUTILATION IN RURAL TANZANIA: A NARRATIVE REVIEW AND EVIDENCE-INFORMED FRAMEWORK

Abstract ID: 98 (Oral)

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**Background:** Female genital mutilation (FGM) persists in several rural regions of Tanzania, despite a gradual decline in its national prevalence. National surveys report an average prevalence of 10%, but this figure masks significant regional inequalities: in Manyara (57.7%) and Arusha (41%), the practice remains common. Recognized as a human rights violation and a serious public health problem, FGM is reinforced by deep-rooted cultural, economic, and gender norms. This paper presents a proposal for a community intervention based on a narrative review of evidence, aiming to inform the development and future implementation of strategies adapted to the sociocultural context of rural Tanzania.

**Methods:** A narrative review of scientific literature and reports was conducted to identify effective community-based interventions in reducing FGM in sub-Saharan Africa. The findings were classified thematically and used to build the Malaika model, which integrates community participation, trauma-focused psychosocial care, gender-transformative education, and economic empowerment.

**Results:** The most effective interventions combine education, active participation of women, religious leaders, and men, safe spaces, and sustained community work. The Malaika model integrates these components through a multidisciplinary and culturally adapted approach. It includes the implementation of a Safe House for at-risk girls offering psychological support, vocational training, sexual and reproductive health education, and community workshops. Financial sustainability is ensured by integrating Malaika as the social impact arm of Hakuna Rise, a purpose-driven social enterprise and tourism agency. All the income generated by volunteer programs linked to Malaika is reinvested in the Safe House; other programs contribute a proportional percentage.

**Conclusions:** Malaika represents a scalable, financially sustainable, and evidence-based model for addressing FGM in rural Tanzania. Founded on the principles of equity, local leadership, and planetary health ethics, it offers a community-based alternative that connects global solidarity with grassroots action.

**Keywords:** community-based intervention, female genital mutilation, health equity, Sustainable Development, Tanzania, volunteer tourism



## DETERMINANT FACTORS ASSOCIATED WITH ANTENATAL CARE VISIT AT PUBLIC HEALTH CENTRE IN PADANG CITY, INDONESIA: A CROSS-SECTIONAL STUDY

Abstract ID: 249 (Poster)

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### Presenter:

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**Background:** One effort to reduce maternal mortality is through implementing antenatal care (ANC) visits during pregnancy. Routine ANC visits are crucial for monitoring the health of pregnant women and their fetuses. However, data from the past five years show that the number of ANC visits has not met targets in several regions of Indonesia, including Padang City, West Sumatera Province. This study aims to assess the status of ANC visits of pregnant women and associated factors.

**Methods:** A cross-sectional study was conducted among 142 third-semester pregnant women at Padang City, West Sumatera Province, Indonesia. A validated questionnaire was used to obtain information about the respondents' characteristics, ANC visits, and associated factors. Data was analysed using a chi-square test and multivariate logistic regression.

**Results:** Most pregnant women have completed all ANC visits (63.4%), but knowledge remains lacking (66.2%), and attitude toward prenatal visits are largely negative (54.2%). The logistic regression results show that only the variables of the respondent's knowledge significantly affect the completeness of ANC visits ( $P=0.005$ ;  $OR=3.253$ ;  $95\%CI=1.433-7.386$ ). However, attitudes, age, parity, education level, working status, economic status, access to health care service, family support, and health worker support were not significantly associated ( $P=0.06$ ;  $0.39$ ;  $0.69$ ;  $0.59$ ;  $0.7$ ;  $1$ ;  $0.1$ ;  $1$ ;  $0.36$ , respectively).

**Conclusion:** Efforts are needed to increase pregnant women's knowledge regarding ANC by optimizing the role of health workers and cadres in promoting ANC more extensively, both directly and through social media and increasing maternal literacy by reading the Mother and Child Health handbook. A government policy is needed to ensure pregnant women complete their ANC visits, not solely for claiming delivery costs.

Keywords: ANC visit, attitude, family support, knowledge, public health centre



## DETERMINANTS OF COST SAVINGS THROUGH POOLED PROCUREMENT: EVIDENCE FROM MALAYSIA'S PUBLIC SECTOR MEDICINES PRICING INITIATIVE

Abstract ID: 268 (Oral)

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**Background:** Escalating pharmaceutical costs strain public health budgets, particularly in low- and middle-income countries. To address procurement fragmentation and inequities, Malaysia implemented inter-ministerial pooled procurement (PP) in 2020 across the Ministry of Health (MOH), Ministry of Defence (MOD), and Ministry of Higher Education (MOHE).

**Methods:** A cross-sectional study analysed procurement data from 82 medicines, comparing two-year periods before (2018–2020) and after (2020–2022) PP implementation. Estimated savings, price differentials, and dissavings were calculated. Multiple linear regression assessed determinants of cost savings, including inter-ministerial collaboration, brand substitution, supplier characteristics, number of bidders, negotiation, and procurement volume.

**Results:** PP generated RM179.6 million (17.7%) in overall savings from RM1.01 billion expenditure. Inter-ministerial collaboration significantly increased savings ( $\beta = \text{RM}1.2 \text{ million}$ ;  $p < 0.05$ ), underscoring the benefits of joint bargaining. The most influential determinant was switching from innovator to generic medicines, linked to an average additional RM2.0 million in savings ( $p < 0.05$ ). Conversely, switching to innovator products tended to increase costs. Other factors, such as procurement volume, supplier concentration, and number of bidders, were not statistically significant in multivariable analysis, although they influenced outcomes descriptively. Malaysia's pooled procurement demonstrates that generic substitution and cross ministerial pooling are the strongest drivers of efficiency, delivering fiscal savings and more equitable access to medicines. Strengthening these levers, supported by digitalisation and better demand forecasting, can further optimise collaborative strategies to ensure sustainability and responsiveness to the evolving health impacts shaped by social and environmental change.

Keywords: generic substitution, inter-ministerial, pool procurement



## DEVELOPMENT OF CONTINUING EDUCATION PROGRAMS FOR NOVICE PUBLIC HEALTH NURSES WHO WORK ON SMALL ISLANDS

**Abstract ID: 144 (Poster)**

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**Background:** Okinawa Prefecture is one of Japan's 47 prefectures. It consists of 37 inhabited islands. Public health nurses (PHNs) working on those islands face challenges in accessing decent training and role models in their jobs due to low staffing and high turnover rates (Chinen, 2020). Continuing education programs specialized in island PHN are needed to prevent resignations and promote career development. This study aims to develop the Island PHNs' continuing education program (IPCE program).

**Methods:** A continuing education workgroup, comprising the island PHN, Okinawa Prefecture PHNs, and other stakeholders, was established. First, the workgroup verified education needs from a previous study in which the researcher interviewed island PHNs. The workgroup organized the last training program, which included guidelines for novice training by the Japan Nursing Association, as well as the Career Ladder of PHNs in Japan. It clarified the educational content and goals for novice needs. Finally, we conducted a questionnaire survey for the island municipalities about the contents of this continuing education program.

**Results:** The IPCE program, which focuses on novices, consists of on-the-job training (OJT), off-the-job training (OFF-JT), and self-learning. The contents of the OJT adhere fundamentally to the previous program, but it also incorporates self-management and networking with other island PHNs. OFF-JT contents reinforce OJT. The contents are community assessment, self-management skills, case studies by island expert PHNs, and others. Furthermore, the island PHNs foster networking by attending the programs. Participants can access these programs not only face-to-face but also via Zoom and on-demand video. Approximately half of the island's municipalities in Okinawa responded to the questionnaire about the IPCE program. While all responding municipalities supported the IPCE program, some had challenges implementing it.

**Conclusion:** We developed the IPCE program. Among the contents, self-management and the island PHNs' fostering of networking are unprecedented.

**Keywords:** Continuing Education Program, Island, Novice, public health nurse



## DIAGNOSTIC RELIABILITY OF ADSORPTION ELUTION TECHNIQUE IN DETECTING ABO ANTIGENS IN SALIVA

**Abstract ID: 241 (Poster)**

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**Background:** Saliva is increasingly recognized for its diagnostic potential in determining secretor or non-secretor phenotypes. Analyzing secretor antigens in saliva presents a compelling non-invasive option for blood typing, contributing to personalized medicine. This study investigated the relationship between secretor antigens found in saliva and blood, addressing the increasing interest in non-invasive diagnostics, minimizing patient discomfort while maintaining sensitivity and specificity in clinical settings.

**Methods:** This study used a quantitative comparative design with non-proportional quota sampling and analyzed saliva and blood samples in a controlled laboratory setting. The forward and reverse tube methods were used for blood, while the Adsorption-Elution Method was used for saliva. For the results, binary testing categorized the presence or absence of agglutination (positive or negative) to identify secretor antigen status. The study's diagnostic accuracy was assessed by measuring sensitivity and specificity.

**Results:** Among 40 participants, traditional methods showed Type O as the most common (47.5%) and AB as the least common (12.5%). Using the adsorption-elution method on saliva (Supernatant, Eluate, and Supernatant Eluate), individuals were classified as secretors or non-secretors based on anti-H antigen presence. Overall, 65-75% were secretors, 15% non-secretors, and 10% had inconsistent results. ROC analysis indicated excellent diagnostic accuracy for saliva testing, with the Supernatant anti-H sample showing excellent performance (AUC = 0.897) and Eluate and Supernatant Eluate samples showing acceptable reliability (AUCs = 0.752 and 0.719). These results support the potential of saliva-based blood typing as a reliable option in non-invasive settings.

**Conclusion:** The adsorption-elution method shows good sensitivity and specificity for detecting blood group antigens in saliva, with moderate to excellent Area Under the Curve (AUC) values. It offers a good option; however, it should not replace standard blood typing methods. Inconsistencies highlight the need for further research to improve its reliability and consistency across various populations and ethnicities.

**Keywords:** ABO grouping, elution, saliva, secretors



## DIGITAL HEALTH EDUCATION FOR FOOD LITERACY: DEVELOPING CONTENT CREATION GUIDELINES FOR PROMOTING HEALTHY FOOD CHOICES AMONG YOUTH IN SRI LANKA

**Abstract ID: 59 (Oral)**

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**Presenter:**

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**Background:** Youth are connected through digital platforms and exposed to a vast amount of information. Poor food literacy may influence their dietary habits, contributing to NCDs and obesity. Traditional health promotion efforts do not effectively reach the youth. The content presentation through digital platforms is necessary to reach them effectively and promote healthy eating. The objective of this study is to develop a guideline for content creators to effectively utilise digital platforms in a nutritionally accurate manner to promote healthy food choices among youth.

**Methods:** Mixed-methods research informed by the Diffusion of Innovation theory was conducted to acquire insight into formulating the guideline. A rapid review was performed to identify strategies utilised by digital content creators on digital platforms. A cross-sectional study was used to analyse usage and perceptions of online healthy food content among youth (n=382) in Sri Lanka. The evidence gathered was used in the focus group discussion to develop the guideline. The guideline was validated using the AGREE II tool.

**Results:** Thirty-two articles were selected from 380 retrieved for the rapid review. Strategies to reach and engage youth were categorised into digital platforms, messaging, and self-monitoring. The cross-sectional study revealed that youth predominantly use handheld devices and personal data/Wi-Fi to access social media daily (72.9%) and video-sharing platforms (62.1%). They favour concise, visually appealing content (53.1%) in video (74.7%) or image (62.1%) formats with positive emotions. Testimonials and success stories, especially for females (p=0.039), motivate healthy eating habits. The guideline, developed after the focus group discussion, was validated using AGREE II tool. It scored highly in Scope, Purpose, Stakeholder Involvement, and Rigour of Development.

**Conclusions:** A validated guideline for content creators backed by evidence to create concise, visually appealing video and image content on digital platforms effectively engages youth and contributes to improving food literacy.

**Keywords:** consumer health informatics, digital platforms, health communication, young adults



## DIGITAL HEALTH EQUITY IN ACTION: EVALUATING AN AI CHATBOT FOR HIV PREVENTION IN MALAYSIAN MSM

**Abstract ID: 232 (Oral)**

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**Presenter:**

Rumana Akhter Saifi

**Background:** In Malaysia, HIV transmission among men who have sex with men (MSM) is rapidly increasing, fueled by persistent stigma, discrimination, and limited access to nonjudgmental healthcare. Leveraging artificial intelligence (AI) chatbots may offer innovative, scalable solutions to promote HIV prevention services in these hard-to-reach populations. This study aimed to evaluate the usability of a web-based AI chatbot embedded within the MYHIV365.com platform to promote HIV testing and related services among MSM in Malaysia.

**Methods:** An observational study was conducted from August 2023 to March 2024 among 334 MSM, recruited through community outreach and social networking apps. The AI chatbot provided information on HIV testing, PrEP, mental health, and MSM-friendly clinics, and facilitated the ordering of HIV self-testing kits. Usability was assessed using predefined metrics, including interaction time, speech bubble count, topic selection, satisfaction score, and unanswered queries. Data were analyzed using descriptive statistics in R software.

**Results:** The chatbot recorded 393 interactions. Most users (91%) interacted once, with interaction times ranging from under 1 to 31 minutes. The chatbot facilitated 260 HIV self-test kit orders and provided clinic details in 93 interactions. Satisfaction was high (mean score = 1.3/1.1; 92.5% thumbs-up), and the mean recommendation score was 8.0/10. While the chatbot successfully answered 92% of queries, 8% remained unaddressed due to algorithm limitations.

**Conclusion:** The AI chatbot demonstrated high usability and potential to complement HIV prevention efforts in Malaysia. To maximize its impact, future iterations must integrate more sophisticated AI models for personalized responses and build trust through stronger privacy protections. Linking the chatbot with health systems is essential for reducing stigma and increasing healthcare access for MSM.

Keywords: artificial intelligence, HIV, MSM, chat bot, health care



## DISPARITIES IN ADOLESCENT MENTAL TOUGHNESS: ROLES OF SOCIODEMOGRAPHICS, LIFESTYLE, AND HEALTH LITERACY

Abstract ID: 101 (Oral)

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### Presenter:

Claire Chenwen Zhong

**Background:** Adolescent mental health problems are rising globally, with growing recognition of mental toughness as a protective factor. However, significant disparities in mental toughness persist across sociodemographic and lifestyle groups, yet the drivers of these inequities remain poorly understood. This study examines how mental toughness is associated with sociodemographic factors, lifestyle behaviors, and health literacy, aiming to identify populations at greatest risk and inform targeted interventions.

**Method:** This population-based study involved 1,423 participants and was conducted across 20 secondary schools. Mental toughness was assessed using the validated Mental Toughness Scale for Adolescents (MTS-A). Univariable and multivariable linear regression analyses were performed to examine the associations between mental toughness and key disparity-linked factors, including sociodemographic characteristics, lifestyle behaviors, and health literacy.

**Results:** For the total score of MTS-A, results showed positive association between male ( $\beta = 3.59$ , 95%CI: 2.79,4.38,  $p < 0.001$ ), daily breakfast consumption ( $\beta = 1.31$ , 95%CI: 0.53,2.10,  $p = 0.001$ ), sufficient physical activity ( $\beta = 2.06$ , 95%CI: 0.90,3.22,  $p = 0.001$ ), sufficient sleep ( $\beta = 0.92$ , 95%CI: 0.13,1.71,  $p = 0.022$ ), and higher-level of health literacy ( $\beta = 4.32$ , 95%CI: 3.55,5.10,  $p < 0.001$ ) and mental toughness adolescent, while older age, excessive screen time on video, and self-perceived obesity were negatively associated with the level of overall mental toughness. For MTS-A domains, health literacy emerged as the most consistent and substantial factor, showing significant positive associations with all six domains ( $\beta = 0.52$  to 4.32, all  $p < 0.001$ ).

**Conclusion:** These findings reveal uneven distributions of mental toughness, with clear gaps tied to gender, age, and lifestyle. Health literacy may help mitigate disparities, but systemic efforts—such as school-based health education, screen time regulations, and stigma reduction programs—are needed to ensure equitable resilience-building. Policymakers and educators should prioritize tailored, multi-level strategies to address these inequities and promote adolescent mental health.

Keywords: adolescents, disparities, mental toughness



## EARLY LESSONS FROM FINANCIAL INTEGRATION IN BATANGAS AND QUEZON: ADVANCING UNIVERSAL HEALTH COVERAGE IN THE PHILIPPINES

Abstract ID: 30 (Oral)

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**Background:** The Philippines' Universal Health Care (UHC) Law seeks to integrate local health systems for equitable, efficient, and high-quality service delivery. Financial integration, a core UHC dimension, is operationalized through the Special Health Fund (SHF), which pools resources from national agencies, local government units (LGUs), PhilHealth, and development partners. Despite its potential, SHF implementation remains complex, with many LGUs still navigating its pilot phase. This study examines early implementation experiences in Batangas and Quezon provinces, focusing on key actors, processes, and factors influencing SHF operationalization.

**Methods:** A qualitative case study approach was used, including document review and key informant interviews with officials from the health, budget, and accounting offices of the LGUs. Data were analyzed thematically to map processes and identify critical actors.

**Results:** Seventeen actors (nine major, eight supporting) were identified across core processes, including the establishment of a Management Support Unit (MSU), opening SHF accounts, pooling of funds, planning for utilization, budget execution, disbursement, and accounting. Enabling factors for successful SHF implementation included a functional Provincial Health Board with active support from local chief executives, LGU commitment to UHC, the use of DOH-issued SHF manuals and guidelines, dedicated MSU teams collaborating with key actors, and integrated financial planning that improved fund approval. Key challenges included complex and unclear requirements from DBM, COA, DOH, and PhilHealth; capacity gaps in financial management; delays in downloading PhilHealth funds; and weak coordination among internal and external stakeholders.

**Conclusions:** Effective SHF implementation relies on clear governance structures, active coordination, and strengthened technical and administrative capacities. Developing standardized SHF implementation models, enhancing financial management skills, clarifying inter-office roles, and institutionalizing regular financial and performance reviews can support financial integration and accelerate UHC implementation at the local level.

**Keywords:** challenges, financial integration, governance, health financing, health system integration, local health boards, special health fund, universal health care, universal health coverage



## EFFECTS OF PHYSICAL VERSUS ONLINE MINDFULNESS BREATHING MEDITATION INTERVENTION ON STATE MINDFULNESS AND COGNITIVE FUNCTIONS: A RANDOMIZED CONTROLLED TRIAL AND MIXED METHODS STUDY

**Abstract ID: 198 (Poster)**

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**Presenter:**

Hooi Ling Yut

**Background:** The practice of mindfulness meditation has gained increasing attention to manage stress levels and enhance cognitive functions. Mindfulness meditation has demonstrated enhancement effects in protecting mental health by modulating autonomic nervous system activity and improving attentional control. However, the effectiveness of physical (PMBM) and online mindfulness breathing meditation (OMBM) interventions on stress levels, state mindfulness, and cognitive functions has remained largely unexplored. This study aims to examine the effects of PMBM and OMBM interventions, with an active control (AC) group on state mindfulness and cognitive functions (attention and inhibitory control) and using heart rate variability (HRV) as a measurement of stress levels. An interview was conducted to gain participants' understanding and attitudes toward practicing MBM on enhancing their mental health.

**Methods:** Forty-eight participants were randomly assigned to either PMBM, OMBM, or AC groups. During the pre-intervention task, the HRV of the participants was measured for five minutes during resting state, and then answered Toronto Mindfulness Scale (TMS) and performed Flanker Task. Participants underwent a three-day intervention with 10 minutes of physical or online MBM practices, or music therapy (for AC group). The post-intervention procedure was same as the pre-intervention. Among the PMBM and OMBM participants, 20 participants were randomly selected to undergo the interview.

**Results:** The findings showed significantly higher curiosity and de-centering scores ( $P < 0.001$ ) in state mindfulness using TMS, and improvement in reaction time ( $P = 0.01$ ) and Flanker Effect ( $P = 0.03$ ) using Flanker Task, in both PMBM and OMBM groups compared to the AC group, though no significant improvement in HRV (all  $P > 0.05$ ). The interview findings suggested that MBM intervention, regardless of the delivery mode, offered a feasible, accessible, and beneficial mindfulness modality to the general population, particularly suitable for beginners.

**Conclusions:** This study support the adaptability and acceptability of MBM intervention across different delivery formats, making it a promising tool for large-scale mental health promotion. However, the null findings of HRV suggested that brief MBM intervention did not induce changes in autonomic function. Future research could explore longer intervention durations and include follow-up assessments to examine sustained effects.

**Keywords:** mindfulness breathing meditation; state mindfulness; cognitive functions; heart rate variability; mental health



## EMPLOYERS' PERCEPTIONS, PRACTICES, AND RELATIONAL DYNAMICS IN MIGRANT DOMESTIC WORK IN MACAO, CHINA: A QUALITATIVE STUDY

**Abstract ID: 112 (Oral)**

**Author(s):**

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**Presenter:**

Timothy S. Sumerlin

**Background:** Employers of migrant domestic workers (MDW) manage a distinctive employment context due to the intimate nature of domestic work. MDWs often live in their employer's home, completing household duties and providing caretaking, merging a home and a workplace. However, most research has focused on the MDW experience, with relatively little attention paid to employers despite the central role employers play in MDW well-being. Understanding the employer perspective is essential to capture their challenges, management practices, and to provide a comprehensive view of this unique workplace relationship to improve employer and MDW well-being. This qualitative study explores the employer perspective and develops a conceptual framework of employers' perceptions, practices, and relational dynamics in migrant domestic work.

**Methods:** From July 2017 to April 2018, one-on-one in-depth interviews were conducted among 26 employers of MDWs using a semi-structured interview guide. Questions covered the employer's perspective on MDW employment. Exploratory thematic analysis was applied to understand the employer perspective and develop a conceptual framework.

**Results:** Employers' perceptions of MDWs were shaped by personal beliefs and experience, stereotypes, and perceived social norms. These perceptions, alongside hiring motivations and policy knowledge and attitudes, influenced employer management of MDWs, which often required flexibility, consideration of privacy and trust, and efforts at employee retention. Employer-employee relationships ranged in closeness, varying by employer family member and workplace arrangements.

**Conclusions:** Employers of MDWs navigate a complex employment relationship that is often viewed both as familial and a formal arrangement. Perceived inadequacy in labor policies leave employers to rely on personal beliefs and social norms in their hiring and management practices. Promoting clear communication in the workplace is essential in preserving a harmonious working environment and improving employer and MDW well-being.

**Keywords:** employers, employment relationship, migrant domestic work, migrant labor policy, migrant well-being



## EMPOWERING FARMERS AS AGENTS OF CHANGE FOR PLANETARY HEALTH: A PARTICIPATION ACTION RESEARCH AMONG HONEY GUAVA FARMERS IN INDONESIA

**Abstract ID: 160 (Oral)**

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**Presenter:**

Eka Lestari Mahyuni

**Background:** Health-Sustainable Precision Agriculture (H-SPA) offers a transformative approach for Indonesian smallholder farming and environmental sustainability. Its adoption is often hindered by top-down technology transfer models, overlooking farmers' realities, local knowledge, and ecological context. This leads to unsustainable practices and minimal community impact. This research explores how participatory methodologies empower farmers as change agents for planetary health in H-SPA implementation for honey guava cultivation in Langkat, Sumatera Utara. It examines how bottom-up engagement fosters local H-SPA stewardship, promoting eco-friendly practices and community resilience.

**Methods:** A Participatory Action Research (PAR) approach engaged Teluk and Karang Gading communities via extensive socialization and co-learning from February to August 2025. Six of 25 initial farmers (24%) committed long-term participation. Data included participatory observation during engagement and Focus Group Discussions (FGDs). Thematic analysis evaluated shared H-SPA understanding, PAR principles, team roles, and initial motivations.

**Results:** The project established a multi-stakeholder PAR team, rooted in mutual respect and inclusive dialogue, evidenced by six farmer volunteers. Iterative FGDs dismantled traditional hierarchies, fostering shared H-SPA understanding and leading to co-developed roles as co-researchers and positive role models. Strong initial commitment, driven by solving agricultural challenges and reducing environmental impact via H-SPA, was demonstrated. Capacity-building within the PAR framework enabled farmers to adopt drone and sensor technology, promote ecological pest management, and become continuous community learning providers for planetary health.

**Conclusions:** This study highlights PAR's profound value in promoting H-SPA adoption. This good practice is crucial for fostering climate-friendly food systems, integrating health, Agri-Technology, and building farmer community resilience in Indonesia.

**Keywords:** community resilience, health sustainable precision agriculture, honey guava, participatory action research, planetary health.



## EMPOWERING UNIVERSITY STUDENTS ON TACKLING GLOBAL HEALTH ISSUES

**Abstract ID: 114 (Oral)**

**Author(s):**

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H I Malinda M Abeynayake, Lecturer / Associate Director of Student Innovation for Global Health Technology (SIGHT)

**Presenter:**

Ying Chau / H I Malinda M Abeynayake

**Background:** SIGHT (Student Innovation for Global Health Technology) is an interdisciplinary undergraduate education platform at Hong Kong University of Science and Technology (HKUST) that transforms the passion and creativity of students to develop sustainable solutions for global health problems. On its 10th anniversary, Figure 1 highlights SIGHT's strong user engagement.

SIGHT provides an integrative learning experience (figure 2) that transcends the borders of disciplines, geography, and culture. A wide range of global health Projects (figure 3) aim to deliver social impact to resource-limited communities. Pedagogically, SIGHT integrates the essences of experiential learning, design thinking, and integrative learning, operating on the principle that impact-driven projects bring the best out of students.

**Methods:** Constraints breed creativity (Brown, 2009), and health problems provide an ideal context for students to innovate. Nevertheless, the SIGHT Teaching Team spends substantial efforts to identify appropriate project sites and liaise with partners to ensure that the scope of projects makes it feasible for students to make a tangible contribution.

**Results:** SIGHT Team guides students to appreciate the importance of social, cultural and economic factors that contribute to the acceptance of technology. SIGHT approach emphasises prototyping real-life technology solutions through direct implementation experiences, as demonstrated by a recent development of telemedicine, digital data collection platforms in a rural tea estate in Sri Lanka. These initiatives ensured sustainability by engaging stakeholders like medical teams, vocational centers, and youth volunteers; students trained staff and youth to maintain the system and build long-term capacity while digitizing health screenings and connecting patients to remote doctors. SIGHT has developed a holistic, sustainable stakeholder engagement model (Figure 4) that actively connects local communities, vocational partners, and medical teams to enable successful on-the-ground technology implementation, while providing students with immersive learning experiences, recognising first-hand experience, and the value of an interdisciplinary team in tackling global health problems.

**Keywords:** experiential learning & design thinking, technology implementation & social impact



## ENERGY INTAKE, DIET DIVERSITY, AND NUTRITIONAL STATUS OF PRESCHOOL-AGED ORPHANS IN INSTITUTIONAL CARE: AN EXPLANATORY SEQUENTIAL STUDY IN METROPOLITAN MANILA

**Abstract ID: 97 (Oral)**

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Jash Augeane E. Dayapdapan, University of the Philippines Diliman

**Presenter:**

Abigail Laurice R. Go

**Background:** The number of orphans in the Philippines continues to rise due to the impacts of COVID-19, natural disasters, teenage pregnancy, lack of education, and poverty. Preschool-aged children already face undernutrition, with cases of underweight, stunting, and wasting. Orphans are especially vulnerable due to the absence of individualized family-based care. However, their nutritional health remains underexplored. This study aims to assess the nutritional status of preschool-aged orphans and the nutritional value of meals served in selected institutional care facilities (ICFs) in Metropolitan Manila, as well as to identify factors influencing these outcomes.

**Methods:** An explanatory sequential research design was used. Thirty-two (32) children from four (4) ICFs were selected through purposive sampling. Nutritional status was assessed using Weight-for-Age Z-scores (WFA). Dietary intake was measured using a 3-day non-consecutive weighed food recall and analyzed for macro- and micronutrient content. Dietary diversity scores (DDS) were calculated. Qualitative data were collected from caregiver interviews and analyzed thematically.

**Results:** Thirty-one percent (n=10) of children were underweight. Despite exceeding the recommended total energy intake (TEI), DDS was below the recommended threshold. Diets were high in ultra-processed foods, mainly from donations. DDS revealed low intake of dark green leafy vegetables, legumes, nuts, seeds, and organ meats. No significant relationships were found between TEI, DDS, and WFA. TEI had a weak positive correlation with WFA, while DDS showed no correlation. Thematic analysis highlighted the need for registered nutritionist-dietitians (RNDs), structured meal planning, healthier food donations, and enhanced nutrition education for caregivers.

**Conclusion:** Preschool-aged orphans in ICFs experience excessive energy intake but inadequate dietary diversity. Interventions should improve food quality, assign qualified personnel, and increase caregiver nutrition knowledge.

**Keywords:** preschool-aged orphans, dietary diversity, dietary intake, institutional care, nutrition education, nutritional status



## ENHANCING ETHICAL SAFEGUARDS IN PAEDIATRIC ORAL HEALTH RESEARCH: PROMOTING HEALTH EQUITY THROUGH TRANSPARENT REPORTING IN MALAYSIAN PUBLICATIONS - A SCOPING REVIEW

**Abstract ID: 131 (Poster)**

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Rumana Akhter Saifi, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia

**Presenter:**

Tengku Nurfarhana Nadirah Tengku Hamzah

**Background:** Paediatric oral health research in Malaysia adheres to international and national ethical standards. However, the common practice of categorising these studies as minimal risk can negatively affect transparency, especially regarding child assent, thereby potentially compromising equitable research practices. This scoping review aims to systematically assess the transparency of ethical reporting, specifically ethics approval, parental consent, and child assent in published paediatric oral health research from Malaysia.

**Methods:** A systematic literature search was conducted across PubMed, Web of Science, SCOPUS, MyJurnal, and the NMRR registry, following PRISMA Extension for Scoping Reviews (PRISMA-ScR) guidelines.

**Results:** A total of 72 articles met the inclusion criteria. Ethics approval was reported in 88.9% of studies, and parental consent in 93.1%. However, child assent was documented in only 6.9% of studies, emerging notably only after 2021. Among studies reporting assent, 60% utilised written assent forms, 40% relied on implied assent, and only one study provided detailed procedural documentation. Overall reporting frequency for ethics approval and parental consent improved significantly, from under 50% in 2001–2005 to over 95% after 2015, yet detailed child assent reporting remains limited.

**Conclusion:** Transparent documentation and standardised, age-appropriate assent procedures are essential for promoting equitable paediatric oral health research. Strengthening collaboration among researchers, ethics committees, and journal editors is crucial to ensure ethical rigor and enhance global health equity.

**Keywords:** paediatric oral health, research ethics, child assent, parental consent, transparency, ethical safeguards



## ENHANCING SEXUALITY EDUCATION TO PREVENT HIV TRANSMISSION AMONG FILIPINO YOUNG KEY POPULATIONS: A POLICY ANALYSIS

**Abstract ID: 155 (Poster)**

**Author(s):**

Jayne Eunice Yang, University of the Philippines Manila

**Presenter Name:**

Jayne Eunice Yang

**Background:** Human immunodeficiency virus (HIV) is growing rampant among vulnerable populations in the Philippines. Projected estimates show that the Philippines experienced a 555% increase in new HIV infections between 2010 and 2024. Current projections reveal that 46% of new infections in 2024 were from the 15-24 age group, also referred to as the young key population (YKP). YKPs, especially those belonging to the adolescent age bracket, are more likely to engage in risky behavior and have difficulties in accessing HIV-related services. It is thus important to guide them toward safe sexual practices. While there are existing policies for education campaigns on HIV, there are no clear guidelines for their standardization and implementation. Comprehensive sexuality education (CSE) is already included in secondary and tertiary education curricula, as mandated by the HIV and AIDS Policy Act of 2018, yet it is not effectively delivered to the students due to censorship, hesitancy of teachers to convey messages, or inadequate knowledge among teachers in sexuality education.

**Methods:** A policy analysis which adopted the 2013 US Center for Disease Prevention and Control Policy Analytical Framework was conducted in order to determine alternatives which could improve the coverage and effectiveness of CSE for YKP.

**Results:** Review of secondary literature and insights from policy and programmatic informants yielded the following policy alternatives: (1) no change but reinforce implementation; (2) issue guidelines on prescribed modules and add feedback mechanisms; (3) regulate educators through certification requirements. The second alternative received the highest score based on five domains.

**Conclusion:** Issuing national guidelines for the implementation of age-appropriate CSE, along with creating evaluation mechanisms to measure the effectiveness of education, can ensure that the youth are receiving quality health education which they can apply in their practice and behavior.

**Keywords:** comprehensive sexuality education, HIV, Human Immunodeficiency Virus, policy analysis, sex education, young key population, youth



## ENVIRONMENTAL FOOTPRINT OF DIALYSIS IN THAILAND: A LIFE CYCLE ASSESSMENT TO INFORM GREEN HEALTH POLICY

**Abstract ID: 124 (Oral)**

**Author(s):**

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**Presenter:**

Wilasinee Samniang

**Background:** Dialysis is a life-sustaining treatment for end-stage renal disease. In Thailand, Peritoneal Dialysis (PD) is prioritized under Universal Health Coverage (UHC) due to its accessibility and cost-effectiveness. However, the environmental impacts of PD and Hemodialysis (HD) have not been comprehensively evaluated in the Thai context. This study aimed to assess and compare the environmental burdens of both modalities using a Life Cycle Assessment (LCA), contributing evidence for climate-resilient and sustainable health systems.

**Methods:** An LCA was conducted using SimaPro software version 10.2.0.0 to estimate environmental impacts across four stages: manufacturing, supply chain, service delivery, and waste management. The ReCiPe 2016 midpoint and endpoint methods were applied to quantify effects on disability-adjusted life years (DALYs), species loss, and natural resource depletion. Emission data were collected from PD and HD manufacturers (Baxter and Fresenius), Thailand Post (logistics), five dialysis centers (energy and travel), and the national medical waste agency. Carbon emissions per treatment session were calculated, and key emission hotspots identified.

**Results:** Preliminary analysis identified significant environmental hotspots in both dialysis modalities. Per-session carbon footprint estimates showed PD produces lower emissions than HD, mainly due to reduced energy use and simpler logistics. These findings will inform a forthcoming Green Health Technology Assessment (Green HTA) that integrates environmental criteria into cost-effectiveness evaluations.

**Conclusion:** PD was found to have a lower environmental footprint per session than HD. These results emphasize the importance of incorporating environmental performance into clinical and policy decisions under UHC. The study contributes to the global movement toward sustainable healthcare by providing evidence to support greener procurement, treatment choices, and health policy planning in low- and middle-income countries.

**Keywords:** dialysis, environmental impact, green HTA, life cycle assessment, planetary health



## ENVIRONMENTAL HEALTH PRIORITIES FOR CLIMATE CHANGE ADAPTATION: NEW PRACTICAL EFFORTS TO REDUCE THE ENVIRONMENTAL BURDEN OF DISEASE IN ASIA

**Abstract ID:** 75 (Oral)

**Author(s):**

Ai Tashiro, Kyoto University

**Presenter:**

Ai Tashiro

**Background:** Asian countries are increasingly facing severe threats from climate change, which significantly contribute to environmental health risks and the global burden of disease (GBD). In this context, the region's strategic objective is to minimize population exposure to environmental health hazards associated with climate change and mitigate their impact on disease burden. This study aims to demonstrate an integrated approach to environmental health assessment through cross-sectoral data integration and regional collaboration. We highlight the application of intervention models tailored to specific communities and geographic contexts, reflecting the diverse environmental exposures and health determinants across Asia.

**Methods:** We employed disability-adjusted life years (DALYs) as the primary metric for quantifying disease burden using publicly available data. This included an analysis of years of life lost (YLL) and years lived with disability (YLD), assessed through incidence and mortality rates. Attributable risks were estimated based on parameters established for the WHO Western Pacific Region. For air pollution, we calculated attributable risk using local PM<sub>10</sub> concentrations and corresponding relative risk values.

**Results:** We outline a regional agenda that identifies key priorities and gaps to support both immediate and long-term strategies for reducing the environmental components of GBD. We present the methodological framework used to define these environmental health priorities and discuss how they inform scientific investments and policy decisions aimed at reducing environmentally attributable disease burdens.

**Conclusions:** Quantifying the environmental burden of disease is essential for informing healthcare policy and risk mitigation strategies in Asia. The epidemiological transition reflected in our findings underscores the growing significance of non-communicable diseases (NCDs) linked to chronic environmental exposures. These insights provide a roadmap for targeted interventions and evidence-based decision-making in the face of accelerating climate and environmental challenges.

**Keywords:** global burden of disease, environmental determinants of health; NCDs, climate change adaptation



## EVALUATING QUALITY OF LIFE IMPACT THROUGH VISION IMPROVEMENT IN RESOURCE-POOR AREAS IN EAST AFRICA

Abstract ID: 78 (Poster)

**Author(s):**

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**Presenter:**

Caroline Dubois

**Background:** Visual impairment is one of the most common non-communicable causes of disability worldwide. 94 million people suffer from cataracts, disproportionately in resource-poor settings with barriers to eye health services. Untreated cataracts can lead to social isolation, decreased economic productivity, increased risk of injury, and overall decrease in quality of life. This study examines the extent that cataract surgery delivered at a field hospital affects vision-related quality of life (VRQOL) in Djibouti, and determinants of improvement.

**Methods:** Serial cross-sectional surveys were administered to cataract patients assessing VRQOL at baseline and 2-months post-op. Patients completed face-to-face surveys using a translated "World Health Organization Prevention of Blindness and Deafness 20-item Visual Functioning Questionnaire", containing subscales (overall vision, visual function, general function, and psychosocial impact).

**Results:** 542 patients completed the surveys, with 73.4% (n=398) exhibiting improvement in visual acuity. On average, the overall score improved by 18.21 (SD=18.78, p=0.000), representing 22.76% of total possible score improvement. Of the subscales, overall activity improved by 1.55 (SD=2.04, p=0.000), 19.38% of total possible improvement. General function improved by 11.53 (SD=12.42, p=0.000, 24% of total possible improvement. Visual function improved by 1.70 (SD=2.63, p=0.000), 21.25% of total possible improvement. Psychosocial impact improved by 3.42 (SD=4.08, p=0.000), 21.38% of total possible improvement. Multivariable regression identified significant predictors of VRQOL change as visual improvement (B=-1.870, p=0.027), and baseline score (B=-1.014, p=0.000). Sex and age were not significant variables in the regression model across all subscales.

**Conclusion:** Cataract surgery delivered in a field setting leads to significant improvement in field hospital setting, as it would be expected in a regular health service, notably in the general function subscale. The intervention significantly improves outcomes regardless of age and sex in socially inequitable, resource-poor society like Djibouti. Improvement in women's health can lead to broader, equitable impact in household and community outcomes.

Keywords: Africa, health equity, non-communicable disease, quality of life, sex, visual health



## EXPERIENCES OF OCCUPATIONAL INJURIES AND ILLNESS AND THEIR AFTERMATH AMONG MIGRANT CONTRACT WORKERS IN TAIWAN: A QUALITATIVE STUDY

Abstract ID: 166 (Oral)

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### Presenter:

Yawen Cheng

**Background:** Migrant contract workers are employed to address labor shortages in specific sectors in Taiwan. While migrant workers were known to have a higher risk of occupational accidents than native workers, their post-injury experiences and their interactions with key stakeholders—such as employers, brokers, and government agencies—have not been thoroughly studied.

**Methods:** We conducted in-depth interviews with 40 migrant workers in Taiwan who had sustained occupational injuries or work-related illnesses. Participants included 13 Vietnamese, 17 Indonesians, 8 Filipinos, and 2 Thais. Among them, 31 were factory workers, 4 were live-in care workers, 4 were fishery workers, and 1 was an agricultural worker. Additional information was gathered from interviews with 5 staff members from brokerage agencies and 10 representatives of non-governmental organizations (NGOs).

**Results:** Most participants suffered temporary disabilities, and some experienced permanent disabilities. Although the majority expressed satisfaction with the medical care provided under Taiwan's National Health Insurance program, many reported high psychological distress due to financial hardship and employment insecurity. Some workers also encountered hostile attitudes and adverse treatment by employers, including denial of work-relatedness of injuries, refusal to provide wage compensation during recovery, coercion to return to work prematurely, demanding contract termination, failure to provide accommodation and food during recovery, and even threats of deportation. While brokers often provided immediate assistance, their actions were largely constrained by employers' decisions and authority.

**Conclusions:** The right to a safe workplace and access to fair compensation are fundamental labor rights that should not differ based on nationality or contract status. This study highlights significant gaps in occupational safety protections, occupational health services, and social support systems for migrant contract workers in Taiwan, underscoring the need for policy reform and targeted interventions.

**Keywords:** migrant workers, occupational injury, social support, workers' compensation, workers' compensation and rehabilitation services



## EXPLORING HEALTH AND WELL-BEING AMONG REFUGEE AND MIGRANT WOMEN IN GREECE: A MIXED-METHODS STUDY WITH WOMEN AND KEY INFORMANTS

**Abstract ID: 169 (Poster)**

**Author(s):**

Kirandeep Kaur Chhokar, MPH, University of Southern California

**Presenter:**

Kirandeep Kaur Chhokar

**Background:** Greece has often been viewed as a gateway to Europe for many fleeing war and conflict, as it shares borders with Albania, Bulgaria, North Macedonia, and Turkey by land and shares its coast with Italy, Egypt, and Libya. As of March 2nd, 2025, UNHCR reports 6,205 new migrant arrivals, of which 5,753 arrived by sea on the Aegean islands and 452 arrived on land (UNHCR, 2025). At present, there are 9,054 migrants and refugees living in closed controlled access centers awaiting processing (e.g., camps, government- provided facilities). Of these 9,054 migrants, women and children account for 21% and 37% of the demographic, respectively (UNHCR, 2025). Increased migration has led to overcrowding, creating long standing implications for health/wellness, healthcare delivery/access, and accessibility of local aid.

The objectives of the proposed study are: 1) Report real-time data on refugee/migrant women's health and well-being, 2) Identify unmet needs and gaps in available services for refugee/migrant women, 3) Assess the relationship between length of stay in camps and health/well-being, if any, 4) Gain insights from key stakeholders working locally in Greece with refugees and migrants.

**Methods:** A mixed-methods study methodology will be used to better understand the health and well-being of refugee/migrant women living in Greece. Quantitative surveys will help to identify broad trends and patterns, for example, associations between length of stay and health/well-being. Qualitative interviews will explore the current situation for migrants and refugees in Greece and provide contextual insights into healthcare access, safety, and daily living conditions.

**Implications/Future Benefits:** Integration of both qualitative and quantitative methodologies will provide researchers and local community partners a more comprehensive understanding of refugee women's health and help identify gaps in services, systemic barriers, and illuminate potential opportunities for future health programming.

Keywords: Greece, migration, refugee health



## EXPLORING HEALTH IDENTITY TRANSFORMATION IN TYPE 2 DIABETES MELLITUS

**Abstract ID: 205 (Oral)**

**Author(s):**

Ketsaraphon Sennok, Maharat Nakhon Ratchasima Hospital

**Presenter:**

Ketsaraphon Sennok

**Background:** Type 2 Diabetes Mellitus (T2DM) is a chronic condition that requires not only medical treatment and lifestyle adjustments but also a psychological shift in how individuals perceive themselves in relation to their illness. This shift, known as Health Identity Transformation (HIT), involves cognitive, emotional, and behavioral integration of the chronic disease into one's sense of self. While existing research has focused primarily on self-management and behavioral adherence, little attention has been given to how individuals with T2DM reconstruct their health identity over time. Understanding HIT may help bridge the gap between behavior change and sustainable diabetes management. This study aims to explore the process and influencing factors of HIT among individuals with T2DM.

The specific objectives are:

1. To examine how individuals with T2DM perceive and develop their health identity.
2. To identify key facilitators and barriers to the transformation process.
3. To generate a grounded model describing HIT in the context of diabetes care.

**Methods:** This qualitative study will employ grounded theory methodology. Participants will include adults diagnosed with T2DM for at least one year, recruited from outpatient clinics at a tertiary care hospital in Thailand. Data will be collected through semi-structured, in-depth interviews and analyzed using constant comparative analysis to construct emergent themes and a theoretical framework. Ethical approval is pending and will be obtained prior to data collection.

**Results:** This study is expected to generate a model that explains how individuals with T2DM experience and navigate changes in health identity. The findings will contribute to the development of identity-based interventions and support more personalized approaches to chronic disease care.

**Keywords:** chronic disease management, health identity transformation, qualitative research, Type 2 Diabetes Mellitus



## EXTREME HEAT AND GENDER-BASED VIOLENCE: A SYSTEMATIC REVIEW OF THE EVIDENCE

**Abstract ID:** 41 (Oral)

**Author(s):**

Isabelle Pearson, London School of Hygiene and Tropical Medicine

**Presenter:**

Isabelle Pearson

**Background:** Climate change is increasing the frequency and severity of heatwaves across the world, as well as raising ambient air temperatures, which has profound consequences for human health. Women and girls, especially those already facing social and economic disadvantage, are disproportionately impacted by rising heat due to the exacerbation of gender inequalities, unequal power dynamics, discriminatory social norms and unequal access to resources and livelihoods—all of which can increase their risk of gender-based violence (GBV). GBV is widely recognised as a global public health crisis, yet its critical intersection with climate change has received limited attention in policy and research. The objective of this study is to synthesise the global quantitative evidence on the association between increased ambient temperatures and heatwaves with different forms of GBV, including intimate partner violence (IPV), sexual violence and early marriage.

**Methods:** We conducted a systematic review following a PROSPERO-registered protocol (CRD42025645675). We searched academic and grey literature to identify quantitative studies published between 1983 and 2024.

**Results:** We identified 23 eligible studies, the majority of which (n=20) reported a statistically significant positive association between higher temperatures and more reports of GBV. Notably, IPV and sexual violence were the most frequently reported outcomes. Three key pathways that link extreme heat to GBV were identified: (1) heightened economic and psychological stress; (2) increased exposure to enabling environments, such as displacement or disrupted services; and (3) the exacerbation of existing structural inequalities. Despite significant findings, evidence quality varied and reporting on intersecting risk factors such as gender, age and disability status was limited.

**Conclusion:** These findings highlight the critical role of climate change as a threat multiplier for GBV. Addressing climate change through mitigation and adaptation strategies must be gender-responsive, and consider the disproportionate impacts on women, especially related to increased risk of GBV.

**Keywords:** climate change, gender-based violence, extreme heat, intimate partner violence, planetary health; health equity, heatwaves



## FILIPINO MOTHERS ASSUMED ROLES ON ESSENTIAL TODDLER CARE: IMPLICATION ON UNIVERSAL CHILD HEALTH CARE

**Abstract ID:** 261 (Oral)

**Author(s):**

Nenita Baltazar Panaligan, Cavite State University

**Presenter:**

Nenita Baltazar Panaligan

**Background:** To foster growth and development to toddlers, it includes age-appropriate self-care and provision of age-appropriate toys and activities from primary caregivers such as parents or family members. The mothers as primary caregivers of a toddler child in the Philippines, her key roles never stop, instead, it only evolves and enriches. Universal health care includes a comprehensive range of services, from health promotion and prevention throughout the childhood period including the first three years of life.

**Methods:** To identify essential toddler care activities among mothers, concept synthesis and face to face interviews were done to first time and multigravida mothers to determine their assumed roles. From the results of these interviews, a tool was developed identifying childcare activities rendered by mothers perceived as their highest priorities. An instrument, Mother's Assumed Toddler Care Role Instrument (MATCaRI) was developed to establish the components of basic to essential toddler care activities.

**Results:** To examine the major elements and define the construct of essential toddler care, content validation index was performed resulted to 0.87 ( $p=0.05$ ) which included twelve components and reliability testing resulted using Cronbach  $\alpha = 0.82$  with 25 items surveyed on adolescent and multigravida mothers in the provinces of Cavite and Occidental Mindoro, Philippines.

**Conclusion:** Mothers' key roles in toddler care enriches and is evolving which includes optimal child health activities and services including home care activities, provision of safety, preventive or early intervention services for developmental and behavioral problems, acute and chronic care, coordination and follow-up for developmental problems provided by health professional, family and community for children ages 12 to 36 months. These findings can support WHO'S recommendation to use primary health care (PHC) approach grounding on what areas of toddler care mothers can be capacitated on for the improvement of health services they need, where and when they need them.

**Keywords:** toddler care, essential toddler care, maternal role assumption



## FRAGILE BUBBLE OF “POSITIVE LIVING”: AN ETHNOGRAPHIC STUDY OF TRANSITIONS OF STATUS AND NORMALCY AMONG MSM LIVING WITH HIV IN URBAN SHANGHAI

**Abstract ID: 122 (Oral)**

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**Presenter:**

Xiaoqing Xu

**Background:** As global public health increasingly frames HIV/AIDS as a manageable chronic disease, there remain gaps in understanding how this framing is adapted, experienced, and internalized by people living with HIV (PLHIV), particularly in non- Western sociocultural contexts. In China, although HIV/AIDS-related policies and treatment access have improved, stigma and stereotypes, especially toward MSM with HIV, persist. These individuals remain largely marginalized and socially invisible. This study argues that while “positive living”, a more upbeat and non-pathological view of HIV/AIDS, is possible, it is highly conditional and sustained only through specific support systems and environments.

**Methods:** This research draws on one year of ethnographic fieldwork at a Shanghai-based NGO supporting PLHIV. It is based on approximately 530 hours of participant observation, including daily NGO activities, PLHIV tea-parties, art support group sessions, meetings with artists and counselors, and the HIVxART exhibition. It also includes 32 in-depth interviews with MSM living with HIV, NGO staff, and art support group team members. These data explore how young MSM with HIV perceive HIV/AIDS, navigate life after status transitions, and test the boundaries of visibility within a fragile yet reassuring “bubble” created by the NGO and its allies.

**Results:** This study finds that “positive living” emerges through collective labor. From full acceptance to strategic invisibility, participants express a spectrum of responses to their HIV status. The NGO fosters emotional resilience and a sense of normalcy by offering safe spaces for sharing, identity-building, and community bonding. Yet, this bubble is precarious: it can rupture when funding is threatened or when identity exposure risks emerge.

**Conclusion:** This study demonstrates how the chronic disease narrative of HIV/AIDS intersects with local moral worlds, PLHIV’s complex identities, and lived experiences. It calls for culturally responsive, socially embedded HIV care, which recognizes the conditions and labor required to build and sustain “normalcy” in stigmatized populations.

**Keywords:** HIV/AIDS, LGBTQ+, chronic disease, medical anthropology, stigma, urban China



## FROM CONFLICT TO CARE: NUTRITION AS A DIVIDEND OF PEACE THROUGH GOOD GOVERNANCE IN BASILAN

**Abstract ID: 42 (Oral)**

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**Presenter:**

Jennifer S. Nandu

**Background:** Basilan, a predominantly Muslim province in Southern Philippines, has long struggled with the impacts of armed conflict, poverty, and underdevelopment—factors that continue to affect nutrition outcomes. Conflict-related displacement, disrupted livelihoods, and weakened health systems limit access to nutritious food and healthcare, particularly for women and children. Compounding this are poor data systems, limited internet connectivity, and a shortage of health professionals. With a 2021 poverty rate of 42.5%, Basilan ranks among the poorest provinces. Food insecurity and cultural beliefs further contribute to malnutrition. In response, the Provincial Nutrition Governance Program (PNGP), launched in 2020 by the Zuellig Family Foundation, was enhanced into the more adaptive Basilan Assistance Program (BAP) to address deeper systemic challenges.

BAP aims to:

- 1) strengthen inclusive health and nutrition systems aligned with Universal Health Care (UHC),
- 2) improve maternal and child nutrition outcomes, and
- 3) foster community-level behavior change.

**Methods:** Using an implementation research approach, the program empowered local leaders and health workers through training, data systems improvement, and partnerships with civil society for food security initiatives. It engaged both incoming and outgoing political leaders, community health workers, Muslim religious figures, and even former MILF combatants.

**Results:** From 2020 to 2024, Basilan saw major strides in governance and service delivery. The province deployed 255 community health workers and trained former combatants as Bangsamoro Nutrition Workers. Nutrition funding rose from Php 7.2M to Php 27M. By 2024, stunting in children under two declined by 6.26 percentage points—from 16.74% to 10.48%.

**Conclusion:** The BAP shows that adaptive, locally driven approaches can improve nutrition outcomes in fragile, conflict-affected settings. Through strong leadership, community engagement, and multi-sectoral collaboration, Basilan is making progress in building a more resilient and equitable health system.

**Keywords:** after care and public health nutrition, insurgency, leadership and governance



## FROM FIELDWORK TO POLICY INSIGHT: LONGITUDINAL REVIEW OF ENVIRONMENTAL HEALTH PRACTICES IN GIANYAR, BALI (DECEMBER 2021-JUNE 2025)

**Abstract ID:** 173 (Poster)

**Author(s):**

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**Presenter:**

Made Indra Wijaya

**Background:** Environmental sustainability is a key determinant of public health. In rapidly developing areas like Gianyar, Bali—where tourism and urbanization are accelerating—maintaining a healthy environment presents critical challenges. Since December 2021, students from the Faculty of Medicine and Health Sciences, Universitas Warmadewa, have conducted fieldwork in community health centers (Puskesmas), focusing on environmental health. This study synthesizes findings from 50 student-led projects conducted through June 2025 to identify environmental health risks, practices, and policies in Gianyar’s primary healthcare settings. The aim is to inform evidence-based strategies for promoting sustainable environmental health.

**Methods:** A longitudinal synthesis was carried out using data from 50 student field studies over 3.5 years. These involved environmental risk mapping, waste management assessments, sanitation audits, and interviews with healthcare workers and community members. Thematic analysis was applied to qualitative data, while descriptive statistics summarized quantitative findings. Stakeholder consultations were held to validate insights and assess policy relevance.

**Results:** Common issues identified included improper waste segregation (78% of Puskesmas), irregular sanitation practices (61%), and low environmental health literacy in surrounding communities. Improvements were noted following student-led interventions such as health promotion activities and community education. Collaboration between students, health officers, and local government supported minor policy revisions, especially in waste management protocols.

**Conclusion:** Sustained student engagement in community-based environmental health efforts has provided valuable insights and contributed to incremental policy change. The Gianyar experience illustrates how academic-community partnerships can support environmental sustainability in primary health care. This model may be applicable to similar regions across Southeast Asia.

**Keywords:** environmental health, community-based learning, public health policy, sustainability



## FROM WOK TO WELLNESS: DEVELOPING A RELIABLE INDEX TO MEASURE HEALTHY COOKING IN MALAYSIA

Abstract ID: 143 (Poster)

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### Presenter:

Prem Ananth Palaniappan

**Background:** Unhealthy dietary habits, driven by a shift from home-cooked meals to dining out are contributing significantly to Malaysia's rising burden of non-communicable diseases. As key influencers of food quality outside the home, food handlers play a critical role in shaping public health. However, validated instruments to assess healthy cooking behaviour among Malaysian food handlers are scarce. This study aimed to adapt, translate and validate the Healthy Cooking Index in Malay (HCI- M) to assess healthy cooking behaviours among Malaysian food handlers.

**Methods:** The tool underwent a rigorous adaptation process involving local contextualization of cooking practices, content validation by experts, forward-backward translation by linguistic and subject specialists, face validity testing, test-retest reliability and principal component analysis (PCA). Eligible participants were adult food handlers proficient in Malay, recruited through purposive sampling from food premises at University of Malaya and Kota Marudu, Sabah. Fast food and bakery establishments were excluded. Participants completed a self-administered questionnaire. Data analysis was conducted using SPSS and FACTOR software.

**Results:** The HCI-M demonstrated good item level and excellent scale level content validity (CVI=0.86 and 0.96 respectively) and was well-understood by the target group. Test-retest reliability showed acceptable to excellent agreement across items (Kappa > 0.40). PCA confirmed three meaningful components (Eigenvalue>1) with all items loading above 0.4. The components showed good to excellent reliability estimates in explaining variance in item responses (0.81-0.95).

**Conclusion:** The HCI-M is a valid and reliable tool to assess healthy cooking behaviours among Malaysian food handlers. Its use can guide researchers, educators and policy makers in designing effective interventions to improve cooking practices and reduce diet-related disease risk at population level.

**Keywords:** food Handlers, healthy cooking behaviour, Healthy Cooking Index, Malaysia, non-communicable diseases



## GOVERNANCE AT THE CLIMATE-MENTAL HEALTH INTERFACE: A POLICY AND STAKEHOLDER ANALYSIS IN SINGAPORE AND THE PHILIPPINES

Abstract ID: 187 (Poster)

**Author(s):**

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**Presenter:**

Dominique Anne S. Aluquin<sup>1</sup>

**Background:** Climate change and mental health are increasingly recognized as interlinked global challenges. Southeast Asia (SEA) is especially vulnerable, given its varying health system capacities and socioeconomic disparities. Singapore and the Philippines offer contrasting contexts shaped by differing political structures, healthcare systems, and climate risks, providing a unique opportunity for comparative analysis to inform evidence-based, context-sensitive policymaking. This study explores how Singapore and the Philippines address the climate change and mental health intersection in national policy. It maps policies at this intersection, including broader climate and health policies, evaluating their strengths and limitations and identifying opportunities for improved policy responsiveness. The goal is to generate actionable recommendations to guide national-level strategies that better integrate mental health within climate change adaptation.

**Methods:** Using the policy analysis triangle framework, this study examined policy content, actors, context, and processes. Document analysis was complemented by 20 semi-structured interviews with experts in climate change and mental health from both countries. Data were analyzed using hybrid thematic analysis, incorporating both inductive and deductive approaches.

**Results:** Preliminary findings indicated that although climate-health intersections were more explicitly acknowledged in the Philippines, owing to its high disaster-risk profile, mental health remains an implicit or overlooked in both countries. Stakeholders emphasized the pressing need for robust evidence to support policymaking and to prevent worsening mental health outcomes. Strengthening the recognition of mental health as a climate issue was critical to advancing planetary health and fostering resilient responses to climate change in SEA.

**Conclusions:** Integrating mental health into climate policy is essential for building truly resilient and equitable health systems. As SEA confronts escalating climate threats, proactive, evidence-informed policymaking at this intersection can drive transformative change toward planetary health.

Keywords: climate Change, mental Health, policy analysis, Philippines, Singapore



## GOVERNING HEALTH, NEGLECTING MINDS? A POLICY GAP ANALYSIS OF MENTAL HEALTH IN MASS GATHERINGS CONTEXTS

**Abstract ID: 66 (Poster)**

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**Presenter:**

Anqi LI

**Background:** The COVID-19 pandemic revealed how mental health, especially among frontline and non-medical frontline workers, who has often been overlooked in pandemic policies and approaches. Global health frameworks such as Pandemic Agreement and ILO have been updated while limited study focus on people such as frontline worker's mental health in large-scale international events. The study investigates how mental health is addressed in global and event-based pandemic policies and how mental health played the role as feedback for pandemic policy itself.

**Methods:** This study develops a conceptual framework linking policy design, frontline discretion, and mental health outcomes, grounded in Policy Feedback Theory, Street-Level Bureaucracy, and Event System Theory. Based on this model, a mixed-method survey evaluates frontline perceptions and coping during Tokyo 2020 and Beijing 2022.

**Results:** Preliminary findings on this case study show that the mental health needs of non-medical frontline workers were largely absent from formal pandemic policies. While recent global frameworks signal growing attention to psychosocial risks and well-being, integration of non-medical frontline experiences remains inconsistent across contexts, highlighting persistent policy and research gaps in pandemic governance.

**Conclusion:** This study reveals a growing but uneven recognition of mental health in global pandemic governance. While recent policy frameworks begin to address mental health and well-being, the past experiences and feedback of non-medical frontline staff remain underrepresented. By identifying these gaps and capturing perspectives from Olympic contexts, this research offers insights to inform more inclusive and equitable planning for future mass-gathering and pandemic governance as well.

**Keywords:** COVID-19, mental health, Olympics, mass gatherings, frontline workers, pandemic governance, policy feedback



## HEALTH LITERACY PROFILE OF CURRENT AND FUTURE HEALTHCARE PROFESSIONALS: BRUNEIAN CONTEXT

**Abstract ID: 180 (Oral)**

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**Presenter:**

Norhanani Nadzirah HAJI MD TAIB

**Background:** To deliver holistic, patient-centered care, healthcare professionals (HCPs) must understand and address the diverse health literacy (HL) needs of their patients. This requires HCPs to have a strong foundation in HL themselves. The objective of this study is to determine and compare the HL profile of current and future HCPs in Brunei Darussalam.

**Methods:** This cross-sectional study assessed HL levels using the 9-domain Health Literacy Questionnaire (HLO) with ad-hoc demographic questions. Future HCPs were students enrolled in medicine, dentistry, pharmacy, nursing, and midwifery undergraduate programs at the PAPRSB Institute of Health Sciences (PAPRSBIHS), Universiti Brunei Darussalam (UBD). Current HCPs included practicing doctors, dentists, pharmacists, nurses, and midwives in hospitals and community-based clinics in government setting. Mean HL scores were compared across groups, including those with and without formal health literacy training. Statistical analyses, including Kruskal-Wallis and independent t-tests, were performed using Microsoft Excel. Ethical approval was obtained from Medical and Health Research and Ethics Committee (MHREC), Ministry of Health, Brunei Darussalam.

**Results:** Both current and future HCPs generally agreed with statements related to HL, with current HCPs showing slightly higher overall scores. This may reflect their practical experience, continuing education, and established professional networks. Future HCPs showed strengths in finding and understanding health information, likely due to academic training. No statistically significant differences were observed across professional roles or courses, suggesting consistent HL education. Formal training significantly improved scores among current HCPs but was less impactful among future HCPs, highlighting a need for better integration of HL education in undergraduate programs.

**Conclusion:** Formal HL training enhances current HCPs' HL, but greater emphasis is needed in undergraduate curricula. Equipping HCPs with HL skills is key to improving patient communication and outcomes. Tailored training should be part of continuous professional development. Enhancing HL among HCPs globally is essential for reducing health disparities and strengthening health systems worldwide.

**Keywords:** Brunei Darussalam, health literacy, healthcare, healthcare professional, healthcare student



## HEALTH SYSTEM INTERVENTIONS FOR MIGRANTS AND DISPLACED POPULATIONS IN A CHANGING CLIMATE: A GLOBAL SYSTEMATIC REVIEW

Abstract ID: 141 (Oral)

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### Presenter:

Tanisha Naqvi

**Background:** Climate change increasingly impacts health systems and widens health inequities. It also drives human migration and displacement, and affects the health of migrant and displaced populations, who face financial, legal, and cultural challenges in accessing quality healthcare. Despite the intertwined nature of these phenomena, efforts to build climate-resilient and migrant-sensitive health systems are often isolated. This study identified specific health system interventions that address climate change hazards and the health needs of refugees, migrants, and displaced populations globally.

**Methods:** A global, systematic review was conducted to identify such interventions documented from 2014–2024 in peer-reviewed and grey literature publications. The review included English-language publications describing specific health system interventions addressing climate change and the health needs of refugee, migrant, and displaced populations. These were then further categorized by the World Health Organization health system building blocks framework.

**Results:** Ninety-five interventions were identified across 56 publications, after screening 3255 peer-reviewed studies and 3928 grey literature documents. Although the majority were short-term, reactive responses (e.g., service delivery during climate-related emergencies), some interventions addressed the longer-term health needs of climate-affected displaced and migrant populations, establishing mechanisms which could be sustained beyond a disaster event for protracted or slow onset crises. The review found new innovative interventions were emerging, but that many familiar, documented interventions can be adapted to meet the needs of migrant populations displaced or otherwise affected by climate change.

**Conclusions:** While immediate and ad-hoc actions emerged, it is urgent to implement integrated, system-wide approaches to proactively strengthen health systems to improve the health of displaced and migrant populations in a changing climate. Migrant populations must be included when building climate-resilient and environmentally sustainable health systems, as must climate-related considerations when building migrant-inclusive health systems.

Keywords: climate change, health system interventions, migration



## HIDDEN HARM: A QUALITATIVE STUDY ON THE HEALTH AND WELL-BEING OF CHILD DOMESTIC WORKERS IN MYANMAR

**Abstract ID: 39 (Oral)**

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**Presenter:**

Aye Thiri Kyaw

**Background:** Globally, an estimated 17.2 million children aged 5 to 17 works as child domestic workers (CDWs), with nearly one-third (3.7 million) exposed to hazardous working conditions. Climate change is increasingly driving families from rural areas to cities in search of survival, where children, especially girls, often end up working as domestic workers in urban households to support their families. While some CDWs face severely abusive and exploitative situations, for others, domestic work may serve as a short-term poverty alleviation strategy. The objective of this study is to examine the dimensions of working conditions and CDWs' perceptions of how they affect their health and well-being.

**Methods:** In 2023, we interviewed 33 former and current CDWs (aged 14-24) in Myanmar. All interviews were audio-recorded, transcribed, and translated from Burmese to English and analysed using thematic analysis.

**Results:** Findings indicate that child domestic workers (CDWs) come from diverse backgrounds, yet many face significantly abusive employment or host household situations. CDWs with exploitative employers often endure serious physical and emotional abuse, as well as harmful working and living conditions, leading to poor overall well-being. Live-in CDWs, particularly those who have migrated from rural to urban areas, appear to suffer high levels of psychological harm. This is closely linked to their isolation from family and friends, and limited access to education. Despite these hardships, many cannot return home, as climate-related crises such as flooding, extreme heat, and unpredictable weather have destroyed livelihoods and made rural life unsustainable.

**Conclusion:** A well-rounded response is needed to improve the working and living conditions of child domestic workers, addressing both immediate protection and long-term support. More research is crucial to uncover the full extent of physical and psychological harm they endure, especially in the context of climate-related displacement and urban vulnerability.

**Keywords:** Myanmar, child domestic work, climate change, well-being



## IDENTIFICATION AND DEVELOPMENT OF POTENTIAL NOVEL COMPOUNDS FROM NIGERIAN MEDICINAL PLANTS AGAINST NON-COMMUNICABLE DISEASES

Abstract ID: 171 (Poster)

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### Presenter:

Prof. Abdulmumin Yunusa

**Background:** Non-communicable diseases (NCDs) such as cardiovascular, hepatic, renal disorders, diabetes, and cancer are a growing public health challenge in Nigeria. Despite the widespread use of medicinal plants in traditional Nigerian medicine, limited scientific validation exists to support their clinical efficacy. Natural product-based therapeutics offer potential advantages in reducing toxicity and enhancing drug safety. The study aims to identify, isolate, and evaluate the bioactivity and mechanisms of action of novel compounds from selected Nigerian medicinal plants for the management of NCDs.

The specific objectives are:

1. Isolation and characterization of lead compounds using LC-MS and NMR techniques ( $^{13}\text{C}$ ,  $^1\text{H}$ , HSQC, COSY, NOESY, DEPT).
2. In vivo antioxidant evaluation of lead compounds in albino rats.
3. In vivo efficacy assessment of the compounds against NCD models in Wistar rats.
4. In-silico evaluation of mechanisms via molecular docking and ADMET profiling.
5. In vitro plaque reduction, neutralization, and cytotoxicity assays.
6. Toxicological profiling of the identified lead compounds.

**Methods:** Selected plant extracts will undergo bioassay-guided fractionation to isolate active compounds. Structural elucidation will be carried out using FTIR, LC-MS, and NMR. The efficacy of these compounds will be tested in rat models of NCDs, with analyses of key biochemical markers. Mechanistic studies include molecular docking and dynamic simulations. Toxicity and ADME profiles will be assessed using in silico tools and in vitro assays. Ethical approval has been obtained from the institutional animal ethics committee and the Kano State Ministry of Health. Data will be analyzed using SPSS, with significance set at  $p < 0.05$ .

### Results:

1. Isolation of novel, non-toxic bioactive compounds effective against NCDs.
2. Insight into their mechanisms of action.
3. Development of potential candidates for further preclinical development.

Keywords: Medicinal plants, Non-communicable diseases, bioinformatics, in-vitro, in-vivo



## IMPACT OF SOCIAL DETERMINANTS OF HEALTH ON PATIENT OUTCOMES OF A MEDICAL MOBILE CLINIC IN THE PHILIPPINES

**Abstract ID: 108 (Poster)**

**Author(s):**

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**Presenter:**

Mark Joseph Balunsat

**Background:** Health inequities remain a persistent issue in the Philippines, particularly in geographically isolated and disadvantaged areas (GIDAs). ABC's for Global Health (ABCGH) operates a Medical Mobile Clinic (MMC) in Pampanga to deliver primary care services to underserved communities. Recognizing that non-medical factors significantly affect health outcomes, this study aimed to evaluate the impact of social determinants of health (SDH) on patients served by the MMC.

**Methods:** A cross-sectional study was conducted from July 2019 to July 2020 across 15 communities in Pampanga served by the MMC. The clinic focused primarily on non-communicable diseases such as hypertension and diabetes. A total of 487 adult patients, with or without existing disease, participated in the study. Health outcomes were measured using the Short Form-36 (SF-36) survey, which categorizes physical and mental health across eight domains. Statistical analyses included logistic regression and Chi-square tests at a 95% confidence level.

**Results:** Social determinants such as age, comorbidities, education, employment status, social class, living conditions, and access to public services (e.g., healthcare, education, transportation, waste management) significantly influenced SF-36 health scores. Key associations were observed in physical health domains—physical functioning, role limitations, pain, and general health—as well as in mental health domains—vitality, emotional well-being, and social functioning. Physical Component Scores (PCS) were associated with age, comorbidities, education, and social class, while Mental Component Scores (MCS) were influenced by education and social class.

**Conclusion:** This study affirms that health outcomes are shaped not only by access to healthcare but by a range of intersecting social determinants. To improve patient outcomes, interventions must extend beyond clinical care to address systemic inequities in education, employment, and living conditions—underscoring the need for integrated, multi-sectoral health strategies in GIDA communities.

**Keywords:** medical mobile clinic, public health, social determinants of health



## IMPACTS OF MERCURY EXPOSURE ON HUMAN REPRODUCTIVE HEALTH

**Abstract ID: 62 (Oral)**

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**Presenter:**

Mengwei YUAN

**Background:** Mercury (Hg), a heavy metal with widespread distribution and extensive human exposure through food consumption. Developing fetuses are particularly vulnerable due to the efficient transfer of neurotoxic methylmercury (MeHg) across the placental and blood-brain barriers.

**Methods:** This study involved 15 mother-infant pairs in Hong Kong to investigate placental Hg transfer and dietary influences on the fetal exposure. For each pair, tissue samples were collected from three sites of umbilical cord from fetus to placenta and six random regions of placental basal and chorionic plates for various analyses, and alongside maternal and cord blood for complete blood count. Total Hg (THg) and MeHg levels were quantified by CVAFS. Stable isotopes ratios of nitrogen and carbon were measured via CF-IRMS.

**Results:** Isotopic analysis revealed that cord THg and MeHg levels were strongly associated with cord d15N (adjusted  $R^2 = 0.58$ ,  $p < 0.0001$ ). Each 1‰ increase in d15N, was linked to an average of 20.4 ng/g increase in THg and 13.3 ng/g increase in MeHg. Cord d13C exhibited a significant positive correlation with THg (adjusted  $R^2 = 0.18$ ,  $p < 0.01$ ), reflecting Hg inputs from d13C-enriched diets. Placental tissue comparisons further demonstrated a 15% reduction in THg ( $p < 0.001$ ) with a 32% reduction in MeHg ( $p < 0.001$ ) from the maternal-facing basal plate to the fetal-facing chorionic plate, may underscore partial but incomplete placental filtration of Hg species in the Hg transfer. Furthermore, markers of microcytic anaemia (MCH  $< 27$  pg; MCV  $< 80$  fL) were associated with increased placental THg, indicating that association of low haemoglobin production with the fetal Hg exposure.

**Conclusion:** These findings highlight the roles of maternal diet and health in shaping fetal Hg burdens. Public health strategies should integrate dietary guidance for pregnant women, particularly in coastal regions with high Hg exposure, and RBC indices to identify high risk pregnancies.

**Keywords:** human reproductive health, fetal health, mercury toxicity, stable isotopes tracing



## IMPLEMENTING EQUITABLE INTEGRATED CARE FOR OLDER ADULTS: CAPACITY ASSESSMENT OF HONG KONG'S SOCIAL CARE SECTOR

Abstract ID: 94 (Poster)

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### Presenter:

Ruby Yu

**Background:** Persistent healthcare inequities disproportionately affect health outcomes among vulnerable older adults, highlighting the urgent need for scalable, community-based prevention strategies. This study evaluates the capacity of Hong Kong's social care sector to implement the WHO ICOPE framework, a structured model for integrated care, as a pathway toward achieving universal health coverage.

**Methods:** Since 2023, a philanthropic initiative has engaged 44 non-governmental organizations (NGOs, representing 157 community centres, 75% coverage) to implement ICOPE, focusing particularly on screening and preventive interventions for over 50,000 adults aged 50+. The initiative employed a multi-pronged approach comprising: 1) workforce capacity-building through standardized ICOPE training, 2) partnership development for cross-sector referral pathways, 3) digital assessment integration, and 4) financial support through wage subsidies. Implementation capacity was assessed at baseline (January 2023) and follow-up (April 2025) using the ICOPE implementation scorecard, which evaluates service-level capacity (9 actions; 0-26 points) and system-level capacity (10 actions; 0-26 points), with a composite score ranging from 0 to 52. Changes in scores were analysed with paired t-tests.

**Results:** Among 42 NGO representatives completing both assessments, composite capacity scores increased by 22.5% (mean score: 33.4 to 40.9,  $p < .001$ ). Service-level capacities (mean score: 22.9) consistently outperformed system-level capacities (mean score: 18.0) at follow-up, though both improved significantly ( $p < .01$ ). Notably, the highest implementation rates were associated with service-level actions, particularly for community engagement (Action 1) and establishing referral networks (Action 6), with over 80% of NGOs sustaining these actions. In contrast, system-level Action 15 (developing financing mechanisms) showed the weakest implementation, with 40.5% of NGOs reporting minimal or no progress.

**Conclusions:** This study empirically demonstrates the growing capacity of Hong Kong's social care sector to implement ICOPE at the community level. The findings highlight NGOs' untapped potential as critical partners for advancing equitable healthy ageing strategies.

Keywords: healthy ageing, ICOPE, Integrated care, social care sector, Universal Health Coverage



## IMPLEMENTING PLANETARY HEALTH INTO THE NURSING CURRICULUM. A MULTI-METHODS STUDY PROTOCOL

**Abstract ID: 199 (Poster)**

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Julia Slark, The University of Auckland  
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**Presenter:**

Rubina Bogati

**Background:** In 2015 the legally binding Paris Agreement set a target to limit temperature rise to 1.5°C with a cap of 2°C. This is unlikely to be achieved. Healthcare staff will be working in a changing global climate. Education must inform students about the impacts of healthcare activities upon climate change. The objective of this study is to plan, implement and evaluate the implementation of planetary health into the nursing curriculum at the University of Auckland (UoA), including implementation of Indigenous traditional knowledge related to planetary health.

**Methods:** A single-site, multi-methods research study. Methods include an Integrative Review, a pre-and post-implementation observational study assessing student awareness of planetary health and the relevance to nursing, implementation of Planetary Health into the pre-registration nursing curriculum in the University of Auckland/Waipapa Taumata Rau School of Nursing (SoN), and a post-implementation qualitative evaluation.

This work will describe two studies within the wider project:

Study 1: Pre-Registration Nursing Students' knowledge and attitudes towards Planetary Health, human health, environmental sustainability, and relevance to Nursing (The PlaN Study)

Study 2: Integration of Planetary Health into the Pre-registration Nursing Curriculum. Process evaluation (The PlaN PE Study)

**Significance:** This will be the first time planetary health is included in the pre-registration nursing curriculum in the SoN at UoA. Understanding current knowledge, attitudes and awareness will inform us about how to embed planetary health into the curriculum in a meaningful way, while preparing nursing workforce and nurse leaders of the future. This project is unique in that it is placed in Aotearoa New Zealand where the bicultural world view of Te ao Māori has a strong influence on health care education and practice. Therefore, the project will include indigenous knowledge to support actions to benefit planetary health.

**Keywords:** climate change, curriculum, education, nursing, planetary health



## IMPROVING COMPENSATION SYSTEMS FOR MEDICAL TRAINEES: A HEALTH WORKFORCE POLICY MODEL FROM KOREA

**Abstract ID:** 176 (Poster)

**Author(s):**

Yula Nam, Seoul National University Hospital

**Presenter:**

Yula Nam

**Background:** Ensuring fair and sustainable working conditions for medical trainees is a critical component of building a resilient health workforce. In Korea, academic hospitals face the dual challenge of upholding labor law while addressing workload disparities among residents. At Seoul National University Hospital, a fixed extended work allowance had been paid uniformly to all residents regardless of actual overtime performed. While legally complaint, this system created significant inequities across departments, especially those with high-intensity clinical workloads, impacting morale and retention. This study aimed to reform the resident compensation structure to better reflect actual labor input, align with legal standards following the December 2024 Supreme Court ruling on “ordinary wages,” and support equitable workforce practices within the hospital.

**Methods:** A multidisciplinary task force reviewed department-specific duty hour records, legal implications, and financial impacts. The reform prioritized departments with consistently high workloads—such as surgery, thoracic surgery, and obstetrics & gynaecology.

Key measures included:

- (1) replacing flat-rate allowances with workload-based payments,
- (2) redefining stipend categories in accordance with legal rulings.
- (3) Introducing additional allowances funded by department-specific government reimbursement incentives to reflect workload and ensure fair, lawful compensation.

**Results:** The revised compensation framework helped correct internal pay imbalances, enhanced transparency, and ensured appropriate remuneration across both high- and low-burden departments. By incorporating legal guidance into payroll policy—particularly the December 2024 Supreme Court ruling—the hospital reduced future litigation risks while staying within fiscal limits. Resident feedback indicated greater perceived fairness and trust in the institution, which contributed to improved morale and retention. This case demonstrates how legally grounded, workload-sensitive compensation reform can serve as a practical tool to strengthen workforce policy in training hospitals. The hospital’s model offers practical guidance for similar institutions aiming to manage trainee labor more fairly and sustainably.

**Keywords:** compensation reform, health system management, medical trainees, work hours, workforce policy



## IMPROVING DONOR HUMAN MILK SAFETY: EVALUATION OF PRE- AND POST-PASTEURIZATION CONTROLS IN A COMMUNITY-BASED HUMAN MILK BANK IN THE PHILIPPINES

Abstract ID: 145 (Oral)

### Author(s):

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### Presenter:

Janella Ruth Y. Jerota

**Background:** Breastfeeding is a cost-effective, high-impact intervention for health, nutrition, and disaster risk reduction. It is the biological norm for infant feeding, yet when breastfeeding is not possible due to illness, death, or separation, newborns are left without access to their mother's own milk (MoM). In such cases, human milk banks (HMBs) serve a critical role in providing safe donor human milk (DHM), directly contributing to SDG 3 by reducing preventable neonatal mortality. In the Philippines, ensuring the microbiological safety of donor human milk (DHM) remains a challenge, particularly for emerging non-hospital-based facilities like the Laguna Human Milk Bank (LHMB). Established in 2022, LHMB operates through community-based donors rather than inpatient mothers, and continues to refine its processing systems unlike hospital-based HMBs with established standardized protocols. From July 2024 to April 2025, LHMB processed 58 DHM pools, with only 10% passing quality standards—exposing critical operational gaps.

**Methods:** A retrospective review was conducted on 58 DHM pools using internal records and pasteurizer logs. Microbial results were analyzed pre- and post-pasteurization, alongside process mapping and review of Holder pasteurization cycles (62.5°C for 30 minutes). Machine-generated logs were examined for discrepancies in heat duration recording.

**Results:** Pre-pasteurization testing failed in 48 of 58 pools (83%), confirming that the majority of contamination occurs early in the process. Only 4 of 58 pools (7%) failed post-pasteurization testing. Analysis of pasteurization logs revealed under-reporting of heat duration. Machine cycles ran correctly, yet software recorded insufficient time (typically  $\geq 10$  minutes), exposing a critical data integrity issue that risks mislabeling safe milk as non-compliant.

**Conclusion:** Contamination primarily occurred before pasteurization, with additional concerns in data recording. Key recommendations include donor hygiene education, stricter sanitation and cold-chain protocols, machine calibration, and data verification—practical steps to improve DHM safety and strengthen quality systems in line with SDG 3.

Keywords: Philippines, breastfeeding, contamination control, donor human milk, human milk bank



## INCIDENCE AND FACTORS ASSOCIATED WITH TODDLER MORTALITY IN MALAYSIA FROM 2018 - 2022

**Abstract ID: 159 (Poster)**

**Author(s):**

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**Presenter:**

Seetha Selvaraju

**Background:** Malaysia achieved the SDG 3.2 target of reducing under-5 mortality by 1984. However, toddler mortality (ages 1–4) has remained stagnant at 8–9 per 1,000 live births since 2000. This plateau signals an urgent need to investigate factors contributing to toddler deaths, particularly the distinction between preventable and non-preventable causes. This study aimed to (1) determine the incidence of toddler mortality in Malaysia from 2018–2022, (2) identify the causes of preventable and non-preventable deaths, and (3) examine the sociodemographic, parental, and environmental factors associated with these deaths.

**Methods:** A retrospective cohort study was conducted using secondary data from the Malaysian Ministry of Health's Stillbirth and Under-5 Mortality Death Form (2018–2022). Logistic regression was used to identify factors associated with preventable deaths.

**Results:** A total of 3,002 toddler deaths were reported, of which 56.6% were preventable. Injuries and external causes made up 18.6% of deaths—primarily drowning, asphyxia (40.7%), head trauma (29.9%), and motor vehicle accidents (17.2%). Females had higher odds of preventable death (OR = 1.24, 95% CI: 1.07–1.46). Higher maternal age (>34 years) (aOR = 1.638, 95% CI: 1.097–2.445), paternal education (secondary: aOR = 1.837; tertiary: aOR = 2.47), and receipt of social welfare support (aOR = 3.917, 95% CI: 1.394–11.010) were significantly associated with preventable deaths.

**Conclusions:** This study highlights key risk factors and causes of toddler mortality in Malaysia, offering evidence to inform targeted prevention strategies. Enhancing child safety, addressing social vulnerabilities, and improving intersectoral coordination are essential to reducing preventable toddler deaths.

**Keywords:** child safety, Malaysia, preventable deaths, sociodemographic factors, toddler mortality



## INEQUITY IN THE UTILISATION OF HEALTH SERVICES IN THAILAND DUE TO THE STRUCTURAL DETERMINANTS OF HEALTH: A SYSTEMATIC REVIEW

**Abstract ID:** 182 (Oral)

**Author(s):**

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**Presenter:**

Vorawee Varavithya

**Background:** The utilisation of health services in Thailand increased significantly after the implementation of Universal Health Coverage (UHC) in 2002. However, evidence suggested that the structural mechanisms that generate social stratification affected the utilisation of health services despite UHC. To explore the effects of the structural determinants on health inequities in Thailand, the Commission of Social Determinants of Health (CSDH) conceptual framework was used as a theoretical guide to assess the effects of socioeconomic status, education, gender, ethnicity, and occupation on the utilisation of health services.

**Methods:** This systematic review was conducted in Medline, Global Health, Scopus, and Web of Science. The inclusion criteria consisted of quantitative studies that analysed and quantified the difference in health service utilisation between population subgroups stratified by the structural determinants.

**Results:** A total of 19 studies were included in this review. The results showed that the poor utilised health services more than the rich, but there is a rich-poor disparity in tertiary care services. People with high-income occupations and higher-level education utilised more health services than their lower counterparts. Women are more likely than males to utilise health services. Ethnic minority migrants and stateless populations have the lowest level of health service use compared to Thais and the presence of health insurance does not necessarily increase the utilisation of health services in this group. Maternal and Child Health services have the least inequity gap due to high service coverage while dental service use showed substantial pro-rich inequity.

**Conclusion:** The Structural determinants of health contribute to inequities even after the implementation of UHC. To further close the inequity gap, future policy should focus on ensuring adequate and timely referral from primary health centres to specialist care, removing barriers to access care for ethnic minority migrants and stateless populations, and reducing the scarcity of dental resources in rural areas.

**Acknowledgement:** I would like to thank Associate Professor Shivani Singh, Institute for Global Health, University College London, for her invaluable supervision and support.

**Keywords:** health inequities, structural determinants of health, Universal Health Coverage



## INFLUENCE OF JOB DEMANDS AND RESOURCES ON NURSES' COMPASSION FATIGUE: MEDIATING ROLES OF SELF-COMPASSION, RESILIENT COPING, AND COMPASSION SATISFACTION

Abstract ID: 86 (Oral)

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### Presenter:

Tham Sin Wan

**Background:** Compassion fatigue poses significant challenges to nurses' well-being and the quality of patient care, particularly in high-demand, low-resource settings. The Job Demands-Resources (JD-R) model emphasises the influence of workplace conditions on employee outcomes; however, the mechanisms linking these factors to compassion fatigue remain underexplored.

This study examines how job demands and resources affect compassion fatigue, with self-compassion, resilient coping, and compassion satisfaction as mediators.

**Methods:** This cross-sectional study involved 493 nurses recruited from three public hospitals in the Klang Valley. Data were collected via an online survey form comprising sociodemographic information, and validated Malay versions of the Professional Quality of Life Scale (ProQOL-M), Copenhagen Psychosocial Questionnaire (COPSOQ-M), Self-Compassion Scale (SCS-M), and Brief Resilient Coping Scale (BRCS-M). Data analysis included descriptive statistics, partial least squares structural equation modelling (PLS-SEM), and Importance-Performance Map Analysis (IPMA) using SmartPLS version 4.0.8.5.

**Results:** Structural equation modelling revealed that job demands significantly increased compassion fatigue ( $\beta=0.496$ ,  $p<0.001$ ), while job resources had no direct effect ( $\beta=0.003$ ,  $p=0.947$ ). Self-compassion mediated the effects of job demands ( $\beta=0.057$ ,  $p=0.023$ ) and job resources ( $\beta=-0.024$ ,  $p=0.028$ ) on compassion fatigue. Compassion satisfaction mediated the effect of job resources on compassion fatigue ( $\beta=-0.050$ ,  $p<0.001$ ), and serial mediation via self-compassion and compassion satisfaction was also significant ( $\beta=-0.009$ ,  $p=0.014$ ). The serial mediation effect from job resources through resilient coping and compassion satisfaction was significant ( $\beta=0.018$ ,  $p=0.001$ ), indicating indirect protective effects.

**Conclusions:** The study reveals that personal and professional resources significantly buffer the impact of job demands on compassion fatigue among nurses. These findings provide evidence for policymakers to develop targeted interventions that enhance self-compassion, resilient coping, and compassion satisfaction. Embedding these elements into workforce policies can reduce compassion fatigue, enhance nurse well-being, and reinforce the healthcare system's ability to deliver sustainable, high-quality care.

Keywords: healthcare settings, personal resources, quality of life, work environment



## INSOMNIA IN A PRIMARY CARE SETTING: A CROSS-SECTIONAL STUDY OF PREVALENCE AND ASSOCIATED FACTORS AMONG ADULT PATIENTS

Abstract ID: 220 (Poster)

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### Presenter:

Sapnaa Satthiyasilan

**Background:** Insomnia is a rising global health concern, affecting 16.2% of adults and contributing to significant physical, psychological, and social consequences. As the first point of contact, primary care plays a crucial role in early detection and intervention. In Malaysia, data on insomnia in primary care are limited and outdated, despite evolving diagnostic criteria and recognition of its burden. This study aims to determine the prevalence and associated factors of insomnia to inform targeted prevention and management strategies.

**Methods:** A cross-sectional study was conducted at a university-based primary care clinic in Kuala Lumpur between December 2024 and March 2025. A total of 453 adult patients were recruited via systematic random sampling. Data collected included sociodemographic variables; depression and anxiety assessed using the Patient Health Questionnaire-9 (PHQ-9) and Generalized Anxiety Disorder-7 (GAD-7); financial distress measured using the Financial Well-being Scale (FWS); and insomnia severity using the Insomnia Severity Index (ISI). Multivariable logistic regression was performed to identify factors associated with clinical insomnia.

**Results:** The median age of participants was 55 years, with the majority being female (60.3%). Insomnia symptoms were present in 38.8% of participants, with 13.2% having clinical insomnia and 25.6% subthreshold insomnia. Multivariable analysis showed that clinical insomnia was significantly associated with younger age (18-34 years) (aOR = 3.91, 95% CI:1.25-12.19; p = 0.019); non-Malay ethnicity (aOR = 2.52, 95% CI:1.30-4.89; p = 0.006); financial distress (aOR = 3.08, 95% CI:1.15-8.34; p = 0.025); and the presence of depression or anxiety (aOR = 6.25, 95% CI:3.06-12.73; p < 0.001).

**Conclusion:** Insomnia is highly prevalent in primary care and is associated with younger age, non-Malay ethnicity, and financial and psychological distress. These findings provide updated prevalence estimates and highlight the need for greater recognition and awareness of insomnia in primary care settings to support early detection and more effective management.

Keywords: insomnia, financial distress, prevalence, primary care, psychological distress



## INTEGRATING HEALTH AND ETHICS IN CLIMATE ADAPTATION: A GLOBAL REVIEW OF NATIONAL ADAPTATION PLANS

**Abstract ID: 116 (Poster)**

**Author(s):**

Muskaan Khepla, SingHealth Duke-NUS Global Health Institute

**Presenter:**

Muskaan Khepla

**Background:** As the climate crisis intensifies, national adaptation strategies – including National Adaptation Plans (NAPs), National Adaptation Program of Action (NAPAs), and related policy documents – play a critical role in shaping how countries protect public health. These documents are key instruments for defining climate-health priorities, yet little is known about the extent to which they include concrete health interventions or address the ethical imperatives of equity and vulnerability. This study examines how national adaptation strategies globally integrate health-related interventions and ethical considerations. It aims to identify which countries are addressing health comprehensively, which interventions are prioritized or overlooked, and how vulnerable populations are represented (or neglected) in climate adaptation planning.

**Methods:** A total of 130 national adaptation documents (NAPs, NAPAs and related strategies) were reviewed. ChatGPT- Pro was used for initial content extraction, followed by manual coding and qualitative synthesis. Documents were assessed for five health-related intervention categories: disaster risk reduction, health workforce training, heat adaptation, mental health, and vaccination. Mentions of vulnerable groups were also analyzed.

**Results:** Only 10% of countries addressed four or more of the five key health themes. Disaster risk reduction (48%) and health workforce training (46%) were the commonly most included interventions. In contrast, mental health (7%) and vaccination (6%) were severely underrepresented. While vulnerable groups such as women, children, and elderly were mentioned in many strategies, few included targeted interventions to address their specific needs, highlighting a gap between recognition and action.

**Conclusions:** Despite growing recognition of climate-health risks, most national adaptation strategies fall short of comprehensive or equity-focused responses. Strengthening the ethical and programmatic integration of health in these strategies is critical to ensure inclusive and just climate adaptation.

**Keywords:** climate change, ethics, National Adaptation Plans, National Adaptation Program of Action, public health



## INTERSECTIONAL INEQUALITIES IN BODY-MASS INDEX LONGITUDINAL TRAJECTORIES AMONG ADULTS IN SEACO, MALAYSIA

Abstract ID: 233 (Oral)

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### Presenter:

Aaron Koay

**Background:** In Malaysia, the risk of obesity varies across social strata and over the life course. Combining intersectionality—examining how social structures interlock to produce compounding (dis)advantages—with longitudinal modelling of body-mass index (BMI) trajectories may reveal nuanced inequalities. The objective of this study is to explore intersectional inequalities in BMI trajectories among adults of the South East Asia Community Observatory (SEACO) in Segamat, Malaysia.

**Methods:** Pooling the SEACO Health Round Surveys 2013, 2018 and 2023, individuals who participated in at least two Surveys were included. Intersectional strata were constructed by cross-stratifying sex (Male, Female), ethnicity (Malay, Chinese, Indian, Orang Asli, Non-citizen), household income level (B40, M40, T20) and cohort (Silent, Baby boomer, X, Y, Z). BMI (kg/m<sup>2</sup>) trajectories were modelled using two longitudinal I-MAIHDA models: A) Null model; and B) Main effects model adjusting for the stratum variables and their interactions with age. Slope and intercept variance partition coefficients (VPCs) and proportional change in variance (PCVs) between models were calculated.

**Results:** Among 12,941 individuals, 129 strata were constructed. Mean age was 53.3 (SD: 15.4) and mean BMI was 27.2 (SD: 5.6). BMI increased with age, peaking in middle age and declining thereafter, with younger cohorts peaking earlier in life. Intersectional inequalities are evident, e.g., Female Orang Asli consistently had higher BMI across trajectories, whereas Male Non-citizens had lower BMI. In model A, the slope and intercept VPCs were 21.09% and 9.60%, which fell to 11.19% and 2.11% in model B, corresponding to slope and intercept PCVs of 49.81% and 79.73%. This indicates higher within- than between-stratum variation, with most between-stratum variation explained by additive effects.

**Conclusion:** While intersectional inequalities in BMI trajectories were uncovered, substantial within-stratum variation suggests the need for combining universal and targeted interventions to reduce obesity inequalities in Malaysia.

Keywords: Malaysia, obesity, health equity, intersectionality, multi-level modelling



## INTIMATE PARTNER VIOLENCE AND PREGNANCY OUTCOMES IN INDONESIA: FINDINGS FROM THE 2024 NATIONAL WOMEN'S LIFE EXPERIENCE SURVEY

**Abstract ID: 115 (Oral)**

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**Presenter:**

Nohan Arum Romadlona

**Background:** IPV is a significant global health concern, particularly in low- and middle- income countries such as Indonesia. IPV has been linked with complications such as preterm birth, low birth weight, and other obstetric complications, as well as mental health challenges, which can further impact reproductive health. This study assesses the relationship between intimate partner violence (IPV) and pregnancy outcome.

**Methods:** The data employs a cross-sectional design using secondary data from the 2024 National Women's Life Experience Survey with a total of 7,884 ever-married women aged 15 to 49 years old. The primary outcome variable is pregnancy outcome, which was categorized into live birth and pregnancy loss (miscarriage/abortion/stillbirth). The independent variables include any form of IPV: restriction, economic violence, psychological violence, physical violence, and sexual violence. Logistic regression was used to analyze IPV and pregnancy outcome, controlled by sociodemographic characteristics.

**Results:** Among the respondents, 19.0% were reported to have experienced pregnancy loss in their life. This study showed that restriction (aOR=1.25; 95%CI: 1.11-1.43) and psychological violence (aOR=1.28; 95%CI: 1.05-1.57) were associated with pregnancy loss. However, there were no statistical significance in physical, sexual, and economical violence with pregnancy outcome.

**Conclusions:** These findings suggest that partner control and psychological abuse may influence women's autonomy, impacting health-seeking behaviors and access to maternal health services, which in turn may contribute to adverse pregnancy outcomes.

**Keywords:** Indonesia, intimate partner violence, pregnancy loss



## LARVICIDAL ACTIVITY OF ANNONA SQUAMOSA (ATIS) LEAVES EXTRACT ON AEDES AEGYPTI

**Abstract ID: 33 (Poster)**

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**Presenter:**

Marisol S. Molina-Adorable

**Background:** Vector-borne diseases (VBDs), particularly mosquito-borne diseases, pose a substantial threat to the population in the world. These VBDs infect over a billion people each year, contributing to more than a million deaths globally. Dengue is one of the VBDs that presents a significant threat to public health and medicine, with its economic and health impacts on the rise. Mosquito vector control measures are crucial for preventing dengue by stopping the spread of mosquito populations and enhancing environmental sanitation to improve public health services. Effective mosquito control is pivotal in the epidemiology of vector-borne diseases, but no successful preventive measures have been recorded for dengue vector control. Hence, possible alternatives to chemical larvicides have been explored, including plant alcoholic extracts. This study determined the larvicidal efficacy of *Annona squamosa* ethanolic leaf extracts against third instar larvae of *Aedes aegypti*.

**Methods:** Three replicates of varying concentrations of *Annona squamosa* ethanolic extract (i.e., 10%, 40%, and 70%) versus positive (Novaluron) and negative controls (tap water) were used to determine larval mortality.

**Results:** Greatest larval mortality was noted using the 70% concentration (i.e., 24% versus the observed values of 20% and 8%, respectively for the 40% and 10% ethanolic concentrations). Relative to the controls, the mean differences in the mortality rates of the *Aedes aegypti* larvae across the leaf ethanolic concentrations were statistically significant (i.e.,  $p$ -value  $< 0.05$ ). There was increasing trend in larval mortality over time, but 50% lethal dose was not achieved.

**Conclusion:** In conclusion, the different *Annona squamosa* ethanolic leaf extracts could be used as alternative botanical larvicides against *Aedes* species.

**Keywords:** *Aedes aegypti* mosquito, *Annona squamosa*, larvicidal activity



## LISTENING BEYOND WORDS: A PHENOMENOLOGICAL STUDY ON PARENTING A CHILD WITH AUTISM

**Abstract ID: 216 (Oral)**

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**Presenter:**

Julienne A. Formeloza

**Background:** Parenting a child with Autism Spectrum Disorder (ASD) brings emotional, financial, and social challenges. Caregivers face overwhelming responsibilities, limited resources, and persistent stigma. Despite growing awareness, support systems remain inadequate, leaving families with minimal help. Understanding their lived experiences is essential for shaping effective support systems and policies.

**Methods:** This qualitative phenomenological study explored the experiences of 11 parents of children aged 3 to 15 with a formal ASD diagnosis. Participants were selected using purposive snowball sampling. Exclusion criteria included non-parental caregivers, lack of diagnosis, or conditions affecting participation. Semi-structured interviews were conducted in person or online, based on preference. Thematic analysis identified recurring patterns while maintaining ethical standards and confidentiality.

**Results:** Seven core themes emerged: Unveiling Autism Realities captured the initial shock and grief; A Heart that Knows No Bound reflected emotional strain and deep love; The Price of Unconditional Love highlighted financial and caregiving burdens; Strength in Solitude revealed isolation due to limited support; A Spark in the Shadows emphasized faith as a coping tool; Nurturing the Spectrum involved creative parenting and sacrifice; and A Journey of Small Victories showcased resilience through progress. These themes reveal both struggles and adaptive strengths.

**Conclusion:** The study highlights the urgent need for accessible support, affordable care, financial aid, inclusive education, and increased public awareness. Strengthening support networks and government programs is vital. Further research should explore long-term impacts and assess existing services. Collaboration among families, professionals, and policymakers is key to improving outcomes for those affected by ASD.

**Acknowledgements:** The researchers thank Prof. Gilbert D. Bernardino Jr., RN, MPH, for his mentorship. This study was self-financed and received no external funding.

Footnote: The study followed ethical standards, with informed consent and approval from the University of the Cordilleras Ethics Committee.

Keywords: Autism Spectrum Disorder, coping strategies, parental experiences



## MACHINE LEARNING MODEL ENHANCES PREDICTIVE CAPABILITY OF MODIFIED EARLY WARNING SYSTEM (MEWS)

**Abstract ID: 111 (Oral)**

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**Presenter:**

Yu Pin Ku

**Background:** Early recognition of impending systemic failure with proper medical cares is critical for timely interventions. The Modified Early Warning Score (MEWS) is an essential tool for the identification of deteriorating patients. Considering the increasing complexity of patient conditions, the MEWS system does not take into account factors such as gender, age, chronic diseases, and other risk factors. This results in overly frequent alerts from the automated warning system, with a high number of false alarms that hinder healthcare professionals from making accurate clinical judgments. By the predictive model results, detect critical risk factors at an early stage, providing for clinical decision-making and enhancing the overall quality of patient care.

**Methods:** Retrospective data of cases in the chest wards of a medical center about 4108 patients from January to June 2021. Features use the patient's intervention measures and comorbidity parameters during hospitalization to understand the patient's physical condition, and use machine learning to let the computer learn and judge, and then predict the patient's final condition. Four model evaluation indicators were used, and XG Boost was the best prediction model, so it was adopted as the final model for prediction in this study.

**Results:** The relationship between all feature values and the predicted target (death) is moderately correlated with signing DNR, the shift time of the nursing station, and the patient's age. Among the comorbidities, diabetes, hypertension, heart failure, and renal failure have a greater impact. The staff accept the MEWS easily because of the clear design. The incidence of CPR was reduced from 2.42% to 1.58% after application of the MEWS in 2022. The MEWS helped the improvement of the clinical outcomes in our study.

**Conclusion:** The establishment of the MEWS system is the basis for improvement. Comorbidities are graded according to disease severity to more accurately predict the impact of comorbidities.

Keywords: Machine Learning (ML), MEWS



## MANAGEMENT OF OPEN FRACTURES IN SRI LANKA USING AEFIX: A FRUGAL INNOVATION APPROACH TO IMPROVE TRAUMA CARE EQUITY

Abstract ID: 213 (Poster)

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### Presenter:

Sivananthan Sashikaran, MBBS, MD, MRCS(Eng.), ChM (Edin)

**Background:** Sri Lanka faces over 38,000 road accidents annually, causing more than 8,000 serious injuries, especially open fractures needing external fixation. Delayed care can result in disability, amputation, or death. Access remains limited due to the high cost, clamps alone make up 90% of system costs, and shortages of surgical personnel. AEFix clamps offer a breakthrough: made entirely of aluminum, they provide a durable, functional alternative at just 1% of the standard external fixation price. This study aims to assess the safety, effectiveness, and patient outcomes of the AEFix external fixator compared to locally available devices in Northern Province, Sri Lanka.

**Methods:** A prospective multicentre randomized non-inferiority trial began in May 2025 and will run for one year at orthopaedic units in Northern Sri Lanka. 50 patients with open femur and/or tibia fractures will be recruited and randomized to receive AEFIX fixators or standard external fixators. Ethical approval (J/ERC/24/157/NDR/0317), National Medicines Regulatory Approval (CTM/046/2025), and

Sri Lanka Clinical Trial registration (SLCTR/2025/018) have been obtained. Patients will be followed during admission and at 1.5-, 3-, and 6-months post-procedure.

**Results:** Preliminary results from the first group of recruited patients (n=5) indicate that the device performs well in this clinical setting. Post-op X-ray examination confirmed improved fracture alignment, and there were positive signs in healing and low complications rates up to this point. Preliminary results with low-cost AEFix clamps are promising. This trial will assess outcomes and costs of AEFix, supporting broader efforts to improve trauma care in low-resource settings.

**Conclusion:** Sri Lanka faces a high burden of complex fractures from road traffic injuries. This study is a warranted step toward expanding access to affordable, high-quality external fixation options. This project is supported by the SingHealth Duke-NUS Musculoskeletal Science Academic Clinical Programme Grant Award (13/FY2023/P2/13-A153).

Keywords: global Surgery, frugal innovation, open tibia fracture, orthopaedic, health Equity



## MAXIMIZING NURSING LEADERSHIP IN ACHIEVING GLOBAL HEALTH GOALS IN THE WESTERN PACIFIC REGION

Abstract ID: 242 (Poster)

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### Presenter:

Aprille C. Banayat

**Background:** The Western Pacific Region (WPR) is home to nearly a third of the global nursing workforce. Regional disparities are apparent, threatening progress towards global health goals. Though nurses are recognized as essential players, there exists limited data on how nursing leadership is maximized to achieve these goals. The objective of the study is to describe nursing leaders' perceptions on challenges and solutions in their countries, and the role of nursing leadership in addressing global health challenges.

**Methods:** A 6-week online global health nursing leadership course was implemented with participants from WHO WPR countries. Participants answered a discussion forum to identify challenges, how they address these challenges, and how nursing leaders contribute to addressing global health challenges as part of the module synthesis. Thematic analysis was used on the text to identify themes.

**Results:** Eighteen (18) nursing leaders across eleven countries in WPR contributed their answers. The following themes emerged as their challenges: workforce shortages and maldistribution; migration and retention; burnout, mental health, and workload; education and training constraints; gender and equity gaps; and policy and systems support. They identified the following to address nursing challenges: expanding and strengthening the nursing workforce; countries are investing in education reforms to align with international standards; enhancing leadership, policy engagement, and governance; improving well-being, working conditions, and gender equity; and aligning with the WHO Global Strategic Directions for Nursing and Midwifery (2021-2025). Lastly, participants identified how nursing leadership contributes to addressing global health challenges through: policy influence and system-level reform; innovative education and workforce development; research and evidence-based practice; community empowerment and people-centered care; and advocacy, visibility, and cultural transformation.

**Conclusions:** Local and contextualized knowledge, experience, and expertise of nurse leaders in their respective countries and practice settings should be recognized to maximize the existing workforce's ability to identify challenges and opportunities for achieving global health goals in the WPR.

Keywords: health workforce education, nursing leadership, nursing workforce



## MATERNAL, NEWBORN AND CHILD HEALTH SERVICE DELIVERY FOR MYANMAR MIGRANTS ALONG THE THAILAND-MYANMAR BORDER FROM AN IMPLEMENTATION SCIENCE PERSPECTIVE

**Abstract ID: 132 (Oral)**

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**Presenter:**

Zin Nwe Win

**Background:** Multiple factors affect access to maternal, newborn and children health (MNCH) services among Myanmar migrants who cross the Thailand-Myanmar border. Implementation science frameworks such as the Practical, Robust Implementation and Sustainability Model (PRISM) can guide the design, implementation and evaluation of programs by mapping out context and key outcomes to measure. The objective of this study is to summarise the current evidence on MNCH service delivery, including barriers and facilitators for migrants from Myanmar along the Thailand-Myanmar border to guide policy and program development.

**Methods:** Two independent reviewers systematically searched on PubMed, Embase and Scopus, without date limitations. Studies were included if they involved 1) migrants from Myanmar at the Thailand-Myanmar borders, and 2) reported on health outcomes, service delivery, or health financing for participants aged less than 18 years old and those who are pregnant. Published studies as of 17 February 2025 were included without language restrictions. Findings were summarised using PRISM.

**Results:** A total of 101 studies, published 1989 to 2025, were included from 1451 records. Majority of the studies were conducted in Tak province (90%). Infectious diseases were most commonly evaluated (23%). Recipient characteristics were well characterized: insecure legal status in Thailand, poor literacy, mobile work arrangements, and long distances to health facilities. Organizational characteristics involved healthcare capacity limitations. Recipients value culturally sensitive services, mobile clinics near workplaces, and informal support networks. Providers expressed high commitment to service delivery despite manpower challenges. Network of public and non-governmental service providers facilitated service delivery, but restrictive pathways in Thailand for nationality verification were reported. Intervention outcomes varied across studies, with treatment outcomes, nutritional status, and mortality more commonly reported as effectiveness measures.

**Conclusion:** Contextually relevant factors and key outcomes for consideration were synthesized using PRISM. This, coupled with active multi-sectoral stakeholder engagement, can guide the development of contextually relevant MNCH programs along the Thailand- Myanmar border.

**Keywords:** Myanmar, implementation science, maternal and child health, migrants, service delivery



## MENTAL HEALTH DISPARITIES BY SEX: UNRAVELING DETERMINANTS AND CHANGES DURING RESETTLEMENT PROCESS

Abstract ID: 65 (Oral)

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### Presenter:

Meng Zheng

**Background:** Significant sex differences in mental health have been observed among resettled refugees, yet how these disparities and their determinants evolve over time remains unclear.

This study sought to unravel determinants and changes in mental health disparities by sex in a quantitative way.

**Methods:** Data were drawn from Waves 1(2013–2014), 5(2017–2018), and 6(2023) of the ten-year Building a New Life in Australia (BNLA) cohort. PTSD and high risk of severe mental illness (HR-SMI) were measured using the PTSD-8 and Kessler-6 scales. Fairlie decomposition was used to quantify the disparity (total predicted probability difference) and the contribution proportion of individual determinants (explained difference/total predicted probability difference $\times$ 100%).

**Results:** A total of 2261 refugees were included at Wave 1, with 1833 (81.1%) and 905 (40.0%) followed up at Waves 5 and 6. Female refugees consistently experienced poor mental health, with a total predicted probability difference decreasing from the initial (Wave 1, 8.33%) to middle stage (Wave 5, 4.61%), then increasing in the long term (Wave 6, 6.31%). Determinants varied across waves, but poor status of physical health-related factors was a persistent contributor (e.g., total contribution of predicted probability difference: PTSD 57.42%, 70.95%, 60.05%). Family conflict contributed at the initial (contribution proportion: HR-SMI 4.53%) and long-term stages (PTSD 8.68%), while financial hardship (PTSD 13.41%; HR-SMI 24.07%), marital status (HR-SMI 25.82%), and family concerns (PTSD 8.39%) were key at the middle stage. Unmet support or help during COVID-19 was major contributor at Wave 6 (PTSD 23.93%; HR-SMI 8.39%).

**Conclusion:** Sex disparities in refugee mental health require sustained attention and tailored, stage-specific strategies. Providing necessary physical health care and addressing family conflict (initial/long-term stage), financial hardship (middle stage), and female-specific needs during crises like COVID-19 is essential for promoting mental health equity.

Keywords: BNLA cohort, determinants, humanitarian refugees, mental health, sex disparity



## MENTAL HEALTH AS A “SECURITY CONCERN, ETHICAL IMPERATIVE, AND WISE INVESTMENT”: A QUALITATIVE STUDY EXPLORING FRAMINGS IN GLOBAL MENTAL HEALTH

**Abstract ID: 60 (Poster)**

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Amanda Low, Saw Swee Hock School of Public Health, National University of Singapore and National University Health System

**Presenter:**

Amanda Low

**Background:** Mental health, as an emerging key global health issue, is subject to being framed in various ways in the realm of global mental health (GMH) policymaking and practice.

This study adopts just pluralism and the notion of epistemic communities to explore the actors involved in these framings and the ways in which three framings, i.e. securitisation, moralisation and technification, come to be and are contested within GMH.

**Methods:** The study adopts a qualitative approach to explore the securitisation, moralisation and technification of mental health in the field of GMH. Thematic analysis was performed on data derived from semi-structured key informant interviews with 32 global mental health actors.

**Results:** The results provide empirical support to the three framings in global health prioritisation. Additionally, inductive coding reveals emergent sub-themes and additional actors who contribute to or challenge the securitisation, moralisation and technification of mental health. Insights suggest that framings of mental health co-exist and are advanced and contested by a range of actors including governments, international organisations, civil society, academia, the media, and religious leaders and faith communities.

**Conclusions:** Being cognizant of the ways in which mental health is framed and the actors involved in advancing or challenging particular framings of mental health is crucial to designing and implementing mental health care policies, interventions and systems that equitably serve the needs of individuals and populations at the community, (sub-) national and international levels. It is essential to activate a context-sensitive and relevant network of GMH stakeholders who can leverage their positions and expertise to effect tangible outcomes and improvements in the mental health and lives of persons with lived experience.

**Keywords:** epistemic communities, framing, global mental health, just pluralism, moralisation, qualitative research, securitisation, technification



## MODIFYING EFFECT OF PARTICULATE MATTER (PM<sub>10</sub>) ON ASSOCIATIONS OF AMBIENT TEMPERATURE ON CAUSE-SPECIFIC MORTALITY IN KLANG VALLEY

Abstract ID: 221 (Oral)

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### Presenter:

Muhammad Alfatih Bin Pahrol

**Background:** Extreme temperatures and air pollution are well-established environmental risk factors for mortality. While the independent effects of temperature have been extensively studied, less is known about how air pollution, particularly particulate matter less than 10 micrometers (PM<sub>10</sub>), may modify temperature-related mortality in tropical urban settings. This study aims to assess the short-term effects of ambient temperature on non-accidental, cardiovascular, and respiratory mortality in Klang Valley, Malaysia, and to examine the modifying role of PM<sub>10</sub>.

**Methods:** A time-series analysis was conducted using daily mortality, temperature, and air pollution data from 2008 to 2023. Distributed lag non-linear models (DLNMs) with quasi-Poisson regression were used to estimate cumulative temperature-mortality associations across a 21-day lag period. Analyses were stratified by PM<sub>10</sub> category using a cut-off based on the WHO 24-hour Air Quality Guideline (WHO AQG) 2021 (45 µg/m<sup>3</sup>). Heat and cold effects were evaluated by comparing the 99th vs 90th percentile and 1st vs 10th percentile temperatures, respectively.

**Results:** Approximately 33% of days exceeded the WHO AQG level. Non-accidental mortality increased at both heat (RR: 1.07, 95% CI: 1.04-1.11) and cold extremes (RR: 1.11, 95% CI: 1.06-1.17) without clear modification by PM<sub>10</sub>. Cardiovascular mortality was more strongly associated to cold, rising by 17% (RR: 1.17, 95% CI: 1.07-1.27) however, this association diminished under both PM<sub>10</sub> levels. In contrast, respiratory mortality increased at high temperatures (RR: 1.35, 95% CI: 1.22-1.50), with risks significantly elevated across PM<sub>10</sub> categories.

**Conclusion:** Temperature extremes significantly impact mortality in Klang Valley, with varying effects by cause of death. PM<sub>10</sub> modifies these associations, particularly enhancing heat-related respiratory mortality. These findings highlight the need for integrated public health strategies that address both temperature and air pollution to protect vulnerable populations in tropical urban environments.

Keywords: air pollution, ambient temperature, cardiovascular, mortality, respirator



## MORE THAN CONNECTED: RETHINKING GLOBAL HEALTH THROUGH INDIGENOUS RELATIONALITY

**Abstract ID: 91 (Oral)**

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**Presenter:**

Meylin Zink Yi

**Background:** Global health frameworks increasingly acknowledge the interconnections between people, place, and environment, yet often overlook the spiritual, ethical, and values-based dimensions that are central to Indigenous understandings of health.

**Methods:** This study draws on interviews with 18 Indigenous participants from diverse Nations and geographic regions to explore five core values—respect, balance, reciprocity, care and responsibility, and interconnectedness—that form the foundation of wholistic health from an Indigenous perspective. In this context, health is framed not as an individual state, but as a dynamic, balance across physical, mental, spiritual, and community dimensions, extending to natural and spiritual realms. These values are not treated as isolated concepts, but as interrelated principles that guide relationships, responsibilities, and collective wellbeing over time.

Using narrative inquiry and grounded theory, the research contrasts Indigenous perspectives with dominant Western models such as One Health, EcoHealth, and Planetary Health. While these frameworks acknowledge ecological interdependence, they often remain focused on human-centred outcomes and rarely engage with Indigenous ethical systems or expanded definitions of community. The study develops a conceptual model grounded in Indigenous values that redefines community to include human, other-than-human, and spiritual relationships. This relational framing addresses systemic health inequities by centring Indigenous knowledge systems and ethics; it responds to environmental degradation by emphasizing reciprocal responsibilities toward land, water, and other-than-human beings.

**Results:** Five interrelated values—respect, balance, reciprocity, care and responsibility, and interconnectedness—emerged as the ethical and epistemological foundation of Indigenous wholistic health. The resulting model illustrates how wellbeing arises from relationships of care and responsibility across human, other-than-human, and spiritual dimensions. The findings call for policies and partnerships that move beyond symbolic inclusion toward meaningful collaboration, power-sharing, and shared ethical foundations.

**Conclusion:** A shift toward Indigenous values and ethics is necessary to build global health systems that are accountable, ethically grounded, and guided by cultural and ecological integrity.

**Keywords:** global health, health equity, Indigenous health, Indigenous knowledge systems, reciprocity, relationality, wholistic health



## MUNTINGIA CALABURA-COPPER OXIDE NANOPARTICLES (M. CALABURA-CUO NPS): AN ANTI-BIOFILM AGENT AGAINST PSEUDOMONAS AERUGINOSA

**Abstract ID: 229 (Oral)**

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**Presenter:**

John Marwin V. Puti, Luis Alfonso M. Policarpio

**Background:** This study investigated the antibiofilm potential of copper oxide nanoparticles (CuO NPs) synthesized using *Muntingia calabura* leaf extract against *Pseudomonas aeruginosa*.

**Methods:** Environmental samples were collected from water pipelines in Floridablanca, Pampanga. *P. aeruginosa* was isolated and confirmed using VITEK. CuO NPs were green-synthesized using *M. calabura* leaves as a reducing agent. Nanoparticles were characterized by Field Emission Scanning Electron Microscopy (FE-SEM) for size and morphology. Minimum Inhibitory Concentration (MIC) and antibiofilm activities were assessed via the microbroth dilution method, with ciprofloxacin as the control. NPs were tested at 25%, 50%, 75%, and 100% concentrations, and biofilm inhibition was quantified using UV-Vis spectrophotometry at OD600.

**Results:** *M. calabura*-CuO NPs showed concentration-dependent inhibition of *P. aeruginosa*. Significant biofilm reduction was observed at 25% and 100% concentrations, with the MIC determined at 25 µg/mL. In some cases, the NPs matched the efficacy of ciprofloxacin.

**Conclusion:** *M. calabura*-CuO NPs effectively inhibited *P. aeruginosa* biofilms, particularly at 25% and 100% concentrations. The MIC of 25 µg/mL suggests promising antimicrobial potential. These green-synthesized nanoparticles could serve as an alternative or adjunct to conventional antibiotics like ciprofloxacin.

**Keywords:** Copper oxide nanoparticles, *Muntingia calabura*, *Pseudomonas aeruginosa*, biofilm inhibition, minimum inhibitory concentration



## NANO SENSOR-DRIVEN DETECTION OF PSYCHOPHYSIOLOGICAL STRESS MARKERS FOR REAL-TIME MENTAL HEALTH MONITORING

Abstract ID: 16 (Poster)

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### Presenter:

Jesse Nii Okai Amu-Darko

**Background:** In today's fast-paced world, stress has become an almost unavoidable part of daily life, and when left unchecked, it can lead to serious mental and physical health issues. Unfortunately, recognizing and managing stress in real time is still a major challenge, especially when traditional tools like self-reporting and periodic check-ins can miss critical moments. This research explores a new and more responsive approach: using nano sensor technology to track stress as it happens, directly through the body's own chemical signals. By detecting psychophysiological stress biomarkers such as cortisol, adrenaline, dopamine, and serotonin in real-time, wearable nano sensors offer a powerful tool for mental health monitoring. These ultra-sensitive devices can analyze tiny changes in sweat, saliva, or even the air around your skin, giving a real-time window into how your body is responding to emotional strain. For example, elevated cortisol and adrenaline levels are closely linked to acute stress, while drops in serotonin and dopamine often signal anxiety or depression. This study focuses on the design and integration of flexible, skin-friendly nano sensors that continuously monitor these biomarkers and wirelessly send data to a smartphone or digital platform. What sets this work apart is the review of the integration of artificial intelligence (AI), which plays a pivotal role in processing complex sensor data, identifying stress patterns, and enabling personalized health insights. Machine learning algorithms can analyze fluctuations in biomarker levels over time, making it possible to predict mental health trends and trigger alerts before symptoms become severe. We also address challenges like individual variability in biomarker expression and sensor calibration, aiming to make the system both accurate and adaptable. By translating biochemical signals into meaningful insights, nano sensors could empower individuals to understand and manage stress more effectively, leading to healthier minds and better overall well-being.

Keywords: biomarkers, mental health, nano sensors, real-time monitoring, stress



## NUTRITION LEADERSHIP IN PRACTICE: A GOVERNANCE APPROACH THROUGH THE POOK MALUSOG NUTRITION GOVERNANCE PROGRAM OF THE ZUELLIG FAMILY FOUNDATION

**Abstract ID: 36 (Oral)**

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**Presenter:**

Joyce Ann A. Viar

**Background:** Despite years of effort, malnutrition in the Philippines remains high, making it unlikely to reach near-zero stunting by 2030. To help address this, the Zuellig Family Foundation's Pook Malusog program works with local governments empowering governors and mayors to lead effective First 1,000 Days nutrition interventions and drive sustainable improvements. It aims to strengthen local governance for effective nutrition management, ensure inclusive delivery of nutrition services, and promote positive food, health, and nutrition behaviors among target populations.

**Methods:** This program used the Pook Malusog framework, combining leadership training, coaching, and hands-on fieldwork. Local chief executives and their teams assessed nutrition systems using the First 1000 Days Technical Roadmap, based on WHO's Six Building Blocks plus social determinants. Assessment results guided targeted coaching and support to help leaders implement tailored nutrition improvements.

**Results:** Pook Malusog was implemented in five provinces and 40 municipalities, training 177 local leaders and improving nutrition governance. Stronger leadership led to partnerships that improved resources and service delivery, with all participating LGUs showing progress in governance and nutrition services under the First 1,000 Days roadmap. Within six months, early health gains were reported, including fewer nutritionally at-risk pregnant women, reduced stunting and wasting, and prevention of low birth weight. All pilot provinces saw declines in stunting and wasting rates. Stunting rates in the cohort provinces improved by 2 percentage points per year, outperforming the national average of 1 percentage point per year.

**Conclusion:** The Pook Malusog Program demonstrates that strong local leadership and systems-based approaches improve nutrition outcomes. It offers a scalable model for strengthening local capacity to achieve national nutrition goals.

Keywords: nutrition governance



## NUTRITIONAL CONSEQUENCES OF CESAREAN BIRTHS: EXPLORING THE LINK TO THE DOUBLE BURDEN OF MALNUTRITION IN SOUTH AND SOUTHEAST ASIA

**Abstract ID: 14 (Oral)**

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**Presenter:**

Ashis Talukder

**Background:** The rising prevalence of caesarean section (C-section) deliveries in South and Southeast Asia may be an emerging driver of the double burden of malnutrition (DBM), defined as the coexistence of maternal overweight/obesity and child undernutrition within the same household. Although concerns about this potential link are growing, empirical evidence on the association between C-section births and DBM in this region remains limited. We examine the association between C-section births and DBM in selected South and Southeast Asian countries.

**Methods:** We used nationally representative data from the 2022 Demographic and Health Surveys of Bangladesh, Cambodia, and Nepal. The analysis included mother-child pairs involving women aged 15–49 years with at least one child, both having valid anthropometric measurements and reported delivery methods. We used chi-square tests and ANOVA for initial analysis and then applied two-level logistic regression to account for household-level clustering.

**Results:** Our sample consisted of 4,132 pairs from Bangladesh, 3,836 from Cambodia, and 2,596 from Nepal. The results showed that C-section deliveries were associated with higher likelihood of DBM in Bangladesh (AOR 2.60; 95% CI: 1.55, 4.37) and Nepal (AOR 1.72; 95% CI: 1.09, 2.70). This relationship was particularly evident when breastfeeding was delayed, whereas longer breastfeeding durations appeared to be a protective effect. Additionally, DBM was more prevalent in urban areas across all three countries.

**Conclusions:** Our study found that C-section deliveries increase the risk of DBM, especially when breastfeeding was delayed. This evidence suggests that C-sections can influence long-term nutritional outcomes for both mothers and children, potentially worsening malnutrition in South and Southeast Asian countries. Addressing this issue requires reducing unnecessary C-sections, encouraging early breastfeeding, and supporting postpartum weight management. Strengthening integrated maternal and nutrition care, particularly in urban areas, is vital to advancing global nutrition goals and promoting intergenerational health equity. Further country-specific research is needed to inform culturally appropriate, evidence-based interventions.

**Keywords:** Cesarean section (C-section), South and Southeast Asia, breastfeeding practices, double burden of malnutrition, maternal obesity, multilevel logistic regression



## OCCUPATIONAL DUST-RELATED DISEASES AND POLICY RESPONSES: TAIWAN'S RECENT EXPERIENCE

**Abstract ID: 164 (Poster)**

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**Presenter:**

Yi-Ping Wei

**Background:** New manufacturing processes have contributed to new types of occupational dust-related diseases. This study reviewed the case reports and epidemiological studies on dust-related diseases published, recent statistic of workers' compensation, and policy responses undertaken by the occupational health authorities.

**Methods:** We conducted a narrative literature review of peer-reviewed medical case reports and epidemiological studies published in Chinese and English between 2014 and 2024. We also examined recent occupational compensation statistics and performed an archival analysis using press releases, official guidelines, reports, and educational materials issued by the Ministry of Labor of Taiwan.

**Results:** Over the past 10 years, researchers in Taiwan published 24 medical case reports on pneumoconiosis, documenting a total of 29 cases, with recent cases predominantly linked to the artificial stone industry. During the same period, 12 epidemiological studies were published, primarily with national health insurance records, labor insurance data and hospital medical records, to identify geographic patterns, high-risk industries, and temporal trends. The number of occupational lung disease cases and compensation claims fluctuated but showed a downward trend in recent years, showing differences between epidemiological data. In recent years, the occupational health authorities have issued administrative orders and guidelines regarding dust hazards, mostly in the form of financial subsidies and guidance, to encourage businesses to invest in dust control and personal protective equipment.

**Conclusions:** The occupational health community and labor authorities are concerned about dust exposures and their occupational health impacts. However, policy measures are not mandatory, and whether they can effectively prevent dust-related diseases remains to be further explored.

**Keywords:** dust diseases, pneumoconiosis, case reports, epidemiology, policy



## OCCUPATIONAL SAFETY AND HEALTH PROTECTIONS FOR LONG-TERM CARE WORKERS IN TAIWAN: LITERATURE REVIEW AND EXPLORATION OF FUTURE

**Abstract ID: 165 (Poster)**

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**Presenter:**

I-Hsuan Tseng

**Background:** As the demand for long-term care in Taiwan increases, the government enacted the “Long-Term Care Services Act” in 2015 to ensure the quality and accessibility of care services. However, the occupational safety and health as well as general labor protections of frontline care workers have received relatively little attention.

**Methods:** This study conducted a literature review to examine major occupational safety and health issues and analyze structural-level social determinants, including the decision-making process of working hours arrangements, salary and benefit provisions, employment stability, and access to social security benefits.

**Results:** Care workers in Taiwan were found to have prolonged exposure to high physical demands, a lack of personal protection equipment, and were at risk for musculoskeletal injuries. They were also prone to infectious diseases, workplace violence, and workplace harassment. They need to commute and work alone further increasing the risks for traffic-related injuries and psychological stress. Most home-based care workers were paid on piece-rate or revenue-sharing schemes, and their work schedules and work assignments were determined mainly by managers. The complexities involved and a lack of transparency in work and pay arrangements might contribute to income insecurity, further restricting workers’ job autonomy and job security. Some care workers bore the full cost of mandatory social insurance premiums. Additionally, they were unfamiliar with the workers’ compensation system and did not have institutional support, further hindering the realization of their entitlements.

**Conclusion:** Existing literature indicates that care workers in Taiwan lack proper labor protections, making them vulnerable to occupational safety and health risks. However, much of the empirical research has focused on the experiences of individual workers, overlooking the influences of institutional arrangements and labor governance from an integrated perspective. Based on the review, the author identified some directions that warrant in-depth research.

**Keywords:** exploration of future research directions, health protections, literature review, long-term care workers, occupational safety



## PACIFIC MENTAL HEALTH NATIONAL SURVEY SERIES: SAMOA AND TONGA

**Abstract ID: 83 (Oral)**

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**Presenter:**

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**Background:** The Pacific Mental Health Survey Series is a regional research initiative led by Te Poutoko Ora a Kiwa in partnership with Ministries of Health in Samoa, Tonga, Tokelau, and Niue, funded by New Zealand's Ministry of Foreign Affairs and Trade. This study aims to address critical mental health data gaps across Pacific Island countries through culturally informed, country-led research. By generating robust, nation-specific evidence, the project seeks to inform policy, strengthen services, and guide the development of a locally relevant mental health workforce.

**Methods:** The study commenced in Samoa and Tonga in 2023, following extensive national and village-level consultations to co-design survey design, tools, and implementation strategies. Approximately 1,000 participants across both countries were surveyed using validated and culturally adapted instruments, including the Kessler Psychological Distress Scale (K10), Alcohol Use Disorders Identification Test (AUDIT), single-item WHO Happiness Scale, and the Mini International Neuropsychiatric Interview (MINI). Key domains included psychological distress, mental health disorders, well-being, social support, and access to mental health services.

**Results:** Preliminary findings from Samoa and Tonga indicate high levels of psychological distress, particularly among women, with anxiety, depression, and suicidal ideation commonly reported. Severe disorders such as psychosis and schizophrenia were not found to be more prevalent. Climate change emerged as a notable mental health stressor, with concerns over displacement due to extreme weather events. While overall alcohol use was low, harmful drinking patterns among a subset of young men were linked to social harms, including violence and injury.

**Conclusion:** The project has now expanded to Tokelau and Niue, maintaining its commitment to culturally respectful and collaborative research. By centering Pacific worldviews and supporting local ownership, the survey fosters sustainable, community-driven responses to mental health needs, thus enhancing wellbeing and data equity across the Pacific region.

**Keywords:** AUDIT, K10, MINI diagnostic tool, Mental health, Niue, Pacific, Samoa, Tokelau, Tonga, collaboration, equity, genuine partnership, local ownership, national survey



# PANDEMIC VULNERABILITY AMONG INDIGENOUS POPULATIONS IN MALAYSIA: A SCOPING REVIEW OF STRUCTURAL INEQUITIES AND PUBLIC HEALTH RESPONSE

**Abstract ID: 90 (Poster)**

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**Presenter:**

Norhasliza Abu Bakar

**Background:** Indigenous populations in Malaysia including the Orang Asli in Peninsular Malaysia and native communities in Sabah and Sarawak have historically experienced systemic marginalisation and poor access to healthcare. Their vulnerability during pandemics is shaped not only by geography or poverty but also by long-standing structural inequities and cultural invisibility within public health systems. Despite their heightened risk, there is limited synthesis of how pandemics have affected these communities and whether national responses have been inclusive. This scoping review aims to map the existing body of evidence on pandemic vulnerability among indigenous populations in Malaysia, identify the key factors driving this vulnerability, and explore how national responses have addressed or overlooked their needs.

**Methods:** The review is being conducted using the PRISMA-ScR framework. Systematic searches are ongoing across PubMed, Scopus, Web of Science, and grey literature platforms including government and NGO repositories. Eligible sources include studies and reports from 2000 to 2025 that document the impact of pandemics (e.g., COVID-19, H1N1, SARS) on indigenous populations in Malaysia. Data extraction is structured to capture vulnerability domains, community and institutional responses, and gaps in health system inclusivity.

**Results:** Early screening has identified 20 potentially relevant sources. Preliminary analysis suggests recurring themes of limited healthcare access in remote areas, sociocultural and linguistic barriers, economic fragility, and exclusion from national preparedness planning. Notably, community-led strategies such as voluntary village isolation and the use of indigenous knowledge emerged as forms of grassroots resilience. However, institutional responses remain fragmented, often urban-centric, and culturally unadopted. Gaps persist in mental health outcomes, risk communication, and chronic care continuity.

**Conclusion:** Preliminary findings reinforce the urgent need to embed equity and cultural competence in Malaysia's pandemic preparedness frameworks. Recognising and integrating indigenous perspectives is essential not only for effective health responses but also for advancing broader planetary health equity.

**Keywords:** Indigenous health, Malaysia, Orang Asli, health equity, pandemic vulnerability, planetary health, scoping review



# PLANETARY HEALTH AND FOOD SUSTAINABILITY IN AFRICA: OPPORTUNITIES, CHALLENGES AND STRATEGIC PATHWAYS

Abstract ID: 13 (Poster)

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## Presenter:

Shuaibu Saidu Musa

**Background:** Africa has tremendous potential for sustainable food production but also faces significant barriers like socioeconomic inequality, climate change, and environmental degradation, which threaten planetary health and food security. This study examines the nexus between planetary health and food sustainability and identifies opportunities, challenges and strategic interventions to improve food systems in Africa.

**Methods:** We conducted a comprehensive literature search of peer reviewed articles on PubMed, Scopus, and Google Scholar databases and publicly available grey literature to analyze the state of food sustainability across Africa with no limit to publication date. Using an analytical approach, data from eligible studies were extracted and categorized thematically, followed by a narrative synthesis approach to integrate and summarize the findings under relevant headings.

**Results:** Findings reveal that traditional agricultural practices like agroforestry, intercropping, crop rotation, and rotational grazing are crucial for preserving ecological integrity and enhancing soil fertility. However, climate change has significantly impacted agricultural productivity, with Sub-Saharan Africa experiencing a 33% decline in productivity growth over the past decade. Environmental stressors, such as deforestation, unsustainable land use, and loss of biodiversity, have increased food insecurity and threatened livelihoods. Technological advancements like climate-smart agriculture, AI-driven precision farming, greenhouse and vertical farming, digital agriculture platforms, and IoT-enabled devices are promising solutions. However, their adoption is limited by high costs, poor infrastructure, and lack of technical training. Socioeconomic disparities persist, with smallholder farmers facing limited access to credit, quality seeds, fertilizers, and land tenure security. Policy and governance challenges include the fragmented implementation of regional frameworks, underfunded agricultural sectors, and weak institutional capacity.

**Conclusions:** Strengthening local food systems, promoting equitable resource access, investing in climate-smart technologies, and fostering international cooperation are crucial for food sustainability in Africa, enhancing resilience, reducing hunger, and promoting global health.

**Keywords:** Africa, environmental sustainability, food security, food sustainability, planetary health, sustainable food systems



## PLANETARY HEALTH EDUCATION: TRANSFORMING MEDICAL STUDENTS' ENVIRONMENTAL COMPETENCE

**Abstract ID: 186 (Oral)**

**Author:**

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**Presenter:**

Maria Lee Hooi Sean

**Background:** Climate change poses significant threats to human health through extreme weather events, infectious disease patterns, air quality degradation, and food security challenges. Despite this reality, medical education has been slow to integrate planetary health concepts, leaving future healthcare professionals unprepared to address climate-related health impacts in their practice.

Objective of this study is to evaluate the effectiveness of a planetary health curriculum intervention in developing medical students' understanding of climate and health connections and their preparedness to implement sustainable healthcare practices.

**Methods:** A mandatory "Planetary Health and Sustainability in Healthcare" module was implemented for 140 third-year medical students at Newcastle University Medicine Malaysia in March 2024. The intervention used blended learning approaches including interactive lectures on climate and health pathways, case studies of climate-sensitive health conditions and reflective exercises on healthcare's environmental footprint. Pre- and post-module surveys assessed knowledge of climate and health connections, perceived relevance to clinical practice, and commitment to sustainable healthcare behaviours. Qualitative feedback captured students' understanding of planetary health concepts through open-ended responses exploring their perceptions of environmental factors in healthcare delivery and patient outcomes.

**Results:** Among respondents (n=31 pre-module, n=11 post-module), awareness of climate and health connections increased from 2.9 to 4.1 (5-point scale). Students demonstrating commitment to sustainable healthcare practices rose from 55% to 85%. Qualitative analysis showed students moved from viewing environmental issues as separate from medicine to understanding how environmental factors directly influence patient health and clinical decisions.

**Conclusions:** Structured planetary health education can effectively prepare medical students to address climate-related health challenges. This curriculum model demonstrates feasibility for scaling workforce development in sustainable healthcare. Such initiatives are essential for healthcare system resilience as environmental challenges intensify.

**Keywords:** climate change, curriculum development, medical education, planetary health, sustainability



## POLITICAL COMPETENCY IN NURSING: A CONCEPT ANALYSIS

**Abstract ID: 265 (Oral)**

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**Presenter:**

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**Background:** Although nurses play an increasing role in health policy and advocacy, the concept of political competency remains insufficiently defined within the nursing discipline. This gap limits the integration of political engagement in nursing education and practice. Clarifying this concept is essential to support nurses in advancing health equity and influencing sociopolitical change.

This study aims to analyze and clarify the concept of political competency in nursing using Walker and Avant's (2014) method. Specific objectives include:

1. To identify the defining attributes of political competency in nursing.
2. To examine its antecedents and consequences.
3. To propose implications for future research and nursing leadership development.

**Methods:** A concept analysis was conducted following Walker and Avant's eight-step method. Data were drawn from peer-reviewed literature focused on political engagement in nursing. The analysis included the identification of defining attributes, antecedents, consequences, and empirical referents. No human participants were involved; thus, ethical approval was not required.

**Results:** Findings suggest that political competency encompasses ethical and sociopolitical knowing, courage, perseverance, and persuasion. Its antecedents include reflection, value clarification, and access to sociopolitical resources. The consequences point toward the pursuit of change and social justice—outcomes that unfold through sustained political engagement. This analysis contributes to nursing theory by aligning political competency with Benner's "novice to expert" model and guiding educational strategies that support nurses in becoming effective political actors.

**Keywords:** political competency, advocacy, concept analysis, nursing, sociopolitical engagement



## POST-SUPER TYPHOON ODETTE: EXPLORING HEALTH SYSTEM CHALLENGES AND ADAPTATION STRATEGIES ON HALIAN ISLAND, PHILIPPINES

**Abstract ID: 11 (Oral)**

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**Presenter:**

Kirchelle Ann Mae E. Nodado

**Background:** Geographically isolated islands in the Philippines face significant health system challenges, worsened by natural disasters such as Super Typhoon Odette. These challenges undermine health interventions and the resilience of the healthcare system. This study explores the health system challenges and adaptation strategies employed on Halian Island in response to Super Typhoon Odette, examining how the local health system adapted to maintain healthcare delivery amidst disaster disruptions.

**Methods:** A qualitative case study approach involved in-depth interviews with healthcare providers, local government officials, and community members. Data were analyzed thematically to identify challenges and adaptation strategies framed by General Systems Theory and the concept of Adaptation.

**Results:** Political dynamics impede healthcare delivery, with Barangay Health Workers (BHWs) appointed based on affiliations rather than competency. The island's only nurse is overburdened, using personal resources for medical expenses and coordinating remotely with the Municipal Health Officer (MHO) for complex cases. The health center is underutilized due to insufficient BHW staffing, leading residents to seek care at the nurse's home. Strong Pacific waves delay medical transport, resulting in preventable deaths. Climate risks, such as land loss and worsening storm surges, heighten vulnerabilities. Disaster preparedness remains reactive, with no evacuation center and increasing reliance on external aid.

**Conclusion:** Halian Island's health system is unprepared for future climate crises. Strengthening governance, disaster preparedness, and climate adaptation strategies is essential for building resilience in vulnerable island communities and ensuring effective healthcare delivery amid climate challenges.

**Keywords:** climate change, disaster preparedness, health system adaptation, island communities



## PREDICTING COVID-19 MORTALITY RISK ACROSS SARS-COV-2 VARIANTS IN MELAKA, MALAYSIA: A THREE-YEAR RETROSPECTIVE STUDY

Abstract ID: 188 (Poster)

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### Presenter:

Mohamad Nasri Bin Mohamad Isa

**Background:** As of March 2023, over 761 million COVID-19 cases and 6.8 million deaths have been reported globally. Malaysia recorded over 5 million cases and 30,000 deaths within the same period. The emergence of SARS-CoV-2 variants with differing transmissibility, virulence, and immune escape properties has complicated pandemic control. This study investigates variant-specific mortality risk factors to support health system preparedness in future outbreaks in Malaysia.

**Methods:** This retrospective ecological study utilized secondary surveillance data of confirmed COVID-19 cases reported in Melaka, Malaysia, from March 2020 to March 2023. Data were obtained from the Melaka State Health Department and included cases with confirmed SARS-CoV-2 variants. The collected variables included sociodemographic characteristics, comorbidities, clinical symptoms, vaccination status, and outcomes. A universal sampling method was applied, and the data were analysed using SPSS software. Descriptive statistics were used to summarize case characteristics, followed by univariate and multivariate logistic regression analyses to identify factors independently associated with COVID-19 mortality

**Results:** Among 1,146 cases, the mean age was 48.2 years ( $\pm 22.6$  years), and 52.1% of the cases were male. Omicron was the most common variant (86.8%). Most cases were symptomatic (89.6%) and had at least one comorbidity (54.7%), with the most common conditions being hypertension (31.2%) and diabetes mellitus (24.1%). The overall mortality rate was 2.9%. Multivariate analysis identified several factors significantly associated with death: Delta variant infection (OR=3.43, 95% CI: 1.07-11.03), age  $\geq 65$  (OR=2.66, 95% CI: 1.13-6.24), unvaccinated status (OR=4.36, 95% CI: 1.58-12.04), and shortness of breath (OR=4.39, 95% CI: 2.01-9.62).

**Conclusions:** This study highlights the elevated mortality risk associated with the Delta variant, advanced age, being unvaccinated, and respiratory distress. These findings underscore the importance of targeted vaccination, early identification of high-risk individuals, and adaptive health system planning to improve responses to future variant-driven outbreaks.

Keywords: COVID-19, Melaka, SARS-CoV-2 variants, epidemiology, health system preparedness, mortality



## PREVALENCE AND RISK FACTORS OF CHILD MALNUTRITION IN CLIMATE-SENSITIVE COASTAL REGIONS, BANGLADESH

Abstract ID: 40 (Oral)

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### Presenter:

Shuvagato Mondal

**Background:** Despite considerable progress in eliminating malnutrition, Bangladesh continues to experience a high prevalence of child malnutrition, particularly, in climate-vulnerable coastal regions. This study aimed to investigate the current prevalence of child malnutrition and identify its associated risk factors across the coastal regions of Bangladesh.

**Methods:** A cross-sectional survey was conducted in three purposively selected coastal districts representing distinct coastal parts of Bangladesh. Data were collected from 469 randomly selected households using a three-stage cluster sampling approach, including anthropometric measurements of children aged 6–59 months and structured interviews with their mothers. Multivariable logistic regression was performed to identify the risk factors of child malnutrition.

**Results:** The study revealed that, more than half of the children (54.4%) were stunted, one in four (25.2%) were underweight and nearly one in ten (9.4%) were wasted, with 61.6% experiencing at least one form of anthropometric failure. Multivariable logistic regression showed that, children aged 24–35 months were 54% (AOR=0.46, 95% CI: 0.22–0.98) and 48–59 months 60% (AOR=0.40, 95% CI: 0.18–0.88) less likely to be malnourished compared to those aged 6–11 months. Higher odds were observed among children from poor households (AOR=2.15, 95% CI: 1.07–4.30), food-insecure households (mild: AOR=2.13; severe: AOR=3.66), and those lacking basic drinking water (AOR=2.66) or sanitation (AOR=1.93) facilities. Children born to underweight mothers had 2.77 (AOR= 2.77, 95% CI: 1.09–7.04) times higher odds of being malnourished compared to their normal counterparts.

**Conclusions:** Findings of the study highlight the persistent burden of child malnutrition in coastal Bangladesh focusing the significant influence of household poverty, food insecurity, inadequate WASH access and maternal undernutrition. Targeted and multisectoral interventions addressing these intersecting vulnerabilities are essential to improve child nutritional outcomes in climate-sensitive coastal settings.

Keywords: Bangladesh, child, coastal, factors, malnutrition



## PREVALENCE, ASSOCIATED FACTORS, AND CONSEQUENCES OF WORKPLACE BULLYING AMONG HOUSE OFFICERS IN MALAYSIA: A STRUCTURAL EQUATION MODELLING APPROACH

Abstract ID: 73 (Poster)

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### Presenter:

Siti Syawaanatul Zahraa Mohd Rahim

**Background:** Workplace bullying remains a persistent global phenomenon and public health concern, particularly within healthcare. House officers are primarily at risk, yet research among them remains limited. The consequences among house officers are profound, potentially jeopardising healthcare services. Despite growing worldwide attention, studies in Asia are lacking. Therefore, this study aims to examine the prevalence, associated factors, and impact of workplace bullying among house officers, with a particular focus on investigating the mediating role of psychological capital within the bullying- outcome relationship.

**Methods:** A multicentre cross-sectional study was conducted across thirteen public hospitals in the central region of Peninsular Malaysia. Data was collected using a self-administered questionnaire, including the Negative Acts Questionnaire-Revised. Variance-based structural equation modelling (PLS-SEM) was employed in Smart-PLS4 to analyse the relationship between variables.

**Results:** A total of 23.4% of house officers were identified as victims of workplace bullying. Problem-solving conflict management styles ( $\beta = -0.099$ ) and psychosocial safety climate ( $\beta = -0.414$ ) were negatively associated with workplace bullying. Conversely, forcing ( $\beta = 0.166$ ) and avoiding ( $\beta = 0.070$ ) styles were found to encourage workplace bullying. Workplace bullying was significantly related to turnover intention ( $\beta = 0.249$ ), psychological symptoms ( $\beta = 0.295$ ), and job performance ( $\beta = 0.098$ ), with psychological capital serving as a partial mediator. Notably, contrary to the proposed hypothesis, a paradox positive relationship was observed between workplace bullying and job performance.

**Conclusion:** Workplace bullying represents a burgeoning concern that risks serious consequences to house officers and healthcare organisations. Addressing the burden and associated factors is essential to safeguard their well-being and facilitate effective healthcare delivery.

**Keywords:** Workplace bullying, conflict management style, house officers, job performance, psychological capital, psychological symptoms, psychosocial safety climate, turnover intention



## PREVALENCE OF POOR SLEEP QUALITY AMONG POSTGRADUATE STUDENTS: THE ROLE OF SOCIO- DEMOGRAPHIC CHARACTERISTICS AND SOCIAL MEDIA HABITS.

Abstract ID: 120 (Poster)

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### Presenter:

Shamini Devi Kumaran

**Background:** Sleep quality plays a significant role in student health, but poor sleep quality is increasingly prevalent among university students. Extensive use of social media, especially before bedtime, may contribute to sleep disruptions. Understanding the association between students' socio-demographic characteristics, social media habits, and sleep quality is essential for developing effective, evidence-based health strategies in academic settings. This study aimed to determine the prevalence of poor sleep quality and assess its association with socio-demographic characteristics and social media habits patterns among postgraduate students in Malaysia.

**Methods:** A cross-sectional study was conducted among 402 postgraduate students at Universiti Sains Malaysia, Penang between July and August 2023. Self-administered questionnaires included socio-demographic characteristics, social media habits, and sleep quality assessed via the Pittsburgh Sleep Quality Index (PSQI). Logistic regression was used to determine the associations.

**Results:** The prevalence of poor sleep quality was 58.0% (n=233). The most commonly used social media platforms were Instagram (19.4%), Facebook (19.2%), YouTube (15.4%), and WeChat (13.4%), followed by other platforms such as TikTok and WhatsApp. Regarding PSQI components, 25.3% reported fairly or very bad sleep quality, 21.9% had difficulty falling asleep, and 13.4% had shorter sleep duration. Although 85.3% did not use sleep medications, 24.1% experienced sleep disturbances and 47.5% reported daytime dysfunction. Multivariate logistic regression showed that male gender (aOR: 1.62, 95% CI: 1.02–2.59), humanities discipline (aOR: 1.58, 95% CI: 1.01–2.45), and  $\geq 1$  hour of social media use before sleep (aOR: 2.37, 95% CI: 1.48–3.79) were significantly associated with poor sleep quality.

**Conclusions:** Poor sleep quality is prevalent among postgraduate students, and it is strongly influenced by both socio-demographic characteristics and social media usage habits. Interventions promoting healthy digital behaviours and sleep hygiene are needed in academic settings worldwide.

Keywords: Malaysia, postgraduates, sleep quality, social media habits, university students



## PRIORITIZING OVER 85 MILLION DISABILITIES IN UNIVERSAL HEALTH COVERAGE IN CHINA: SITUATION, PROGRESS AND CHALLENGES

**Abstract ID: 22 (Oral)**

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**Presenter:**

Yanan Luo

**Background:** China has gradually promoted the inclusion of people with disabilities in various sectors, significantly advancing universal health coverage (UHC) for over 85 million people with disabilities. However, there is a lack of systematic analysis on how China has prioritized disability inclusion in health during periods of resource scarcity and the challenges in establishing a disability prevention system. This study aims to systematically review China's achievements and challenges in promoting disability prevention and health investments to achieve UHC.

**Methods:** A systematic review approach was adopted, integrating high- quality evidence and primary data to analyze the trends and progress of UHC for people with disabilities in China.

**Results:** Since 1949, China has made continuous progress in disability prevention and rehabilitation. A monitoring system for the needs of 30 million registered persons with disabilities has been established, alongside a comprehensive social security model that combines cash compensation with service provision. Since 2008, both national and sub- national action plans for disability prevention have been introduced, supported by robust service feedback mechanisms covering prevention and rehabilitation for birth defects, developmental disorders, chronic diseases, infectious diseases, mental health issues, and injuries. China has also developed a comprehensive national disability sampling survey and monitoring system. Social security policies have gradually transitioned from protective to inclusive since 2008. Nevertheless, people with disabilities continue to face challenges on the path to UHC, including the lack of disability-inclusive indicators in UHC, fragmented services lacking person-centered integration, and limited comparability of disability data.

**Conclusions:** China has made notable progress in advancing UHC for people with disabilities through governance and innovation, but further efforts are needed for data integration and inclusive services. China's experience offers valuable insights for global health, especially in resource-limited settings.

**Keywords:** China, disabilities, Universal Health Coverage



## PROGRESSION OF METABOLIC SYNDROME AMONG INITIALLY HEALTHY UNIVERSITY WORKERS IN INDONESIA: A LONGITUDINAL OBSERVATION

Abstract ID: 224 (Poster)

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### Presenter:

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**Background:** Metabolic Syndrome (MetS) is a rising public health issue in Asia, linked to urban lifestyle changes and occupational risks. University workers, often overlooked in prevention efforts, may be particularly vulnerable due to sedentary work patterns. This study examines the progression of MetS among initially healthy university employees in Indonesia, aiming to provide early evidence to inform workplace health interventions in academic institutions.

**Methods:** We analyzed medical check-up (MCU) data from a large state university in Indonesia for 2018, 2021, and 2023. Subjects included were employees without MetS in 2018 who had complete data across all three years. MetS was defined as central obesity plus at least two of the following: hypertension, atherogenic dyslipidemia (AD), and hyperglycemia. Descriptive and trend analyses were performed. The Medical and Health Research Ethics Committee of Universitas Gadjah Mada has granted ethical approval for this study under the approval number KE/FK/0057/EC/2025.

**Results:** Out of 2194 employees screened in 2018, 156 fulfilled the criteria. At baseline, none had MetS. By 2021, 29.49% developed MetS, with a slight decrease to 28.85% in 2023. Obesity and AD increased more sharply between 2018 and 2021, while hypertension and hyperglycemia also rose but followed different patterns. Participation in routine MCU was low across the three periods, potentially contributing to undetected cases.

**Conclusion:** This study highlights a significant rise in MetS among initially healthy university workers, underscoring the need for targeted prevention strategies. Improving engagement in regular health monitoring programs is critical for early detection and intervention, particularly in academic institutions in middle-income countries facing a growing NCD burden.

Keywords: longitudinal Study, metabolic syndrome, non-communicable diseases, occupational health, university workers



## PSYCHOSOCIAL IMPACTS OF SURGICAL COMPLICATIONS ON SURGEONS: EVIDENCE AND STRUCTURAL MODELLING CONSIDERATIONS

Abstract ID: 61 (Poster)

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### Presenter:

Maryam Kalhoro | Shadab Kalhoro (Presenter)

**Background:** Surgical complications not only endanger patient outcome but also traumatize the involved surgeons—emotionally, psychologically, and socially. These "second victims" often endure lasting stress that may impair their well-being and follow-up clinical performance. The psychosocial impacts of this problem, however, remain under-explored in low- and middle-income settings.

The research seeks to investigate the emotional and behavioral impact of surgical complications on practicing surgeons, pinpoints contributory psychosocial risk factors, and examines how coping mechanism usage influences outcomes. It also determines the interrelationship among the primary variables using structural modeling.

**Methods:** Guided by evidence from 19 relevant studies, the study assessed emotional responses such as guilt, worry, and withdrawal and behavioral adaptations such as hyper-cautious practice and avoidance. Utilizing the application of SmartPLS, a structural model was developed for assessing the effect of complication severity, institutional support, emotional resilience, and coping mechanisms on surgeons' well-being.

**Results:** The research identified that younger, less experienced, and work-life balance-compromised surgeons were most vulnerable to adverse emotional responses. Severe complications significantly predicted depressive symptoms and behavioral changes. The structural model confirmed that institutional support and adaptive coping significantly enhanced emotional resilience ( $p < 0.001$ ), while repressive behaviors indicated poorer outcomes.

**Conclusions:** Surgical complications place a major psychosocial load on surgeons that is underestimated in policy and training materials. Solutions aimed at emotional preparedness, peer support networks, and organizational compassion are the key. These findings offer a blueprint for international surgical systems to improve their safeguarding and empowerment of their surgical staff, thus improving provider well-being and patient safety.

Keywords: coping behavior, emotional resilience, global surgery, second victim, SmartPLS, surgeon mental health, surgical complications



## RECLAIMING NARRATIVES IN GLOBAL HEALTH: KNOWLEDGE AS RESISTANCE IN THE DOCUMENTATION OF HEALTH IN PALESTINE DURING GENOCIDE (2023-2025)

**Abstract ID: 81 (Oral)**

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Presenter:

Rizma Adlia Syakurah

**Background:** The destruction of Gaza's health system, including hospitals, personnel, and data infrastructure, has extended alongside deliberate efforts to delegitimize Palestinian health institutions and health data through suppression and the mainstream media's smear campaign. In this context, academic publishing becomes a critical space for documenting public health realities, affirming the credibility of Palestinian voices, giving them space to tell their story, and resisting erasure through evidence. This study aims to (1) map the volume and characteristics of peer-reviewed health publications on Palestine between 2023 and 2025; (2) identify authorship patterns and institutional affiliations; and (3) analyse the thematic and ethical positioning of this literature in the context of ongoing genocide.

**Methods:** A bibliometric and qualitative content analysis was conducted on 491 peer-reviewed articles retrieved using Publish or Perish with the keywords "Palestine," "Gaza," and "health." VOSviewer was used to generate keyword co-occurrence and co-authorship network visualizations. Citation analysis and affiliation mapping were performed, with special attention to the role of Palestinian diaspora scholars and international solidarity networks.

**Results:** There was a marked increase in publications during the genocide period, with themes shifting from service delivery to trauma, health system collapse, forced displacement, and excess mortality. The most cited articles defended the credibility of Gaza's Ministry of Health and reframed mortality reporting as both scientific and ethical acts. Co-authorship networks highlighted increasing international solidarity, yet Gaza-based researchers remained underrepresented due to infrastructural and political constraints.

**Conclusions:** In contexts of political violence and disinformation, health publishing becomes a form of epistemic resistance. Bibliometric analysis reveals how, when ethically grounded, academic outputs can defend suppressed knowledge systems, mobilize humanitarian attention, and advance justice in global health.

Keywords: Gaza, Palestine, academic resistance, bibliometric analysis, epistemic justice, health publishi



## RELATIONSHIP OF 3QS TO THE CLINICAL DECISION-MAKING OF FOURTH-YEAR STUDENT NURSES IN A PRIVATE HIGHER EDUCATION INSTITUTION IN BAGUIO CITY

**Abstract ID: 215 (Poster)**

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**Presenter:**

Neil Cyrus Gian Bangtuan

**Background:** This study aims to determine the relationship between emotional, adversity, and social quotient and the clinical decision-making abilities of fourth-year student nurses, as well as the levels of these variables. Clinical decision-making is a vital nursing function that ensures safe and effective patient outcomes. While cognitive abilities are foundational, non-cognitive traits such as emotional, adversity, and social quotients may also influence students' decision-making processes. However, limited literature has explored these traits in relation to clinical decision-making, particularly among student nurses in the Philippine context.

**Methods:** Descriptive-correlational design was used among 218 fourth-year nursing students from a private higher education institution in Baguio City, selected through systematic random sampling. Standardized tools assessed emotional, adversity, and social quotients, as well as clinical decision-making. Data were collected through printed surveys and analyzed using weighted mean and Spearman's rho.

**Results:** There was a statistically significant moderate positive correlation between each quotient and clinical decision-making (EQ  $r = .44$ ; AQ  $r = .51$ ; SQ  $r = .51$ ,  $p < 0.05$ ). Most students demonstrated high level of clinical decision-making ( $M = 79.75$ ), a high level of adversity quotient ( $M = 48.75$ ), and a high level of social quotient ( $M = 71.00$ ). The emotional quotient had a moderately high level ( $M = 92.75$ ). Emotional, adversity, and social quotients are positively associated with clinical decision-making.

**Conclusion:** Integrating these non-cognitive traits into nursing education may enhance students' clinical decision-making, improve patient outcomes, and strengthen readiness for real-life clinical practice.

**Keywords:** adversity quotient, clinical decision-making, emotional quotient, non-cognitive, social quotient



## RODENTWATCH AS A SMART INTEGRATED PLATFORM TO RAISE AWARENESS AND CONTROL FOR ADVANCED LEPTOSPIROSIS MANAGEMENT

Abstract ID: 121 (Oral)

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### Presenter:

Sunna Vyatra Hutagalung | Anita Zaitunah | Erna Budhiarti Nababan | Rita Rosmala Dewi

**Background:** Leptospirosis has shown to cause fever, liver or kidney failure, and even death in humans particularly those residing in tropical countries. In agriculture, it can create economic loss, as it can cause abortion and decreased milk production among farm animals. Six Indonesian provinces in Java reported confirmed leptospirosis, with 920 cases and 122 reported deaths in 2019. In North Sumatera, an area with tropical climate and high rainfalls, surveillance on wild rodents showed infestation of pathogenic *Leptospira* spp. covered up to 33.9% prevalence and necessitates a smart and targeted monitoring approach.

**Method:** RodentWatch platform is a platform that provides end-to-end approach for leptospirosis management. Secondary data on case reports, community risk factors, and awareness levels from health and veterinary aspects were collected to initiate its development. Furthermore, spatial layers of key biophysical factors were prepared as inputs to create a leptospirosis risk prediction model. Alongside, a digital storytelling strategy was developed to raise awareness among community and stakeholders.

**Results:** Preliminary data shows that leptospirosis is not part of the main targeted work programs among local stakeholders despite its risk. Through small survey among local residents, most respondents (58.6%) have encountered wild rodents wandering around their neighborhood, yet most were not aware of leptospirosis as rodent-borne disease. Furthermore, reported data found positive leptospirosis cases among pets from a local veterinary clinic, indicating underreported situation and potential active risk of transmission to farm animals. From early development of digital storytelling, pilot trial showed community has improved understanding of leptospirosis and its associated risk such as poor hygiene and temperate environment.

**Conclusion:** Comprehensive and smart approach is needed for leptospirosis management. Rodentwatch is a platform that has the potential to spearhead management from the ground to the health system.

Keywords: community, comprehensive, Leptospirosis, management, rodent



## SACRED AGING: EXPLORING THE LIVED EXPERIENCES OF ELDERLY CATHOLIC NUNS

Abstract ID: 214 (Poster)

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**Presenter:**

Marianne A. Formeloza

**Background:** This study explores the aging experiences of elderly Catholic nuns in Baguio City, focusing on their physical, mental, social, and spiritual challenges. Despite a life devoted to service, these nuns face age-related limitations that impact their well-being. Understanding their experiences sheds light on the distinctive ways aging is navigated within religious communities and highlights how deeply held spiritual beliefs and communal bonds work together to strengthen resilience and promote holistic well-being among elderly nuns.

**Methods:** Employing a qualitative phenomenological approach, the researchers conducted semi-structured interviews with purposively sampled nuns aged 60 and above from selected congregations. Data were analyzed thematically, ensuring ethical standards such as informed consent and confidentiality.

**Results:** Six themes emerged: (1) Sacred Routines—daily practices nurturing body and spirit; (2) Embracing Fragility—accepting physical decline through faith; (3) Emotional Resilience—spiritual coping with interpersonal challenges; (4) Lifelong Learning—commitment to spiritual growth; (5) Acceptance—spiritual guidance in aging; and (6) Communal Strength—faith and community mitigating loneliness. Findings suggest that spirituality, community support, and disciplined routines bolster resilience among elderly nuns.

**Conclusion:** These insights can inform holistic elder care approaches that integrate physical, emotional, social, and spiritual support.

Keywords: communal living, coping strategies, lived experiences, religious life, resilience



## SCALING UP THE BABY FRIENDLY HOSPITAL INITIATIVE IN SUPPORT OF MATERNAL AND NEWBORN HEALTH: STUDY PROTOCOL

Abstract ID: 71 (Poster)

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### Presenter:

Dr Andini Pramono

**Background:** Optimal breastfeeding practices are essential for improving health outcomes across the lifespan. They protect children from infectious diseases and chronic conditions, while also supporting maternal health by reducing the risk of reproductive cancers and aiding postpartum recovery. The WHO/UNICEF Baby Friendly Hospital Initiative (BFHI), based on the Ten Steps to Successful Breastfeeding (the Ten Steps), is an evidence-based framework that significantly improves exclusive and sustained breastfeeding rates. Despite global uptake, and 'in principle' adoption in Australia, BFHI implementation remains very limited in scale. This study aims to assess the equitable availability and accessibility of BFHI-accredited hospitals and the Ten Steps across Australia, and to evaluate the value that maternity care consumers place on BFHI-aligned practices.

**Methods:** We use geospatial modelling and a social fragmentation index to examine the distribution of BFHI-accredited facilities and their relationship to breastfeeding and health outcomes. Discrete choice experiments are conducted to determine the economic value consumers assign to BFHI practices.

**Results:** Preliminary analysis suggests disparities in access to BFHI-accredited care, with serious implications for breastfeeding outcomes. Consumers expressed a clear preference for BFHI-aligned maternity care, highlighting the perceived value of supportive hospital practices and community support for breastfeeding.

**Conclusions:** These insights support the need for targeted resources and system-wide strategies to enhance BFHI implementation. These findings will inform the development of a streamlined "Tenth Step" guide to connect new mothers with breastfeeding support services after hospital discharge. By strengthening the BFHI's Tenth Step and quantifying the value of its practices, this project supports broader adoption of BFHI across the Australian health system. The anticipated outcomes include improved equity in breastfeeding support, enhanced maternal and child health, and reduced reliance on formula feeding—contributing to both improved public health and environmental sustainability

Keywords: Baby-Friendly Hospital Initiative, scale up, breastfeeding, maternal and child health



## SCHOOL-TIME EXPOSURE TO AMBIENT PM<sub>2.5</sub> IN THAILAND: A NATIONWIDE SPATIOTEMPORAL ANALYSIS

Abstract ID: 218 (Oral)

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### Presenter:

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**Background:** Particulate matter 2.5 (PM<sub>2.5</sub>) is a significant environmental health risk, particularly among school-aged children. Prevention strategies are typically recommended. However, guidance on outdoor activity scheduling in Thailand remains limited. This study aims to examine ambient PM<sub>2.5</sub> exposure patterns at schools during school hours (7:00–17:00) in Thailand in 2024.

**Methods:** A descriptive analysis and pattern visualization of ambient PM<sub>2.5</sub> at schools across Thailand from January to December 2024 were conducted. Hourly average PM<sub>2.5</sub> levels were estimated by inverse distance weighted interpolation using air quality data from the Pollution Control Department and the Bangkok Metropolitan Administration of Thailand. The mean  $\pm$  standard deviation (SD), minimum (min), and maximum (max) values of 10-hour school-time exposure were calculated. Exposure patterns were visualized by month and region. An average 10-hour PM<sub>2.5</sub> of  $<25 \mu\text{g}/\text{m}^3$  defines a low-exposure period.

**Results:** A total of 29,082 public schools (kindergarten to primary) were included. During periods of low PM<sub>2.5</sub> exposure, the 10-hour average PM<sub>2.5</sub> level mean  $\pm$  SD (min, max) was  $9.93 \pm 2.6$  (1.14, 33.53)  $\mu\text{g}/\text{m}^3$  in August in the Northern region and  $24.5 \pm 9.99$  (3.00, 130.60)  $\mu\text{g}/\text{m}^3$  in December in the Northeastern region. The highest mean  $\pm$  SD (min, max) was  $57.7 \pm 28.68$  (6.28, 367.01) in March in the Northern region. The consistent low-exposure period lasted from June to November across all regions with minor differences: the Northern region (June–November), the Central region, the Eastern region, the Bangkok Metropolitan region (May–November), the Northeastern region (May–December), and the Southern region throughout the year.

**Conclusion:** Thailand's nationwide period of low PM<sub>2.5</sub> exposure at school in 2024 was from June to November. Rescheduling annual outdoor events such as sports days and scout camps should be considered to protect children's health from PM<sub>2.5</sub> without disrupting education. Further time-series analysis and practical weather considerations are necessary to strengthen these findings.

Keywords: PM<sub>2.5</sub>, Thailand, air pollution, children, education policy, public health, school schedule



## SOCIAL CAPITAL AND SOCIAL SUPPORT AS MODERATORS IN THE ASSOCIATION BETWEEN PERCEIVED DISCRIMINATION AND MENTAL HEALTH AMONG FILIPINO DOMESTIC WORKERS IN MACAO

Abstract ID: 157 (Poster)

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### Presenter Name:

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**Background:** Migrant domestic workers (MDW) face a heightened risk of poor mental health while working abroad, partly due to perceived discrimination. Social networks, including cognitive and structural social capital and perceived social support, are often viewed as protective. However, findings are mixed, with some studies reporting paradoxical effects, namely higher social capital or support associated with worse mental health. The objective of this study is to assess whether social capital and social support moderate the association between perceived discrimination and symptoms of anxiety and depression among Filipino MDWs in Macao, China.

**Methods:** A total of 1,362 Filipino MDWs in Macao completed self-administered surveys between November 2016 and August 2017, using respondent-driven sampling. Demographics, perceived discrimination, anxiety and depression, cognitive and structural social capital, and perceived social support were collected. Multiple linear regression assessed the association between perceived discrimination and mental health, and tested moderation by social capital and social support.

**Results:** Perceived discrimination was independently and positively associated with both depression ( $\beta = 0.217$ ,  $P < 0.001$ ) and anxiety ( $\beta = 0.198$ ,  $P < 0.001$ ). Higher cognitive social capital was independently associated with lower depression ( $\beta = -0.477$ ,  $P < 0.001$ ) and anxiety ( $\beta = -0.356$ ,  $P = 0.009$ ). Structural social capital was positively linked to depression ( $\beta = 0.071$ ,  $P < 0.001$ ), but not with anxiety. Social support showed no significant association. No moderating effects of social capital or social support on the relationship between perceived discrimination and mental health were observed.

**Conclusions:** Perceived discrimination is a robust predictor of anxiety and depression among Filipino MDWs. Cognitive social capital appears independently protective, while no buffering effects were found for social capital or social support. Further research is needed to explore the roles of social networks in this population and to inform interventions aimed at reducing discrimination and strengthening social resources.

Keywords: mental health, migrant domestic workers, perceived discrimination, social capital, social support



## SOCIAL SUPPORT AND QUALITY OF LIFE IN MALAYSIAN DEMENTIA CARE: A SYSTEMATIC LITERATURE REVIEW

Abstract ID: 53 (Poster)

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### Presenter:

Hui Nee Au Yong | Maryam Kalhoro

**Background:** Malaysia faces a growing public health challenge with its aging population and the predicted tripling of dementia prevalence by 2050. Aligned with Sustainable Development Goal 3 (SDG 3): Good Health and Well-Being, this review addresses the urgency to synthesize the ways in which various forms of social support influence dementia care outcomes in Malaysia. The research objectives were to synthesize systematically empirical Malaysian evidence (January 2015–April 2025) on the effects of emotional, informational, tangible, and multimodal social support on improving QoL outcomes for PLwD and carers.

**Method:** A systematic search was conducted in PubMed, Scopus, and Web of Science following PRISMA guidelines. Extraction was performed on study design, type of support, outcome measures, and effect sizes. Methodological quality was ascertained using JBI checklists. A narrative synthesis and vote-counting approach was used, supplemented by a forest plot of effect sizes of RCTs targeting caregiver burden.

**Results:** Emotional (n=3) and informational (n=4) support interventions were most frequently examined. Interventions in emotional and informational domains consistently reduced anxiety and depression and improved caregiver QoL. Methodological limitations still exist, particularly in the measurement of patient-centered QoL and in the analysis of financial support systems.

**Conclusion:** This review demonstrates that low-cost, scalable telephone and mHealth-based psychoeducation interventions successfully reduce caregiver burden in Malaysia. To advance planetary health equity, Malaysian policymakers need to prioritize pilot research for tangible support such as conditional cash transfers and respite vouchers and mandate the inclusion of patient-reported QoL outcomes in future clinical and community trials. These are essential steps in achieving SDG 3 and ensuring inclusive, sustainable dementia care systems across the Global South.

Keywords: caregiver burden, dementia, social support, Malaysia, PRISMA, planetary health equity, quality of life, SDG 3, systematic review



## SOCIO-DEMOGRAPHIC PROFILE AND KNOWLEDGE, ATTITUDE, AND SKILLS ON PALLIATIVE AND HOSPICE CARE AMONG NURSES IN METRO MANILA

**Abstract ID: 234 (Oral)**

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**Presenter:**

Edmar S. Elcarte

**Background:** Palliative and hospice care play a vital role in improving the quality of life for individuals with chronic and life-limiting illnesses. The significance of palliative care services is magnified by the rapidly growing populations of patients with chronic diseases, locally and internationally.

This study aimed to determine the relationship between nurses' socio-demographic profiles and their levels of knowledge, attitudes, and skills in providing palliative and hospice care.

**Methods:** This research utilized descriptive-correlational research design, data were collected from 230 registered nurses in Metro Manila through a validated survey.

**Results:** Results revealed that nurses (n=230) have passed the quiz (172 out of 230), have positive attitude (WM:3.00, SD=0.82), and have good skills (WM: 3.06, SD=0.75) towards palliative care. However, gaps in knowledge and skills were evident particularly in pain management and end-of-life communication. Significant positive correlations were found between years of experience and knowledge levels ( $r=0.13$ ,  $p=0.04$ ) while attitude was notably positively related to highest educational attainment ( $r=0.14$ ,  $p=0.04$ ). However, the level of skill had a negative correlation with previous experience of loss ( $r=-0.28$ ,  $p<0.001$ ).

**Conclusions:** Comprehensive education and targeted training programs are essential for enhancing nurses' competence in providing end-of-life care. Integrating palliative care into undergraduate nursing curricula, along with expanding professional development opportunities, is recommended to strengthen the delivery of compassionate, patient-centered care and contribute to improved global health outcomes.

**Keywords:** attitude and skills, Continuing Professional Development, palliative and hospice care, knowledge



## SOCIOECONOMIC AND HEALTH CORRELATES OF MENTAL HEALTH OUTCOMES AMONG WOMEN WITH AND WITHOUT HIV IN MOZAMBIQUE: EVIDENCE FROM THE 2022-23 DEMOGRAPHIC AND HEALTH SURVEY

**Abstract ID: 107 (Poster)**

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**Presenter:**

Nayantara Arora

**Background:** Mental health disorders are a growing public health concern in sub-Saharan Africa, disproportionately affecting women, particularly those living with HIV in Mozambique. However, data on the determinants of depression, anxiety, and suicidal ideation in this population remain limited. This study assessed the association between socioeconomic and health-related factors and symptoms of depression, anxiety (PHQ-9, GAD-7), and suicidal ideation among reproductive-age women in Mozambique, stratified by HIV status.

**Methods:** We analyzed nationally representative data from the 2022-23 Mozambique Demographic and Health Survey (DHS), including 9,301 women aged 15-49. Bivariate associations were assessed using chi-squared and t-tests. Univariate and multivariate logistic regression models were used to identify correlates of mental health outcomes.

**Results:** Among 9,301 reproductive-age women in Mozambique, 6.5% reported moderate to severe depressive symptoms, 6.7% reported anxiety, and 2.2% endorsed suicidal ideation. HIV-positive women had a higher prevalence of all mental health symptoms compared to HIV-negative women. Poorer self-rated health, lower wealth, history of sexually transmitted infections (STIs), and experience of sexual violence were significantly associated with depressive and anxiety symptoms. In multivariate models among HIV-positive women, younger age, lower wealth, poor self-reported health, and STI history were independently associated with higher odds of depression and anxiety. Suicidal ideation was predicted by experience of sexual violence and depressive symptom severity. Geographic disparities in mental health outcomes were also observed.

**Conclusions:** Mental health interventions in Mozambique should target socioeconomically disadvantaged women and integrate HIV care with mental health screening and support.

**Keywords:** HIV, anxiety, depression, mental health, sociodemographic, suicide



## "STRANDED AND OVERLOOKED": A SYSTEMATIC REVIEW OF THE MULTI-DIMENSIONAL IMPACT OF COVID-19 ON NON-DOMESTIC MIGRANT WORKERS IN THE ASEAN REGION

**Abstract ID: 225 (Oral)**

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**Presenter Name:**

Mukda Pratheepwatanawong

**Background:** The unprecedented COVID-19 pandemic disproportionately affected migrant workers in the ASEAN region, exposing deep-rooted social inequalities. While some studies have examined the effects of COVID-19 on migrant workers, there remains a lack of consolidated evidence or systematic analyses of the multifaceted impact of COVID-19 on their lives. This systematic review synthesises available evidence on the multidimensional impact that COVID-19 had, particularly on non-domestic migrant workers.

**Methods:** We searched Scopus, PubMed, Web of Science, PsycINFO and ProQuest for studies examining how COVID-19 affected non-domestic migrant workers, with a specific focus on different domains of human security. Five reviewers independently screened studies, extracted data, assessed risk of bias and evaluated the quality of evidence using Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. Findings were synthesized using meta-aggregation and categorized using the human security framework.

**Results:** Out of 867 studies screened, 44 studies met the eligibility criteria and were included in the synthesis. Overall, findings indicated that non-domestic migrant workers were systematically excluded from national healthcare planning and pandemic preparedness efforts, exacerbating their pre-existing vulnerabilities during the COVID-19 pandemic. COVID-19 and consequent containment measures applied by governments worsened barriers to healthcare and legal protection, amplified food and water insecurity and further deepened economic precarity and discrimination of migrant workers. Social ties and informal community networks played a crucial role in mitigating some of the adverse effects of COVID-19 containment measures.

**Conclusion:** Findings emphasize the urgent need for inclusive systems and crisis response strategies that recognize, protect and address the needs of migrant workers in future public health emergencies.

**Keywords:** Migrant workers, COVID-19, human security, ASEAN, health systems

**Acknowledgement:**

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## STRENGTHENING DOH REGIONAL CORE TEAMS IN NORTH LUZON PHILIPPINES: HOW THE BAYANG MALUSOG PROGRAM EMPOWERS HEALTH LEADERS TO ACCELERATE UNIVERSAL HEALTH COVERAGE

**Abstract ID: 24 (Oral)**

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**Presenter:**

Catherine A. Chung, MD,MPM

**Background:** Universal Health Coverage implementation was upended by the pandemic, halting health systems integration efforts to operationalize UHC. Regional health leaders lead the UHC implementation and have a significant stake in the provinces' health systems integration work.

**Methods:** This paper talks about a fast-tracked leadership training program for the DOH regional UHC core teams in North Luzon, Philippines, aimed at improving leadership skills and technical knowledge, while also recording how the regional UHC core team helps speed up the implementation of UHC. Applying the 70-20-10 learning and development framework, participants received training, coaching, mentoring, and technical assistance. These provided them with strategies that they applied immediately to collaborate with provincial and other stakeholders.

**Results:** Improved leadership and technical competencies gained from the program resulted in the creation of effective regional UHC core teams in the Cordillera Administrative Region, Ilocos, and Cagayan Valley regions, which improved technical support and involved PhilHealth officers, and other national government agencies in UHC implementation. These improvements resulted in achieving faster integration of the health system and more local officials committing to UHC implementation in CAR, Cagayan Valley, and the Ilocos region.

**Conclusion:** Integrating leadership training and technical sessions, mentoring, coaching and hands on practicum was key in strengthening participants capacity and ensuring the effective application of lessons in UHC implementation.

**Recommendations:** Sustain and expand learning opportunities for DOH Regional UHC Core Team members through the Bayang Malusog Community of Practice. This platform will continue to serve as a key mechanism for deepening their technical expertise and enhancing their leadership capabilities. By doing so, regional teams will be better equipped to provide high-quality technical assistance, coaching, and mentoring to provincial and city health leaders—empowering local systems to advance health system integration and fulfil the vision of Universal Health Coverage across the country.

**Keywords:** health leadership development, health systems integration, leadership training, Universal Health Coverage



## STRENGTHENING PRIMARY CARE NETWORKS FOR UNIVERSAL HEALTH COVERAGE: AN EVIDENCE-BASED TECHNICAL ASSISTANCE APPROACH INTEGRATING SYSTEMS AND DESIGN THINKING

**Abstract ID: 154 (Oral)**

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**Presenter:**

Helena Marie L. Alvior

**Background:** Universal Health Care (UHC) implementation faces challenges in achieving integrated primary care delivery, particularly in resource-constrained settings where fragmented service networks undermine service coverage and quality. Primary care facilities (PCFs) often lack systematic assessment mechanisms and collaborative governance structures necessary for effective care coordination and sustainable health system strengthening. This intervention enhanced Guimaras Unified Health Network's capacity for UHC implementation through: 1) comprehensive facility assessments using systems thinking frameworks; 2) design thinking approaches for evidence-based solutions and improved care coordination; and 3) building local leadership capacity for a sustainable and integrated health system governance.

**Methods:** We implemented a 15-month technical assistance intervention using an integrated Input-Process-Output-Outcomes framework combined with human-centered design principles. The methodology included deploying a comprehensive Primary Care Facility Assessment Tool across five PCFs examining service delivery, financing, and governance dimensions; multi-stakeholder engagement through Project Core Teams and Community Advisory Groups; and participatory workshops and collaborative solution development through patient journey mapping and care pathway redesign.

**Results:** Facility assessments revealed specific capacity constraints affecting service integration and care coordination within the province-wide network. Non-health determinants, including leadership, financing, and human resource capacity, significantly impacted service delivery capacity. Participatory workshops generated evidence-informed solutions addressing identified bottlenecks, including reimagined patient pathways for vulnerable populations and strengthened referral mechanisms. This methodology enhanced stakeholder ownership, established sustainable feedback mechanisms, and aligned local priorities with UHC requirements while building adaptive governance capacity.

**Conclusion:** This integrated systems and design thinking approach demonstrates effective strategies for strengthening primary care networks essential for UHC implementation. The methodology provides a replicable framework combining systematic assessment with collaborative innovation, offering actionable guidance for health facility heads, system managers, and technical assistance providers seeking to enhance care coordination, improve service quality, and build sustainable governance capacity for universal health coverage.

**Keywords:** health equity, health systems strengthening, primary care, Universal Health Coverage



## STRENGTHENING THE GLOBAL SUPPLY OF MEDICAL PRODUCTS THROUGH SOUTH-SOUTH AND TRIANGULAR COOPERATION: CHINA'S DUAL ROLE IN LLIN PROVISION FOR MALARIA PREVENTION IN AFRICA UNDER THE HEALTH SILK ROAD INITIATIVE

**Abstract ID: 38 (Oral)**

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**Presenter:**

Hanbin Wang

**Background:** Access to long-lasting insecticidal nets (LLINs) remains a critical challenge for malaria-endemic regions in Africa. China, home to a growing number of WHO-prequalified LLIN manufacturers, has become a key supplier in international procurement systems, while also promoting South-South health and Triangular cooperation under the Health Silk Road initiative. This study investigates China's dual role in LLIN provision: (1) its function as a global manufacturing hub, and (2) how WHO-prequalified Chinese LLIN manufacturers contribute to innovation, affordability, equitable access, and South-South cooperation.

**Methods:** The study draws on semi-structured interviews with procurement officers from international agencies, representatives of Chinese and foreign LLIN manufacturers based in China, and national malaria control program (NMCP) officials in Africa. Data were thematically analyzed using a qualitative approach.

**Results:** Findings show that China supplies the majority of global LLINs through vertically integrated, cost-efficient production, supported by a large skilled labor force and stable supply chains. Yorkool, a leading example among WHO-prequalified Chinese LLIN manufacturers, leveraged the PQ process to strengthen R&D, develop dual-AI products, tailor materials to user preferences, and support LLIN production in Uganda through knowledge and material transfer.

**Conclusions:** This study contributes to literature on the global supply of medical goods and South-South and triangular cooperation (SSTC) by showing how an emerging economy—China—has evolved from a manufacturing base into a standards-compliant innovator and institutional partner in global health. These practices expand access to preventive technologies and enrich the operational meaning of SSTC and the Health Silk Road. The findings suggest that emerging economies can shape more equitable global health systems—not only as suppliers but also as contributors to innovation, quality assurance, and South-South learning—advancing universal coverage of LLIN and broader progress toward universal health coverage (UHC).

**Keywords:** Global health supply chains and triangular cooperation (SSTC), Health Silk Road, Long-lasting insecticidal nets (LLINs), South-South, Universal health coverage (UHC), WHO prequalification (PQ)



## STUDY PROTOCOL - ECO-DIRECTED SUSTAINABLE PRESCRIBING IN MALAYSIA: KNOWLEDGE, AWARENESS AND ATTITUDES AMONG MEDICAL STUDENTS

**Abstract ID: 250 (Poster)**

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**Presenter Name:**

Gursimran Kaur

**Background:** Polypharmacy, the use of five or more medications, is prevalent among older adults which poses significant risks, including poor adherence, adverse drug events and unnecessary medication use. Consequently, amplifying environmental harm through inappropriate medication disposal. These challenges highlight an urgent need to explore a globally advancing prescribing paradigm, the eco-directed sustainable prescribing (EDSP). EDSP integrates safe prescribing practices with planetary health principles. While pharmaceutical disposal behaviour has been studied, no direct studies have yet examined awareness, attitudes, or implementation of EDSP in Malaysia. This pioneer and multipronged study will focus on medical students and aim to bridge clinical safety, patient empowerment, and planetary health. The objectives of this study are to:

- Assess understanding of medication prescribing and the impact on environment among medical students
- Assess awareness and understanding of EDSP among medical students
- Assess attitudes toward the environmental impacts of medication prescribing and disposal practices

**Methods:** A cross-sectional study will be conducted among 100 medical students (recruited with purposive sampling) enrolled at Malaysian medical universities. A structured self-administered questionnaire will be used, comprising of Likert-scale items alongside open-ended questions. Quantitative data will be analysed using descriptive and inferential statistics, while open-ended responses will undergo thematic analysis to provide additional context and insights.

**Significance:** This initial phase will explore the intersection of EDSP practices and prescribing practices among medical students, with future phases possibly examining patient-level and healthcare professionals dynamics to generate evidence-based frameworks. Integrating eco-conscious prescribing within medical education and healthcare aligns with Malaysia's Universal Health Coverage goals and contribute to global healthy ageing and sustainability agendas.

**Keywords:** polypharmacy, adherence, environment, medical students



## SUSTAINABLE EYE CARE AND BEHAVIOR CHANGE IN HEALTH PROFESSIONALS: ADVANCING CLIMATE-SMART OPHTHALMOLOGY IN ASIA AND BEYOND

**Abstract ID: 142 (Poster)**

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**Presenter:**

Renzo Guinto

**Background:** Ophthalmology is one of the most resource-intensive medical specialties, with frequent outpatient visits, centralized care systems, and widespread use of single-use equipment contributing significantly to healthcare's environmental footprint. As climate change intensifies, there is an urgent need to embed sustainability into eye care systems without compromising clinical outcomes or access. This study explores how sustainability can be operationalized in eye care through systems-level reforms and clinician-led behavior change. It identifies practical interventions, highlights best practices across Asia-pacific and beyond, and examines behavior change strategies that enable clinicians to adopt greener practices in their routine work.

**Methods:** A qualitative synthesis of 30 peer-reviewed and grey literature was conducted from April - May 2025, drawing on case studies from India, Ireland, Singapore and the UK. Behavior changes enablers and barriers were examined using the COM-B model and Behavior Change Wheel to understand how sustainability practices can be adopted by clinicians in high-volume, time-constrained settings. Emerging insights informed the development of a proposed framework for identifying sustainability touchpoints.

**Results:** While numerous cost-effective and scalable green interventions exist, according to the COM-B model, clinician uptake is hindered by barriers including lack of awareness, institutional inertia, and resource constraints. Based on these findings, a 5Ps Framework – Patient, Provider, Pharmaceutical, Procurement, and Policy – was proposed to help identify key entry points for greening the eye care ecosystem.

**Conclusion:** Transitioning to climate-smart eye care requires both system-level reforms and clinician engagement. The 5Ps framework offers a novel, actionable pathway to reimagine eye care in the era of climate change. By aligning systems change with behavioral insights, it can guide institutions across Asia and beyond toward greener, more environmentally sustainable ophthalmology.

**Keywords:** 5Ps Framework, behavior change, eye care, sustainability



## SYNERGISTIC ANTIMICROBIAL POTENTIAL OF LEMONGRASS AND CUBAN OREGANO: A COMPARATIVE EVALUATION OF EFFICACY FOR POTENTIAL DISINFECTANT USE

Abstract ID: 93 (Oral)

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### Presenter:

Sebastian Angelo Balmes

**Background:** The emergence of antibiotic-resistant microorganisms, particularly *Escherichia coli*, underscores the need for alternative infection control strategies. This study investigated the antibacterial activity of oregano (*Plectranthus amboinicus*) and lemongrass (*Cymbopogon citratus*), both rich in phenols and flavonoids with antimicrobial properties.

**Methods:** Macrobroth Dilution Susceptibility Testing determined the MIC and MBC, with interactions assessed using the FIC Index. The study hypothesized enhanced antimicrobial activity through synergistic effects.

**Results:** However, statistical analyses showed that the MIC data were not normally distributed ( $p < 0.001$ ) and homogeneity of variances was violated ( $p < 0.001$ ). Treatment type significantly influenced MIC ( $p = 0.00108$ ), while concentration and treatment-concentration interactions did not ( $p > 0.05$ ). Post-hoc tests showed significant differences between bleach and both extracts ( $p = 0.0092$  and  $p = 0.0215$ ), but no significant difference between lemongrass and oregano ( $p = 0.6028$ ). Results indicated additive—rather than synergistic—effects, with bleach achieving bactericidal activity.

**Conclusion:** While the combination effectively inhibited bacterial growth, it cannot replace bleach for complete eradication, though it shows promise as a natural disinfectant in less critical settings.

Keywords: antibiotic resistance, *Escherichia coli*, FIC Index, MBC, MIC, additive effect, lemongrass, natural antimicrobials, oregano, synergistic effect



## TEMPORAL TRENDS IN THE TRIGLYCERIDE-GLUCOSE INDEX AMONG ADULTS WITH TYPE 2 DIABETES IN MALAYSIA: A POPULATION-BASED ANALYSIS (2011-2019)

Abstract ID: 255 (Poster)

**Author:**

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**Presenter:**

Shathanapriya

**Background:** The triglyceride-glucose (TyG) index is a simple surrogate marker of insulin resistance and is increasingly recognized for its role in cardiometabolic risk assessment. However, little is known about temporal trends in TyG levels among patients with type 2 diabetes mellitus (T2DM), especially across ethnic and demographic subgroups in Southeast Asia. The objective of this study is to examine the trends of the TyG index from 2011 to 2019 among adults with T2DM receiving care in public primary care settings in Malaysia, stratified by age, sex, and ethnicity.

**Methods:** This retrospective cohort study used registry data from T2DM patients attending government primary care clinics between 2011 and 2019. The TyG index was calculated as  $\ln [\text{fasting triglycerides (mg/dL)} \times \text{fasting glucose (mg/dL)} / 2]$ . Descriptive and regression analyses evaluated overall temporal trends and the trend by sex, age group, and ethnicity across three-time intervals. Restricted cubic spline models assessed potential nonlinear patterns.

**Results:** A slight but significant decrease in mean TyG index was seen over the study period ( $p < 0.001$ ). Among 161,759 patients, younger individuals had consistently higher TyG values ( $p < 0.001$ ). Both males and females showed a similar modest decline ( $p < 0.001$ ). TyG levels varied by ethnicity ( $p < 0.001$ ), with Malays highest and Chinese lowest. However, the small effect sizes for sex, age, and ethnicity indicate these factors explain only a minor part of the variation in TyG index.

**Conclusion:** This study found a modest but significant decline in the TyG index among Malaysian adults with T2DM from 2011 to 2019. TyG levels varied by age, ethnicity, and sex, with younger individuals and Malays showing higher values. However, these demographic factors explained only a small part of the variation. Further research is needed to identify other factors and develop targeted interventions to reduce insulin resistance and cardiometabolic risk.

Keywords: Malaysia, TyG index, insulin resistance, trend analysis, type 2 diabetes



## THE CORRELATION BETWEEN CONFIDENCE, COMPLACENCY, AND CONVENIENCE AS FACTORS OF PENTAVALENT VACCINE HESITANCY: A DESCRIPTIVE-CORRELATIONAL STUDY AMONG FILIPINO MOTHERS

Abstract ID: 55 (Oral)

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### Presenter:

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**Background:** Vaccine hesitancy remains a pressing global health issue, particularly in low- to middle-income countries like the Philippines. This study investigates the correlation between the World Health Organization's 3C model (Confidence, Complacency, and Convenience) and pentavalent vaccine hesitancy among Filipino mothers. The research responds to a growing need to understand behavioral and systemic barriers to vaccination in urban poor communities. Specifically, it aims to determine the association between each of the 3Cs and pentavalent vaccine hesitancy in selected barangays in Quezon City.

**Methods:** A quantitative, non-experimental correlational design was utilized, employing adapted Likert-scale tools. Eighty-five Filipino mothers aged 18 and above with at least one child aged 0-1 year participated through convenience sampling. Data were analyzed using Spearman's rho to measure correlations between each factor and vaccine hesitancy.

**Results:** Confidence and complacency were found to be significant predictors of vaccine hesitancy ( $r = -0.257$ ,  $P = 0.019$ ;  $r = 0.304$ ,  $P = 0.005$ , respectively). Confidence was characterized by trust in healthcare providers and vaccine efficacy. Complacency reflected a perceived low risk of illness. Convenience (e.g., cost, distance) showed a weak but non-significant correlation ( $r = -0.192$ ,  $P = 0.081$ ).

**Conclusion:** Vaccine hesitancy is shaped by psychosocial and contextual factors. Public health efforts must prioritize restoring trust and addressing risk misperception to improve vaccine uptake. These findings contribute to global strategies for equitable healthcare and informed, community-based immunization programs.

**Keywords:** 3C model, Filipino mothers, complacency, confidence, convenience, pentavalent vaccine, public health, vaccine hesitancy



## THE COST-EFFECTIVENESS OF ARTIFICIAL INTELLIGENCE-ASSISTED COLONOSCOPY AS A PRIMARY OR SECONDARY SCREENING TEST IN POPULATION-BASED COLORECTAL CANCER SCREENING PROGRAMME: A MARKOV MODELLING STUDY

Abstract ID: 135 (Poster)

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### Presenter:

Wong Chi Sang

**Background:** The study provided the cost-effectiveness of using AI colonoscopy in different population-based CRC screening strategies. The study aimed to provide insights into the potential benefits and economic implications of incorporating AI colonoscopy into CRC screening programs.

**Methods:** To evaluate the cost-effectiveness of different population-based colorectal cancer (CRC) screening strategies, including the use of Artificial Intelligence (AI)-aided colonoscopy, by comparing incremental cost-effectiveness ratios (ICERs) and various outcome measures such as loss of cancer-related life-years, prevention of CRC cases, life-years saved, and total cost per life-year saved. Data from international literature and the government gazette were accessed to calculate relevant cost and performance estimates.

**Results:** The incremental cost-effectiveness ratio (ICER) of [FIT + colonoscopy], [FIT + AI colonoscopy]; colonoscopy; and AI colonoscopy was US\$138,539, US\$122,539, US\$203,929, and US\$180,444, respectively. When compared with [FIT + colonoscopy], use of [FIT + AI colonoscopy] could lead to significantly smaller total loss of cancer-related life-years (5,355 vs. 5,327); higher number and proportion of CRC cases prevented (120 vs. 132, 3.7% vs. 4.1%), more life-years saved (280 vs. 308), and lower total cost per life-year saved (US\$944,008 vs. US\$854,367). [FIT + AI colonoscopy] had the lowest ICER [US\$122,539] and dominated across all other strategies (-US\$36,462 vs. FIT + colonoscopy). When colonoscopy is adopted as a primary screening test, AI colonoscopy dominated conventional colonoscopy (ICER -39,040).

**Conclusions:** These findings show that Faecal immunochemical tests (FIT) followed by AI colonoscopy is the most cost-effective strategy in population-based CRC screening programmes.

Keywords: colorectal cancer, screening, faecal immunochemical tests, colonoscopy, artificial intelligence, cost-effectiveness, life-years save



## THE DETERMINANTS OF NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD) AMONG ADOLESCENTS IN PENINSULAR MALAYSIA: A LONGITUDINAL CLOSED COHORT STUDY

**Abstract ID: 266 (Oral)**

**Author:**

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**Presenter:**

Dr. Vishnu Raj Savumthararaj

**Background:** Non-Alcoholic Fatty Liver Disease (NAFLD) affects up to 16% of adolescents globally, yet longitudinal data from Asian populations are scarce. This study examined prevalence trends and determinants of NAFLD over two time points among Malaysian adolescents.

**Methods:** Data were drawn from the Malaysian Health and Adolescents Longitudinal Research Team (MyHeART) study at age 15 (Wave 1, 2014) and age 17 (Wave 2, 2016). NAFLD was assessed using the Hepatic Steatosis Index (HSI). Associations between sociodemographic, adiposity, and lifestyle factors (physical activity, dietary intake, snacking habits, sleep duration, smoking) with NAFLD were analysed using Generalised Estimating Equations (GEE).

**Results:** Among 530 participants, NAFLD prevalence was 2.6% at Wave 1 and 3.6% at Wave 2. Prevalence increased among males (3.7% to 6.8%) but showed a slight decline in females (2.2% to 2.0%). Significant determinants included a higher body fat percentage (adjusted OR, 2.35; 95% CI, 1.41–3.92), frequent snacking (adjusted OR, 1.89; 95% CI, 1.11–3.22), and low physical activity (adjusted OR, 0.67; 95% CI, 0.45–0.98). Among adolescents with NAFLD at baseline, 33% achieved remission, particularly those who improved their physical activity and reduced snacking.

**Conclusion:** High body fat percentage, frequent snacking, and low physical activity have the strongest relationship with NAFLD among Malaysian adolescents. Early targeted interventions addressing these modifiable risk factors are critical to curb the adolescent NAFLD burden.

**Keywords:** NAFLD, adolescents, longitudinal study, lifestyle factors, MyHeART



## THE EFFECT OF EXTREME WEATHER EVENTS AND UNDERNUTRITION IN CHILDREN UNDER FIVE YEARS OLD IN ASIA: A SCOPING REVIEW

Abstract ID: 77 (Oral)

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### Presenter:

Fika Rizkyanti

**Background:** Extreme weather events (EWEs) are weather conditions that exceed normal thresholds and are significantly aggravated by climate change. Children are the most disadvantaged population that is affected by EWEs. Although several studies have examined the impact of EWEs on child undernutrition through multiple pathways, evidence remains inconsistent. This scoping review aimed to map the current literature examining the relationship between EWEs and undernutrition in children under five years of age in Asia, focusing on the type of climate data used, spatial resolution, data integration with nutrition outcomes, and research gaps.

**Methods:** This review followed the PRISMA-ScR checklist. A comprehensive search was conducted across PubMed, Scopus, and the Web of Science on March 1, 2025. The Population-Concept-Context (PCC) framework guided the study's inclusion criteria: children under five years of age (Population), the associations between EWEs and undernutrition (Concept), and studies conducted in Asia (Context). Peer-reviewed articles in English were eligible without date restrictions.

**Results:** This review examined 16 eligible papers; most studies were cross-sectional ( $n = 11$ ) and were geographically concentrated in India and Bangladesh. Floods and temperature extremes were the most studied EWEs, and child stunting (height-for-age Z score  $< -2$ ) was the most commonly examined outcome. Evidence consistently linked floods to increased stunting and underweight, especially in children under three years of age. In contrast, studies investigating the associations between child undernutrition outcomes and drought or excessive rainfall yielded mixed findings. Methodological heterogeneity was evident in the use of exposure thresholds (e.g., SPEI and SPI), spatial resolution (ADM1-ADM4), and exposure-outcome interval, which limited comparability. Longitudinal panel studies ( $n=3$ ) were uncommon but provided stronger causal inferences.

**Conclusion:** Future research should prioritise longitudinal studies, standardised threshold reporting, and improved spatiotemporal data integration to inform effective interventions and policies for mitigation and adaptation.

Keywords: Asia, extreme weather events, climate change, scoping review, undernutrition



## THE EFFECTS OF SKIN-TO-SKIN CONTACT ON MATERNAL POSTNATAL ATTACHMENT IN LYING-IN CLINICS IN METRO MANILA

Abstract ID: 85 (Oral)

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### Presenter:

Andrea Mae L. Diaz

**Background:** Maternal postnatal attachment is critical for infant development. Studies show SSC beyond EINC improves maternal responsiveness (Potgieter and Adams, 2019), instinctive maternal behaviors, and psychological well-being (Feng and Zhang, 2023). This highlights SSC's role in establishing the foundation for future mother-child relationships. This study aims to determine the effects of daily structured, uninterrupted one-hour SSC on maternal attachment towards their newborn, highlighting their emotional bonding.

**Methods:** A quasi-experimental design with pretest-posttest nonequivalent group was utilized. Participants included postpartum mothers selected via convenience sampling from lying-in clinics in Metro Manila, all mandatorily practicing EINC. Inclusion criteria included at least 20 years old, literate, with healthy full-term newborns, no delivery complications, and living with a relative. Exclusion criteria included mother-infant perinatal complications, with toddlers, and residing outside Metro Manila. The 60 participants were equally divided into two; the intervention group performed one-hour SSC daily, while the control group continued their routine care for two weeks. The Mother-to- Infant Bonding Scale (MIBS) was used, with 8 adjectives rated on a 4-point Likert scale, wherein lower scores indicate stronger bonding.

**Results:** A t-test analysis revealed significantly decreased scores of both intervention (2.8 to 0.93) and control groups (3.13 to 1.83), suggesting improved attachment. An item-level analysis of each adjective revealed no significant changes in the items "Loving" and "Joyful". "Resentful" and "Dislike" significantly improved; the control group showed greater decline in "Resentful" and the intervention group in "Dislike". Only the control group significantly improved for "Neutral or felt nothing" while only the intervention group significantly improved in "Protective" and "Disappointed". Although scores for "Aggressive" significantly declined in both, the intervention group had a greater decrease.

**Conclusion:** Structured SSC demonstrated potential in enhancing maternal attachment by reducing negative responses and promoting protectiveness, remaining a valuable adjunct for fostering maternal-infant bonding.

Keywords: early postnatal period, maternal postnatal attachment, Mother-to-Infant Bonding Scale, Skin-to- skin contact (SSC), structured SSC



## THE IMPACT OF PARTICULATE MATTER ON COPD EXACERBATION: A RETROSPECTIVE STUDY FROM TEACHING HOSPITAL UNIVERSITY OF SUMATERA UTARA MEDAN, INDONESIA

Abstract ID: 84 (Oral)

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### Presenter:

Andika Pradana

**Background:** Chronic Obstructive Pulmonary Disease (COPD) affects millions of individuals worldwide. COPD exacerbation—which is the acute deterioration of respiratory symptoms and may be brought about by exposure to particulate matter (PM)—often results in increased hospitalization admissions and reduced quality of life. In Indonesia, industry emissions and forest fires are important contributors to air pollution. The objective of this study is to better understand the relationship between air quality and COPD exacerbation in Medan, Indonesia.

**Methods:** We obtained medical records of all COPD patients hospitalized at the Teaching Hospital of the University of Sumatera Utara, Medan, Indonesia from 2023 to 2024. Data on daily PM<sub>2.5</sub> and PM<sub>10</sub> were obtained from the Meteorological, Climatology, and Geophysical Agency. We compared the monthly-aggregated time-series trends of the hospitalizations for exacerbated COPD with PM<sub>2.5</sub> and PM<sub>10</sub>.

**Results:** A total of 438 patient records were included in this study (81.7% male, mean age 57.3 years old). Data from April each year was excluded due to public holiday and tradition of returning to hometown which leads to low hospitalization rates and might introduce bias. An increase in COPD exacerbation was observed during September–October in 2023, while the peak in 2024 occurred in October. Levels of PM<sub>2.5</sub> and PM<sub>10</sub> both peaked in October 2023 and May 2024, indicating possible short-term pollutant accumulation during the transitional dry to rainy season. Correlation analysis revealed a significant positive association between COPD exacerbation and PM<sub>2.5</sub> (Spearman  $\rho=0.53$ ;  $p=0.01$ ), but not with PM<sub>10</sub> ( $\rho=-0.39$ ;  $p=0.07$ ).

**Conclusion:** PM<sub>2.5</sub> exposure plays a significant role in the rise of COPD exacerbation. These findings highlight the importance of air pollution mitigation to prevent COPD exacerbation. To obtain a better understanding of the spatial-temporal variations in environmental influences on COPD, similar studies should be conducted in other regions with diverse air pollution profiles and land use patterns.

Keywords: COPD, air pollution, exacerbation, particulate matter



## THE LANGUAGES OF CARE: EXPERIENCES OF IMMIGRANT SPEAKERS OF FIVE MOTHER TONGUES IN THE CANADIAN PERINATAL HEALTHCARE SYSTEM

**Abstract ID: 264 (Oral)**

**Authors:**

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**Presenter:**

Celina G. Solís Becerra

**Background:** Respectful and inclusive maternal healthcare is globally acknowledged as a key health indicator. However, social factors such as cultural background, immigration status and race are widely recognized as core barriers to maternal health access and positive outcomes. Among these social factors, language is considered a marker of cultural and ethnic backgrounds. Thus, language is identified as one of the most significant barriers to respectful healthcare access, particularly among immigrants. Canada is a country with a long tradition of welcoming immigrants and promoting immigration policies that encourage the arrival of newcomers from all over the world. However, this positive attitude is not always consistent with immigrants' experiences navigating the health system.

**Methods:** The Research Examining the Stories of Pregnancy and Childbearing in Canada Today (RESPCCT) is a Canada-wide survey with over 200 questions designed through Community Participatory Action Research (CPAR) methods. This project, led by the UBC Birthplace Lab (UBC-BPL), studies the experiences of pregnancy and childbirth care among more than 6,000 participants from diverse cultures, races, and with different lengths of time living in Canada who gave birth between 2010 and 2020 in the country.

**Results:** This presentation shares the preliminary results of an ongoing analysis of the experiences of non-English and non-French immigrant responders of the RESPCCT study. Through thematic analysis inspired by constructivist social theories, we review participants' open-ended responses. Participant selection occurred by choosing the higher scores of respect (MOR), autonomy (MDAM), and mistreatment (MIST-7) tools\* among immigrant responders. From there, we examine the participant's positive experiences and explore how mother tongues interplay with a) cultural safety, b) informed consent access, c) non-verbal communication, d) verbal communication from care providers, e) supportive behaviors, and f) conditions of treatment.

\*Scales and Index developed by the BPL based on its own generated research evidence (Vedam et al. 2018).

**Keywords:** cultural safety, inclusive maternity care, discrimination in maternal health, immigrants in Canada, racial equity, reproductive justice, women's health



## THE PANDEMIC AGREEMENT AS A LEGAL MILESTONE FOR ONE HEALTH: SIGNIFICANCE AND CHALLENGES AHEAD

Abstract ID: 104 (Oral)

**Authors:**

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**Presenter:**

Kentaro Nishimoto

**Background:** The COVID-19 pandemic highlighted the interdependence of human, animal, and environmental health. The recognition of this interdependence has been further reinforced by the growing awareness of climate change as a risk multiplier, exacerbating health threats by accelerating ecological degradation and influencing zoonotic spillover. The Pandemic Agreement, adopted in May 2025, represents the first legally binding instrument to adopt the One Health approach. This study examines the significance and future challenges of the Pandemic Agreement in implementing the One Health approach.

**Methods:** The study combines a literature review on the normative basis and governance challenges of the One Health approach with a survey of relevant soft law instruments and an examination of the text and negotiating history of the Pandemic Agreement. It also considered the impact of general principles and approaches in multilateral environmental agreements (MEAs) as a benchmark for assessing the One Health approach.

**Results:** The Pandemic Agreement builds on the work of the Quadripartite Organizations (FAO, UNEP, WHO, and WOA) in advancing the One Health approach and introduces legally binding obligations for its implementation, alongside related provisions on prevention and surveillance. However, these obligations are generally assessed as broad and relatively weak, raising questions about their added legal value compared to existing efforts and soft law instruments. Nevertheless, experience from MEAs suggests that even general obligations can shape treaty practice over time. The development of guidelines, recommendations, and decisions by the Conference of the Parties could play a critical role in further operationalizing the One Health approach under the Agreement.

**Conclusion:** The Pandemic Agreement is a legal milestone in promoting the implementation of the One Health approach. However, given the weakness of the related legal obligations, effective implementation of the approach would require continued efforts within the treaty regime after the Agreement enters into force.

Keywords: global health law, one health, Pandemic Treaty



## THE RELATIONSHIP OF LIGHT PHYSICAL ACTIVITY ON OVERALL WELL-BEING AMONG OLDER PERSONS IN METRO MANILA

**Abstract ID: 82 (Oral)**

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**Presenter:**

Maree Yzabela M. Santos

**Background:** With the rise of the aging population in the Philippines, promoting holistic well-being in older persons is increasingly important. Light physical activity (LPA)—such as walking and household chores—has been associated with numerous health benefits, yet its relationship with specific well-being domains remains underexplored in the Filipino context. This study aimed to determine the correlation between light physical activity and the four domains of well-being—physical, psychological, social, and environmental—among older persons residing in Metro Manila.

**Methods:** A quantitative descriptive correlational design was employed. Fifty-two participants aged 65 and above, from both institutional and community-based settings, were selected via convenience sampling. Data were gathered using the Physical Activity Scale for the Elderly–Filipino version (PASE-F) and the WHO Quality of Life–BREF (WHOQOL-BREF). Statistical analyses, including Spearman’s rho correlation, were conducted using SPSS version 30.

**Results:** The results revealed a weak positive correlation between light physical activity and physical well-being ( $\rho = 0.151$ ,  $p = 0.285$ ), psychological well-being ( $\rho = 0.134$ ,  $p = 0.334$ ), and environmental well-being ( $\rho = 0.143$ ,  $p = 0.311$ ). The social well-being domain showed the weakest association ( $\rho = 0.017$ ,  $p = 0.906$ ). All correlations were not statistically significant at  $p < 0.05$ . These findings indicate that while light physical activity is positively associated with well-being scores, the strength of association is weak and not statistically significant.

**Conclusion:** While light physical activity was associated with favorable well-being scores across all domains, the lack of statistically significant relationships suggests that physical activity alone may not independently influence older persons’ holistic well-being. The study highlights the need for integrated health strategies that combine physical activity with social, emotional, and environmental support systems to enhance overall quality of life among older adults in the Philippines.

**Keywords:** active aging, light physical activity, older persons, PASE-F, quality of life, WHOQOL-BREF, well-being



## THE ROLE OF AI AND DIGITAL TECHNOLOGIES IN ACCESS TO DIAGNOSTICS IN CRISIS-PRONE AREAS: A CASE FROM MYANMAR BORDER AREAS IN THAILAND

**Abstract ID: 258 (Oral)**

**Authors:**

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**Presenter:**

Claudia Abreu Lopes

**Background:** ASEAN countries face complex health crises driven by poverty, climate change, infectious diseases, natural disasters, and the withdrawal of external aid. The Thailand-Myanmar border region, in particular, is challenged by a large influx of displaced people, the termination of external assistance, and reduced free medical services. These factors strain health systems and highlight the urgent need for innovative, resilient approaches. The border region is a hotspot for communicable diseases such as tuberculosis (including multidrug-resistant TB), malaria, HIV/AIDS, and vaccine-preventable diseases. The constant movement of refugees, migrant workers, and displaced people complicates disease control and access to essential health services. While public health responses have been robust in some areas, ongoing migration and instability in Myanmar continue to pressure local healthcare capacity. AI and digital technologies are increasingly recognized as transformative tools for improving access to health services in low- and middle-income countries, particularly in diagnostics, telemedicine, supply chain management, and epidemic forecasting. These technologies, when adapted to local contexts, can help overcome systemic barriers and improve health outcomes in resource-constrained settings. However, challenges remain, such as limited high-quality data for AI model training, weak infrastructure (electricity, connectivity), low AI literacy, and the deployment of "black-box" AI systems with low explainability and community trust. Human-centered design approaches—actively involving end-users such as patients and frontline health workers—are critical for effective and ethical deployment, especially among marginalized populations. The objective of this study is to identify issues surrounding access to diagnostics on the National Essential Diagnostics List for populations in crisis-prone areas, particularly at the Myanmar border in Thailand, and to explore how AI and other digital technologies could support the development of self-reliant systems for health.

**Methods:** A mixed-methods approach will be employed, including based on a scoping review of the literature, key informant interviews, and participatory research. Ethical approval is being sought.

**Expected Outcomes / Significance:** To collaboratively design AI and digital solutions with local stakeholders that are informed by identified healthcare needs and grounded in principles of equity, resilience, and sustainability.



## THE SUDDEN SURGE OF LYMPHATIC FILARIASIS CASES IN TUARAN: A CROSS-SECTIONAL STUDY

Abstract ID: 49 (Poster)

**Authors:**

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**Presenter:**

Sathana Palani

**Background:** Lymphatic filariasis (LF) is a vector-borne neglected tropical disease that remains endemic in several regions of Malaysia, particularly in Sabah. The predominant causative parasite is *Brugia malayi*. Tuaran District had no previously recorded cases of LF until 2023. However, a sudden emergence of 40 confirmed LF cases in 2024 raised concerns regarding undetected transmission and limitations in local surveillance as well as early response efforts. This study aims to describe the sociodemographic characteristics and spatial analysis of LF cases in Tuaran District, Sabah, from 2020 - 2024. It aims to outline the public health response and preventive measures implemented during the surge in number of confirmed cases.

**Methods:** This cross-sectional study was conducted using secondary data from Vector Control Unit, Tuaran District Health Office, covering a five-year period from 2020 - 2024. Data sources included case notifications, field investigation records, community screening outcomes, and entomological investigation findings.

**Results:** The first LF case was detected in 2023. Active case detection conducted involved 394 residents across four localities, resulting in 38 individuals testing positive. In Tuaran, LF cases were more common among adults aged  $\geq 40$  years and those with outdoor jobs. Up till 2024, only 43.9% of positive cases received treatment. Spatial analysis shows LF cases clustering around villages within the Tamparuli sub-district, particularly where the landscape is dominated by plantations and forest margins. Entomological investigation at three sites showed no active vector presence. Public health interventions focused on morbidity management, continuous case surveillance, and targeted community health education.

**Conclusion:** LF remains a significant public-health burden. Sabah still has endemic implementation units and sporadic cases, underscoring the need for more resources, consistent access to diagnostics and treatment, stronger community entomological surveillance, and better integration of local actions with national strategies.

Keywords: lymphatic filariasis elimination, morbidity management, public health interventions



## THE THEORY AND PRACTICE SUSTAINABLE RESILIENCE IN PUBLIC HEALTH PROGRAMS

**Abstract ID: 236 (Oral)**

**Authors:**

Ellen Fitzpatrick, University of Oregon

**Presenter:**

Ellen Fitzpatrick

**Background:** We are now in a world where every aspect of global public health is affected by climate change and as such, health interventions are increasingly required to include climate resilience as an outcome or impact in the planning and evaluation of programs. Since forty percent of the world's population are highly vulnerable to the impacts of climate change, the penultimate task is to make the transition to plan and design for adaptation and resilience. This transition is most acute for the 70-80% of the vulnerable that live in the global south. In this world, where every aspect of public health is affected by climate change, health interventions, whether embedded in larger development programs or as stand-alone projects, do not include resilience to climate impacts as an outcome. This has led to a patchwork of approaches often without clear connections between the nature of the climate related hazard, the specific health vulnerabilities of the population, the adaptation (interventions), and measurable and specific outcomes that enhance resilience and promote the sustainability of improved health. This framework explicitly identifies climate effects and places sustainable resilience at the center of both the design and evaluation of health programs and projects. This TOSR will allow health program evaluators to systematically capture changes in risk, vulnerability, and resilience in natural and human systems.

**Methods:** Case studies are used to illustrate evaluation with respect to risk reduction, resilience and the dynamic relationship between resilience and long-term sustainable impacts. Qualitative and quantitative assessment tools surface relevance, strategy, elements of systems resilience and the conditions that drive sustainable resilience.

**Results:** Two case studies, malaria prevention and food security/nutrition illustrate this conceptual framework for evaluation.

Keywords: climate resilience, evaluation, public health



## THROUGH THE LENS OF GRIEF: A PHENOMENOLOGICAL STUDY ON WIDOWHOOD AMONG MIDDLE-AGED AND OLDER ADULTS

Abstract ID: 92 (Oral)

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### Presenter:

Jodie Maurizia T. Mendoza

**Background:** Widowed individuals are often sidelined in healthcare, despite experiencing grief shaped by cultural, spiritual, social, and gendered factors. While global health efforts prioritize maternal and child health, this focus reveals a care gap for grieving individuals, whose needs remain largely invisible. Existing research on grief is Western-centric, overlooking how cultural and gender expectations influence bereavement in non-Western contexts like the Philippines. In local healthcare, grief responses often focus on visible symptoms, neglecting the deeper emotional and psychosocial impact of widowhood. This study explores how Filipino norms, gender roles, and support systems shape grieving and coping, synthesizing the participants' lived experiences informing inclusive, culturally sensitive grief care practices in Philippine nursing and mental health.

**Methods:** This descriptive phenomenological study explored the lived experiences of nine interviewed widowed individuals for at least five years in Quezon City, Philippines, selected through purposive sampling. Data were thematically analyzed. Trustworthiness was ensured through reflexivity, triangulation, member checking, and an audit trail. Ethical measures included informed consent, confidentiality, and psychological support.

**Results:** The study revealed themes underscoring the gendered nuances, physical symptoms, and emotional burden in grieving, the role of support systems, maladaptive coping mechanisms, and fragmented care in bereavement contexts. Filipino widows' and widowers' experiences reflect a quiet, culturally shaped resilience. Grief was not absent, but differently expressed—intertwined with caregiving roles, spiritual beliefs, and social expectations. These findings demonstrate that grief is complex, manifesting as a biopsychosocial process.

**Conclusion:** The study explored how culture, gender, and support systems shape grief among widowed Filipinos, revealing biopsychosocial impacts, gendered coping, and care gaps. Advocating culturally grounded, gender-responsive, community-based interventions in nursing, it aligns with SDGs 3 and 11 and answers a global call for shared solutions, emphasizing that recognizing grief as a mental health issue fosters inclusive, resilient healthcare systems.

Keywords: coping mechanism, cultural expectations, gender, grief, lived experiences, mental health, phenomenology, thematic analysis, widowers, widowhood, widows



## TRADITIONAL HEALTH CARE AND HERBAL MEDICINE USE AMONG THE KAREN PEOPLE: A CASE STUDY OF BAN MAE LAN KHAM, SAMOENG DISTRICT, CHIANG MAI PROVINCE

Abstract ID: 95 (Oral)

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### Presenter:

Suwichan Phatthanaphraiwan, John O'Neil

**Background:** The use of traditional medicines among Karen people has sustained Ban Mae Lan Kham (BMLK) village for generations. Throughout the seven Karen livelihood areas, the contemporary usage of traditional medicines is not well documented. In situations where Western health care systems propose to integrate traditional medicines, the conservation of Indigenous medicine and knowledge transmission to the next generation are crucial for the livelihood of BMLK. Through international collaboration, the study aims to enhance Indigenous medicine conservation by documenting the use of Karen traditional medicines and developing best practices for intergenerational knowledge transmission between Karen medicinal knowledge holders to Karen youth.

**Methods:** Over a 2-year period using participatory action-based research methodology, the study used exploratory field surveys and interviews conducted with traditional knowledge keepers, village leaders, and local people in the seven Karen livelihood areas of BMLK to assess the status of traditional medicine usage. The research findings were co-analyzed with Karen research participants to develop best practices for intergenerational knowledge transmission.

**Results:** The study found that there are 258 herbal medicinal species recorded across the seven Karen livelihood areas: Rotational farming; Fallow 1-years; Fallow 7-years; Rainforests; Tropical rain forest; Hill evergreen forest; and Livelihood areas. Although Indigenous medicines were found to be in active use, there is a need to improve knowledge transmission to younger generations. To improve medicinal knowledge transmission, a living library was developed in the BMLK community to house medicinal knowledge and serve as a gathering space for Karen medicine knowledge holders to transmit knowledge to Karen youth.

**Conclusion:** As Indigenous communities like BMLK continue to manage their traditional territories and pass down knowledge to the next generation, these practices support biodiversity and contribute to sustainable livelihoods for planetary health.

Keywords: Indigenous health, planetary health, traditional medicine



## TRENDS AND CLIMATIC DRIVERS OF LEPTOSPIROSIS IN MALAYSIA, 2012-2022: SPATIOTEMPORAL ANALYSIS

Abstract ID: 251 (Oral)

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### Presenter:

Muhamad Fadhil Mohd Pua'at Zuzaki

**Background:** Leptospirosis remains a significant zoonotic disease in Malaysia, where climatic and environmental factors influence transmission dynamics. However, comprehensive national analyses of spatiotemporal patterns and their relationship to climate remain limited. The objective of the study is to describe the demographics, spatiotemporal patterns, and intensity; identify spatial clustering and hotspots; and determine the association between climatic conditions and state-level incidence of leptospirosis cases in Malaysia from 2012 to 2022.

**Methods:** A retrospective ecological study was conducted using 51,564 leptospirosis cases reported across Malaysia from 2012 to 2022. Demographics and spatiotemporal patterns were presented accordingly, and intensity was assessed using kernel density estimates (KDE). Spatial clustering and hotspots were identified using the nearest neighbour index (NNI), Global Moran's I, local indicators of spatial association (LISA), and Getis-Ord  $G_i^*$  statistics. The impact of temperature, rainfall, humidity, and flooding on annual state-level cases was determined using a generalised linear mixed model (GLMM).

**Results:** Most cases were in males (68.1%) and Malay Bumiputera (62.6%), with a median age of 30 years. Case numbers peaked in 2014-2016 and 2022, with higher density observed in parts of Peninsular Malaysia. Strong spatial clustering was seen every year (NNI 0.19-0.28; Moran's I 0.24-0.51,  $p < 0.001$ ). LISA found persistent hotspots in Selangor and Kelantan. Getis-Ord  $G_i^*$  confirmed the persistence and spread of these high-risk areas, especially during years with higher case numbers. Higher temperature was linked to reduced leptospirosis risk (IRR=0.87, 95% CI: 0.77-0.98), while rainfall, humidity, and flooding were not significant.

**Conclusion:** The local climate and environment strongly shape leptospirosis in Malaysia, with certain states consistently experiencing higher risk. Focusing prevention efforts in these hotspots, while considering ongoing changes in climate and environment, can improve disease control. These strategies may also be useful for managing leptospirosis and similar diseases in other countries with changing environments.

Keywords: climate, clustering, hotspots, leptospirosis, Malaysia



## TRENDS OF ICD-10 DIAGNOSIS AT ED OF PUBLIC HOSPITALS IN MALAYSIA

Abstract ID: 185 (Poster)

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### Presenter:

Muhammad Khair Mohamad Yunus

**Background:** Emergency departments (EDs) in Malaysia play a critical role in healthcare delivery, managing a wide range of conditions. Developing Diagnosis-Related Groups (DRGs) for emergency care requires a comprehensive understanding of the patterns of disease presentation. This study examines the use of ICD-10 codes in EDs across Malaysia to inform DRG development.

**Methods:** This cross-sectional study was based on a functional exercise conducted by the Ministry of Health Malaysia over a six-week period from June to July 2022. Data were collected from 13 public hospitals, including various hospital types (state, major specialist, minor specialist, and non-specialist hospitals) across Peninsular Malaysia, Sabah, and Sarawak. Systematic random sampling was used to select emergency care episodes, resulting in 9,942 records. Ethical approval was obtained from the Medical Research and Ethics Committee, Ministry of Health Malaysia (approval dated 29 June 2022). The study followed the STROBE checklist for cross-sectional studies. Sample size calculation using OpenEpi determined a minimum requirement of 1,512 records with a 99.99% confidence level, adjusted to 1,814 samples to account for a 20% attrition rate.

**Results:** Respiratory diseases were the most frequently reported conditions, accounting for 21.2% of cases. The analysis identified 946 unique ICD-10 codes, with a significant number used infrequently. Codes with fewer than five presentations constituted 73.7% of all codes, while the top 20 diagnoses represented 42.9% of all records. Systematic ICD-10 coding revealed key areas where DRGs could be developed to enhance resource allocation in emergency care.

**Conclusion:** The study highlights the diversity in diagnoses within Malaysian EDs and underscores the need for tailored DRGs to optimise healthcare resources. Future research should expand data collection to capture seasonal trends and refine the development of principal diagnosis lists to support DRG categorisation.

Keywords: emergency service, hospital, International Classification of Diseases, Malaysia



## TURNING DOWN INDUSTRIAL NOISE: A COLLABORATIVE HEARING CONSERVATION INITIATIVE FOR PALM MILL WORKERS

Abstract ID: 118 (Poster)

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### Presenter:

Gowri Mutthumanickam

**Background:** Occupational noise-related hearing disorders (ONRHD) remain a critical health concern in the palm oil industry. Despite regulatory frameworks, implementation gaps persist due to limited targeted interventions. This study aims to develop and validate a culturally tailored Hearing Conservation Program (HCP) for palm oil mill workers using a multi-method approach.

**Methods:** The development of the HCP involved triangulation of various data sources. A literature review was conducted to understand the local and international regulatory requirements and to review various research on the HCP. A walk-through survey and document review were carried out to understand work processes, work practices, and organisational behaviour in the palm oil mills. An in-depth interview with program users, implementers, and policymakers was also conducted to explore the barriers and facilitators to various strategies for preventing occupational noise-related hearing disorders in the mills. Content validation of the HCP was conducted by five expert panel members, who assessed its relevance, comprehensiveness, and clarity. The Hearing Conservation Program Training component was pre-tested among 30 palm oil mill workers.

**Results:** A comprehensive HCP was developed incorporating seven key elements. The content validation demonstrated excellent agreement among experts. The Scale-Content Validity Index/Average (S-CVI/Ave) scores for comprehensiveness and relevance were 1.000 and 0.975 for clarity. Corrections were made based on feedback before pre-testing. In the pre-test phase, more than 96% of participants agreed that the materials were clear and comprehensive. Minor refinements were made, but the training materials were retained in their final form based on overall positive feedback.

**Conclusion:** The development and validation of the HCP demonstrated strong content validity and acceptability among end users. These findings support its implementation in later stages of the study and emphasise the importance of evidence-informed occupational health interventions in the palm oil industry. This contributes to global efforts to prevent ONRHD and to promote workers' health equity.

Keywords: hearing conservation program, hearing disorders, hearing loss, occupational noise, palm oil mill



## UNCOVERING SMOKING PATTERNS AND INFLUENCING FACTORS AMONG WOMEN IN INDONESIA: INSIGHTS FROM THE 2021 GATS DATA

Abstract ID: 133 (Oral)

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### Presenter:

Nina Rini Suprobo

**Background:** Despite the low prevalence of smoking among Indonesian women, it is crucial to ascertain its distribution across various demographic and socioeconomic categories to inform targeted tobacco control initiatives and mitigate health inequities. This study aimed to examine the prevalence and predictors of smoking behavior among women in Indonesia using data from the 2021 Global Adult Tobacco Survey (GATS).

**Methods:** This research utilized data from the 2021 GATS Indonesia, a nationally representative cross-sectional household survey. A total of 4,537 women aged 15 and above were involved. Descriptive statistics and multinomial logistic regression were utilized to estimate smoking prevalence and find relevant factors such as age, education, occupation, socioeconomic position, type of residence, and health awareness.

**Results:** The smoking prevalence among women was 2.2%, exhibiting significant demographic and socioeconomic disparities. Women aged 45 to 64 were more likely to smoke compared to younger women (RRR = 2.63; 95% CI: 1.09–6.35). Women with educational attainment below senior high school displayed increased odds of smoking (RRR= 1.81; 95% CI: 1.02–3.20), as did those who were employed (RRR = 1.63; 95% CI: 1.07–2.49). Furthermore, lower socioeconomic level, rural residency, and diminished understanding of health concerns were correlated with a heightened propensity for smoking; however, these correlations were presented without statistical estimations.

**Conclusion:** Although the overall frequency is low, female smoking in Indonesia is influenced by distinct socioeconomic and behavioral trends. Middle-aged, employed women with lower educational attainment, especially those residing in rural or economically disadvantaged areas with restricted health awareness, have a higher propensity for smoking. Tobacco control initiatives must concentrate on targeted health promotion and educational campaigns to reach specific at-risk populations and avert the exacerbation of tobacco-related health inequities.

**Keywords:** Indonesian smoking prevalence, female smoking behavior, socioeconomic disparities, targeted tobacco control, tobacco use



## UNDERSTANDING MENTAL HEALTH LITERACY AMONG PRE-UNIVERSITY STUDENTS IN MALAYSIA: A MIXED METHODS PROTOCOL

**Abstract ID: 256 (Oral)**

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**Presenter:**

'Aziezah Norul Anhar

**Background:** Mental health issues among late adolescents in Malaysia have emerged as a growing public health concern, particularly during the transitional pre-university period. Despite increasing awareness of adolescent mental health, mental health literacy (MHL) in this age group remains poorly understood. Many students are unable to recognize symptoms, access reliable information, or navigate appropriate help-seeking pathways. There is a clear need for context-specific research that considers not only individual knowledge but also cultural attitudes, behavioural norms, and environmental influences shaping MHL. This study draws on Social Cognitive Theory to address these gaps and contribute to evidence-informed mental health promotion among youth in low- and middle-income settings. The objectives of this study are to:

1. Assess the level of MHL among pre-university students aged 18-19 in Negeri Sembilan.
2. Identify key personal, behavioural, and environmental determinants of MHL.
3. Explore students' lived experiences and help-seeking perceptions.
4. Provide locally relevant insights to inform institution- and community-based interventions.

**Methods:** A convergent mixed methods design will be employed. The quantitative arm will consist of a cross-sectional survey involving 350 students using validated tools measuring MHL, self-efficacy, health literacy, social support, and cultural beliefs. In parallel, 10-15 students will be purposively selected for in-depth interviews to examine contextual influences on mental health understanding and help-seeking behaviour. Quantitative data will be analysed using descriptive and inferential statistics (SPSS), while qualitative data will undergo thematic analysis (NVivo). Ethical approval is currently being sought from Universiti Putra Malaysia's Research Ethics Committee.

**Results:** Findings will offer a comprehensive understanding of the multifactorial influences on adolescent MHL, supporting the development of culturally sensitive, equity-oriented interventions in line with global mental health priorities.

**Acknowledgement:** This study is supported by a research grant from the Department of Community Health, Universiti Putra Malaysia (Grant No. 6302026-14001).

**Keywords:** mental health literacy, adolescent health, help-seeking behavior, mixed methods, Malaysia



## UNDERSTANDING PATIENT SATISFACTION IN VIRTUAL OUTPATIENT CARE: INSIGHTS FROM A STATEWIDE SURVEY IN AUSTRALIA

Abstract ID: 45 (Oral)

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### Presenter:

Zhaoli Dai-Keller

**Background:** Outpatient services help bridge the care gap between primary and tertiary healthcare. However, little is known about how clinical context affects patient experience in virtual care, particularly since its rise during the COVID-19 pandemic. The objective of this study is to examine associations between clinician-patient communication, appointment purpose, clinical discipline, and patient satisfaction with virtual care, including overall rating, willingness to use virtual care again, and perceived helpfulness.

**Methods:** This retrospective cross-sectional study analysed data from Virtual Care Surveys conducted in 2020–2022 by the Bureau of Health Information (New South Wales Ministry of Health), which captured patient experiences with phone and video-based care in public hospital outpatient clinics. Outcomes were coded as negative experiences. Analyses applied population weighting, and regression models were adjusted for patient characteristics and survey year to estimate adjusted odds ratios (AORs) and 95% confidence intervals.

**Results:** Among 7,513 respondents with complete data reporting virtual care appointments and gender (representing 354,698 patients; mean age 56, 59% female), key predictors of negative virtual care experiences included clinicians not listening carefully [AORs: 3.7(2.1,6.7) (poor rating), 2.2(1.3,3.7) (unwillingness), 7.7(3.9,15.2) (unhelpfulness)], and patients lacking trust/confidence in clinicians [AORs: 5.9(3.7,9.7), 1.9(1.1, 3.1), 2.9(1.5,5.5), respectively]. Among the purposes of the appointment, receiving medical diagnosis and advice was related to perceived unhelpfulness [AOR: 1.9 (1.0, 3.5)]. No associations were found for clinical discipline; however, clinicians lacking preparedness increased the odds of experiencing negative outcomes. Positive experiences were more likely to be reported among patients aged 65 and above, females, those from non-English-speaking backgrounds, individuals living in remote areas, and those with more frequent use of virtual care ( $p < 0.03$ ).

**Conclusion:** Virtual care was broadly accepted across outpatient services in New South Wales. However, patient satisfaction was influenced by the quality of communication and clinician preparedness. Targeted training, particularly for diagnostic consultations, may enhance virtual care experiences in Australia and inform best practices globally.

Keywords: clinician-patient communication, outpatient services, patient experience, virtual care



## UNDERSTANDING STUDENTS' NAVIGATION OF HEALTH SPACES IN THREE CHINESE CITIES: A QUALITATIVE AND NETWORK SURVEY STUDY

Abstract ID: 158 (Poster)

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**Presenter:**

Mohamed Yunus Rafiq

**Background:** Migration is one of the defining issues of our time. Politics, violence, restrictive definitions of citizenship, the rise of ethno-nationalist states, and climate change have driven large-scale population movements. While much attention is given to migration from developing to developed countries, the reality is more complex—most global migration is regional or occurs between developing countries. China, for example, has become an increasingly important destination for migrants, including a growing number of African student migrants. In 2018, there were 492,185 African students in China, and this number is projected to rise significantly. Like other migrants, African students face considerable challenges in accessing health care. Research has shown that student migrants encounter barriers related to affordability, accessibility, language, miscommunication, and stigma. In 2024, we launched a study to examine the specific challenges faced by Tanzanian students in accessing health care in three Chinese cities.

**Methods:** We conducted 60 in-depth interviews and a network survey. Using the concept of patient navigation, the study examines how students locate and access health services, as well as the role of social networks in this process.

**Results:** Preliminary findings from qualitative interviews suggest that Tanzanian students perceive the quality of health services as average. They report bureaucratic and language-related barriers, inadequate insurance coverage, and experiences of discrimination.

**Conclusion:** This study contributes to the understanding of health-seeking behavior and highlights the critical role of social networks in accessing care among a growing segment of African student migrants in China.

Keywords: China, migration, networks, students, Tanzania



## UNEQUAL ACCESS, UNEQUAL OUTCOMES: DISPARITIES IN AVAILABILITY AND ACCESSIBILITY TO SELF-INJECTABLE ADRENALINE FOR PEDIATRIC ANAPHYLAXIS IN ASIA PACIFIC

Abstract ID: 43 (Poster)

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**Presenter:** Phoebe C. Y. Yau

**Background:** Pediatric anaphylaxis is under-investigated in Asia-Pacific, with its management remains under-reported. This study aims to report and compare the management practice of pediatric anaphylaxis among Asia-Pacific localities.

**Methods:** Data from the Asia-Pacific Research Network for Anaphylaxis, a prospective regional pediatric anaphylaxis registry with 16 participating centers from Hong Kong, Singapore, Thailand and Qingdao, was analyzed. The management strategies across regions were compared. The outcomes of patients with and without self-injectable adrenaline before anaphylaxis were also contrasted.

**Results:** A total of 721 anaphylaxis episodes in 689 patients, spanning from 2019 to 2022, were included. Overall, while adrenaline was administered in 434 (60.2%) episodes, only 64 (8.9%) were given pre-hospital adrenaline. Almost all patients in Thailand (95.8%, 113/118) and Singapore (93.3%, 237/254) received adrenaline, whose usage was significantly lower in Hong Kong (30.1%, 66/219) and Qingdao (13.8%, 18/130;  $p < .001$ ). Only 89 (12.3%) children owned an adrenaline device before an episode of anaphylaxis, with significantly different rates of ownership among regions ( $p < .001$ ): 18.9% (48/254) children in Singapore possessed a device, followed by 15.3% (18/118) in Thailand, 10.5% (23/219) in Hong Kong, and none in Qingdao. Compared to individuals without an adrenaline device before an anaphylactic event, those who owned one had significantly higher overall (80.9% vs. 57.3%,  $p < .001$ ) and pre-hospital use of adrenaline (49.4% vs. 3.2%,  $p < .001$ ), shorter time to first-dose administration (mean: 73.4±98.2 minutes vs. 159.8±476.5 minutes,  $p < .001$ ), lower proportion of severe anaphylaxis (World Allergy Organization Grade 4-5 reactions; 9.0% vs. 18.4%,  $p = .028$ ) and reduced length of admission (mean: 1.0±0.7 days vs. 2.3±7.5 days,  $p < .001$ ).

**Conclusions:** Disparities in anaphylaxis management persist in Asia-Pacific, likely due to limited adrenaline autoinjector access in developing countries, as well as underuse in developed regions. Patients who owned an adrenaline device demonstrated significantly better outcomes than those who did not.

**Keywords:** adrenaline, Asia, allergy, anaphylaxis, disparities, pediatric



## URBAN RENEWAL STRATEGIES IN AN AGING SOCIETY: CROSS- SECTORAL INTEGRATION OF ARCHITECTURAL DESIGN AND COMMUNITY- BASED HEALTHCARE

**Abstract ID: 74 (Oral)**

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**Presenter:**

ChengFu-Yen

**Background:** Taiwan is projected to become a super-aged society by 2025, with over 20% of its population aged 65 and above. This demographic shift poses significant challenges to urban infrastructure, spatial planning, and health service delivery. Using Taipei City as a case study, this research explores how urban renewal can serve as a platform for integrating architectural innovation with community-based healthcare, aiming to create resilient, age- friendly urban environments. The study proposes a transition from conventional land redevelopment toward a more inclusive and health-oriented urban renewal model. Five key design strategies are identified: (1) smart green buildings for energy efficiency and environmental sustainability; (2) health-promoting architecture that enhances indoor environmental quality; (3) pandemic-resilient infrastructure with infection control features; (4) universal design for accessibility and age inclusiveness; and (5) embedded smart medical devices to support remote health monitoring and emergency care. On the healthcare side, the research advocates for localized service models, including community-based rehabilitation centers, neighborhood family clinics, and integrated referral systems between primary and tertiary care. These approaches aim to enhance care accessibility, continuity, and responsiveness, particularly for older adults seeking to age in place.

**Conclusion:** The integration of built environment design and healthcare delivery within urban renewal not only addresses the needs of an aging population but also improves cities' overall public health preparedness. The study concludes with policy recommendations for institutionalizing health-integrated urban renewal practices, and highlights the necessity of cross-sector collaboration among urban planners, public health professionals, medical providers, and local governments. This research contributes to global discussions on healthy cities and sustainable aging by providing a replicable model that bridges the gap between spatial planning and healthcare systems in the context of demographic transition and public health risk.

**Keywords:** aging society, community healthcare, health-oriented design, public health integration, resilient cities, smart buildings, universal design, urban renewal



## USE OF DATA IN POLICIES AT THE NEXUS OF CLIMATE AND HEALTH

**Abstract ID: 102 (Oral)**

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**Presenter:**

Wissawa Malakan

**Background:** Climate change poses serious public health risks, necessitating the integration of environmental, climate, and health data into policymaking. In Thailand, multiple governmental agencies are responsible for implementing policies related to climate change and health. However, the extent to which data are used in these policies remains unclear. Therefore, this study aimed to map existing policies to relevant agencies, assess the types and extent of data use in these policies, and identify enablers and barriers to using data in policymaking.

**Methods:** We conducted a targeted search across various ministries to identify and review relevant policy documents and map stakeholders and their roles. Subsequently, a cross-sectional online survey was administered among stakeholders from relevant ministries to identify (i) scopes and their roles (ii) types and uses of data in policymaking, (iii) enablers and barriers. Lastly, two rounds of stakeholder consultations were held. Data were analyzed using a mixed-methods approach, with thematic analysis for qualitative and descriptive statistics for quantitative data.

**Results:** 288 documents were identified, including 184 regulations, 94 policies, and 10 reports and guidelines. Most policies involved multiple ministries, local governments, citizens, academic institutions, national committees, and international organizations. Policy development processes incorporated data-driven analysis, stakeholder engagement, relevant authorities' involvement, and alignment with parent laws. However, data remain fragmented, and data utilization remains limited. The public health sector makes minimal use of socioeconomic data, while health data is rarely integrated into the energy and transport sectors. Technology and political factors were the most frequently cited enablers and barriers, respectively.

**Conclusion:** Thailand has established a broad framework linking climate, health, and environmental policies. Stakeholders operate at both national and international levels, primarily serving as information providers. Policy decisions are evidence-based. However, challenges persist in implementation, resourcing, enforcement, and evaluation.

**Keywords:** climate change, data, environment, health, legislation, policy



## USING SYSTEMS THINKING TO UNDERSTAND MATERNAL, NEWBORN AND CHILD HEALTH SERVICE DELIVERY FOR MYANMAR MIGRANTS ALONG THE THAILAND-MYANMAR BORDER

Abstract ID: 136 (Oral)

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**Background:** Multiple factors affect access maternal, newborn and children health services (MNCHS) among Myanmar migrants who cross the Thailand-Myanmar border. Systems thinking offers a comprehensive approach to understand interdependencies of these factors to guide effective policymaking. The objective of this study is to apply systems thinking to understand the dynamics of access challenges for MNCH among migrants from Myanmar along the Thailand-Myanmar border.

**Methods:** A causal loop diagram was constructed using findings from a systematic literature review of PubMed, Embase and Scopus. Two independent reviewers searched the databases and included studies that involved 1) migrants from Myanmar at the Thailand-Myanmar borders, and 2) reported on health outcomes, service delivery, or health financing for participants aged less than 18 years old and those who are pregnant. Published studies as of 17 February 2025 were included without language restrictions.

**Results:** A total of 101 studies, published 1989 to 2025, were included from 1451 records. Four dynamic interactions influencing service delivery for and access to MNCH in Thailand were identified. First, health financing involved a health insurance, out-of pocket-payment by patients, and by donations where sustainability concerns persist. Second, the pathways for national verification for undocumented or irregular status people are often complicated and costly. Third, limitations in healthcare manpower and capacity exist, and co-dependence of NGO and public sector providers facilitates service delivery. Lastly, demand for health services in Thailand were influenced by health seeking behaviours and livelihood of migrants.

**Conclusion:** Systems thinking and causal loop diagrams are valuable tools to understand the context, and interrelated access barriers and facilitators for MNCH services among Myanmar nationals along the Thailand-Myanmar border. Complemented with multi-sectoral stakeholder engagements, this serves to guide the development of policy interventions.

Keywords: Myanmar, maternal and child health, migrants, service delivery, systems thinking



## VOICES OF WELLNESS: DETECTING MENTAL HEALTH RISK THROUGH SOUND AND BRAINWAVES

Abstract ID: 226 (Poster)

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**Background:** Mental health challenges are a growing concern globally, often exacerbated by urbanisation, social inequities, and limited access to preventive services. Traditional screenings remain underutilised due to stigma and accessibility barriers. There is an urgent need for scalable, non-invasive tools that promote early detection and equity in mental wellbeing, aligned with the principles of planetary health. This pilot study aimed to test the feasibility of using voice and EEG (brainwave) biomarkers to generate personalised mind-health reports for early identification of psychological distress among working adults.

**Methods:** A multidisciplinary team recruited 30 working adults who completed standardised mental health screening (Whooley questions) and a lifestyle assessment. Guided voice recordings and portable EEG data were collected in controlled settings. Supervised machine learning models were used to analyse vocal features (pitch, jitter, rhythm) and EEG patterns (alpha, beta, theta waves), informing tailored recommendations for lifestyle modifications such as sleep, diet, and stress management.

**Results:** Participants with higher stress levels exhibited flattened vocal prosody and elevated beta/low alpha brain activity. The personalised mind-health reports were found to be acceptable and relevant by users, with positive feedback on clarity and usefulness for self-monitoring.

**Conclusions:** This study demonstrates that integrating voice and EEG biomarkers with lifestyle profiling is a promising approach for equitable, preventive mental health screening. It supports shared solutions across workplaces, schools, and communities through a user-friendly, non-stigmatising platform, aligning with the global call for planetary health equity.

**Keywords:** digital biomarkers, lifestyle medicine, mental health screening, planetary health equity, voice and EEG analysis



## WATER FLOW DIRECTION AND SPATIAL DISTRIBUTION OF SCHISTOSOMA CERCARIAE IN PERIPHERAL WATER SITES AROUND NAUJAN LAKE, ORIENTAL MINDORO: A RETROSPECTIVE STUDY

Abstract ID: 259 (Poster)

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**Background:** Schistosomiasis is a major health issue in developing countries. In the Philippines, *S. japonicum* primarily infects humans, with Oriental Mindoro heavily affected. Water flow direction influences the distribution of *Oncomelania* snails and parasite spread, shaping local transmission. Previous studies on environmental factors affecting snail survival are outdated or limited. This study examines how water flow affects snail and cercariae distribution in municipalities around Naujan Lake. Results aim to guide targeted efforts to reduce schistosomiasis. The study is recruitment complete and analysis done.

**Methods:** This retrospective study analysed GPS-mapped snail data from four Naujan Lake municipalities, testing samples for *Schistosoma* infection. Water current directions from government data were correlated with infection rates. ArcGIS visualized infected site distribution, and Chi-square tests in SPSS examined the link between water flow and parasite prevalence ( $P < 0.05$ ).

**Results:** Results revealed significant variation in snail abundance and infection rates associated with water flow patterns. In Socorro and Victoria, snails and infected cercariae were primarily found in midstream-to-upstream and downstream zones, respectively, with strong statistical correlations ( $P < 0.05$ ). Pola exhibited minimal snail and cercariae presence, showing no significant link to water flow. Spatial mapping identified clusters of infected snails near river mouths and lake edges in southern and southwestern areas, particularly in Socorro and Victoria, designating these as high-risk transmission zones.

**Conclusion:** The findings show that water flow direction significantly influences snail habitats and parasite spread in Oriental Mindoro. This knowledge supports targeted interventions to control snail populations and interrupt transmission. The study provides important evidence on hydrology and snail ecology that can enhance global schistosomiasis control by enabling more effective, site-specific strategies. These insights help address persistent hotspots, improve resource use, and reduce disease burden worldwide, aligning with WHO's goals for elimination.

Keywords: Naujan Lake, *Oncomelania* snails, *Schistosoma* cercariae, spatial distribution, water flow direction



## WELL-BEING AND RETENTION OF IMPORTED CARE WORKERS IN LONG-TERM CARE FACILITIES: A PHENOMENOLOGICAL INQUIRY

**Abstract ID: 117 (Poster)**

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**Background:** In June 2023, the Hong Kong Government implemented the "Special Scheme to Import Care Workers for Residential Care Homes" from mainland China to mitigate staff shortages in the LTC sector, potentially complicating the work environment. This study aimed to explore the firsthand experiences of both local and imported care workers within LTC facilities, with a specific focus on the well-being and retention of imported staff.

**Methods:** Using a descriptive phenomenological approach, the study sampled 18 participants, comprising 11 imported and 7 local care workers through snowball and convenience sampling methods. Individual semi-structured interviews conducted between March and June 2025 captured their viewpoints on work-related experiences, recruitment procedures, and strategies for staff retention. Interview transcriptions were analyzed using Van Kaam's (1966) controlled explication technique.

**Results:**

The research findings unveiled three predominant themes:

- a) **Work Relationship Tension: Equity and Competition:** LTC workers acknowledged the positive impact of the scheme on enhancing service quality but encountered tension due to economic disparities with imported care workers. Despite working extended hours, imported staff received lower wages, leading to perceptions of inequity and heightened job rivalry.
- b) **Identity Challenges: Discrimination and Cultural Conflict:** Imported care workers from diverse backgrounds encountered identity crises exacerbated by discriminatory behaviors from local staff, triggering inner conflicts to reconcile their original identities with workplace expectations.
- c) **Financial Strain: Dilemma with High Agency Fees:** Imported care workers contend with significant financial strain due to high agency fees linked to recruitment and contract renewals. This predicament not only leads to heightened stress but also forces them to struggle over the decision of whether to remain in the job.

**Conclusions:** Addressing cultural, economic, and social disparities is crucial for fostering a harmonious and inclusive workplace, vital not only for the well-being of imported care workers but also for improving staff recruitment and retention in the LTC sector.

**Keywords:** imported care workers; retention; long-term care



## WHAT DO WE REALLY MEAN BY DECOLONIZATION IN BIOETHICS? A NORMATIVE PROPOSAL FROM THE GLOBAL SOUTH

Abstract ID: 245 (Oral)

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**Background:** The call to decolonize bioethics has gained increasing attention across academic discourse, yet the term “decolonization” often remains vague and lacks a clear normative framework. In this article, I will offer a normative account of what decolonizing bioethics entails, with particular attention to the Asian context. Instead of dismissing existing concepts, many of which are shaped by Western traditions, I will argue for a framework of contextual universality. This approach encourages a critical rethinking of how bioethical principles are interpreted and applied across culturally diverse settings.

Drawing on discussions from key contributions in bioethics, this article will propose contextual universality as a model that holds onto core bioethical principles while being attuned to local moral traditions and social conditions. This framework aims to resist both the uncritical adoption of Western frameworks and the relativistic tendencies that may erode ethical consistency. The goal is to offer a principled form of ethical pluralism that avoids double standards while remaining open to contextual variation.

By clarifying what is meant by decolonization in the field of bioethics and suggesting a direction for how it can be pursued, this article contributes to building a more inclusive and globally grounded ethical discourse. Its aim is not to divide or dilute bioethics, but to deepen its commitment to universality by connecting it more fully to the lived realities and philosophical traditions of communities in Asia.

Keywords: contextual ethics, decolonization, Global South, normative bioethics



## YOUTUBE AS A SOURCE OF HEALTH INFORMATION ON DENGUE: A CROSS-SECTIONAL OBSERVATIONAL STUDY

Abstract ID: 235 (Oral)

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**Background:** Dengue remains a pressing public health issue worldwide, especially in tropical regions. With the rise of digital health-seeking behavior, YouTube has emerged as a popular but largely unregulated platform for health communication. This study aimed to assess the accuracy, quality, and reliability of dengue-related videos on YouTube using two validated tools: the modified DISCERN (mDISCERN) instrument and the Global Quality Score (GQS).

**Methods:** A cross-sectional observational analysis was conducted in May 2025. A total of 454 videos were retrieved using five dengue-related search terms. After applying strict inclusion and exclusion criteria, 107 unique English-language videos were evaluated. Metadata and viewer engagement metrics were extracted. Two reviewers independently scored the videos using mDISCERN and GQS, with discrepancies resolved by a third reviewer. Descriptive statistics, Kruskal-Wallis tests, and Spearman correlations were used to assess video performance and quality across uploader types.

**Results:** News agencies contributed the most videos (43.9%) but scored only moderate on reliability (14.0% good) and quality (10.3% excellent). Hospitals, health websites, and physician-uploaded videos demonstrated higher mean scores (GQS  $\geq$  4.0; mDISCERN  $\geq$  3.1). No significant differences in quality scores were found across uploader types (mDISCERN:  $P=0.776$ ; GQS:  $P=0.273$ ). Quality scores were positively associated with video duration ( $r=0.403$ ,  $P<0.001$ ) but not with views, likes, or comments. Approximately one-third of the videos demonstrated good reliability (32.7%) and excellent quality (32.7%).

**Conclusion:** While YouTube hosts valuable dengue-related content, overall quality and reliability vary widely across uploader types. Institutional and physician-generated videos showed the highest educational value but lacked widespread visibility. There is a critical need for interdisciplinary collaboration and platform-level strategies to enhance the reach of evidence-based health content, especially during outbreaks.

Keywords: dengue fever, YouTube, digital health communication, health information quality, video content analysis



## ZUELLIG FAMILY FOUNDATION'S FIRST 1000 DAYS (F1KD) NUTRITION ROADMAP: A GOVERNANCE-DRIVEN TOOL FOR STRENGTHENING LOCAL HEALTH AND NUTRITION SYSTEMS

**Abstract ID: 48 (Oral)**

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**Background:** The first 1000 days—from pregnancy to a child's second year—are critical for child's health and development. In the Philippines, malnutrition persists due to weak local health and nutrition systems. To address this, the Zuellig Family Foundation created the F1KD Nutrition Systems Roadmap, a governance-based tool aligned with WHO health system building blocks, helping LGUs strengthen systems and improve nutrition outcomes. The F1KD Nutrition Systems Roadmap aims to: (1) assess current gaps hindering positive health and nutrition outcomes; (2) guide LGU actions to improve local nutrition systems; and (3) monitor progress to sustain ongoing improvements.

**Methods:** In the preparatory phase, key LGU personnel conduct self-assessment using documents and interviews to evaluate adaptive factors. During implementation, evaluators validate on-site and score indicators, producing color-coded results showing system functionality. Post-implementation involves analysis of findings to inform key actions to sustain or improve the LGU's F1KD Nutrition System. Results: The roadmap was implemented in 5 provinces, 36 cities/municipalities, and 16 barangays across ZFF program sites. Most areas showed improved assessment scores from baseline to endline. The project team validated results through document reviews and facility inspections, followed by mentoring to address gaps. This process also recognized local progress and supported better nutrition outcomes. To site, stunting and wasting rates generally declined across five provinces.

**Conclusions:** The F1KD Nutrition Systems Roadmap provides a clear framework that unifies local efforts into strategic actions to combat malnutrition. This governance-driven approach has led to systemic improvements and enhanced nutrition outcomes across various government levels. Rooted in national health standards, the roadmap is both adaptable and scalable across diverse contexts within the country, with potential for adaptation beyond the Philippines.

**Keywords:** ZFF, governance, health system, nutrition, nutrition system, public health, roadmap

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