

# BOOK OF ABSTRACTS



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## THE 10<sup>TH</sup> INTERNATIONAL CONFERENCE ON PUBLIC HEALTH - ICOPH 2024

**"Advancing Healthcare Access, Equity, and Achieving the SDGs: A Global Commitment"**

15<sup>th</sup> – 16<sup>th</sup> August 2024 | Bangkok, Thailand

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Tel: +94(0) 11 2876551

[publication@tiikmedu.com](mailto:publication@tiikmedu.com)

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## MESSAGE FROM THE CONFERENCE CO-CHAIR - ICEDU 2024

It gives me great pleasure to say a few words on the 10<sup>th</sup> International Conference on Public Health (ICOPH) organised by TIIKM to be held in Bangkok, Thailand in August 2024. It is one of the premier conferences in Global Public Health and the theme of the conference is “Advancing Health Care: Access, Equity and Achieving the SDG’s: A Global Commitment.



This conference is to create a platform for knowledge sharing, collaboration, and relationship building by bringing academia, policy and industry together. More importantly it is to deliver latest research, program implementations and workforce developments. The participants are expected to find solutions to major health challenges of the world and set health agendas worldwide and also to encourage delegates to work together to achieve better health outcomes by establishing a unique public health network.

This conference will facilitate discussions on a wide range of topics related to improving health at all levels through collaboration and open dialogue and steering tomorrow’s agenda to improve research, education, healthcare, and policy outcomes.

Public health has faced numerous challenges during the last century but it has also made much progress as well. Although the world is no longer dominated by infectious diseases but it is being dominated by non-communicable chronic diseases such as heart disease, diabetes, cancer, and mental-health conditions, which require continuous treatment but at the same time, newly emerging diseases like Covid 19, Corona virus, Zika and Ebola epidemics are still likely to pose challenges to global health security in the future.

Furthermore, extreme weather and rising sea levels, temperatures, and carbon dioxide levels could usher in a wide array of human health effects, CDC warns– from asthma to Chikungunya to mental illness. Will countries begin to make progress in curbing carbon emissions after the Paris climate accord of 2015 or will the commitments made there fall by the wayside?

The Millennium development goals (MDGs), which have led to massive worldwide improvements in health and well-being over just 25 years. Now global leaders are working towards the Sustainable Development Goals (SDGs) These new goals could unite countries on the path toward one of the international community’s most ambitious goals: universal health coverage. To achieve it, we’ll need a greater focus on the global health workforce than the world has ever seen. We as public health professionals need to address some of these issues and influence our policy makers to act.

This conference will have several plenary speakers who will provide the latest information in their field of expertise and I sincerely hope that you will learn from the conference and develop a good network to help you in your discussions and exchange of ideas in the future. Finally, I wish to thank all the plenary speakers, speakers, chairmen of the sessions and the organising committee for all the hard work in organising the conference.

Thank you

Prof Dr. Hematram Yadav  
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# ORAL PRESENTATIONS

A1

[01]

**PUBLIC HEALTH POLICY FRAMEWORK IN FLOOD EMERGENCIES:  
PRACTICAL MITIGATION FOR EQUITABLE HUMAN RESILIENCE IN  
MALAKA-TIMOR INDONESIA**

Sherly da Costa AD<sup>1,2\*</sup>

<sup>1</sup>*Institute of Landscape Ecology, University of Münster, Münster, North-Rhein-Westphalia,  
Germany*

<sup>2</sup>*Executive Graduate Program in Environment and Urban Studies, Soegijapranata Catholic  
University, Semarang, Central Java, Indonesia*

[\\*sherly.dacosta@unika.ac.id](mailto:sherly.dacosta@unika.ac.id)

**ABSTRACT**

**Background:** During a flood emergency, the most important element of resilience is the safety and health of every human being in the affected area. The readiness referred to in the downstream area is sustainable readiness which practically requires mitigation planning from public health practitioners in anticipating the impact of flooding on community safety and health. Until now, there is still a biased and long-winded policy application, and it is not sustainable for every community to consider practical mitigation mechanisms that are equitable to human resilience. **Context:** The purpose of this research is to understand and conceptualise the public health policy framework for flood emergencies in Timor Indonesia and guide communities in practical mitigation efforts that are equitable for long-term human resilience to be proposed in national policy planning for Local Government, National Government, and the Central Indonesian Parliament in Senayan, Jakarta. **Methods:** This research implements the concept of qualitative and quantitative practical and critical understanding in the form of mapping human resilience in the face of flooding and reviewing human resilience data on the subtheme of public health in the Malaka-Timor Indonesia's flood emergency. Focus group and stakeholder approaches were done and the participants were the village officials and public health practitioners and actors who are relevant working at the sectors, and competent, in public health expertise. The data analysis used was holistic descriptive qualitative analysis presenting the focus of the study of flood emergency preparedness policies for public health at the local level, impact on regional policies and national policies decision makers. The normative and ethical framework and viewpoints are used as complementary study material in conceptualizing the public health policy framework in responding to the annual flood emergency in Malaka Regency. **Results:** There were 37 participants participating in decision making regarding this discussion who were divided into 2 groups representing the subthemes of research objectives 1 and 2 for participatory and democratic based discussions. A total of 6 public health policy frameworks in flood emergencies were conceptualized by consensus and as many as 2 practical mitigation plans that were fair to long-term human resilience were recommended to decision makers at the local, regional, and national levels.

Keywords: public health, flood emergency preparedness, emergency management, disaster risk reduction, participatory conceptual policy framework, human resilience justice

A2

[02]

**PUBLIC HEALTH PRIORITY TO ENHANCE EQUITABLE ACCESS TO  
DIAGNOSIS AND TREATMENT OF INDIVIDUALS WITH RARE DISEASES IN  
MALAYSIA**

Zainal Abidin NA<sup>1\*</sup>, Jamaludin J<sup>2</sup> and Lock-Hock N<sup>3</sup>

<sup>1</sup>*Community Medicine Department, International Medical School, Management and Science  
University, Malaysia*

<sup>2</sup>*O&G & Paediatric Services Unit, Medical Development Division, Ministry of Health,  
Malaysia*

<sup>3</sup>*Genetic Department, Hospital Kuala Lumpur, Malaysia*

[\\*\u0062\u006f\u006f\u0072\u0061\u007a\u0069\u0061\u0068\u007a\u0069\u006e\u0061\u006c\u0061\u0062\u0069\u0064\u0069\u006e\u0040\u0079\u0061\u0068\u006f\u006f\u002e\u0063\u006f\u006d](mailto:*\u0062\u006f\u006f\u0072\u0061\u007a\u0069\u0061\u0068\u007a\u0069\u006e\u0061\u006c\u0061\u0062\u0069\u0064\u0069\u006e\u0040\u0079\u0061\u0068\u006f\u006f\u002e\u0063\u006f\u006d)

**ABSTRACT**

Rare diseases (RDs) pose a growing global public health challenge, with more than 300 million people affected worldwide. In Malaysia, rare diseases are defined as chronic debilitating diseases affecting fewer than 1 in 4,000 individuals, representing a significant public health concern due to historically limited policy discussion and accessibility issues. This study aims to delineate the rare disease landscape in Malaysia, emphasizing epidemiological trends, healthcare challenges, and strategies for enhancing patient outcomes. Utilizing a comprehensive review of literature and Malaysian healthcare database analyses, alongside case studies, this research identifies a pronounced disparity in resources and expertise across regions. Key challenges include diagnostic difficulties, variable treatment availability, and inadequate societal support for RD patients and their families. The findings underscore the necessity for multifaceted improvements in diagnostic accuracy, specialized care access, and healthcare provider and public awareness. Enhanced national policies and a robust framework are essential to address these challenges effectively, aiming to elevate the quality of life for RD patients and align Malaysia with global advancements in rare disease management. The implications of this study contribute to a deeper understanding of RD complexities and underscore the critical need for continued enhancements in the national healthcare framework to support affected individuals comprehensively.

Keywords: rare diseases, Malaysia, epidemiology, healthcare provision, patient outcomes, policy improvement

A3

[03]

## LEADERSHIP COMPETENCIES IN PUBLIC HEALTH: A SCOPING REVIEW

Rojko L<sup>1\*</sup>, KvasA<sup>2</sup> and Stare J<sup>3</sup>

<sup>1</sup>University of Ljubljana, Faculty of Public Administration, <sup>2</sup>University of Ljubljana, Faculty of Health Sciences, <sup>3</sup>University of Ljubljana, Faculty of Public Administration,

[\\*lucija.rojko@gmail.com](mailto:*lucija.rojko@gmail.com)

### ABSTRACT

To identify the competencies that leaders of organisations working in the field of public health need in order to perform their tasks effectively. A descriptive method with a scoping review was used. Methods: The literature was searched in PubMed, ScienceDirect and CINAHL databases. 16 references were found that were suitable for the final analysis. A summative literature analysis was conducted, identifying leadership competencies (N = 69). A review of leadership competencies was conducted. The identified competencies were categorised into 11 groups: Maintaining Motivation (1), Identifying Needs and Continuous Improvement (2), Tracking Professional Trends and Using Accurate Information (3), Organising Work, Delegating and Managing Tasks (4), Strategic Planning in Line with Vision and Mission (5), Problem Solving and Conflict Management (6), Building and Maintaining Relationships with Decision Makers (7), Communication Skills (8), Ensuring Professional Development (9), Resource Management (10) and Human Resource Management (11). The identified groups of leadership competencies related to the management of public health organisations provide a content direction for educational activities aimed at leaders and summarise the most important competencies that leaders of public health organisations need to perform their role effectively.

Key words: leadership, competency, nurse, public health, organisations.

A4

[04]

**A DESIGN AND RESEARCH FRAMEWORK TO DEVELOP A PATIENT-CENTERED ASTHMA ACTION PLAN FOR ST. LOUIS FEDERALLY QUALIFIED HEALTH CENTERS**

Kareem K<sup>1\*</sup>, Watridge C<sup>1</sup>, Kim H<sup>1</sup>, Acayo Laker P<sup>1</sup>, Clover A<sup>2</sup>, Bucha S<sup>2</sup>, and Krings JG<sup>2</sup>

<sup>1</sup>*Health Communication Design Studio, Sam Fox School of Design & Visual Arts, St. Louis, MO, USA*

<sup>2</sup>*Division of Pulmonary and Critical Care Medicine, Washington University School of Medicine, St. Louis, MO USA*

[\\*kareem.khadijah@wustl.edu](mailto:kareem.khadijah@wustl.edu)

**ABSTRACT**

The CHEST study (A Partnership with Community Health Centers to Implement SMART for Asthma), is a multidisciplinary collaboration between pulmonologists and the Health Communication Design Studio at Washington University in St. Louis to develop a patient-centered asthma action plan (AAP) and supplementary materials focused on increasing single maintenance and reliever therapy (SMART) use and asthma education. We developed an AAP featuring diverse illustrations and detailed but simple instructions for managing asthma using guideline-recommended SMART. This multi-phase project utilized a mixed methods approach: a design thinking framework, and implementation science methodologies. First, our research team identified the need for a new AAP that addressed the preferences of providers and patients with asthma while also educating patients on the latest asthma recommendations. The design team worked collaboratively with medical experts to improve the product's usability, longevity, and user experience through visually compelling, yet accessible and inclusive illustrations catered to the target population. Phase 1 of the study consisted of evaluating existing AAPs through semi-structured interviews with providers and patients to assess patients' and providers' needs and constraints. Phase 2 entailed designing a prototype AAP based on feedback. Phase 3 consists of developing supplementary educational materials: a provider one-pager about SMART therapy and a public-facing website with additional educational content and materials including instructional videos. Finally, Phase 4 will involve user testing products for feedback by surveys and semi-structured interviews, which we will incorporate into the final products. Through participant feedback and reiteration, our interdisciplinary team aims to disseminate our intuitive and innovative asthma action plan, provider sheet, and study website that educates patients and the greater public on asthma and SMART Therapy.

Keywords: smart therapy, patient-centered, design thinking, asthma action plan, community-engaged research, interdisciplinary research



A5

[05]

**CROSS-SECTIONAL STUDY ON CLINICAL-YEAR STUDENTS' KNOWLEDGE, ATTITUDE AND INTENTION TOWARDS THE USE OF TELEMEDICINE IN FUTURE PROFESSIONS ACROSS ALL HONG KONG MEDICAL SCHOOLS**

Fung KC\*

*Department of Global Business and Marketing, Lee Shau Kee School of Business and Administration, Hong Kong Metropolitan University, Hong Kong*

[\\*phkcfung@hku.hk](mailto:phkcfung@hku.hk)

**ABSTRACT**

The increasing adoption of telemedicine in Hong Kong after the COVID-19 pandemic leads to more attention to the future development of telemedicine in healthcare setting because it helps diversify the demand in medical services through providing flexible supply of support. Hence, it is essential to understand whether the future doctors are ready for the new trend in health system. The study examines the knowledge (overall understanding), attitude, belief towards telemedicine and the intention to use telemedicine of medical students studying clinical years in Hong Kong. Two research questions have been formulated to understand the mechanism of associating knowledge, attitude, belief and intention towards telemedicine. A cross-sectional study was conducted on fourth to sixth year medical students in the only two Hong Kong medical schools from February to April 2023. Subjects were required to complete an online questionnaire through Qualtrics after offering informed consent. Convenience sampling was adopted due to the practicality issues of reaching out the target populations. 135 invitations were sent, and 83 valid responses were received. Descriptive analysis, bivariate correlation and mediation analyses were conducted. The scores for overall understanding, attitude, intention and belief are 4.12, 4.84, 5.05 and 4.70 out of 7 respectively. Full mediation is achieved for attitude being the mediator to connect knowledge with belief, while partial mediation is achieved for belief as a mediator to connect attitude and intention. Based on the results, clinical year medical students are positive in the application of telemedicine in their professional field. Nevertheless, more knowledge on the topic is needed for the student population to promote the application across the city, achieving the sustainable healthcare practice with the dynamic sociodemographic changes.

Keywords: telemedicine, knowledge, attitude, intention, medical students, Hong Kong

B1

[06]

## UNDERSTANDING PARENTS' PERCEPTIONS ON UTILISING THIRD-PARTY ASSISTANCE FOR FAMILY FORMATION: A SYSTEMATIC REVIEW

Attawet J<sup>1\*</sup>, Shishehgar S<sup>2</sup>, Hosseini F<sup>3</sup>, Alsharaydeh E<sup>4</sup> and Sara Parsafar<sup>5</sup>

<sup>1</sup>*Department of Nursing and Allied Health, School of Health Science, Swinburn University of Technology, Hawthorn, Australia*

<sup>2</sup>*School of Nursing and Midwifery, Western Sydney University, Paramatta, Australia*

<sup>3</sup>*Independent researcher, Sydney, Australia*

<sup>4</sup>*Discipline of Psychology, School of Arts and Sciences, The University of Notre Dame, Sydney, Australia*

[\\*jattawet@swin.edu.au](mailto:*jattawet@swin.edu.au)

### ABSTRACT

**Background:** The contemporary trend of integrating third-party assistance into family formation has gained prominence. Existing research predominantly delves into the dynamics of parent-child and parent-parent relationships within these non-traditional family structures. However, there is a dearth of exploration into parents' perspectives regarding the use of third-party assistance in family formation. **Aim:** This systematic review aims to fill this gap by comprehensively examining parents' perceptions when utilising third-party methods including surrogacy, donors and adoption to form their families. **Methods:** Searches of electronic databases, including Medline (EBSCO), CINAHL (EBSCO), Scopus, Web of Science and Soci Index (EBSCO), were conducted in July 2023. Studies included English, peer-reviewed, with no restrictions on where a study was conducted or published. Studies that are experts' opinions or perspectives, articles that are related to contract, ethics, and laws, articles that are not related to parents receiving or having the child through the third-party, were excluded. The search yielded a total of 1291 articles, and after thorough screening and evaluation, thirteen articles were deemed suitable for inclusion in this systematic review. **Results:** Three key themes emerged from the analysis: parents' perspectives on third-party involvement, the decision-making journey, and expectations related to bonding relationships. The review provides insights into the shifting societal attitudes toward diverse family models and the emotional complexities parents navigate when utilizing third-party assistance. It emphasizes the crucial role of support for both intended and existing parents, highlighting the need for resilience in addressing societal challenges associated with third-party family formation. **Conclusion:** This review calls upon healthcare professionals and policymakers to develop inclusive and supportive parenting models. It recommends encouraging the engagement of non-biological parents in support groups and educational activities to strengthen parental coping mechanisms in the context of third-party family formation.

**Keywords:** parents, intended parents, perception, perspective, third-party, third-party reproduction family, systematic review, healthcare

B2

[07]

**COST-EFFECTIVENESS ANALYSIS OF ADJUVANT OSIMERTINIB IN RESECTED EGFR-MUTATED EARLY-STAGE NON-SMALL CELL LUNG CANCER**

Changsatja S<sup>1\*</sup>, Kositamongkol C<sup>2</sup>, Thamlikitkul L<sup>2</sup>, Phisalprapa P<sup>2</sup> and Komonpaisarn T<sup>3</sup>

<sup>1</sup>*Center of Excellence for Health Economics, Faculty of Economic, Chulalongkorn University, Bangkok, Thailand*

<sup>2</sup>*Department of Medicine, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand*

<sup>3</sup>*Center of Excellence for Health Economics, Faculty of Economics, Chulalongkorn University, Bangkok, Thailand*

[\\*Supitchaya.changsatja@gmail.com](mailto:Supitchaya.changsatja@gmail.com)

**ABSTRACT**

Lung cancer is the most common cancer and the leading cause of cancer death worldwide. One-third of non-small cell lung cancer (NSCLC) patients are diagnosed in resectable stage, for which curative surgery is the cornerstone of treatment. Adjuvant osimertinib, a third-generation epidermal growth factor receptor tyrosine kinase inhibitor (EGFR TKI), was shown to significantly reduce recurrence and prolong survival for completely resected EGFR-mutated NSCLC. Here, we performed a cost-effectiveness analysis of adjuvant osimertinib compared to placebo in patients with resected stage IB to IIIA EGFR-mutated NSCLC using Thailand's societal perspective. A Markov model estimated the lifetime costs and health benefits of osimertinib versus placebo, including three health states: disease-free, recurrent disease, and death, tracked over a lifetime using 4-week cycles. Health outcomes were based on a systematic literature review, and costs from Thailand's standard health technology assessment lists. Results were reported as 2023 USD incremental cost-effectiveness ratios (ICERs) per quality-adjusted life year (QALY) gained. Sensitivity analyses were performed to assess the influence of parameter uncertainty. The result showed a virtual patient receiving osimertinib had 2.36 more QALYs than that receiving the placebo at an incremental cost of 62,716.91 USD. Compared to the placebo group, treatment with adjuvant osimertinib had an incremental cost-effectiveness ratio of 26,556.27 USD/QALY gained. Therefore, osimertinib was not cost-effective at the Thai willingness-to-pay threshold of 4,619 USD/QALY gained. The drug price would need to be reduced by at least 84.94% for osimertinib to be cost-effective. In summary, adjuvant osimertinib for resected EGFR-mutated NSCLC patients is not cost-effective according to current Thailand's willingness-to-pay threshold. However, negotiating drug costs and managed entry agreements could improve patient access to this effective treatment.

Keywords: non-small cell lung cancer, osimertinib, cost-effectiveness, epidermal growth factor receptor, adjuvant therapy

B3

[08]

**MATERNAL HEALTHCARE-SEEKING BEHAVIOR AND ITS INFLUENCE ON  
TIMELY VACCINATION OF CHILDREN IN LOW-RESOURCE AGRICULTURAL  
SETTINGS IN NIGERIA**

Adejoorin MV\*

*Department of Agricultural Economics, University of Ibadan, Nigeria*

*[\\*mobolaji.adejoorin@gmail.com](mailto:mobolaji.adejoorin@gmail.com)*

**ABSTRACT**

The health of a mother before, during, and after pregnancy is essential for the well-being of the mother and child, specifically. Maternal Healthcare-seeking Behavior (MHB) in rural Nigeria is low, with high maternal mortality. It has been established that MHB is a verifiable input that could improve the vaccination of children. Empirical evidence linking MHB to the vaccination of children is limited; therefore, the effect of maternal health-care-seeking behavior on the immunization of children in low-resource agricultural settings in Nigeria was investigated. Secondary data sourced from the 2018 National Demographic Health Survey were utilized in this study. Data were analyzed with descriptive statistics, multiple correspondence analysis, and an extended ordered logit model. More women in rural Nigeria were moderate seekers of maternal healthcare facilities ( $0.54 \pm 0.2$ ) while the children were unimmunized (55.85%). The MHB and husband's education improved partial vaccination in children, while the husband's education and mother's full employment in agriculture improved the child's full vaccination status. It was concluded that MHB improved child vaccination status in low-resource areas in Nigeria. Therefore, awareness of the use of maternal healthcare facilities before, during, and after pregnancy should be increased by the Ministry of Health. The government should try to create mini health centers in major markets across states where pregnant mothers can have their antenatal care and vaccines can as well be administered to children. Also, the implementation of programs and policies to end poverty in all its dimensions among women in low-resource areas in Nigeria should be considered.

Keywords: maternal health, low-resource agricultural settings, vaccination, Nigeria

B4

[09]

**PREVALENCE AND ASSOCIATED FACTORS AMONG MALNOURISHED FAMILIES IN COMMUNITIES IN SELECTED MOH IN COLOMBO DISTRICT, SRI LANKA: PRELIMINARY SURVEY STUDY**

Arachchi KNA <sup>1\*</sup>, Vithanage MKJW<sup>2</sup>, Withanage SJW<sup>3</sup> and Gajanayake C<sup>4</sup>

<sup>1</sup>*Biomedical Science Department, AIC Campus, Colombo, Sri Lanka*

<sup>2</sup>*Medical Officer of Health Office, Egodaunya, Sri Lanka*

<sup>3</sup>*Regional Director of Health Services, Colombo, Sri Lanka*

[\\*biomedfaculty1@imcaic.com](mailto:*biomedfaculty1@imcaic.com)

**ABSTRACT**

The economic downturn in Sri Lanka has intensified malnutrition among children, evident from the 2023 Family Health Bureau (FHB) Nutrition Month Report, children under five face significant rates of malnutrition, including severe acute malnutrition (SAM), moderate acute malnutrition (MAM), underweight, and stunting, attributed to reduced purchasing power and earning capacity. This study aimed to assess the prevalence of malnutrition in selected Medical Officer of Health (MOH) areas in the Colombo district. Specific objectives included identifying the prevalence of severe malnutrition, underweight, and chronic malnutrition (stunting) in these areas. A descriptive cross-sectional study was conducted, surveying malnourished families in selected MOH areas in Colombo. A sample of 300 households falling below a certain income threshold was selected to ensure demographic representation. The study revealed a prevalence of 1.67% severe acute malnutrition (SAM), 11% moderate acute malnutrition (MAM), 16.33% underweight, and 13.67% stunting among children. Regarding parental education, 30% had an education up to Ordinary Level, 10% were graduates, and 60% had education below Ordinary Level. Monthly income distribution showed 50% of families earning less than 35,000, 20% between 35,000 -40,000, 20% between 40,000 - 45,000, and 10% more than 45,000. Additionally, 10% of malnourished children were born to teenage mothers. Malnutrition persists as a significant social challenge among coastal populations in Moratuwa, with socioeconomic factors such as low income, education levels, and teenage pregnancies contributing significantly.

Keywords: family health bureau, moderate acute malnutrition, medical officer of health, severe acute malnutrition, underweight

B5

[10]

**IDENTIFICATION OF CHALLENGES AND LEVERAGING MHEALTH TECHNOLOGY, WITH NEED-BASED SOLUTIONS TO EMPOWER SELF-MANAGEMENT IN TYPE 2 DIABETES**

Dsouza SM<sup>1\*</sup>, Venne J<sup>2</sup> Shetty S<sup>3</sup> and Brand H<sup>4</sup>

<sup>1</sup>*Department Health Policy, Research Scholar, PSPH, MAHE, Manipal, India*

<sup>2</sup>*Department of Social & Health Innovation, PSPH, MAHE, Manipal, India*

<sup>3</sup>*Department of Endocrinology, KMC, MAHE, Manipal, India*

<sup>4</sup>*PSPH, MAHE, Manipal, India*

[\\*dsouza.sherize@gmail.com](mailto:*dsouza.sherize@gmail.com)

**ABSTRACT**

This study explores the multifaceted influences on Diabetes self-management (DSM), examining both factors influencing and affecting DSM. Understanding these influences is crucial for developing targeted Digital Health Interventions that empower individuals with diabetes to achieve successful self-management. **Objectives:** To identify problems faced by Type 2 Diabetes Mellitus (T2DM) individuals in self-managing diabetes and leveraging mHealth technology, with need-based solutions to Empower Self-Management in Type 2 Diabetes. **Methodology:** In-depth semi-structured interviews were conducted among ten patients with T2DM visiting the outpatient department of a tertiary care hospital in coastal Karnataka. Additionally, six healthcare professionals were interviewed who were working closely with T2DM patients to understand their perspectives on using mHealth to manage T2DM among these patients effectively. Analysis was conducted using ATLAS-TI software to generate the themes for the solutions described. **Results:** The factors that influenced DSM were technology literacy, duration of diabetes, etc. Socio-economic factors have also been seen to influence their decision on effective diabetes self-management. Five out of ten participants used Google Search to learn about diabetes. Three out of ten participants used Google Search to learn about managing their diet. None of the participants had previously used any mobile health applications (mHealth apps). Two participants expressed limited knowledge about using smartphones or wearable trackers for health purposes. Nontechnological barriers were also discovered, and corresponding solutions favoring mHealth options have been addressed using an empathy map. **Conclusion:** Providing accurate awareness of DSM aspects is important, not only limiting to imparting Diabetic education but also assessing the acquired knowledge on diabetes and its effective management using mHealth solutions could be an essential indicator in continuous monitoring of the individuals.

Keywords: type 2 diabetes, diabetes self-management, mHealth solutions, digital health solutions

B6

[11]

**EXAMINING FACTORS INFLUENCING ANTENATAL CARE SERVICE  
UTILIZATION AMONG PREGNANT WOMEN IN HAITI**

Mutongwizo N and Nwogwugwu NC<sup>1\*</sup>

*Public Health, School of Engineering, Environmental Science and Public Health, IEMSA,  
South Africa*

[\\*nnwogwugwu@iiemsa.co.za](mailto:*nnwogwugwu@iiemsa.co.za)

**ABSTRACT**

Haiti experiences exceptionally high maternal mortality rates. The study sought to examine factors influencing antenatal care service (ANC) utilization among women in Haiti. The study used 2016-17 Demographic and Health Survey for Haiti. Statistical analysis was conducted using Chi-square test and multivariable logistic regression. Out of the 6530 women aged 15 – 49 years who participated in the study, 50.8% (n=3316) reported that they attended the recommended 4 or more ANC visits during pregnancy. Women who reported that they are employed (AOR:1.26; 95% Conf.Int: 1.09-1.45) were more likely to attend the recommended 4 or more ANC visit compared to women who reported they were unemployed. Women who reported practicing religion (AOR: 1.62; 95% Conf.Int: 1.28-2.04) were more likely to attend the recommended 4 or more ANC visits compared to women who do not practice any religion. Women with primary education (AOR:1.60; 95% Conf.Int: 1.33-1.92), secondary education (AOR: 2.38; 95% Conf.Int: 1.89-3.00) and higher education (AOR: 10.58; 95% Conf.Int: 3.17-35.29) were more likely to attend the recommended 4 or more ANC visits compared to women with no educational qualification. Women who reported that their husbands/partners had primary education (AOR: 1.38; 95% Conf.Int: 1.14-1.67), secondary education (AOR: 1.76; 95% Conf.Int: 1.41-2.20), and higher education (AOR: 4.86; 95% Conf.Int: 2.59-9.10) were more likely to attend the recommended 4 or more ANC visits during pregnancy. This study revealed that women who were employed, educated and religious were more likely to attend the recommended 4 or more ANC visits during pregnancy. Policy makers should improve access to education and implement other interventions to increase ANC visits among pregnant women in Haiti

Keywords: antenatal care visit, Haiti, pregnant women



C1

[12]

**KNOWLEDGE, ATTITUDE, AND PRACTICE TOWARDS PAEDIATRIC TUBERCULOSIS  
AMONG MOTHERS OF TODDLERS IN PADANG CITY**

Haq A<sup>1,2\*</sup>, Putri NW<sup>1</sup>, Putri ASE<sup>1</sup> and Rahmah FW<sup>1</sup>

<sup>1</sup>*Department of Public Health, Faculty of Public Health, Andalas University, Indonesia*

<sup>2</sup>*Doctor of Public Health Study Program, Faculty of Public Health, Universitas Indonesia, Indonesia*

[\\*arinilhaq.z@gmail.com](mailto:*arinilhaq.z@gmail.com)

**ABSTRACT**

It is estimated that in 2022 there were 10.6 million people infected with tuberculosis (TB) worldwide, including 1.3 million children. TB in children or paediatric TB (aged 0 - 14 years old) is often overlooked by health care providers and is difficult to diagnose and treat. This research aims to identify the determinants of knowledge, attitude and practice (KAP) towards TB among mothers of toddlers in Padang City. This research is a cross sectional study, which was conducted in 2023. The sample in the study were 114 mothers of toddlers aged 15-49 years, selected using simple random sampling technique. Data was obtained by filling out an online questionnaire. The results of the univariable analysis showed that the majority of respondents had sufficient knowledge (93.9%), positive attitude (96.5%) and favorable practice (78.1%) towards paediatric TB. From the results of the bivariable analysis, it was found that there was a significant relationship between education level and knowledge of mothers regarding TB (p-value = 0.04; OR = 9.2; CI = 1.08-79.9). Mothers who have higher education than high school have sufficient knowledge of TB. However, the variables age, occupation, previous TB history on toddlers and family with previous TB history do not have a significant relationship with knowledge, attitude and practice towards TB (p-value > 0.05). Education level is important in increasing mother's knowledge, especially regarding TB. Therefore, it is recommended to develop targeted programs to increase knowledge, attitude and practice towards TB among mothers of toddlers for the prevention of paediatric TB.

Keywords: tuberculosis, mother, knowledge, attitude, practice



C2

[13]

**THE CONTROL AND PREVENTION OF SEXUALLY TRANSMITTED  
INFECTIONS IN HEALTHCARE FACILITIES AMONG KEY AND PRIORITY  
POPULATIONS IN SUB-SAHARAN AFRICA: A SYSTEMATIC REVIEW**

Seloka MA<sup>1</sup>, Phalane E<sup>1</sup> and Phaswana-Mafuya RN<sup>1,2\*</sup>

<sup>1</sup>*South Africa Medical Research Council. University of Johannesburg (SAMRC.UJ)/Pan  
African Centre for Epidemics Research (PACER) Extramural unit*

<sup>2</sup>*University of Johannesburg, Faculty of Health Sciences, Department of Environmental  
Health*

[\\*refilwep@uj.ac.za](mailto:refilwep@uj.ac.za)

**ABSTRACT**

Sexually transmitted infections (STIs) when not treated promptly or adequately can lead to adverse health consequences. There is a need to strengthen the current control and prevention of STIs. The study is aimed to understand the status quo on the control and prevention of STIs in primary healthcare facilities among key and priority populations in SSA. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis was used in conducting this review which is registered on PROSPERO (ID: CRD42023439416). We conducted a systematic review of peer-reviewed published primary studies and grey literature assessing the control and prevention of STIs in primary healthcare facilities among key and priority populations Sub-Saharan Africa from 2014- 2024. Search terms and strategies were developed and utilized on online various databases. The literature search yielded 5783 studies of which 37 were relevant and included in this review after careful dual screening, data extraction as well as risk and quality assessment using the Critical Appraisal Skills Programme. It was observed that the control and prevention of STIs among key and priority populations was notably inadequate across most SSA countries. The standard approach to STI care in primary healthcare facilities remains syndromic STI case management since 2014. The review highlighted additional diagnostic methods, such as partner notification, point-of-care testing, etiological testing, and GeneXpert, which were found effective in detecting asymptomatic STIs. However, resource and funding shortages limit their full potential. There has been limited reporting on the control and prevention of STIs, particularly among key and priority populations in SSA. Urgent attention is needed to address barriers and risk factors that hinder effective STI management in primary healthcare facilities.

Keywords: key and priority populations, control, sexually transmitted infections, Sub-Saharan Africa

C3

[14]

**EXPLORING BARRIERS AND FACILITATORS OF PREP ACCESS AMONG  
ADOLESCENT BOYS AND YOUNG MEN IN KWAZULU-NATAL, SOUTH  
AFRICA**

Hlongwa M<sup>1,2\*</sup> and Nicol E<sup>3,4</sup>

<sup>1</sup>*Public Health, Societies and Belonging, Human Sciences Research Council, South Africa*

<sup>2</sup>*School of Nursing and Public Health, University of KwaZulu-Natal, South Africa*

<sup>3</sup>*Burden of Disease Research Unit, South African Medical Research Council, South Africa*

<sup>4</sup>*Division of Health Systems and Public Health, Stellenbosch University, South Africa*

[\\*hlongwa.mbu@gmail.com](mailto:hlongwa.mbu@gmail.com)

**ABSTRACT**

In South Africa (SA), the rollout of Pre-exposure prophylaxis (PrEP) as an HIV prevention strategy commenced in 2016, initially targeting specific demographics before broadening access. However, there remains a significant gap in research concerning PrEP among adolescent boys and young men (ABYM). This study aimed to evaluate the barriers and facilitators influencing PrEP access, uptake, and continuation among ABYM in SA. Conducted in June 2022 within the uMgungundlovu district, boasting a substantial HIV prevalence of 24% among males aged 15-49 years, face-to-face in-depth interviews were utilized for qualitative data collection. Thematic analysis, facilitated by Nvivo version 11, provided insights into the participants' perspectives. The study targeted sexually active, high-risk ABYM aged 15–35 years who tested HIV negative, recruited from purposively selected PrEP Service Delivery Points including healthcare facilities, secondary schools, Technical Vocational Education and Training colleges, and community-based youth zones. Findings from the 12 male participants, revealed a conspicuous lack of knowledge about PrEP. Participants emphasized the necessity of utilizing various channels such as social media platforms, advertisements in mainstream media, community outreach programs, taverns, and schools for disseminating information about PrEP. Interestingly, public health clinics were not preferred due to concerns surrounding stigma, judgment, and long waiting queues. Instead, participants expressed a preference for accessing PrEP from schools, youth centers, pharmacies, and community-designated areas in closer proximity to them. Moreover, apprehensions regarding potential side effects, stigma associated with taking ARVs, and transportation challenges were identified as additional barriers affecting PrEP access and continuity. Addressing these challenges necessitates targeted interventions to enhance PrEP knowledge, amplify its perceived value, and mitigate existing hurdles hindering ABYM from accessing PrEP..

Keywords: ABYM, PrEP, barriers, facilitators, South Africa

C4

[15]

## INCIDENCE OF ARDS IN SCRUB TYPHI POSITIVE PATIENTS AT A TERTIARY HOSPITAL

Vaddi VD<sup>1</sup> and Dantuluri SR<sup>2\*</sup>

*Department of General medicine, KIMS Hospitals, India*

[\\*dr.srinivasarajudantuluri@gmail.com](mailto:*dr.srinivasarajudantuluri@gmail.com)

### **ABSTRACT**

The incidence of Acute Respiratory Distress Syndrome (ARDS) in patients with scrub typhus at a tertiary hospital was investigated to understand the severity and complications associated with this infectious disease. Scrub typhus, caused by *Orientia tsutsugamushi*, is a significant public health concern in endemic regions. The objective of this study was to determine the frequency of ARDS among scrub typhi positive patients and identify potential risk factors contributing to its development. A retrospective analysis of medical records from January 2020 to March 2024 was conducted, including 86 patients diagnosed with scrub typhus through serological testing. Data on clinical presentation, laboratory findings, and outcomes were collected and analyzed. The results indicated that out of 150 scrub typhi positive patients, 14 (16%) developed ARDS. Among these patients, 64 (75%) developed multi-organ dysfunction syndrome (MODS), and 54 (62.5%) had significantly elevated liver enzymes (ALT > 150 U/L). Complications such as acute kidney injury (AKI) were observed in 10 (41.7%) patients. The mortality rate among patients with ARDS was 16%, with 14 deaths reported. Risk factors such as late presentation, elevated liver enzymes, and MODS were significantly associated with the development of ARDS ( $p < 0.05$ ). The study concludes that ARDS is a common and serious complication in scrub typhus patients, necessitating early diagnosis and aggressive management to improve outcomes. These findings highlight the importance of heightened clinical awareness and timely intervention to mitigate the impact of scrub typhus-related ARDS in tertiary care settings.

Keywords: ARDS, scrub typhus, incidence, tertiary hospital, risk factors

C5

[16]

**COVID-19 TESTING PATHWAYS, PHYSICAL AND MENTAL WELLBEING: A  
GLOBAL COMMUNITY APPROACH TO IDENTIFYING AND ADDRESSING  
COMMON BARRIERS IN A POST-PANDEMIC ERA**

Brigden N<sup>1</sup>, Amitay O<sup>2</sup>, Cardone A<sup>3</sup>, Gallego D<sup>4</sup>, Gallindo M<sup>5</sup>, Resendez J<sup>6</sup>, Ashkenazy R<sup>7</sup>, Martin C<sup>8</sup>,  
Quercia R<sup>9</sup>, Spinelli F<sup>7</sup>, and Votta M<sup>10</sup>

<sup>1</sup>*Forgotten Lives, Hedon, UK*

<sup>2</sup>*Solve ME/CFS Initiative, Los Angeles, US*

<sup>3</sup>*Cancer Patients Europe, Pisa, Italy*

<sup>4</sup>*European Kidney Patients Federation, Aldaya, Spain*

<sup>5</sup>*Asociación Mexicana de Lucha Contra el Cáncer, A.C., Mexico City, Mexico*

<sup>6</sup>*National Alliance of Caregiving, Washington, US*

<sup>7</sup>*Pfizer Inc., New York, US*

<sup>8</sup>*Pfizer Inc., Paris, France*

<sup>9</sup>*Pfizer Inc., London, UK*

<sup>10</sup>*Active Citizenship Network (Cittadinanzattiva), Rome, Italy*

[\\*nikolabrigden@icloud.com](mailto:*nikolabrigden@icloud.com)

**ABSTRACT**

COVID-19 continues to disproportionately impact medically vulnerable populations at high risk of severe outcomes and long-term complications. A global COVID Community Council (the Council) was formed to drive the co-creation of innovative strategies to address this global health challenge and advocate for equitable access to prevention, treatment, and care. The eight members of the Council represent leading patient and citizen organizations across Europe, North America, and the UK devoted to promoting the health of their communities, including those living with cancer, kidney disease, myalgic encephalomyelitis, those who are immunocompromised, and caregivers. Following individual exploratory calls and pre-meeting surveys, the Council met to explore perspectives on COVID-19 testing pathways, physical and mental wellbeing among medically vulnerable communities. The Council identified seven barriers to COVID-19 testing: cost, accessibility, authorization and distribution of tests, variety and accuracy of tests, lack of guidance around actions required following positive tests, education and awareness around vaccination and treatment, and COVID testing fatigue. Council members agreed that the impact of COVID-19 on the physical and mental wellbeing of medically vulnerable communities was pervasive, affecting four key areas: patients, their families, friends, and caregivers; societal stigma; healthcare services; and information dissemination around perception of burden and risk. Three potential solutions were identified: raise awareness of available COVID-19 treatments, educate the general population on the ongoing burden of COVID-19 and long-term complications, and improve accessibility to mental health support. The Council calls for global commitment to a public health policy that improves the visibility of the medically vulnerable, raises awareness of challenges faced and refines solutions that help to advance access and equity, and ensure good health and wellbeing for all.

Keywords: COVID-19, immunocompromised, medically vulnerable, mental wellbeing

D1

[17]

**ATTITUDES AND ASSOCIATED FACTORS TOWARDS FAMILY INVOLVEMENT IN CANCER CARE AMONG NURSES WORKING IN CHEMOTHERAPY AND RADIOTHERAPY WARDS AT THE NATIONAL CANCER INSTITUTE IN SRI LANKA**

Amarasekara TAAD and Siddik FF\*

*Department of Nursing & Midwifery, Faculty of Allied Health Science, University of Sri*

*Jayewardanepura, Sri Lanka*

[\\*ffarwinsiddik@gmail.com](mailto:*ffarwinsiddik@gmail.com)

**ABSTRACT**

Cancer, as a chronic disease symbolizing mortality and underscoring the limits of our control in life, frequently presents numerous psycho-social challenges that can profoundly influence Nurses' Attitudes towards Patients with Cancer in their day-to-day responsibilities. Nurses who closely interact with individuals grappling with chronic and life-threatening illnesses, like cancer, may find themselves at an elevated risk of developing negative attitudes. Therefore, it is imperative to acknowledge the significance of cultivating positive attitudes towards family involvement in nursing care. To assess attitudes and associated factors towards family involvement in cancer care among nurses working in chemotherapy and radiotherapy wards at the National Cancer Institute in Sri Lanka. This study utilized a descriptive cross-sectional design to assess nurses' attitudes towards the importance of families' involvement in nursing care for cancer patients. A pre-tested self-administered questionnaire, including socio-demographic information and the Families' Importance in Nursing Care – Nurses' Attitudes (FINC-NA) scale, was used to collect data from 134 nursing officers working in the Chemotherapy and Radiotherapy wards at the National Cancer Institute in Sri Lanka. Descriptive statistics analyzed data using five-point Likert scale. In this study, 134 eligible nurses (mean age 31 years, SD 5.1; 92.5% female) were analyzed. The median attitude on the FINC-NA scale was 29.81 (SD 9.66). Attitudes were associated with education, workplace, and experience in family involvement in cancer care. Kruskal-Wallis test found significant association ( $P < 0.05$ ) between "Family as a conversational partner" subscale and education (Test value 8.025). Mann-Whitney U test showed significant association ( $P < 0.05$ ) between "Family as a conversational partner" subscale and current working area (Test value 1492.5), as well as experience in family involvement in cancer care (Test value 2910). Nurses showed supportive attitudes towards family involvement in cancer care, with educational status, workplace, and experience were identified as associated factors.

Keywords: attitudes, cancer care, family, family involvement, Sri Lanka

D2

[18]

**AWARENESS OF BREAST CANCER AND PRACTICES OF BREAST SELF-EXAMINATION: THE CASE OF RURAL WOMEN IN SUDAN**

Mohammed K<sup>1\*</sup> and Mohammed E<sup>2</sup>

<sup>1</sup>*Faculty of dentistry, University of Gezira, Sudan*

<sup>2</sup>*Faculty of medicine, University of Khartoum, Sudan*

[\\*kabusudan@gmail.com](mailto:kabusudan@gmail.com)

**ABSTRACT**

Breast cancer is the most common cancer among women in Sudan. Assessing breast cancer knowledge helps fill gaps and supports cancer control programmes. This study aimed to assess the knowledge of breast cancer and the practice of breast self-examination (BSE) among rural women in Gezira State, Sudan. A descriptive cross-sectional community-based survey was conducted among women aged 18 and older in 10 villages, with a population size of 25,000. The mean age of participants was 37.2 years old. The questionnaire contained 10 questions about knowledge; the level of knowledge was classified as good (10–8 correct answers), moderate (7–5 correct answers), or poor (4 correct answers or less). A total of 340 women participated in the study, with a response rate of 90%. The majority of participants (60.8%) had moderate knowledge of breast cancer. The most frequently identified symptoms of breast cancer were painless lumps (82.3%), followed by discharge (53%) and weight loss (38.2%). Only 50.6% of participants had heard of BSE, and among them, only 17.6% reported performing BSE. We organized breast cancer awareness sessions for one hour in each village by students who participated in data collection. The findings of this study indicate that women in rural areas have a moderate level of knowledge about breast cancer and a low level of BSE practice. Providing information about breast cancer is essential to promote public health and ensure health equity.

Keywords: cancer, awareness, rural health, Sudan

D3

[19]

**DRIVING GLOBAL HEALTH EQUITY: INSIGHTS FROM RURAL  
HYPERTENSION MANAGEMENT IN INDIA VIA MOBILE MEDICAL UNIT  
INTERVENTION**

Banoj M<sup>1\*</sup>, Narayan S<sup>2</sup> and Sudeep S<sup>3</sup>

<sup>1</sup>*Monitoring Evaluation Learning, Manager, The Hans Foundation, India*

<sup>2</sup>*Monitoring Evaluation Learning, Senior Manager, The Hans Foundation, India*

<sup>3</sup>*Monitoring Evaluation Learning, Director, The Hans Foundation, India*

[\\*banoj@thfmail.com](mailto:*banoj@thfmail.com)

**ABSTRACT**

This research study, initiated by The Hans Foundation (THF), delves into the multifaceted landscape of hypertension prevalence, risk factors, knowledge, practices, and prevention strategies within Mobile Medical Unit (MMU) intervention areas. Covering regions in Himachal Pradesh and Uttarakhand, the research aims to provide vital insights for healthcare interventions, policy decisions, and future strategies in hypertension management. The study employs a mixed-method approach, amalgamating qualitative and quantitative methods to evaluate hypertension in MMU intervention areas. Through cross-sectional data collection methods including Beneficiary Interviews, Key Informant Interviews (KIIs), and Focus Group Discussions (FGDs), the research scrutinizes demographic, socio-economic, and lifestyle factors contributing to hypertension prevalence. Notably, the study highlights the significant gender disparity among beneficiaries, with a higher representation of females, and emphasizes the prevalence of hypertension within older age groups. Findings underscore the pivotal role of MMUs in counseling, education, and healthcare delivery, with high utilization rates and positive impacts on health outcomes. Despite challenges such as irregular medication adherence and gaps in awareness, proactive healthcare practices are strongly supported. MMUs are lauded for their effectiveness in reducing out-of-pocket expenses and improving health knowledge within communities. The study advocates for targeted interventions and strategies, proposing recommendations to enhance hypertension management and overall health outcomes in these regions. These recommendations include community education initiatives, integrated care approaches, lifestyle promotion, and fostering collaboration among healthcare providers. Overall, the study contributes to the global commitment of advancing healthcare access, equity, and achieving Sustainable Development Goals (SDGs) by addressing health disparities and promoting inclusive healthcare practices in underserved rural areas.

Keywords: hypertension management, Mobile Medical Units (MMUs), healthcare access, rural communities, health disparities, sustainable development goals (SDGs)



D4

[20]

**THE EPIDEMIOLOGY OF SLEEP DISTURBANCES AMONG MEDICAL STUDENTS IN THE MIDDLE EAST AND NORTH AFRICA: A SYSTEMATIC REVIEW AND META-ANALYSIS**

Chaabane S, Chaabna K, Khawaja S, Aboughanem J, Mamtani R and Cheema S

*Institute for Population Health, Weill Cornell Medicine – Qatar, Education City, Qatar*

*foundation, P.O.Box. 24144, Qatar*

[\\*soc2016@qatar-med.cornell.edu](mailto:*soc2016@qatar-med.cornell.edu)

**ABSTRACT**

The epidemiology of sleep disturbances among medical students in the Middle East and North Africa (MENA) countries is unclear. Our objective is to synthesize the prevalence of sleep disturbances, including poor sleep quality, excessive daytime sleepiness (EDS), insufficient sleep duration, and their variation according to socioeconomic status, academic performance, and stress levels in MENA medical students. This systematic review and meta-analysis methodology is based on the Cochrane handbook. Two independent reviewers searched PubMed, Web of Science, Google Scholar, up to July 2023, and reference lists of relevant studies for grey and non-grey relevant literature. Meta-analyses were performed using random-effects models. This meta-analysis included 134 studies from 16 MENA countries. The analyses found that 57.1% of the medical students suffered from poor sleep quality (mean<sub>pooled</sub> Pittsburgh Sleep Quality Index score=9.9 [95%: 6.8-13.0]), 38.4% from EDS (mean<sub>pooled</sub> Epworth Sleepiness Scale score=8.6 [95%: 8.0-9.1]), and 59.3% had insufficient sleep duration (<7h/night) averaging 6h/night [95%: 5.0-6.9]. A significantly higher prevalence of poor sleep quality was found among students with moderate or high stress levels and from low-income MENA countries. A significantly higher prevalence of EDS was found among students studying in public medical schools and those in low-income MENA countries. A significantly higher prevalence of insufficient sleep duration was found among students studying in preclinical academic years. No differences in poor sleep quality and EDS were identified between poor and good academic performance levels. Sleep disturbances are highly prevalent among MENA medical students. Regular screening and implementation of targeted and effective interventions, especially in public medical schools, during preclinical years, among stressed students, and in low-income countries can help prevent their consequences on students' health and well-being.

Keywords: sleep quality, excessive daytime sleepiness, insufficient sleep duration, medical students, systematic review



D5

[21]

**IDENTIFICATION OF VIRAL ETIOLOGY IN ACUTE RESPIRATORY  
INFECTIONS PATIENTS IN MANADO, NORTH SULAWESI, INDONESIA**

Purwanto DS<sup>1</sup>, Wiyatno A<sup>2</sup>, Wilar R<sup>1</sup>, Kaligis SHM<sup>1</sup>, Bernadus JBB<sup>1</sup>, Kepel BJ<sup>1</sup>, Tafroji W<sup>2</sup>,  
Khoeri MM<sup>2</sup> and Safari D<sup>2</sup>

<sup>1</sup>*Faculty of Medicine, Universitas Sam Ratulangi Manado, Indonesia*

<sup>2</sup>*Eijkman Institute of Molecular Biology Jakarta, Indonesia*

[\\*dianashintapurwanto@unsrat.ac.id](mailto:*dianashintapurwanto@unsrat.ac.id)

**ABSTRACT**

Viral etiology examinations to determine the cause of acute respiratory infections are generally rarely performed in patients who come to the health centers because of the high cost of examinations and limited treatment options for viral infections. In fact, data on the etiology of viruses that cause acute respiratory infections (ARI) are needed by clinicians as a consideration in providing therapy to avoid unnecessary use of antibiotics. This study aimed to determine the prevalence of viruses as the pathogen causing ARI in Manado, North Sulawesi, Indonesia. A cross-sectional study was conducted in May 2019 – March 2020 in two community health centers and one public hospital in Manado city. Samples were taken from both outpatients and inpatients with a diagnosis of ARI. Oropharyngeal swab samples were taken using flocked swabs, then collected in a cryotube containing 500 µL VTM (*viral transport media*). Conventional two step singleplex reverse transcription PCR assays were used for detection of respiratory viruses. In total, 106 oropharyngeal swab specimens were collected from 52 females and 54 males patients with ARI. The age ranged from 1 month to 73 years, with a mean of 14.89. The majority of patient symptoms besides fever were coughing (95%), runny nose (88%), nasal congestion (66%), malaise (60%), headache (35%), shortness of breath (29%), and sore throat (29%). Detection of a panel of 11 respiratory viruses is still ongoing. So far, we have identified influenza virus in 8 patients (7.5%) and enteroviruses in 16 patients (15%). In conclusion, this study provides baseline information on the epidemiology of viral etiology in patients with acute respiratory infections in Manado, North Sulawesi.

Keywords: virus, acute respiratory infections, Manado

D6

[22]

**TRENDS ON METHICILLIN RESISTANT *Staphylococcus aureus*  
AND THE FACTORS THAT INFLUENCE ITS OCCURRENCE  
IN THE PHILIPPINES**

Yumiaco EB<sup>1\*</sup> and Usona LP<sup>2</sup>

<sup>1</sup>*School of Medicine, Angeles University Foundation, Philippines*

<sup>2</sup>*Graduate School, Polytechnic University of the Philippines, Philippines*

[\\*yumiaco.evelyn@auf.edu.ph](mailto:*yumiaco.evelyn@auf.edu.ph)

**ABSTRACT**

The Philippine government has considered antimicrobial resistance (AMR) as a public health threat due to its serious health and economic consequences. One of the targets prioritized by the government is to reduce the rate of Methicillin resistant *Staphylococcus aureus* (MRSA) from 60% in 2014 to 30% in 2020. MRSA is caused by strains of *Staphylococcus* bacteria that become resistant to Methicillin and other similar antibiotics. It can cause life threatening skin and soft tissue infections which increases the cost of treatment and prolongs hospital stay. The purpose of this study is to determine the trend of MRSA in various regions of the country and to identify the factors which influence its occurrence. The data on MRSA were taken from the Antimicrobial Resistance and Surveillance Program Report of the Department of Health from the year 2014 to 2021. Time series analysis was conducted to determine the trend while multiple regression analysis was used to develop a predictor model. The analysis of data showed a reduction in the cumulative rate from 60.3% in 2014 to 42.2% in 2021 with a downward trend starting from 2017 to 2021. The data in 2021 showed that the rate across the regions of the country vary, ranging from 25%-100% in Luzon, 23-57% in Visayas and 50-71% in Mindanao. Furthermore, multiple regression analysis was carried out to investigate the relationship between MRSA rate (%) and twelve predictor variables. The reduced model with five predictor variables namely poverty, access to drinking water, health expenditure, number of doctors, and number of hospitals is useful in predicting the variation in MRSA rate ( $F(5,106)=13.92$ ,  $p < 0.001$ ). The adjusted  $R^2$  value is 0.368 which indicates that 36.8% of the variation in the MRSA rate can be explained by the model. The analysis of individual predictor variables using t test showed that all five variables namely poverty ( $p < 0.001$ ), access to drinking water ( $p = 0.010$ ), health expenditure ( $p < 0.001$ ), number of doctors ( $p < 0.001$ ) and number of hospitals ( $p < 0.001$ ) add significant information in predicting MRSA rate. In conclusion the overall MRSA rate has decreased but the rate in some regions of the country remained high. The result of the study will help the local government to understand the problem, prioritize interventions to combat resistance and create evidence based policies.

Keywords: infectious disease, antimicrobial resistance, Methicillin- resistant *Staphylococcus aureus*, Philippines

D7

[23]

**UNINTENTIONAL FALLS AMONG OLDER PEOPLE IN 20 LOW, MIDDLE, AND HIGH-INCOME COUNTRIES OF THE MIDDLE EAST AND NORTH AFRICA: A SYSTEMATIC REVIEW AND META-ANALYSES**

Chaabna K\*, Jithesh A, Khawaja S, Aboughanem J, Mamtani R, and Cheema S

*Institute for Population Health, Weill Cornell Medicine – Qatar, Education City, Qatar*

[\\*kac2047@qatar-med.cornell.edu](mailto:kac2047@qatar-med.cornell.edu)

**ABSTRACT**

Globally, falls among the older population are a significant public health concern; however, its epidemiology remains unclear in the Middle East and North Africa (MENA). This systematic review synthesizes data on unintentional falls in the population aged  $\geq 60$  across 20 MENA countries. We searched PubMed, Web of Science, and Google Scholar up to July 2023. Random-model meta-analyses were conducted. Using country-specific population size and meta-analyses' pooled prevalence, we computed MENA population-size weighted-average prevalence. The MENA population-size weighted-average prevalence of community-dwelling older adults reporting  $\geq 1$  fall was 17.4% (95%CI: 8.2–38.9), totaling 9.9 million individuals. Fall prevalence significantly increased in adults over 70 compared to those aged 60–69. Variations exist between World Bank income groups, but no time trend or sex-specific differences were noted. 60% (95%CI: 42.2–75.7) of older trauma unit patients attributed falls as the cause of their hospitalization, and 49.3% (95%CI: 33.9–64.8) of the older outpatients reported having at least one fall in the past year. 10.1% fell at work and 6.0% in healthcare settings. Fractures were reported on average by 37.4% (95%CI: 21.3–56.7) and 45.6% (95%CI: 37.8–53.5) sought hospital care after a fall. Mortality after a fall was 14.3% (95%CI: 2.4–53.0). Perceived fall causes were related to two World Health Organization fall-associated factor categories: physical environment and person's biology. Pooled prevalence of older adults at high risk of falling (Berg Balance Scale) was 12.8% (95%CI: 7.4–21.2). As per the Fall Efficacy Scale, 60.4% (95%CI 48.8–70.9) of older adults expressed moderate to high concern about performing daily activities without falling. The large number of older adults experiencing falls in the MENA region emphasizes the need for targeted preventive measures along with collaborative action in the region.

Keywords: unintentional falls, older population, Middle East and North Africa

D8

[24]

**THE EFFECT OF COVID 19 ON THE DEVELOPMENT OF CVS AMONGST STUDENTS IN A SOUTH AFRICAN UNIVERSITY: A CROSS-SECTIONAL STUDY**

Oluwarinde BO<sup>1\*</sup>, Nonhlanhla T<sup>1,2,3</sup> and Nkosi V<sup>1</sup>

<sup>1</sup>*Environmental Health Department, Faculty of Health Sciences, University of Johannesburg, Johannesburg 2028, South Africa*

<sup>2</sup>*Epidemiology and Surveillance Section, National Institute for Occupational Health, National Health Laboratory Service, Braamfontein, Johannesburg 2001, South Africa.*

<sup>3</sup>*School of Health Systems and Public Health, Faculty of Health Sciences, University of Pretoria, Pretoria 0001, South Africa*

[\\*bukkyopeyemi@yahoo.com](mailto:*bukkyopeyemi@yahoo.com)

**ABSTRACT**

Online school's stress and close-up work can cause dry eyes, watery eyes, itching, and headaches in college students. This study examined the association between increased screen time and eye defects, amongst students attending a university in South Africa. The study sample were students who attended online classes as a result of the COVID lockdown. The study had a sample of 349 participants, data was collected using questionnaires. Univariate and multiple logistic regression analyses were conducted to assess the strengths of the associations. The prevalence of Computer Vision Syndrome among students was 68%, a higher prevalence of CVS was found among female students (63%) compared to male students (37%). Results from the adjusted model showed that female students were more likely to report CVS than male students (OR = 1.70, 95% CI: 1.07-2.67, p=0.023). Students within the age group 26-35 were less likely to report CVS as compared to students within the age group 18-25 (OR = 0.40, 95% CI: 0.22-0.72, p =0.002). Postgraduate students were less likely to report CVS than undergraduate students (OR = 0.41, 95% CI: 0.25-0.67, P <0.001). Students with more than one gadget were more likely to report having CVS, 2 gadgets (OR = 2.73, 95% CI: 1.32-5.62, p=0.007) and >2 gadgets (OR = 2.47, 95% CI: 0.99-6.14, P= 0.005). Students with family history of eye-defect were more likely to report eye defect (OR = 2.59, 95% CI: 1.53-4.38. P<0.001). CVS has a high prevalence amongst university students. Frequent pauses during screen use using customized apps or the 20-20-20 rule (to focus on 20 feet every 20 minutes for 20 seconds) should be performed by students while using their gadgets.

Keywords: eye defect, computer vision syndrome, university students, COVID-19

D9

[25]

**ASSOCIATION BETWEEN SARCOPENIA AND INCIDENCE OF URINARY INCONTINENCE IN WOMEN AGED 60 YEARS AND OLDER PARTICIPANTS OF THE ENGLISH LONGITUDINAL STUDY OF AGEING (ELSA)**

Díaz DC<sup>1\*</sup>, de Souza AF<sup>2</sup>, Steptoe A<sup>3</sup>, de Oliveira C<sup>3</sup>, da Silva Alexandre T<sup>2,3,4,5</sup> and Ramírez PC<sup>1</sup>

<sup>1</sup>*Escola de Fisioterapia, Universidad Industrial de Santander, Bucaramanga, Colombia*

<sup>2</sup>*Programa de Pós-Graduação em Fisioterapia, Universidade Federal de São Carlos, São Carlos, Brazil*

<sup>3</sup>*Department of Epidemiology & Public Health, University College London, London, UK*

<sup>4</sup>*Programa de Pós-Graduação em Gerontologia, Universidade Federal de São Carlos, São Carlos, Brazil*

<sup>5</sup>*Departamento de Gerontologia, Universidade Federal de São Carlos, São Carlos, Brazil*

\*[dianacarolinadiazft@gmail.com](mailto:dianacarolinadiazft@gmail.com)

**ABSTRACT**

Urinary incontinence (UI) and sarcopenia are common geriatric syndromes in older individuals, particularly in women. The relationship between them is poorly understood and controversial, necessitating further investigation to establish such an association. To determine the relationship between sarcopenia and the incidence of UI in women aged 60 and older participating in the English Longitudinal Study of Ageing (ELSA). An 8-year longitudinal study involving 1,575 women aged 60 and above enrolled in ELSA. Sarcopenia was defined following the criteria of the European Working Group on Sarcopenia in Older People (EWGSOP2) consensus, classifying participants as non-sarcopenic, probable sarcopenic, sarcopenic, and severely sarcopenic. UI was assessed using the question "During the past 12 months, have you had any uncontrolled loss of urine?" from the ELSA questionnaire. A multivariable Poisson regression model was employed to estimate the association between sarcopenia and the incidence of UI. The risk of UI was significantly higher in sarcopenic and severely sarcopenic women compared to non-sarcopenic ones (IRR 1.44; 95% CI: 1.01 – 2.05), (IRR 1.45; 95% CI: 1.03 – 2.05), respectively. The association was not found for probable sarcopenic women (IRR 1.10; 95% CI: 0.89 – 1.34). Both sarcopenia and severe sarcopenia increase the risk of UI in women aged 60 and older. Therefore, it is essential to implement preventive measures and clinical actions to mitigate this risk.

Keywords: ELSA, EWGSOP2, longitudinal, older women, urinary loss

D10

[26]

**SHORT-TERM EFFECTS OF PM<sub>2.5</sub>, SO<sub>2</sub>, AND NO<sub>2</sub> ON CARDIORESPIRATORY DISEASE MORTALITY IN INDUSTRIALIZED MPUMALANGA HIGHVELD REGION OF SOUTH AFRICA**

Novela RJ<sup>1</sup>, Gitari WM<sup>1,2</sup>, Wichmann J<sup>3</sup>, and Mudzielwana R<sup>1</sup>

<sup>1</sup>*Environmental Remediation and Nano Science Research Group, University of Venda, Department of geography and environmental science, Thohoyandou, Limpopo, 0950, South Africa.*

<sup>2</sup>*School of Chemistry and Material Sciences, Technical University of Kenya. P.O. Box 52428 - 00200 | Nairobi- Kenya | Haile Selassie Avenue, Nairobi*

<sup>3</sup>*School of Health Systems and Public Health, University of Pretoria, 31 Bophelo Road 0001, Pretoria, South Africa.*

**ABSTRACT**

There is epidemiological evidence of the relationship between air pollution and cardiovascular and respiratory disease mortality in global systematic reviews and multi-city studies. However, the health effect of air pollution is rarely quantified in a highly industrialized area, the air-polluted Mpumalanga Highveld region. Daily information about cardiovascular and respiratory disease mortality and data on air pollutants from January 2009 to December 2018 were obtained. Generalized additive quasi-Poisson models adjusted for trend, seasonality, and temperature were used within a distributed lag linear modelling (DLNM) framework to assess the relation between cardiovascular and respiratory disease mortality and the average daily air pollution. The effect modifications by sex and age (10–64; ≥65 years) were examined. The lagging exposure concept was used to analyse a possible latency period in cumulative exposure-pollution analyses. Relative risks (RR) of CVD admissions on the same day (lag 0) and 7 days after exposure (lag 7) were calculated. Relative risks of CVD admissions (for an increase of 10 µg m<sup>-3</sup> in air pollutant concentration) were calculated. The overall cumulative relative risk (95% confidence interval (CI)) for PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>2</sub> at lag 0–7 for cardiovascular disease (CVD) mortality were 14.2% (12.5–15.9%), 22.7% (18.9–26.7%), and 0.8% (–0.2–3.2%), respectively. For respiratory disease (RD) mortality, these values were 4.0% (2.7–5.3%), 6.3% (3.5–9.3%), and 1.4% (–0.1–3.2%), respectively. We found robust associations of daily cardiovascular disease mortality with daily SO<sub>2</sub> and PM<sub>2.5</sub> concentrations. Increased risk of cardiovascular mortality with SO<sub>2</sub> compared to other air pollutants. In addition, the study showed a significant increase in cardiovascular disease mortality compared to respiratory disease mortality. Higher risk in Women compared to men, population aged 10–64 compared ≥65 years. The main results of the present study confirm the deleterious short-term impact of air pollution on cardiovascular disease mortality in the Highveld region. This evidence emphasizes the need to implement policies for reducing air pollution in South African air pollution priority areas.

Keywords: ambient air pollution; cardiovascular disease; respiratory disease; DLNM; Mpumalanga Highveld

D11

[27]

**PREVALENCE, SEASONALITY, AND RISK FACTORS OF SELECTED ARBOVIRAL INFECTIONS AND CO-INFECTIONS IN SELECTED STATES IN NIGERIA**

Ipadeola AF<sup>1\*</sup>, Akinnola OO<sup>1</sup>, Olatunji KM<sup>2</sup> and Olasehinde I GI<sup>1</sup>

<sup>1</sup>*Covenant University, Ota, Ogun State, Nigeria*

<sup>2</sup>*University of Ilorin, Ilorin, Nigeria*

[\\*fevikemi.ipadeola2022@gmail.com](mailto:fevikemi.ipadeola2022@gmail.com)

**ABSTRACT**

In 2017, Nigeria experienced an outbreak of yellow fever which was detected after reports of several unexplained deaths in the affected States. However, other arboviruses like Dengue, Chikungunya, Zika, and West Nile known to be causing epidemics in other African countries are poorly investigated in Nigeria. This study investigated and presented prevalence of Dengue, Chikungunya, Zika, and West Nile, and co-infections in three Nigeria States to establish their presence and inform appropriate policy decision that will ensure early detection and response to potential outbreak to prevent reoccurrence of the 2017 experience. A cross sectional study aimed at molecular detection and characterization of the targeted arboviruses was conducted among febrile patients in selected hospitals in Lagos and Ogun States and the Federal Capital Territory (FCT). A total of 1020 blood samples were collected and tested using Multiplex Polymerase Chain Reaction (PCR). Data were analyzed in Stata, prevalence, Risk ratio and statistical significance were determined. Prevalence of Dengue, Chikungunya, Zika, and West Nile were 3.3% (2.4, 4.6), 5.5% (4.2, 7.1), 23.5% (21.0, 26.2) and 5.8% (4.4, 7.4) respectively. Lagos had higher prevalence for all the diseases compared to Ogun and FCT. Also, significant Chikungunya-Zika (4.0%), Chikungunya-West Nile (2.5%) and Zika-West Nile (3.2%) co-infections were recorded. Also, odds of infection of any of the four diseases is high among 5 years and above, and in dry season. The study established existence of Dengue, Chikungunya, Zika, and West Nile in Nigeria with significance prevalence to trigger public health action. Evidence provided in this study will guide Nigeria to investigate and respond to emerging threats from these arboviruses.

Keywords: prevalence, seasonality, arbovirus, coinfection, Nigeria



E1

[28]

## RISK OF INSULIN RESISTANCE IN ADOLESCENT HYPERTENSION

Dewiastuti M, Almira N\* and Andini CR

*Department of Internal Medicine, Faculty of Medicine, University Pembangunan Veteran*

*Jakarta, Indonesia*

\*[marlina\\_malik@upnvj.ac.id](mailto:marlina_malik@upnvj.ac.id)

### ABSTRACT

The incidence of diabetes mellitus in young adults has recently increased throughout the world. In recent decades, hypertension in young adults has increased and has become a global health issue. Hypertension and diabetes have a reciprocal relationship that affects each other, insulin resistance causes hypertension, and hypertension causes insulin resistance. Also, diabetes mellitus and hypertension have the same risk factors. Patients with hypertension often exhibit insulin resistance and are at greater risk of developing it than normotensive individuals. Diabetes and hypertension are interlinked because of similar risk factors, such as endothelial dysfunction, vascular inflammation, arterial remodeling, vascular fibrosis, and atherosclerosis. Common mechanisms are upregulation of the renin-angiotensin-aldosterone system, oxidative stress, inflammation, and immune system activation, which contribute to the close relation between diabetes and hypertension. The role of oxidative stress and inflammation in metabolic and vascular disease are highlighted. This pathogenesis increases the risk of diabetes mellitus in hypertension patients. This study aims to determine the relationship between hypertension and the incidence of prediabetes in the late adolescent population (young adults). Based on the research results, it was found that 12% of the adolescent population had hypertension, 6% had prediabetes, and 7% of hypertension young adults had prediabetes. The chi-square test showed no relationship between hypertension and prediabetes ( $p = 0.783$ ). Hypertension risks insulin resistance but takes time to cause complications in diabetes mellitus. Insulin resistance is detected several years before the onset of diabetes mellitus, and it is associated with hypertension. Elevation of cardiovascular risk begins at the stage of prediabetes in association with insulin resistance and impaired glucose tolerance. Hyperglycemia is the principal determinant of the pathogenesis of cardiovascular disease.

Keywords: diabetes mellitus, hypertension, Insulin resistance



E2

[29]

## FACTORS ASSOCIATED WITH DRUG USE AMONG MAURITIAN ADOLESCENTS

Nwogwugwu NC\*, Ndlovu K, and Olutola B

*Public Health, School of Engineering, Environmental Science and Public Health, IEMSA,  
South Africa*

*[\\*nnwogwugwu@iiemsa.co.za](mailto:nnwogwugwu@iiemsa.co.za)*

### **ABSTRACT**

Adolescent (12-17 years old) drug use is a global public health concern, that is resulting in a health burden for the age group. Therefore, the study sought to determine the risk factors associated with drug use among Mauritian adolescents. The study used the 2017 Global School-based Student Health Survey for Mauritius. Statistical analysis was conducted using Chi-square test and multivariable logistic regression. Out of the 3012 adolescents who participated in the study, 9.4% (n=282) reported that they ever used drugs. Majority of the ever drug users used marijuana (78.4%, n = 221, p<0.0001), whereas only 20.9% (n =59) used amphetamine. Students who reported that they had ever drunk alcohol were more likely to use drugs compared to had never drunk alcohol (AOR: 3.304, 95%, Conf.Int: 1.953 – 5.590). Student who reported that they ever smoked were more likely to use drugs, compared to those who reported they never smoked (AOR: 17.022, 95%, Conf.Int: 9.795 – 29.580). Also, those whose fathers or male guardians smoked, were more likely to use drugs compared to those who said neither parent smoked (AOR: 1.640, 95%, Conf.Int: 1.093 – 2.460). This study revealed that students who had ever used alcohol, smoked tobacco, or had a father/male guardian that smoked were most likely to engage in drug use. Policymakers and parents should look closely at how they can address these factors.

Keywords: drug use, Mauritius, adolescents

E3

[30]

## DIFFERENCES IN PARENTING PATTERNS BETWEEN GENERATIONS X, Y, Z AND ALFA

Maribeth, AL<sup>1</sup>, Ramadhani VN<sup>1\*</sup> and Salsabila R<sup>2</sup>

<sup>1</sup>*Department Public Health, Faculty of Medicine, Baiturrahmah University, Indonesia*

<sup>2,3</sup> *Faculty of Medicine, Baiturrahmah University, Indonesia*

[\\*annisalidramaribeth@fk.unbrah.ac.id](mailto:*annisalidramaribeth@fk.unbrah.ac.id)

### **ABSTRACT**

Parenting styles or other caregivers can have an impact on children's mental health. Every family uses a different approach to parenting, typically carried over from their previous parents, when it comes to raising children. Every parent undoubtedly hails from a diverse range of backgrounds and generations. To maximize children's mental health, it is therefore essential to understand how parenting styles are passed down through generations in order to give suitable interventions. Finding out how parents apply different parenting philosophies to kids from generations X, Y, Z, and Alpha is the goal of this literature. The systematic review approach is used in this literature. The PRISMA-P protocol (Preferred Reporting Items for Systematic Review and Meta-Analysis protocol) was the methodology employed in 2020. Research was gathered by looking via Google Scholar for the original source data. PICOS (population Intervention Compare Outcome-Study Design) keyword search method. Out of the 60 studies that were located, eight were used in this analysis. The findings of this literature review highlight the disparities in parenting styles among the generations, with democratic parenting being the approach most commonly employed by parents of children in generations X, Y, and Alpha. Parenting styles used by Generation Z include authoritarian, permissive, narcissistic, and overly appreciative parenting.

Keywords: parenting style, generation x, generation y, generation z, generation alpha

E4

[31]

**DO I HAVE TO WAIT IN LINE AGAIN? TRANSITION FROM CHILD AND ADOLESCENT TO ADULT PSYCHIATRIC CARE**

Serkowska M<sup>1</sup>, Marlena Robakowska dr habil. MUG<sup>2</sup>, Michał Brzeziński dr habil. MUG<sup>1</sup>

*<sup>1</sup>Department of Pediatrics, Gastroenterology, Allergology & Pediatric Nutrition Medical University in Gdańsk, Poland*

*<sup>2</sup>Division of Public Health & Social Medicine, Poland*

*[\\*monika.serkowska@gumed.edu.pl](mailto:monika.serkowska@gumed.edu.pl)*

**ABSTRACT**

Continuity of care in chronic diseases, including mental health, is very important. In Poland, the transition from treatment for children and adolescents to care for adults can be challenging, especially due to two ongoing reforms. The aim of the work is to analyze all possibilities of transferring care based on both the old rules and the new ones from the current reform. In the so-called “old system” care is decentralized and fragmented. There is a very high chance of getting lost due to lack of information and having to seek care again. The reform provides an opportunity to coordinate care and ensure its continuity. Due to the risk of closure of pilot facilities that aim to switch to community psychiatry and discussions related to financing problems, this is not a certain solution. It is also worth mentioning that the reform is not implemented everywhere. Given the above, it can be concluded that at the moment there is no perfect solution, although child, youth and adult reform centers seem to be the best solution. However, time and clear evidence that such a chance exists are needed.

Keywords: mental health, children and adolescents, adults, transition, psychiatric care

E5

[32]

**EVALUATION OF KNOWLEDGE OF TUCK SHOP OWNERS ON FOOD SAFETY  
IN RELATION TO HYGIENE, FOOD POISONING AND CERTIFICATE OF  
ACCEPTABILITY IN VOSLOORUS, CITY OF EKURHULENI, SOUTH AFRICA**

Caine F and Mokoatle MC\*

*Department of Environmental health, Faculty of health sciences, University of Johannesburg,  
South Africa*

[\\*charlottem@uj.ac.za](mailto:*charlottem@uj.ac.za)

**ABSTRACT**

WHO reported on the global burden of food-borne diseases and stated that the high death rates in regions such as the WHO African region, which has the highest burden of food-borne diseases per population. The incident that occurred in Soweto South Africa and other parts of the country over the safety of food being sold at tuck shops led to community uproar and panic. The primary objective of the study was to evaluate the knowledge of Tuck shop owners on food safety in relation to hygiene, food poisoning and Certificate of Acceptability. A quantitative cross-sectional study was used. Participants without Certificate of Acceptability were included. A self-administered questionnaire was used for data collection. The study population was 324 with a sample size of 100%. Data was captured into Microsoft Excel and exported to Statistical Package for Social Science (SPSS) for analysis. Tuck shop owners with primary and secondary education were significantly more likely to be knowledgeable about food safety (OR) 5.88, 95%CI (2.34-14.63), (OR) 1.72, 95%CI (0.89-3.39). participants purchasing food products at a retail shop or food warehouse with a Certificate of Acceptability (227; 70.1%). 173(53.4%) participants knew the Certificate of Acceptability. (240; 74.1%) participants with knowledge on death that it is also caused by food poisoning from poor hygiene (OR 8.80 95% CI (2.68-28.91) and AOR 8.67, 95%CI (1.83-40.85). The study will help Public Health and relevant stakeholders design and carry out educational and awareness campaigns to equip informal food traders with information about food safety and thereby safeguard the quality of food for public health, prevention is better than cure.

Keywords: food safety, hygiene, certificate of acceptability.

E6

[33]

**ASSOCIATION BETWEEN EXPERIENCES WITH HEALTH TECHNOLOGY APPLICATIONS AND THE READINESS TO USE ELECTRONIC MEDICAL RECORDS: A STUDY AT THE SIDOMULYO PRIMARY HEALTHCARE CENTER IN SAMARANDA CITY**

Pranata MAE<sup>1,2</sup>, Rahman FF<sup>2</sup> and Wang JJ<sup>1\*</sup>

<sup>1</sup>*Healthcare Administration, Asia University, Taiwan*

<sup>2</sup>*Department of Public Health, Universitas Muhammadiyah Kalimantan Timur, Indonesia*

*[jjwang@asia.edu.tw](mailto:jjwang@asia.edu.tw)*

**ABSTRACT**

The Indonesian Ministry of Health has recently directed that medical records transition to electronic recording as opposed to manual recording. This modification has been implemented comprehensively, including in Samarinda City. This adjustment will result in numerous positive outcomes, such as enhancing the accessibility of clinical information, minimizing errors in service provision, and streamlining care coordination. However, it is essential to ensure that healthcare workers are adequately equipped for the shift to Electronic Medical Records (EMR). This study is the first known study of the experiences and readiness of healthcare professionals to use EMR at Sidomulyo Primary Healthcare Center (PHC). Therefore, this study aimed to investigate the association between the experiences of health technology applications and the readiness to use EMR at the Sidomulyo PHC in Samarinda City. A cross-sectional approach was implemented. The population studied includes all Sidomulyo PHC healthcare professionals. The sampling approach was stratified random sampling, acquiring 48 individuals using the Slovin formula. For statistical analysis, the association between variables is examined using Pearson chi-square. The result of this study found a significant association between health technology applications and the readiness to use EMR ( $p= 0.008$ ). Experience in health technology applications is crucial for achieving success in EMR. Hence, healthcare professionals with excellent experience are more likely to use EMRs. Healthcare professionals with extensive expertise will find it easier to utilize EMRs. The research findings are anticipated to offer the PHC valuable information for examination and consideration in improving the quality of health services through EMRs.

Keywords: experience, health technology apps, electronic medical records

E7

[34]

## ASSESSMENT OF MICROBIAL CONTAMINATION IN FOOD SAMPLES FROM PETTA, COLOMBO: A MACROSCOPIC AND MICROSCOPIC ANALYSIS

Rathnayaka RMMK, Vithanage MKJW<sup>2\*</sup>, Withanage SJW<sup>3</sup> and Gajanayake C<sup>4</sup>

<sup>1</sup>*Undergraduate, Biomedical science department, AIC Campus, Colombo, Sri Lanka*

<sup>2</sup>*Lecturer and Academic Coordinator, Biomedical science department, AIC Campus, Colombo, Sri Lanka*

<sup>3</sup>*Medical Officer of Health Office, Egodauyana, Sri Lanka*

<sup>4</sup>*Regional Director of Health Services, Colombo, Sri Lanka*

*\*[biomedfaculty1@imcaic.com](mailto:biomedfaculty1@imcaic.com)*

### ABSTRACT

Foodborne illnesses pose a significant public health concern globally. Contaminated food can harbor various microorganisms, leading to gastrointestinal and other health problems. This study aimed to evaluate the microbial quality of food samples collected from Petta, Colombo, Sri Lanka. The primary objective was to assess the presence and extent of microbial contamination in food samples using macroscopic and microscopic techniques. A total of 48 food samples were collected from Petta, Colombo. Macroscopic analysis was conducted to observe visual signs of contamination, including discoloration, changes in odor and texture, and colony morphology. Microscopic analysis, employing Gram staining, was performed to identify and classify the bacteria present in the samples. Macroscopic analysis revealed a significant proportion of samples exhibiting visible microbial colonies with varying characteristics. Microscopic examination identified both Gram-positive and Gram-negative bacteria. Gram-positive bacteria were primarily bacilli in chains, while Gram-negative bacteria were mainly bacilli and rods. The study findings suggest a considerable level of microbial contamination in the analyzed food samples, indicating potential health risks for consumers. The presence of diverse bacterial populations suggests improper handling and inadequate storage conditions as possible sources of contamination. This study highlights the need for improved hygiene practices throughout the food chain, from preparation to consumption. Furthermore, stricter regulatory measures are essential to ensure the microbiological safety of food in the region.

Keywords: foodborne illness, microbial contamination, food quality, Gram staining, bacteria, public health, Petta, Colombo

**THE EFFECT OF BASIC LIFE SUPPORT TRAINING ON WILLINGNESS IN PERFORMING BYSTANDER HANDS-ONLY CARDIOPULMONARY RESUSCITATION AMONG HIGH SCHOOL STUDENTS IN PATNA, BIHAR**

Mredha NR<sup>1\*</sup>, Kumar P<sup>2</sup>, Ahmad S<sup>3</sup> and Kumar CM<sup>4</sup>

<sup>1</sup>*Department of Community and Family Medicine, AIIMS Patna, India*

<sup>2</sup>*Department of Community and Family Medicine, Additional Professor, AIIMS Patna, India*

<sup>3</sup>*Department of Community and Family Medicine, Associate Professor, AIIMS Patna, India*

<sup>4</sup>*Department of Paediatrics, Professor and Head, AIIMS Patna, India*

[\\*naomie@aimspatna.org](mailto:*naomie@aimspatna.org)

**ABSTRACT**

Out-of-hospital cardiac arrest (OHCA) poses a significant global health challenge, especially in India with dismal bystander CPR rates (1.3%). We investigated the impact of basic life support (BLS) training on high school students' willingness to perform hands-only CPR in Patna, Bihar, aiming to highlight students' potential as vital responders and advocate for integrating CPR training into school curriculums, potentially mitigating OHCA mortality rates in India. This quasi-experimental study assessed the impact of BLS training on high school students' willingness to perform bystander hands-only CPR in Patna, Bihar. Using convenience sampling, 592 students from two schools participated, with a pre-post intervention design. A structured questionnaire measured changes in knowledge, confidence, and willingness to perform CPR before and after training, revealing insights into the effectiveness of BLS education among adolescents. Of the 592 participants, 73.3% were aged 14 to 16 years, with a nearly balanced gender distribution. A significant majority (86.2%) lacked prior BLS training, highlighting the necessity for educational interventions. While general awareness of BLS was high (71.5%), detailed knowledge remained low (13.2%), indicating a gap between awareness and actionable knowledge. Post-training, willingness to perform CPR increased significantly to 97.8%, emphasizing the effectiveness of BLS training in enhancing confidence and intent. The predominant reason for hesitation among 205 children regarding CPR was fear of incomplete or poor performance, cited by 34.0% of respondents. Overall, structured training significantly improved both knowledge and confidence for effective emergency response among high school students, with over 97% achieving satisfactory knowledge levels and similar proportions exhibiting confidence post-training. Therefore, mandating BLS training in school curricula can advance healthcare access, supported by significant post-training CPR readiness improvement.

Keywords: out-of-hospital cardiac arrest (OHCA), basic life support (BLS) training, hands-only CPR, high school students, CPR readiness, healthcare access

E9-1

[36]

**DOES A NURSING PRACTITIONER HAVE A DUTY TO WORK IN A WORK IN A CLINIC WITHOUT THE FUNDAMENTAL RESOURCE OF WATER**

Ralehike MM\*

*School of Medicine, Faculty of Health Sciences, Steve Biko Centre for Bioethics and Health Law, University of Witwatersrand, Johannesburg, South Africa.*

*[\\*makhotsoralehike@icloud.com](mailto:makhotsoralehike@icloud.com)*

**ABSTRACT**

Lack of fundamental resources of water to prevent the spread of disease in healthcare facilities particularly rural clinics of South Africa, poses an ethical dilemma towards Nursing Practitioner's decision-making in practice. The challenge is ongoing issue that is not limited to rural areas. Hence the researcher saw the need to explore ethical dilemma related to nursing practice, patient's safety and quality care. Moreover, the lack of running water in clinical facilities dehumanise the rights of nursing practitioners and limit their human dignity in sustaining quality care. The phenomenon led to characterisation of individuals moral and legal rights of a nursing practitioner. Normative research design was used, to critically analyse legal and ethical literature related to the study. The study outlined the magnitude of the need for South African Nursing regulatory body to amend the code of ethics for nurses and reflect the realities of healthcare challenges in rural clinics. The need to apply philosophical perspectives of moral theories and ethical principles to improve patient safety by creating a good and healthy working environment for nurses. In conclusion, South African Nursing guidelines, policies and frameworks in place are not addressing relevant issues related to nurse's dilemma. Moreover, the moral duty to practice in under-resourced healthcare environment. A potentially legal revisions towards developing and justifying a new ethical and legal framework is recommended. Specific guidance on ethical decision-making for nursing practitioners will be ideal to navigate difficult situations with confidence and clarity without compromising patient care and their well-being. The study recommendations will improve the clinical practice and decision-making of nurses regarding any ethical dilemma in clinical settings.

Keywords: nursing practitioners, nursing duties, fundamental resources, water



E9-2

[37]

## IMPROVING CHILDREN'S NUTRITIONAL STATUS THROUGH A GRASSROOT NUTRITION FOR SPORTS PROGRAMME

Viapude G and Lydia Lee SS\*

*World Vision Malaysia, Malaysia*

*\*[Glory\\_Viapude@wvi.org](mailto:Glory_Viapude@wvi.org)*

### **ABSTRACT**

The double burden of malnutrition among children continues to be a public health concern nationally and globally and has worsened the post-pandemic. In the urban setting, overweight and obesity is more prevalent compared with thinness. With the aim of encouraging an active lifestyle with improved nutrition knowledge, a 12-session nutrition for sports programme was piloted in two urban B40 communities in Klang Valley for children aged 7 to 12 years old. A total of 39 children (8 females and 31 males) participated in the programme where 41% (n=16) aged between 7 to 9 years old and 59% (n=23) aged between 10 to 12 years old. This quasi-experimental study conducted in 2022 and 2023 employed anthropometry tests prior to the beginning of the programme and at the 12<sup>th</sup> session. Nutritional status was calculated using WHO AnthroPlus. The Chi Square with contingency table,  $\chi^2$  were used to examine the differences in nutritional status of children pre-and post-programme. The rate of children within normal range of nutritional status increased from 48.7% to 51.3% while rate of children who are overweight reduced from 10.3% to 7.7% (P=.001). The rate of children who are obese increased from 20.5% to 23.1% and there is no change in the rate of children with thinness (17.9%) (P=.001). Rate of severe thinness reduced from 2.6% to 0% (P=.001). The results indicate the necessity for a grassroots nutrition for sports programme to encourage children to lead and maintain a healthy lifestyle. It also confirms the challenge in managing the upward trend of obesity among children and the need to have a more holistic, cost-effective and long-term approach in managing it.

Keywords: nutrition, sports, grassroots, children

E10

[38]

**UK-BASED POWDERED INFANT FORMULA PREPARATION AND STORAGE  
2010-2023: IMPLICATIONS FOR HEALTH EDUCATION**

Redmond EC\*

*ZERO2FIVE Food Industry Centre, Cardiff Metropolitan University, Wales, UK.*

*\*[eredmond@cardiffmet.ac.uk](mailto:eredmond@cardiffmet.ac.uk)*

**ABSTRACT**

The risk to infants from powdered-infant-formula (PIF) milk has received increased attention in recent years due to possible contamination with pathogens such as *Cronobacter* and *Salmonella*. Prevention of infection requires care in the production/manufacturing of the formula product as well as how it is reconstituted and subsequently handled prior to feeding. Recommended procedures to safely prepare/use PIF are available to parents, however, relatively little is known about PIF use in the home. This study aims to determine UK parents' PIF preparation/storage and consider implications for public-health. A review of UK-based PIF literature was undertaken using search engines such as Scopus, ScienceDirect and PubMed; inclusion criteria were applied; systematic/literature reviews were excluded. The search yielded two UK-based studies that specifically explored parents' PIF use; these included focus-groups (n=>50parents), quantitative surveys (n=200parents) and observational data (n=50parents) from one study and a community science PIF study in another (n=200parents). Analyses used Nvivo(Version-1.6) and Microsoft-Excel. While different methodologies were used to collate data, findings (2010-2023) indicated unsafe PIF preparation/storage behaviours such as reconstitution of multiple bottles in-advance of use and failing to routinely clean bottle-feeding equipment. Although methods for reconstitution using boiled water resulted in similar malpractices (such as failing to reconstitute the feed using water >70°C), the introduction of PIF preparation machines in recent years, whilst potentially labour saving, presents additional microbial risks. Overall, despite parents' confidence (93-95%) in their ability to prepare PIF, reported practices and perceptions were not in accordance with UK PIF preparation/handling recommendations, suggesting corresponding unsafe practices may be commonly implemented. Findings will help inform the development of targeted information that addresses microbial risks of domestic preparation/storage of PIF.

Keywords: consumer food safety, powdered infant formula

E11

[39]

## DEVELOPING OF MULTI RESPONSES REGRESSION OF CHILD'S GROWTH AND DEVELOPMENT THROUGH BOOTSTRAP SAMPLING APPROACH

Adelia DD<sup>1</sup>, Sari DK<sup>2</sup>, Akri YJ<sup>3</sup>, Sunaryo DYL<sup>2</sup>, Angraini SR<sup>1</sup>, Aminah S<sup>1</sup>, and Handayani R<sup>1</sup>

<sup>1</sup>*Department of Midwifery*

<sup>2</sup>*Department of Health Information System Management*

<sup>3</sup>*Department of Pharmacy of Wira Husada Nusantara Health Polytechnic Malang 65144*

*Indonesia*

### ABSTRACT

The child's condition at birth is one of the factors that directly influences the child's growth and development, while the mother's condition during pregnancy directly influences the child's birth condition and indirectly influences growth and development. The child's condition at birth can be determined by body length, weight and APGAR score. This research aims to build a multi-response multiple regression model by applying the bootstrap sampling for several sample sizes involving three response variables and 16 predictor variables. Response variables are body weight (Y1), body length (Y2), and APGAR score (Y3). Meanwhile, 16 predictor variables were obtained from variables that explain the mother's pregnancy condition and family environment. Dataset are from 697 mothers and children at birth were from interview and pregnancy notebook. The research result shows that bootstrap sampling with a sample size of 300 has the same accuracy as observation data on 697. In simultaneous testing the variables are maternal weight gain during pregnancy (X1), maternal gestational age when the baby is born (X8), maternal animal protein consumption (X11) and home sanitation conditions (X16). In the partial test, variable X1, X8, X11 and X16, which had a significant effect on the weight baby's body at birth (Y1). There is one variable maternal gestational age when the baby is born (X8) has a significant effect on baby's body length (Y2). Furthermore, there are 7 predictor variables, namely weight gain during the mother's pregnancy (X1), mass index. Mother's body (X3), mother's gestational age when the baby is born (X8), mother's iron intake (X9), home water condition (X14), toilet condition (X15) and home sanitation condition (X16) which influence the baby's APGAR score (Y3).

Keywords: bootstrap sampling, child growth, condition of pregnant women, multi responses regression, pregnant woman's family environment.

E12

[40]

**COMPARATIVE ANALYSIS OF CATCH-UP GROWTH AND INFLUENCING FACTORS IN PRETERM AND TERM SMALL FOR GESTATIONAL AGE INFANTS DURING THE INFANCY PERIOD: A STUDY IN INDIA**

Chandrashekhar SR<sup>1</sup>, and Gilitwala ZS\*

*Department of Pediatrics, Bai Jerbai Wadia Hospital for Children, India*

[\\*drzainabgilitwala1912@gmail.com](mailto:drzainabgilitwala1912@gmail.com)

**ABSTRACT**

Small for Gestational Age (SGA) infants often confront challenges in achieving optimal growth and development due to intrauterine growth restriction, compounded by healthcare disparities and socio-economic factors prevalent in India. This study aimed to evaluate the growth trajectory of SGA infants, focusing on height, weight, and head circumference, while comparing post-natal growth between preterm and term SGA children. Conducted over 15 months in a tertiary care hospital, the observational study involved 100 healthy SGA babies. Follow-up assessments documented growth characteristics, with data collected through a prescribed case record form. Statistical analysis, utilizing SPSS v25, encompassed descriptive analysis, Pearson Chi-square test, independent 't' test, and one-way ANOVA, with a significance level of  $P < 0.05$ . The study revealed that 87.1% of Term SGA and 71.4% of preterm SGA infants exhibited catch-up growth from birth to 15 months, peaking between 6 to 9 months. Notably, term babies with length and weight  $< -2SDS$  displayed catch-up length by 6 weeks and catch-up weight by 9 months, with significant differences ( $P$  value 0.00). Univariate analysis identified growth influencers ( $P < 0.05$ ), including exclusive breastfeeding, maternal illness, socioeconomic factors, and recurrent infant illness. Multivariate analysis underscored medical conditions in mothers and infants, alongside lower socioeconomic status, as factors associated with poor catch-up growth ( $P < 0.05$ , 95% CI). The findings highlight the significance of early interventions for optimal catch-up growth in SGA infants in India, emphasizing the importance of addressing maternal and infant health and socioeconomic conditions. Tailored interventions aimed at mitigating disparities in this vulnerable population are crucial, emphasizing holistic approaches in pediatric care to ensure their overall well-being.

Keywords: small for gestational age (SGA), catch-up growth, socio economic factors, breastfeeding.

E13

[41]

**FACTORS ASSOCIATED WITH UNDER-5 MORTALITY IN SOUTH-SOUTH  
GEOPOLITICAL ZONE OF NIGERIA: EVIDENCE FROM DEMOGRAPHIC AND  
HEALTH SURVEY DATA.**

Airemen and Danat IM\*

*Department of Psychology, Sociology & Politics, College of social sciences and Arts,  
Sheffield Hallam University, United Kingdom*

*[\\*I.Danat@shu.ac.uk](mailto:I.Danat@shu.ac.uk)*

**ABSTRACT**

Under 5 mortality rate (U5MR) an indicator of the health of nations has declined globally but remains high in Nigeria with variations across its geo-political zones. Majority of the studies to identify factors associated with U5M in Nigeria have been aggregate population-based, however, disaggregated studies among lesser-explored subpopulations with similar characteristics will provide insight on factors amenable to change and guide the development of effective policies and intervention tailored to their needs. We investigated the factors associated with U5M in the south-south geopolitical zone (SSGZ) of Nigeria and determined their population attributable risk percent (PAR%). We analysed population-based data from the Nigeria Demographic and Health Survey (NDHS) for 2013 and 2018. The U5MR was determined by survival analysis, logistic regression analysis in SPSS version 26.0 was used to calculate the Odds Ratios (OR) with 95% Confidence Internals (CI) for U5M associated with various factors, while the PAR% was computed using the Levine's formula. The under U5MR for the SSGZ was determined to be 73 deaths/1000 live births. The adjusted logistic regression analysis model showed maternal overweight (OR=1.39,95% CI:1.12-1.72 p<0.05), primary education (OR=2.18. 95%CI:1.18-4.04 p<0.05) and secondary education (2.05 95%CI:1.13-3.72, p<0.05) levels, male gender (OR1.22, 95%CI 1..01-1.47,p<0.05), birth interval of two years (OR=2.9household (09-4.09, p<0.001), and small birth size (OR=2.54, 95% C11.94-3.31, P<0.001) significantly increased U5M risk, while having seven or more household members (OR=0.73, 95%CI:0.59-0.89, p<0.05) and 2 under-five children in the household (OR=0.66, 95% CI:0.52-0.83, p<0.001) were protective factors with PAR% ranging from 4.5% to 47.1%. In conclusion policies and interventions targeted at improving maternal weight, maternal education, birth size, and child spacing would prove valuable at reduce U5M in the SSGZ of Nigeria.

Keywords: under-5 mortality, population attributable risk, Nigeria

F1

[42]

**SURGICAL SITE INFECTION IN POST EMERGENCY OPEN  
APPENDICECTOMY - A CASE REPORT**

Swetha S\*

*Government Tiruvannamalai Medical College, India*

[swethabobsen@gmail.com](mailto:swethabobsen@gmail.com)

**ABSTRACT**

Surgical Site Infection (SSI) is a complication that occurs following various surgeries. According to World Health Organization (WHO) survey, in underdeveloped and developing countries, 11% of patients who undergo surgical procedures develop SSI. It leads to higher mortality and morbidity rate, extended hospital stays and high treatment cost. SSI is more common in abdominal surgeries. Acute appendicitis is one of the most frequent intra-abdominal medical condition requiring surgical intervention, and SSI is the most common post-operative complication, affecting 5-10% of all appendicectomy patients. Additionally, complicated appendicectomy carries a higher risk of SSI. **METHOD** - Retrospective analysis of a case of SSI following emergency open appendicectomy. **CASE PRESENTATION** - A 10-year-old male child, a case of appendicular perforation with peritonitis underwent emergency open appendicectomy with intraperitoneal lavage and drainage. He was transferred to post-operation ward, and on post-operative day (POD)-4 he complained of pus discharge from the wound site. In view of SSI, sutures were removed and pus was drained completely, infected fluid was sent for pus culture and sensitivity. His culture sensitivity report revealed colonization by E.coli sensitive to cefoperazone sulbactam, amikacin and ciprofloxacin. He was treated with bi-daily cleaning and dressing, and antibiotics according to culture sensitivity report. Pus discharge from surgical site decreased gradually and eventually healthy granulation tissue was noticed following which secondary suturing was done on POD-14. **CONCLUSION** - SSI is a common complication following appendicectomy, particularly in cases of ruptured appendicitis. Thus, vigilant monitoring of such cases for signs of SSI and prompt management is very important. Standard precautions like preoperative preparation, proper infection control during surgery, and preventive antibiotic therapy should be followed strictly in order to prevent SSI.

Keywords: surgical site infection, appendicectomy, antibiotics

F2

[43]

## HEPATOTOXICITY DUE TO ANTI-TUBERCULOSIS DRUGS IN A DIABETIC PATIENT: DIAGNOSTIC AND MANAGEMENT STRATEGIES

Bhat Himani P\*

<sup>1</sup>*Department of Internal Medicine, Medical Faculty, Manipal Hospitals Jayanagar  
Bangalore, India*

<sup>2</sup>*Department of Pulmonology, Medical Faculty, Manipal Hospitals Jayanagar Bangalore,  
India*

[\\*himanipbhat@gmail.com](mailto:*himanipbhat@gmail.com)

### ABSTRACT

Tuberculosis (TB) treatment with first-line anti-TB drugs can cause hepatotoxicity, posing significant clinical challenges, particularly in immunocompromised patients. This case study illustrates the diagnostic utility of bronchoalveolar lavage (BAL) in TB detection and the importance of managing drug-induced hepatotoxicity. A 55-year-old female with type 2 diabetes mellitus presented with fever, dyspnea, and cough. Imaging revealed consolidation and cavitation in the lungs. Initial sputum cultures were negative for *Mycobacterium tuberculosis*, but BAL confirmed the diagnosis. The patient was started on first-line anti-tubercular therapy (ATT) and discharged once stable. Ten days later, she returned with decreased appetite, vomiting, generalized weakness, icterus, and abdominal tenderness. Laboratory tests indicated hepatotoxicity (bilirubin 3.37 mg/dL, AST 164 U/L, ALT 139 U/L). ATT was discontinued, supportive care provided, and alternative TB treatment initiated. Once liver function normalized, isoniazid and ethambutol were reintroduced under close monitoring. Upon discharge, liver function tests had significantly improved (bilirubin 1.10 mg/dL, AST 16 U/L, ALT 27 U/L). The patient was advised to follow up with repeat liver function tests to consider restarting rifampicin. This case highlights the efficacy of BAL in detecting TB, especially in immunocompromised patients, and underscores the importance of prompt recognition and management of drug-induced hepatotoxicity to ensure successful outcomes and patient safety.

Keywords: hepatotoxicity, anti-TB drugs, bronchoalveolar lavage, diabetes mellitus, drug-induced liver injury, TB management.

F3

[44]

**STUDY ON RELATIONSHIP BETWEEN FIRST SYMPTOM AND SEVERITY OF ILLNESS INCLUDING CLINICAL COMPARISON BETWEEN BOTH WAVES**

Nandini S\*

*House surgeon, MBBS, RajaRajeswari Medical College, India*

[\\*sknandini2014@gmail.com](mailto:*sknandini2014@gmail.com)

**ABSTRACT**

This study outlines parameters to predict the prognosis of patients with COVID-19 in midst of a massive pandemic with a high mortality rate which overwhelmed the health care system. COVID-19 spreads primarily through air droplets, that explains the contagion. In the symptomatic period, patient presents with fever, cough, cold, sore throat, breathing difficulty and body ache. The diagnosis is substantiated by RT-PCR test. In the recent pandemic, acute hyposmia and hypogeusia were significant. Primary objective was to establish a relationship between the first appearing symptom and the severity of the illness. Additional objective was to learn if duration of isolation was longer in first wave (March 2020 to March 2021) or second wave (April 2021 to December 2021). Our final objective was to analyse if the infectivity was higher in male or female in either wave. The study was performed by sending an online questionnaire to people in Bangalore Urban. 115 subjects filled the questionnaire from March 2020 to December 2021 with demographic characteristics, physical symptoms, course of illness and health care utilization. Analysis of the data was done using Chi Square test 5\*5 table at 0.05 significance level. Presence or absence of hypogeusia/hyposmia, fever, cough, cold, body ache and sore throat are not a predictor of severity of COVID-19 disease (p-value- 0.989). Duration of isolation was lesser ( $\leq 15$  days) in second wave as compared to first wave (p-value- 0.02). Predilection for males or females was not evident in either wave of COVID-19. Understanding of the study helps to enhance synergistic strategies essential for global recovery from COVID-19 and build strong health care system for any unforeseen stress on public health.

Keywords: COVID-19, Hypogeusia, Hyposmia, p-value, RT-PCR



F4

[45]

**FACTORS ASSOCIATED WITH THE BEHAVIOR OF DRUG SWALLOWING CONTROL (PMO) IN PREVENTING THE TRANSMISSION OF PULMONARY TUBERCULOSIS IN THE FAMILY SCOPE**

Rinaldo C<sup>1\*</sup>, Widjanarko B<sup>2</sup>, and Shaluhayah Z<sup>2</sup>

*<sup>1</sup>Student of Departmen of Health Promotion, Faculty of Public Health, Diponegoro University, Indonesia*

*<sup>2</sup>Lecturers of Departmen of Health Promotion, Faculty of Public Health, Diponegoro University, Indonesia*

*[\\*christiawan.rinaldo18@gmail.com](mailto:christiawan.rinaldo18@gmail.com)*

**ABSTRACT**

The transmission of pulmonary tuberculosis (TB) within family settings is a significant challenge in controlling this disease. TB Drug Swallowing Control (PMO) play a crucial role in ensuring patients' adherence to treatment and preventing further transmission within the family. The effectiveness of PMO behavior in fulfilling this role varies and is influenced by various factors. This study aims to analyzing factors associated with the behavior of TB Directly Observed Treatment Supervisors (PMO) in preventing the transmission of pulmonary tuberculosis. This descriptive-analytic study with a cross-sectional design involved 157 PMOs of positive pulmonary TB patients undergoing treatment at RS Panti Wilasa Dr. Cipto Semarang from January to July 2024. The study found that PMO behavior in preventing TB transmission within families was generally good (56.7%), although there were still some with poor behavior (43.3%). Variables related to PMO behavior in TB prevention within families included PMO knowledge about TB prevention (p value 0,007), patient support for PMO (p value 0,005), information accessibility (p value 0,024), and supporting facilities (p value 0,000). Variables not related to PMO behavior included gender (p value 0,800), age (p value 0,785), education level (p value 0,633), occupation (p value 0,089), attitudes (p value 0,234), and perceptions (p value 0,195). The most influential variables were patient support (OR=2,616) and supporting facilities (OR=27,543). PMOs with high patient support had 2.616 times greater odds of good behavior, while PMOs with adequate facilities had 27.543 times greater odds of good behavior compared to those with inadequate facilities.

Keywords: drug swallowing control, tuberculosis prevention, patient support, PMO behavior

F5

[46]

**ACCEPTABILITY AND PERCEIVED USE OF HIV SELF-TESTING AMONG  
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING STUDENTS IN  
LIMPOPO PROVINCE, SOUTH AFRICA**

Teffo ME<sup>1\*</sup>, and Mokgatle MM<sup>1</sup>

*<sup>1</sup>Department of Epidemiology and Biostatistics, School of Public Health, Sefako Makgatho  
Health Sciences University, South Africa*

*[\\*mimiteffo@gmail.com](mailto:*mimiteffo@gmail.com)*

**ABSTRACT**

South Africa remains the global epicentre of the HIV epidemic, particularly adolescent girls and young women. The World Health Organisation has recommended HIV self-testing (HIVST) as a safe, and convenient way to reach people who are least likely to test. The aim of this study was to explore the acceptability and potential use of HIVST among college students. This was a cross sectional study conducted in Limpopo Province, South Africa. The study sample consisted of 396 college students. All data were collected by means of a validated self-administered questionnaire. We analyzed the data using STATA IC Version 13. The mean age of our study participants was 22.9 years. The majority of study participants reported to be sexually active (85.8%) and 60% reported condom use at their last sexual encounter. Only 48.5% females and 55.1% males reported to have ever heard of HIVST prior to the study. The majority (81.7%) indicated that HIVST was acceptable. In terms of testing with partners, 86.1% females and 78.7% males noted willingness to test with partners using a HIVST kit. There were significant gender differences regarding the willingness to purchase HIVST kits, with more females stating their willingness to purchase HIVST kits versus males ( $p=0.03$ ). Being sexually active, (OR= 1.23; CI=2.14-6.94;  $p=0.000$ ) and condom use during the last sexual encounter (OR=0.62; CI= 3.81-9.59;  $p=0.000$ ) were factors associated with perceived acceptability of HIVST. A large number of students reported HIVST as acceptable for HIV testing. Further, the data show the potential willingness of study participants to test with partners using HIVST kit. Combination HIV Prevention Programming that includes HIVST could lead to more young people accessing HIV tests furthering achievement of the 2025 UNAIDS testing targets.

Keywords: HIV testing, self-testing, students, sexual behaviour, sexual partners, condom use

F6

[47]

## REPRODUCTIVE HEALTH PRE-PROGRAM SURVEY IN A RURAL AREA IN BALI, INDONESIA

Septarini NW and Kurniati DPY\*

*Department of Community and Preventive Medicine, Faculty of Medicine, Udayana  
University, Bali, Indonesia*

[\\*septarini@unud.ac.id](mailto:*septarini@unud.ac.id)

### ABSTRACT

Most girls will start puberty when they are 8 to 13 years old, while for most boys will start between 9 and 14. Knowing and look after their reproductive health condition are necessary for them. Generally, reproductive health lesson in Indonesia is not part of a core lessons but rather an extra curriculum at schools. In Muntigunung, a rural area in Bali, many children have dropped out from schools before they obtain any reproductive health lessons. Moreover, many adolescents in this area have been married in early age. In order to develop an appropriate and suitable reproductive health program for adolescent in Muntigunung, a reproductive pre-program survey was conducted in June-July 2023. This cross-sectional survey was conducted amongst 75 parents and 120 adolescents aged 10 to 18 who were selected randomly. The survey was delivered by surveyors using a Google Form questionnaire. The questionnaire was asking about the knowledge, perspective, and willingness to reproductive health information amongst adolescents. The mean age of parents and adolescent were 40.59 and 14.75 years old. More than half (62.5%) of parents' participants were female, while around half of adolescents were female (53.6%). More than half parents were never gone to school, while 2% of adolescent have never been to school. From the perspective of both groups, parents are the persons who usually being asked about reproductive health problems. Moreover, more than 80% of participants have ever heard/seen about adolescent marriage and pregnancy in Muntigunung. More than 80% participants admitted that Muntigunung adolescents are willing/need to obtain reproductive health information. A school and community based reproductive health program is appropriate and suitable approach to improve the reproductive health in Muntigunung.

Keywords: adolescent marriage, adolescent pregnancy, pre-program survey, reproductive health, rural

F7

[48]

**HEALTHCARE AND EDUCATIONAL NEEDS OF YOUNG CHILDREN:  
TIME TO DEPLOY SDG ROADMAP IN PUBLIC SCHOOLS OF TELANGANA,  
INDIA**

Rayhan SS<sup>1,2\*</sup>, Ridah SS<sup>2</sup>, Mohua B<sup>1</sup>, and Veeresh P<sup>3</sup>

<sup>1</sup>*Oakridge International School, Bachupally, Telangana 500043, India.*

<sup>2</sup>*The Synapse Foundation, Bachupally, Telangana 500090, India.*

<sup>3</sup>*Gokaraju College of Pharmacy, Bachupally, Telangana 500090, India.*

[\\*rayhansshanavas@gmail.com](mailto:rayhansshanavas@gmail.com)

**ABSTRACT**

An equitable childhood is a luxury in many countries globally, and India is no different having ranked 111th among 124 countries on the global hunger index. The varied access to resources, both public and at home, combined with socioeconomic and cultural practices requires one to understand the situation locally before devising and implementing effective global solutions. Accordingly, we engaged with 11 public schools, primarily catering to families from lower socioeconomic strata and immigrants, around the Qutbullapur area of Telangana. The unmet needs ranged from hygiene issues like access to drinking water, clean toilets, healthy meals, and safe furniture to educational resources such as notebooks, library, and appropriate student-to-teacher ratio apart from unrecognized tangibles impacting their psychological well-being like shoes, and fitness tools. The detailed evaluation of data from ~450 students (45:55 male to female ratio) aged 6 to 13 indicated that 87% of the 56% of students tested for hemoglobin were anemic. Of these, 11% were severe, while 41% and 32% of tested children were moderate and mildly anemic. Using anthropometric evaluations, we found that 32% of the children are stunted, with children aged 6 and 7 being the most affected (56% and 68% respectively). Additionally, 58% of the children were underweight using the age-adjusted weight charts. The anthropometric data, the chosen educational path (<2% like sciences), and poor socioeconomic family background, all point towards a system failing the majority of these children's dream of pursuing careers in medicine and armed forces. The alarming situation highlighted by this study warrants concerted efforts from philanthropists, NGOs, government, and local bodies to work seamlessly across SDGs (3, 4, and 10) to build an equitable society.

Keywords: primary schools, India, anemia, anthropometric, homemaker, SDG

F8

[49]

## NEGATIVE BODY IMAGE INCREASES THE RISK OF UNHEALTHY DIET IN SPORT STUDENTS

Prameswari FSP, Kumalasari I\* and Syihab SF

<sup>1</sup>*Nutrition Study Program, Faculty of Sport Education and Health, Universitas Pendidikan  
Indonesia, Indonesia*

*\*[ikumalasari@upi.edu](mailto:ikumalasari@upi.edu)*

### **ABSTRACT**

Body image is a person's level of satisfaction with their current physique. Negative perceptions regarding body image encourage teenagers to make various efforts to control their weight and body shape. One effort that is often made is dieting, which is sometimes done without proper guidance and has the potential to be the beginning of the development of eating disorders. This study aimed to analyse the correlation of body image and nutrition knowledge with eating behaviour among university sport students. This study used a cross-sectional design. A total of 435 students participated in this study, which was conducted from April to June 2020. The instruments used were the Multidimensional Body-Self Relations Questionnaire-Appearance Scale (MBRSQ-AS) and the Adolescent Habit Checklist questionnaire. Data were analysed using the chi-square test. Most of the participants were male, totalling 267 individuals (61.4%), with an average age of  $18.9 \pm 3.29$  years. There was a relationship between body image and eating habits ( $p=0.000$ , OR= 2.68, 95% CI: 1.810-3.976). Therefore, it can be stated that a negative body image increases the risk of unhealthy eating behaviours by 2.68 times compared to students with a positive body image. There was no relationship between nutritional knowledge and eating habits ( $p=0.174$ ,  $p\text{-value} > 0.05$ ). Body image significantly influences adolescents' eating habits and can affect future lifestyles. Further research on accurately forming body image perceptions is necessary to promote a healthy lifestyle.

Keywords: body image, eating behavior, nutrition knowledge, sport students, teenagers

F9

[50]

## PREVALENCE OF ALLERGIC AND IMMUNE DISEASES FOR KIDS AND SCHOOLCHILDREN IN SLOVAKIA

Dubrovina N<sup>1\*</sup>, Siwiec A<sup>2</sup>, Gulášová I<sup>3</sup>, Domagalska-Szopa M Szopa A<sup>4</sup>, Kwiecień- CzerwieniecI<sup>2</sup>, Klymenko V<sup>5</sup>, Filip S<sup>6</sup> and Filipova L<sup>7</sup>

<sup>1</sup>*Department of Economics and Finance, Institute of Economics and Management, Bratislava University of Economics and Management, Slovakia*

<sup>2</sup>*Center of Child Health and Family named after John Paul II in Sosnowiec; Poland*

<sup>3</sup>*Department of Nursing, Faculty of Nursing and Social Work, Trnava University, Slovakia*

<sup>4</sup>*Department of Physiotherapy in Developmental Age of Medical University of Silesia in Katowice, Poland*

<sup>5</sup>*Research group of health experts, NGO “Vivat Sokrat”, Ukraine*

<sup>6</sup>*Department of Public Administration and Regional Development, Institute of Public Administration, Bratislava University of Economics and Management, Slovakia*

<sup>7</sup>*Department of Management and Marketing, Institute of Economics and Management, Bratislava University of Economics and Management, Slovakia*

[\\*nadiya.dubrovina@vsemba.sk](mailto:*nadiya.dubrovina@vsemba.sk)

### ABSTRACT

This study analyzes the data provided by the NCZI (National Center for Health Information) based on the reporting of the activities of outpatient clinics and polyclinics specializing in allergology and immunology for the period from 2013 to 2019. For a more detailed analysis of tendencies of these indicators, we carried out a time series analysis at the level of the country as a whole, and for individual regions; the indicators of the concentration of patients, i.e. kids and schoolchildren by regions were determined and correlation matrices were calculated, which indicate the relationship of trends in the regions. On the basis of econometric analysis, regression models were built using dummy variables, it allows to determine regional differences, the influence of the time factor (tendencies) and impact of other factors (for example, identification of new patients) on the dynamics of visits by patients in the group from 0 to 18 years old in the outpatient clinic and polyclinic of allergic-immunological profile. Using linear trend models and exponential smoothing of time series, the tendencies were analyzed; on the basis of these models the scenario forecasts were built for the period 2020-2022. Considering the negative consequences of the Covid-19 pandemic and the related changes in the usual work of the outpatient service, restrictions on the possibility of recovery and rehabilitation of children and young people in sanatoriums due to quarantine regimes, lockdowns, etc., it is necessary to take into account new challenges to improve the strategy of comprehensive medical care and disease prevention for children and young people with allergic and immune diseases.

Keywords: allergic and immune diseases, kids and schoolchildren, models, scenario forecasts

G1

[51]

## A COMPARATIVE STUDY OF PRACTICE, ATTITUDE AND KNOWLEDGE OF STERILIZATION METHODS AMONG PRACTICING DENTISTS AND

Rafaqat T<sup>1\*</sup>, Habib MF<sup>2</sup> and Mahmood Y<sup>3</sup>

*1Rawalpindi Medical University, Rawalpindi, Pakistan*

*2Shifa Tameer E Millat University Islamabad, Pakistan*

*3Dental Department Ministry of Defense, Pakistan*

*[\\*drtehseen.r@gmail.com](mailto:drtehseen.r@gmail.com)*

### ABSTRACT

**Background:** Healthcare professionals and patients are more concerned about transmission of pathogenic microorganisms. Sterilization by different techniques is an important component in clinical practices to ensure protection of the patient, and the health care professional from various infection diseases. **Objective:** To assess the knowledge and attitude of dental practitioners regarding sterilization and to compare the efficacy of conventional sterilization method with Non-thermal plasma technique. **Methods:** It was a descriptive analytical study conducted by using a self-administered questionnaire from 174 dental practitioners of Rawalpindi, Islamabad, Jhelum and Multan. Registered E.coli and isolated Streptococcus mutan were used for inoculation. The samples of oral cavity were taken from the patients, cultured and incubated. Some instruments were sterilized in autoclave while some files were tested with Non thermal plasma. The results were analyzed statistically using SPSS version 26. **Result:** The results revealed that 94.4% of study population was aware of the importance of sterilization and practice it in their routine. The method of choice for sterilization by most of the dentist was autoclave however, 89.7% dentists felt the need of an improved method for sterilization but only 1.7% were familiar with Plasma as an emerging technique for sterilization. No growth of both type of bacteria was observed, when the inoculated endodontic files were sterilizing with autoclave and Non-Thermal Plasma. **Conclusion:** The study concluded that most of the study population is aware of the importance of sterilization and practice it by using autoclave. Non-thermal plasma is as effective as the gold standard autoclave method of sterilization, with very less time and power consumption

Keywords: autoclave, dentists, knowledge, non-thermal plasma technique, sterilization

G2

[52]

## THE EFFECT OF AUDIOVISUAL MEDIA TO IMPROVE TOOTHBRUSHING KNOWLEDGE AND HABIT IN PRESCHOOL AGED CHILDREN

Arindita R<sup>1</sup>, Lesmana S<sup>2</sup>, and Hasna S<sup>1</sup>

<sup>1</sup>*Communication Department, Al-Azhar Indonesia University, Indonesia*

<sup>2</sup>*Kejora Indonesia Foundation, Indonesia*

### **ABSTRACT**

Basic health research in 2018 reported only 2,8% Indonesian people above aged 3 practice toothbrushing habit twice a day. Implementing healthy habit such as toothbrushing during early childhood stage especially preschool aged is important because it will construct the foundation of their knowledge and habit. Social cognitive theory used on this study aims to explain the initiation behavior of early childhood regarding their tooth brushing habit. To promote toothbrushing habit in preschool aged children, Kejora Indonesia Foundation produced audiovisual media that everyone can access in YouTube. The song contains motivation words to encourage children doing toothbrushing activity regularly. **Objectives:** Evaluate the impact of audiovisual content “My Teeth is Healthy and Strong” to children’s toothbrushing knowledge and habit based on social cognitive theory in preschool aged children. **Method:** A questionnaire that has been validated was given to 100 parents, all their children have watched the audiovisual media before. Data were analyzed using independent t-test. **Result:** The independent t-test resulted in a p-value of 0,564. **Conclusion:** Audiovisual media gives a positive impact to toothbrushing knowledge and habit in preschool aged children based on social cognitive theory.

Keywords: audiovisual media, preschool children, toothbrushing



G3

[53]

## ADVANCING OSMF DIAGNOSIS: EVALUATION OF DEEP LEARNING MODELS FOR BASILAR HYPERPLASIA DETECTION IN HISTOPATHOLOGY IMAGES

Santhoshkumar S<sup>1\*</sup>, Karthikeyan BR<sup>1</sup>, Bobby C<sup>1</sup>, Sowmya SV<sup>1</sup>, Augustine D<sup>1</sup>, Swetha S<sup>2</sup>, Sri Harini S<sup>1</sup>, Sudharshan K<sup>2</sup>, and Santhoshkumar P<sup>3</sup>

<sup>1</sup>*Ramaiah University of Applied Sciences, India*

<sup>2</sup>*Government Tiruvannamalai Medical College and Hospital, India*

<sup>3</sup>*Government Sivagangai Medical College Hospital, India*

[\\*santhosh.adisug@gmail.com](mailto:*santhosh.adisug@gmail.com)

### ABSTRACT

Oral Submucous Fibrosis (OSMF) is a chronic, progressive condition affecting the oral cavity, characterized by fibrous tissue accumulation leading to stiffness and restricted mouth and tongue movement. One of the key histopathological traits of OSMF is basilar hyperplasia, which involves the excessive thickening and enlargement of the basal cell layer within the oral mucosa's epithelium. This research aims to develop and evaluate deep learning models for OSMF detection, providing insights into their decision-making processes. Notably, due to the absence of a dedicated dataset for basilar hyperplasia, a newer dataset of histopathology images featuring the basilar hyperplasia biomarker and meticulously annotated under the supervision of pathologists was developed to support this research. Semantic segmentation on the newly developed histopathology data was carried out using Keras, utilizing Convolutional Neural Network (CNN) models like UNet, UNet++, and ResUNet architectures. Quantitative analysis of the models was conducted using Jaccard and Dice coefficients, which demonstrated improved segmentation performance. The results indicate that these deep learning architectures are effective in accurately segmenting histopathological features associated with OSMF, thereby facilitating early and precise diagnosis. This research contributes to the field by enhancing automated detection capabilities and providing a valuable dataset for further study, potentially leading to better clinical outcomes for patients with OSMF.

Keywords: oral submucous fibrosis, basilar hyperplasia, histopathology, deep learning, convolutional neural networks, semantic segmentation

H1

[54]

## VACCINATION AND UKRAINIAN REFUGEES: EXPERIENCE OF CZECH HEALTHCARE WORKERS

Dobiášová K and Kopsa Těšinová J\*

*Institute of Public Health and Medical Law, 1st Faculty of Medicine, Charles University,  
Czech republic*

[\\*karolina.dobiasova@fsv.cuni.cz](mailto:*karolina.dobiasova@fsv.cuni.cz)

### ABSTRACT

As a result of the war conflict in Ukraine, more than 500 thousand Ukrainian refugees have arrived in the Czech Republic (CR). The CR must ensure accessibility of health care for these refugees, including vaccinations. Vaccination rates in Ukraine are among the lowest in Europe. In contrast, vaccination coverage is high in the CR. Purpose of our study is to identify problems in the field of vaccination encountered by Czech health professionals when providing health care to Ukrainian refugees. Data were collected through 30 semi-structured interviews with doctors and nurses. Data were analyzed using thematic coding. The research was approved by the Ethics Committee of the General University Hospital in Prague. The results of the research showed that doctors and nurses experienced higher rates of vaccine hesitancy and refusal among refugees. They pointed out that they lack the necessary communication skills and techniques to convince Ukrainian patients to get vaccinated. They did not know how to proceed when a refugee patient did not have a vaccination card and did not know whether he/she had been vaccinated. There is a lack of information among health workers about the vaccination calendar and vaccination records in Ukraine. Ensuring vaccination is complicated by the fact that more than half of refugees do not have a general practitioner in the CR. Our results highlight the need for concerted efforts to boost confidence in vaccination among Ukrainian refugees. This requires training of health care workers to identify and address vaccination concerns specific to this vulnerable population and providing and disseminating reliable vaccination information among Ukrainian refugees while engaging trusted representatives of this community.

Keywords: Ukrainian refugees, vaccine hesitancy, vaccine refusal

H2

[55]

**HEALTH AND WELLBEING EXPERIENCES OF WOMEN INFORMAL WORKERS DURING THE COVID-19 PANDEMIC: A QUALITATIVE SYSTEMATIC REVIEW**

Ibrahim SA<sup>1\*</sup>, Ayorinde A<sup>1</sup>, Harris B<sup>1</sup> and Lai SY<sup>2</sup>

<sup>1</sup>*Warwick Medical School, University of Warwick, United Kingdom*

<sup>2</sup>*Faculty of Arts and Social Sciences, University of Malaya, Malaysia*

\*[aishah.ibrahim@warwick.ac.uk](mailto:aishah.ibrahim@warwick.ac.uk)

**ABSTRACT**

The COVID-19 pandemic has impacted the health and wellbeing of informal workers around the globe. Women working informally bear the brunt not only from the interplay between COVID-19 and decent work deficits, but also from discriminatory gendered norms within and outside the workplace. The aims of this systematic review are to synthesise existing qualitative evidence on the health and wellbeing experiences of women informal workers during the recent global health crisis and to identify knowledge gaps and directions for future research. We systematically searched four electronic databases (MEDLINE, Web of Science, Scopus and PsycINFO) from 2020 to current, along with supplemental searches in Google Scholar and the WHO-COVID-19 research database. We also conducted citation searching of eligible studies and searched relevant grey literature sources such as dissertations and reports from professional organisations. Eligible studies had to include the health and wellbeing experiences of women informal workers (cisgender women who are 15 years or older) during the COVID-19 pandemic, use a qualitative methodology and have to be written in English. 45 studies eligible for inclusion have been quality assessed using the Mixed Methods Appraisal Tool (MMAT). Most retrieved studies were conducted in low-middle income economies and included occupational groups such as domestic workers, street vendors and sex workers. We are currently reviewing and integrating the findings using thematic synthesis to derive key themes which capture the experiences of women informal workers across studies. Preliminary findings highlight issues including poor mental health, food and housing insecurity, disrupted access to health services and gender-based violence.

Keywords: systematic review, informal worker, women

H3

[56]

### HEALTH, SOCIAL AND ECONOMIC STATUS OF PALESTINIAN ARAB YOUNG ADULTS IN ISRAEL

Khatib M\*, Zaid D and Sheikh-Muhammad A

*"Rikaz" The Center for Applied Social Research, The galilee society, Israel*

[\\*khatib.health@gmail.com](mailto:*khatib.health@gmail.com)

#### **ABSTRACT**

Young adults constitute an influential demographic, often seen as a catalyst for social progress and economic development. This study aims to present statistical insights into the demographic composition, education, labor force participation, health status, social engagement, cultural and recreational practices among young Palestinian adults in Israel. We conducted structured interviews with a sample of 1,535 individuals, male and female, aged 18-35 years. The sample was stratified based on stratum size, in 4 districts, and data collection took place through face-to-face interviews. Most young adults in the working age bracket are employed within the private sector, predominantly in the Arab private sector. Approximately 20% of them are pursuing higher education, with 17.5% having already completed academic studies. Our findings suggest that social engagement among young adults is relatively low, though it tends to increase with higher levels of education. Around 11.5% of respondents report having at least one chronic illness, with this figure escalating to 20% among those aged 30-35, and approximately 16% requiring regular medication. A notable proportion of young adults—22.3% overall (41.4% of men and 2.8% of women) smoke cigarettes, while 26.5% engage in hookah smoking. 42.2% of respondents participate in structured physical activities, a figure that rises with educational attainment and economic status. Daily consumption of fast food is reported by 38% of young adults, and 53% consume energy drinks regularly. Palestinian young adults in Israel face multifaceted challenges across various domains of life, including education, employment, and social integration. Our findings underscore the imperative to develop comprehensive programs aimed at enhancing the quality of life for young people, focusing on employment opportunities, education, social engagement initiatives, as well as health promotion.

Keywords: young adults, Palestinians, Israel, health status

H4

[57]

**INEQUALITIES IN ACCESS TO HEALTHCARE SERVICES IN JHARGRAM  
DISTRICT OF WEST BENGAL, INDIA: DOES SOCIAL EXCLUSION PLAY A ROLE?**

Madhumita B\*

*Research Scientist, Ramalingaswami centre on Equity and Social Determinants of Health Faculty, Public Health  
Foundation of India, Bangalore-38, Karnataka, India*

[\\*madhumita.bango@phfi.org](mailto:*madhumita.bango@phfi.org)

**ABSTRACT**

India has made major strides on the health front. It has achieved significant decline in maternal, neonatal and child mortality rates, improved immunization coverage, and attained greater life expectancy at birth. However, these advances are experienced unevenly across the population, often leaving behind economically marginal and socially excluded individuals and communities. One of the principal reasons for the above is the inequity in health care delivery. People from disadvantaged castes and tribes, those living in remote areas, impoverished individuals, slum and pavement dwellers and other marginalized groups continue to face challenges in having access to health care in India. Existing studies suggest that health inequalities are determined by wider societal factors, including socioeconomic status, housing conditions, working environment, impoverishment, access and control of resources, education, and employment. A firm knowledge of sociocultural determinants of health inequalities and the factors limiting access to health services is crucial to improving the health outcomes of marginalised people. This study is part of a doctoral program. The data collection was carried out in 2022 in Jhargram district of West Bengal, India, one of the backward districts of WB and home for marginalised groups. The study used a mixed method approach. While the quantitative arm sought to identify and quantify the social exclusion and discrimination faced by the marginalized groups, which act as barriers to access to healthcare services, the qualitative arm then tried to unpack the mechanisms of exclusion. It further delves into the question of whether exclusion from health care provision is due to discrimination on the grounds of caste or tribe. In this regard, an attempt was made to quantify and qualify the experiences and perceptions of discrimination among people from disadvantaged groups compared to those from non-disadvantaged population groups. Results suggest households accessed health services from private doctors, clinics, or village doctors due to the inaccessibility, remoteness, and perceived poor quality of public health services. The analysis of survey data reveals that only one-third of households had at least one usual member protected under health insurance or health scheme. Notably, the prevalence of health insurance or a health scheme is highest in non-SC/ST and SC households (36 %), and lowest among Adivasi households (27 %). Another important finding emerged from the study is that none of the surveyed households reported to have been covered by any other health insurance schemes apart from the state insurance scheme called “Swasthya Saathi”. Worryingly, majority of the enrolees from SCs (85%) and STs (88%) did not have any details regarding SS card or scheme’s benefits. Additionally, discrimination while accessing healthcare is often reported, in terms of the casual approach of the doctor and medical staff, not being provided by bed or medicines or referral from one place to another. The analysis of UNDP social exclusion model demonstrated, that the Dalits and Adivasis encountered exclusion in most of the indicators (such as economic deprivation, unmet medical need, early school leavers, lack of social and civic participation etc.) as compared to the advanced caste groups. Finally, as per the results of the regression model, indicators of social exclusion have a significant effect on health outcomes. This confirms that social, political, economic, and cultural contexts, apart from health systems play a significant role in determining health inequality in India. Sometimes power is embedded in social relationships, and abuse in social relationships impacts health and well-being. Other deprivations are caused, such as low income, disease, and ill health. Therefore, the power to restrict participation in economic, social, political, and cultural relationships as a result of the abuse of power sometimes also leads to health inequalities.

Keywords: exclusion, discrimination, health, disadvantaged, poor

J1

[58]

**EFFECT OF MEDICATION ADHERENCE ON QUALITY OF LIFE IN DIABETES  
MELLITUS PATIENTS**

Yadav V\*

*Government Medical College and Hospital, Nagpur, Maharashtra  
India*

***ABSTRACT***

Diabetes Mellitus is a chronic metabolic disorder with high prevalence worldwide, which has significantly increased public health burden and needs to be addressed immediately. Medication adherence significantly impacts quality of life in patients with Type 2 Diabetes Mellitus, patients with chronic diseases who adhere to treatment may experience improvement in quality of life and are less likely to develop complications. The study aims to explore relationship between medication adherence and quality of life among Type 2 DM patients. This cross-sectional descriptive survey was conducted at a tertiary care hospital in Maharashtra, India. The Medication Adherence Rating Scale and World Health Organization QoL-BREF scale were used to assess medication adherence and quality of life. 384 patients suffering from Type 2 DM participated in the study. The majority of the patients had poor adherence levels and the rest of them had good adherence levels to antidiabetic medications. Multiple regression analysis found that medication adherence was an independent predictor of quality of life. Association was found between quality of life in patients and medication adherence with Type 2 DM. Therefore, awareness campaigns and counseling programs should be arranged focusing on medication adherence in diabetic patients.

Keywords: diabetes mellitus, medication adherence, quality of life, tertiary care hospital

J2

[59]

**INVESTIGATION OF FACTORS IN ACHIEVING NATIONAL TUBERCULOSIS  
TREATMENT SUCCESS STANDARDS IN WEST NUSA TENGGARA (NTB)  
INDONESIA: A COHORT STUDY**

Meiyanti<sup>1,4\*</sup>, Bachtiar A<sup>2</sup>, Kusumaratna RK<sup>3</sup>, Machrumnizar M<sup>4</sup>, Pusparini<sup>4</sup>, Merijanti LT<sup>4</sup>, Margo E<sup>4</sup>,  
Yohana<sup>4</sup>, Alfiyah A<sup>5</sup>

<sup>1</sup>*Doctoral Student at Faculty of Public Health, Universitas Indonesia, Indonesia*

<sup>2</sup>*Department of Administration and Policy, Faculty of Public Health, Universitas Indonesia,  
Indonesia*

<sup>3</sup>*Department of Public Health, Faculty of medicine, Universitas Trisakti, Indonesia*

<sup>4</sup>*Faculty of medicine, Universitas Trisakti, Indonesia*

<sup>5</sup>*Faculty of Public Health, Universitas Indonesia, Indonesia*

\*[meiyanti@trisakti.ac.id](mailto:meiyanti@trisakti.ac.id)

**ABSTRACT**

Achieving successful treatment of infectious tuberculosis (TB) could reduce the spread of TB. To explore factors associated with successful treatment with TB to achieve more than the national target of 90%. This study used a population-based retrospective cohort design. A cross-sectional study was carried out by reviewing TB patients residing in West Nusa Tenggara (NTB) from the tuberculosis national registry from 1 January to 31 December 2022 were identified. Patients were categorized as having a successful (cured or with a complete treatment) or poor (treatment failure, lost to follow up or death). Of 2225 patients (1382 males and 843 females) with bacteriologically confirmed TB diagnoses, 2048 (92,04%) had successful treatment outcomes. With diagnosis extrapulmonary tuberculosis 59 (2,65%) and pulmonary tuberculosis 2166 (97,35%). Bivariate analysis indicated that patients' age 51-65 (RR 0,96; 95%CI: 0,93-0,99) and >65 (RR: 0,94; CI95% 0,89-0,99), diagnosis type clinics ((RR 1,03; 95%CI: 1,00-1,06), comorbidities of HIV (RR 1,92; 95%CI: 1,30-2,84) and duration of treatment 3-6 months (RR 31,20; 95%CI: 11,89-81,87), 7-12 months (RR 30,55; 95%CI: 11,62-80,31), dan >12 months (RR 32; 95%CI: 12,20-83,96) were associated with the treatment success ( $p < 0,05$  for all). Treatment outcome was successful with more than 35 years old and with duration of treatment more than two months.

Keywords: Cohort studies, treatment success, Tuberculosis

J3

[60]

## MOBILIZATION EFFORTS OF CASE FINDINGS TOWARDS TUBERCULOSIS ELIMINATION IN INDONESIA: YOUTH TUBERCULOSIS TROOPS

Agustin R<sup>1</sup>, Ayuningtyas D<sup>2</sup>, Bachtiar A<sup>2</sup> and Hasri SN<sup>3\*</sup>

*1* Doctoral Study Program, Faculty of Public Health, Universitas Indonesia, Indonesia

*2* Departement of Health Policy and Administration, Faculty of Public Health, Universitas  
Indonesia, Indonesia

*3* Faculty of Public Health, Universitas Indonesia, Indonesia

[\\*Shaniahasri43@gmail.com](mailto:Shaniahasri43@gmail.com)

### ABSTRACT

In 2022, Tuberculosis (TB) remained a major public health issue in Indonesia ranked second in global TBC. Depok City faced challenges in tracing of TBC new cases which only achieved 50% despite the important role of active case finding and contact tracing. "Youth Tuberculosis Troops (Laskar TB Remaja)" is a novel program mobilizing youth to engage in active TB case finding in Depok, West Java by PPTI Depok. This program emphasizes the significance of peer education in driving change at the grassroots level through raising awareness and TB case finding at school. This study used descriptive qualitative with in-depth interviews to determine the Youth Tuberculosis Troop's strategies in involving youth participants as peer educators, strategies to collaborate with school, and factors supporting and inhibiting those strategies. Based on the result, Youth Tuberculosis Troops has 52 youth volunteers and collaborates with more than 20 schools. The strategies for involving youth participants and collaboration with the school are through a formal approach with Dinas Pendidikan (Education Office) and an informal approach relying on personal relationships and social networks such as community discussions and social media. The supporting factors are personal motivation, capacity building, and institutional support. However, the inhibiting factors are stigma about TB, time constraints, and the absence of tangible benefits such as incentives. The Youth Tuberculosis Troops represent a promising approach to engaging communities, empowering youth, and progressing toward the shared goal of TB elimination in Indonesia. It is important to establish routine educational programs aimed at improving youth comprehension of tuberculosis, which can in turn help foster educational efforts within their peer group.

Keywords: tuberculosis, case finding, youth



J4

[61]

## AWARENESS ON PODIATRIC HYGIENE AND WOUND CARE:

### A CASE REPORT OF DIABETIC FOOT ULCER

Sudharshan K\*

*Government Tiruvannamalai Medical College, India*

*[\\*sudharashan235@gmail.com](mailto:sudharashan235@gmail.com)*

#### **ABSTRACT**

Diabetes is a global health issue and Diabetic Foot Ulcer (DFU) is a common complication of uncontrolled diabetes. DFUs are the primary cause of extended hospital stays and only a few cases heal effectively. In India, 25% of diabetic patients develop DFU, of which 50% become infected and 20% of the cases need amputation. Also, DFUs contribute to approximately 80% of all non-traumatic amputations in India annually. This case study presents a DFU patient from a rural area in India, with recurrent hospital admissions and minimal progress. The objective of this case report is to emphasize the importance of podiatric hygiene. **METHOD** - A retrospective analysis of a case of DFU. **CASE PRESENTATION** – A 67-year-old male, diabetic for 10 years, presented with a wound on his left foot for 4 months and purulent discharge from the ulcer for 1 month was admitted. The clinical examination revealed the ulcer measuring 4\*3\*0.5 cm with a punched-out edge, purulent slough on the floor, and inflamed skin around the ulcer. Thus, the patient underwent wound debridement and sterile dressing with hydrogen peroxide and betadine twice daily for 15 days, along with a course of antibiotics. During this period, his glycemic control was achieved. On discharge, the size of the ulcer has reduced considerably to 3.7\*2.7\*0.5 cm with a sloping edge and pink granulation tissue on the floor. Further, the patient was educated on wound care and podiatric hygiene. The follow-up visits showed the noticeable healing of the DFU. **CONCLUSION** – Proper wound care and podiatric hygiene are crucial and cost-effective steps in treating and preventing DFU. Thus, it is essential to educate all diabetic patients about podiatric hygiene to improve prognosis, reduce complications.

**Keywords:** diabetic foot ulcer, podiatric hygiene, wound care, hydrogen peroxide, povidone iodine granulation tissue.

K1-1

[62]

**ARE CITIZENS OF DELHI WILLING TO STOP USING PRIVATE VEHICLES FOR THEIR DAILY OFFICE COMMUTE IN ORDER TO REDUCE AIR POLLUTION AND RELATED AILMENTS? – A CONTINGENT VALUATION STUDY**

Shambhavi B\*, Reesha P, Ranjana S, and Shomik R

*Indian Institute of Public Health-Delhi, Gurugram-122102, Haryana (India)*

[\\*svibhagat731@gmail.com](mailto:*svibhagat731@gmail.com)

**ABSTRACT**

Increased vehicular traffic is associated with higher levels of air and noise pollution which in turn causes high morbidity and mortality. Governments, including Delhi have invested high amounts in setting up and running public transport systems to rationalize road usage and limit vehicles on road. This study proposes to assess the willingness of citizens to give up their private vehicles in favour of public transport and to provide specific policy recommendations. A cross-sectional study was conducted in Delhi/ NCR along the Delhi metro route. Data around perceptions and attitudes of commuters towards the current public transport system, also accounting the COVID-19 pandemic, an estimate of the welfare gain associated with the proposed shift was captured through computer aided personal interviews (CAPI) using contingent valuation methods (CVM). Population demographics were descriptively analysed. Logistic regression analysis was used to assess determinants of willingness to shift to public transport. Based on the presented contingent valuation scenario, 34% of the respondents were willing to shift to public transport on their own accord and 13% were willing to shift when offered a financial incentive of Rs. 2,834 per month (33.92 USD), which was equal to 50% of their monthly travel expenses. Commuters with a higher opinion of overall public transport services in Delhi NCR were more willing to shift to public transport. The outcome offered a user-based assessment of possible policy interventions to reduce vehicular traffic in Delhi NCR. This is the first study using contingent valuation methods (CVM) in reducing air pollution and improving uptake of public transport in India.

Keywords: pollution, contingent valuation, willingness to pay, COVID-19, public transport

K1-2

[63]

**THE CRITICAL NEED FOR ENTRY AND CONTINUOUS TRAINING OF  
HEALTHCARE WORKERS ON INFECTION CONTROL: A CASE OF A  
NAMIBIAN HOSPITAL**

Mokoatle MC\* and Muchongwe FV

*Department of Environmental Health, Faculty of Health Sciences, University of  
Johannesburg, South Africa*

[\\*charlottem@uj.ac.za](mailto:*charlottem@uj.ac.za)

**ABSTRACT**

Infection control is crucial in preventing the spread of infections in hospital settings and healthcare workers play a vital role in preventing such healthcare associated infections. However, globally, hospitals experience challenges in infection control. Such challenges can be attributed to a “lack of trained staff” and insufficient information and technology support. A quantitative cross-sectional study was conducted at a hospital in Namibia using non-probability convenience sampling to recruit 118 healthcare workers as study participants. The study sought to identify any existing gaps in the training of healthcare workers in infection control at the hospital. A self-administered pre coded questionnaire with close ended questions was used to collect data. Data collected was entered on a customised excel spreadsheet before being exported to Statistical Package for Social Science version 28 for analysis. Notably, 23% of participants felt that they had not received enough training in infection control and prevention practices as health professionals. A considerable 55.9% of participants did not receive training in Infection Prevention and Control (IPC) when they started working at the hospital. In addition, 53.4% of participants did not receive any training on the proper selection and use of personal protective equipment. Significantly, 71.2% of participants did not receive any follow-up training in IPC at the hospital. The study highlights the need for improvement in training of healthcare workers on infection prevention and control in hospitals. Such training remains critical at entry into healthcare service and continuously along the provision of the service to curb and prevent the spread of infections amongst patients, healthcare workers themselves and visitors to the hospitals.

Keywords: infection control, healthcare workers, hospitals, infection prevention and control, training

K2-1

[64]

**OHNEGANOS (WATER IS LIFE): INDIGENOUS HEALTH AND WATER  
SECURITY AT SIX NATIONS OF THE GRAND RIVER**

Monteith HRD<sup>1\*</sup> and Davis Hill L<sup>2</sup>

<sup>1</sup>*Anthropology, Social Sciences, McMaster University, Canada*

<sup>2</sup>*Rehabilitation Science, Health Sciences, McMaster University, Canada*

[\\*hiliary.monteith@gmail.com](mailto:hiliary.monteith@gmail.com)

**ABSTRACT**

Climate change has a detrimental impact on water security and is particularly poignant for Indigenous communities who understand water as sacred and experience compounded threats due to colonization and systemic inequities. Therefore, the Ohneganos water research project partnered with Six Nations Health Services (SNHS) at Six Nations of the Grand River, a Haudenosaunee community located in southern Ontario, Canada, to co-create a community health survey focused on community health and water security. We used a co-created process where community members and SNHS staff worked with University researchers to create the survey and administer it. Sixty-six households at Six Nations completed the survey from February 2019 to January 2020. Using a modified household water insecurity experiences (HWISE) scale, we identified that 58% of households experienced some form of water insecurity. We also identified that those using chlorine to treat well water (21%) were more likely to report gastroenteritis and 77% of households preferred purchasing water for drinking, creating a significant financial burden. Reported anxiety and depression were significantly associated with a reliance on bottled drinking water (10.5x more likely) and the presence of E.Coli in tap water. In response to these findings, SNHS has shifted to focus on cultural resurgence and creating awareness of the impacts of climate change on water and community health. There is an emphasis on demonstrating a focus on Haudenosaunee culture, and turning our minds back to our connection to all of creation. Shifts such as increasing access to land for identifying medicines and engaging community members in growing food, are grounded in Haudenosaunee culture and have meaningful implications for community health and wellbeing in the face of climate change and adaptation.

Keywords: indigenous health, climate change, water security, food sovereignty, co-creation

K2-2

[65]

**MASTER DATA MANAGEMENT AND CONSENT AND PREFERENCE  
MANAGEMENT: ETHICAL USE OF DATA IN HEALTHCARE AND  
PHARMACEUTICAL INDUSTRY FOR INNOVATION AND GROWTH**

Singh A\*

<sup>1</sup>*Department of AI & Data Management, Leading Consulting Firm, USA*

<sup>2</sup>*Department of Healthcare Innovation, Prestigious University, USA*

<sup>3</sup>*Institute of Pharmaceutical Research, Renowned Institute, USA*

*[\\*amitbeiiitc@gmail.com](mailto:*amitbeiiitc@gmail.com)*

**ABSTRACT**

In the healthcare and pharmaceutical industries, the ethical management of data is critical for driving innovation and achieving growth. This paper explores the role of Master Data Management (MDM) and Consent and Preference Management (CPM) in ensuring the ethical use of data, highlighting their importance in maintaining data integrity, privacy, and compliance. The background focuses on the increasing reliance on data-driven decision-making in healthcare, necessitating robust data management frameworks. The purpose of the study is to examine how MDM and CPM frameworks can be effectively implemented to support ethical standards and enhance operational efficiencies. Methodology involves a detailed analysis of case studies where MDM and CPM solutions were deployed, assessing their impact on data quality, compliance with regulations such as GDPR and HIPAA, and overall business performance. Results demonstrate that the integration of MDM and CPM not only improves data accuracy and accessibility but also fosters patient trust and regulatory compliance. The conclusion underscores the necessity of these frameworks in facilitating responsible data usage, which in turn propels innovation and sustainable growth in the healthcare and pharmaceutical sectors. By ensuring ethical data practices, organizations can harness the full potential of their data assets while safeguarding patient rights and promoting public trust.

Keywords: master data management, consent and preference management, data privacy, healthcare, pharmaceutical industry, ethical data use, AI, data governance

K3-1

[66]

**ASSOCIATION BETWEEN COLIFORM CONTAMINATION, IRON (FE) LEVELS, AND TODDLER NUTRITIONAL STATUS IN COASTAL VILLAGES OF KOTANIA BAY, WEST SERAM DISTRICT, MALUKU: A CROSS-SECTIONAL STUDY**

Ningsih TA<sup>1</sup>, Kaliky MF<sup>1\*</sup> and Sari MP<sup>2</sup>

<sup>1</sup>*Department of Sanitation, Health Polytechnic of the Ministry of Health in Maluku, Indonesia*

<sup>2</sup>*Department of Nutrition, Health Polytechnic of the Ministry of Health in Yogyakarta, Indonesia*

[\\*amnahtina@gmail.com](mailto:*amnahtina@gmail.com)

**ABSTRACT**

The global crisis of poor water and sanitation has the potential to cause various diseases, posing a significant threat to many populations worldwide. According to Riskesdas 2018, the prevalence of diarrhea among children under five in West Seram Regency ranks fifth in Maluku based on doctor diagnoses (7.45%) and second based on symptoms (14.84%). This study aims to analyze the quality of clean water and assess the nutritional status of children under five in the coastal villages of Kotania Bay, West Seram Regency. This analytic study employs a cross-sectional approach, involving 34 children under five from Kotania Village. To control for other factors affecting child nutrition, food intake was recorded to ensure nutritional differences were not due to dietary variations, and the study environment was kept homogeneous. Results reveal a complex situation concerning water quality and nutritional status in Kotania Village. A majority (55.9%) of households use well water, while 44.1% rely on reservoir tanks. Water quality analysis shows that while iron levels (Fe) meet the standards 100% of the time, 91.2% of the water samples are contaminated with coliform bacteria. The nutritional status of children varied, with most falling into the 'good nutrition' category. Spearman's correlation test indicates a weak (-0.21) but significant (p-value < 0.05) correlation between coliform contamination and children's Body Mass Index (BMI). This indicates the risk of malnutrition due to recurrent intestinal infections that may be caused by contaminated water quality. Improvement efforts in managing water quality, particularly in reducing coliform levels, and efforts to maintain the cleanliness of eating utensils can help prevent the risk of infections and malnutrition in children. This study certainly has some limitations, including a small sample size and only examining associations rather than causal relationships. Additionally, the study also includes many confounding factors that were not subjected to statistical testing. Efforts to improve water quality, particularly by reducing coliform levels, and maintaining cleanliness of eating utensils are crucial in preventing infections and malnutrition in children. The study has limitations, including a small sample size and the inability to establish causal relationships. Additionally, many confounding factors were not statistically tested.

Keywords: toddler nutritional status, water coliform, clean water quality

K3-2

[67]

**KNOWLEDGE, ATTITUDE, AND AWARENESS OF EARLY BREAST CANCER  
DETECTION VIA RADIOGRAPHY EXAMINATIONS AMONG FEMALE  
PATIENTS IN COLOMBO, SRI LANKA**

Wijesinghe WPAM<sup>1,2\*</sup> and Kulasinghe PGJP<sup>3</sup>

*1CESSD Faculty of Sciences The Open University of Sri Lanka.*

*2Department of Nuclear Sciences, Faculty of Science, University of Colombo, Sri Lanka.*

*3The Department of Radiology, Asiri Surgical Hospital PLC, Colombo-05, Sri Lanka*

[\\*amalimadu@gmail.com](mailto:*amalimadu@gmail.com)

**ABSTRACT**

Breast cancer is the leading cancer type among Sri Lankan women. Early diagnosis helps reduce the mortality rate of breast cancer. Radiography imaging plays pivotal role in breast cancer diagnosis. The broad objective of the study is to assess the knowledge, attitude, and awareness among females regarding the available radiological techniques for breast cancer diagnosis. The study surveyed 500 randomly selected female patients aged 35-55 years who visited five private hospitals in Colombo district, for mammography screening between August and November 2023. A self-administered questionnaire was used to collect socio-demographic data and subjective information on breast cancer diagnostic imaging techniques and awareness of breast screening studies. Descriptive statistical analysis was conducted using MS Excel 2019. The majority of participants had higher education levels ( $62.5 \pm 15.5$ ) and were employed ( $78.2 \pm 12.5$ ). Most participants had previously encountered breast cancer information ( $97.5 \pm 15.3$ ). The results revealed low levels of awareness regarding the types of radiation used in mammography and other breast cancer detection tests ( $28 \pm 12.3$ ), the appropriate age and frequency for mammography ( $55 \pm 18.5$ ), and available diagnostic procedures in radiology departments ( $42 \pm 13.4$ ). However, awareness, knowledge, and attitude towards the importance of routine breast screening showed significant improvement ( $63.25 \pm 15.3$ ), ( $70.4 \pm 15.2$ ), and ( $60.45 \pm 12.5$ ) respectively. The study concludes that the majority of female participants significantly lacked knowledge and awareness of available breast screening imaging technology and procedures. While awareness of routine breast screening improved significantly, understanding of other critical aspects remained inadequate. Enhancing knowledge, awareness, and attitude among Sri Lankan females through breast cancer early detection programs is crucial to reduce the breast cancer-related mortality rate within the country.

Keywords: attitude, awareness, breast cancer, early detection, knowledge, mammography

**K4-1**

**[68]**

**EXAMINING THE EFFECTIVENESS OF HORMONE REPLACEMENT THERAPY  
IN THE MANAGEMENT OF DEPRESSION AND MOOD DISORDERS AMONG  
PERIMENOPAUSAL AND POSTMENOPAUSAL WOMEN: A SYSTEMATIC  
REVIEW**

Pillai PS\*

*Master of Public Health, Department of Nursing, Faculty of Health and Education  
Manchester Metropolitan University, Manchester, United Kingdom*

[\\*spillaiparvathy08@gmail.com](mailto:*spillaiparvathy08@gmail.com)

**ABSTRACT**

The deteriorating mental health of climacteric women, along with physical discomforts that become increasingly prevalent during menopause, is critically overlooked, regardless of their high rates of depression. While antidepressants are commonly used to treat mood disorders and depressive symptoms in climacteric women, their side effects often affect quality of life, and detailed research on their mental health remains lacking. Therefore, a systematic review was conducted to explore the effectiveness of Hormone Replacement Therapy (HRT) as a potent alternative for managing depression and mood disorders in both perimenopausal and postmenopausal women. The aim of the review is to examine the effectiveness of HRT specifically and separately for perimenopausal and postmenopausal women. Following PRISMA guidelines, relevant empirical research articles published from 2000 to 2022 were screened and retrieved from databases such as Euro PMC, MEDLINE, CINAHL, ScienceDirect, Web of Science, and Google Scholar. 12 selected articles comprising 10 clinical trials, 1 cohort study, and 1 cross-sectional study, were critically appraised using CASP and CEBMa checklists to evaluate their credibility, quality, and relevance. The articles were analysed under two sections observing the effectiveness of HRT in managing anxiety and depressive symptoms in perimenopausal women and postmenopausal population. The review found a beneficial association between hormone therapy and depression management in perimenopausal women, supported by existing and newly analysed evidence. However, the effectiveness of HRT for managing postmenopausal depression remains questionable. Further research is recommended to assess the efficacy and safety of long-term use of HRT in managing climacteric depression and mood disorders. Additionally, more trials should be conducted in low- and middle-income countries (LMICs) to ensure access to quality healthcare services for vulnerable population.

Keywords: climacteric women, menopause, depression management, hormone replacement therapy (HRT).



K4-2

[69]

**QUALITY IMPROVEMENT PROJECT (QIP) OF CAREFLOW REFERRALS TO THE PARKINSON'S DISEASE NURSE SPECIALIST (PDNS) SERVICE AT EAST KENT HOSPITALS UNIVERSITY FOUNDATION TRUST**

Natarajan NN<sup>1\*</sup>, Hassan HH<sup>1</sup>, Ahmed MA<sup>1</sup>, Patel NP<sup>1</sup>, and Lauckaite KL<sup>2</sup>

*<sup>1</sup>Medical Student, Faculty of Life Sciences and Medicine, King's College London, United Kingdom*

*<sup>2</sup>Neurology Department, East Kent Hospitals University Foundation Trust, United Kingdom*

[\\*K1922481@kcl.ac.uk](mailto:*K1922481@kcl.ac.uk)

**ABSTRACT**

In the East Kent Hospitals University Trust in the United Kingdom, there are five Parkinson disease nurse specialists (PDNS) who look after approximately over 1400 Parkinson's patients. The team receives many referrals, many of which are considered inappropriate as they are beyond the PDNS team's capabilities. Our aim was to increase the proportion of appropriate referrals to 70% using an online banner. A secondary objective was to assess and increase the PDNS' satisfaction with the types of referrals they receive. To achieve this, a quality improvement project was developed involving two Plan, Do, Study, Act Cycles (PDSAs) to firstly implement an online banner clinicians see before submitting a referral request and then modifying it to better serve its purpose. Concurrently, a preliminary questionnaire was sent to the PDNS to assess their satisfaction on the proportion of appropriate referrals, followed by subsequent surveys after each cycle to assess any improvements. Retrospective data (June–Oct 2023) highlighted only 37.5% of appropriate referrals. After implementing the banner in the first PDSA (November–December 2023), 80% of referrals were appropriate ( $P < 0.01$ ). The second PDSA (January–February 2024) saw 77% of appropriate referrals ( $P < 0.05$ ). Run charts were devised to track data and identify signals. Satisfaction regarding the proportion of appropriate referrals amongst the PDNS increased after PDSA 1 and maintained after PDSA 2. To conclude, implementing the banner has been effective in improving the proportion of appropriate referrals to the PDNS, having met our goal of 70%. Increased awareness of the key roles of the PDNS, facilitating smoother referrals and enhancing patient care and safety by reducing unnecessary delays in the referral process were achieved.

Keywords: Parkinson's, PDSA, QIP, telecommunication

K5-1

[70]

**THE IMPACT OF HEALTH LITERACY LEVEL ON ASSOCIATION BETWEEN NATIONALITY AND HEALTH STATUS AMONG UNIVERSITY STUDENTS: A CROSS-SECTIONAL STUDY**

Adeoya AA<sup>1,2\*</sup>, Momma H<sup>1</sup> and Nagatomi R<sup>1,3</sup>

<sup>1</sup>*Medicine and Science in Sports and Exercise Laboratory, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan*

<sup>2</sup>*Division for Interdisciplinary Advanced Research and Education, Tohoku University Advanced Graduate School, Sendai, Miyagi, Japan.*

<sup>3</sup>*Department of Biomedical Engineering for Health Maintenance and Promotion, Graduate School of Biomedical Engineering, Tohoku University, Sendai, Miyagi, Japan.*

[\\*adeoya4real@yahoo.com](mailto:*adeoya4real@yahoo.com)

**ABSTRACT**

Health status (HS) is an important measure of overall well-being. Although previous studies reported the level of subjective HS among college students including international students, few have examined the association between HS and nationality. In addition, there is still a gap in understanding the impact of health literacy on HS among this population. This study aims to examine the impact of health literacy level on the association between nationality and perceived HS among university students in Japan. Web-based self-administered questionnaire surveys were conducted on university students across six of Japan's eight regions from February 20 to August 10, 2023 (n = 1,366). The questionnaires included items on sociodemographic and educational data, health status, and the 47-item European Health Literacy Survey Questionnaire (HLS-EU-Q47) in English and Japanese versions. International students (61%) had a lower prevalence of good HS than Japanese students (73%) (p<0.0001). Even after the adjustment for sociodemographic and educational variables, international students showed a lower prevalence of good HS as compared with Japanese students (odds ratios [95% confidence intervals]: 0.72 [0.53, 0.99] p=0.04). However, when considering HL level, the association disappeared (p=0.24) and the interaction of HL and nationality was obtained (p<0.0001). A subgroup analysis showed that, international students had a higher prevalence of good HS as compared to Japanese students among the students with sufficient HL level (1.63, [1.03, 2.58], p=0.03), whereas among the students with inadequate HL level, international students had a lower prevalence of good HL (0.34, [0.20, 0.58], p<0.0001). In conclusion, although international students had a lower prevalence of good HS as compared to Japanese students, the direction of association differs based on the level of HL.

Keywords: health status, nationality, health literacy, international students, university students

K5-2

[71]

**EXPLORING THE PERCEPTION OF GROUP SUPERVISION AMONG SOCIAL WORKERS IMPLEMENTING YOUTH PROTECTION LAW: A QUALITATIVE STUDY**

Michael K<sup>1\*</sup>, and Darvish T<sup>2</sup>

<sup>1</sup>*Department of Human Services, Max Stern Yezreel Valley College, Israel*

<sup>2</sup>*Department of Social Work, Max Stern Yezreel Valley College, Israel*

[\\*kerenmi@yvc.ac.il](mailto:*kerenmi@yvc.ac.il)

**ABSTRACT**

Social workers responsible for implementing the 'Youth Protection Law' are often exposed to high work-related stress. Hence, professional supervision is recommended for them to alleviate the job's adverse consequences. The Israeli Ministry of Welfare established supervision groups for these practitioners in recent years. The current qualitative study aimed to explore the various experiences within the groups from the social workers' perspective. The sample included 13 participants aged 38–60, using a criteria sampling. Data were collected through semi-structured, in-depth interviews and analyzed using the phenomenological-interpretive method (IPA). The results underscored the critical need for supervision due to the complex role of practitioners in intersecting domains: child, family, and community; legal and court frameworks; and Ministry of Welfare at both local and national levels. The supervision groups were perceived as a secure space for training. Accordingly, two central themes emerged from the interviewees' narratives: one focused on the training conditions, including participants' encompassing expectations, meeting logistics, group atmosphere, and instructional style. The other focused on the training contributions, including providing a forum for expression, sharing emotions and thoughts, analyzing workplace events, and addressing training challenges. The findings highlight the pivotal role of group supervision in fostering social workers' professional and personal development, acknowledging its limitations, and proposing strategies for overcoming them and supplying adequate treatment for children, youth, and their families.

Keywords: stressful life events, coping, distress, gender differences

K6

[72]

**MITIGATING HYPERTHERMIA-RELATED DEATHS OF UNATTENDED CHILDREN INSIDE VEHICLES: INSIGHTS FROM THE THAI EXPERIENCE AND PROPOSED GUIDELINES FOR PREVENTION**

Phruksaphanrat C\*

*Satit Prasarnmit Demonstration School (Secondary), Thailand*

[\\*lbusaba@hotmail.com](mailto:lbusaba@hotmail.com)

**ABSTRACT**

Hyperthermia-related deaths of unattended children inside vehicles represent a tragic yet preventable phenomenon. This study delves into the Thai experience regarding such incidents and proposes guidelines aimed at mitigating risks and enhancing public awareness. Through an analysis of past of other nations including Italy, Canada, India, and the US, it can be concluded that the main causes of these incidents are related to forgotten baby syndrome and accidentally abandonment. Most cases involved a caregiver forgetting, but in India, incidents occurred when children were inadvertently locked themselves inside cars while playing. In Thailand, cases were predominantly due to carelessness of school van drivers. Investigating 13 cases from 2012 to 2023 revealed that the children affected were typically between 2-7 years old, left unattended for over 2 hours during daytime hours, and tragically found deceased. 61% of these cases were mistakes by the school personnel who were responsible for picking up and dropping off the children, a different scenario from that of other countries. Contributing factors to hyperthermia fatalities included caregiver negligence, high ambient temperatures, and extended duration being left unattended. This research identifies critical areas for prevention. The proposed guidelines encompass recommendations for caregivers, schools, policymakers, and the general public, emphasizing the importance of awareness, education, technology integration, and community engagement. By addressing this pressing issue within the context of Thailand, this study offers valuable insights and actionable strategies to combat hyperthermia-related deaths among children worldwide.

Keywords: hyperthermia, safety, heatstroke, injury, child, vehicles

K7

[73]

## **SUPPORTING EMPLOYERS IN THE SAFE WORK INTEGRATION OF NEW IMMIGRANTS**

Janki S\* and Zabin S

*Faculty of Social Work, University of Calgary, Canada*

[\\*jshankar@ucalgary.ca](mailto:*jshankar@ucalgary.ca)

### ***ABSTRACT***

While a growing body of research has focused on the perspectives of new immigrant workers on their workplace health and safety needs, there is little research on the resources employers need to help new immigrants safely integrate into their workplaces. The current study addresses this need. Eleven Canadian human resource personnel from various industries who hired and supervised new immigrant workers and twelve service providers who provided employment services to new immigrants were interviewed to understand the resources employers need to promote the safety and well-being of new immigrant workers. The data were analyzed using thematic analysis. The findings revealed several biases that employers have about new immigrant workers. The resources that employers need for the safe workplace integration of new immigrant workers include (a) support to develop in-house safety training programs and practices that address the needs of new immigrant workers, (b) workplace leadership that values safety and diversity, and is inclusive, (c) support from the government and other stakeholders, and (d) availability of external safety programs, cultural sensitivity training and financial support especially for small and medium scale businesses who cannot afford to provide safety training for their workers. These findings and recommendations make an important contribution to new immigrants' occupational health, safety, and well-being and have implications for all stakeholders committed to promoting safe, diverse, and inclusive workplaces.

Keywords: new immigrant workers, workplace safety, employer resources

K8

[74]

**ASSESSMENT OF KNOWLEDGE, ATTITUDES, AND PRACTICES OF STREET FOOD VENDORS REGARDING FOOD HYGIENE AND SAFETY. IN UMZIMVUBU LOCAL MUNICIPALITY, EASTERN CAPE PROVINCE, SOUTH AFRICA**

Majova N\*

*Department of Environmental Health, Faculty of Health Sciences, South Africa*

[\*\\*nozibele.majova@gmail.com\*](mailto:*nozibele.majova@gmail.com)

**ABSTRACT**

This study aimed to Ascertain the attitudes of street food vendors toward food hygiene and safety. Methods: The study used a quantitative descriptive study design and simple random sampling approach to select 145 Street food vendors from the Umzimvubu Municipality database of street food vendors. Quantitative data was collected using a structured interviewer-administered questionnaire to solicit information on age, gender, work experience, and attitudes, with Chi-square tests used for inferential analysis. The study was conducted in Umzimvubu Local Municipality in Eastern Cape. Results: To assess the association of street food vendors' familiarity with food hygiene and safety. The chi-square showed more females at 61,30% as opposed to males at 38,5%. To ascertain the food hygiene practices of street food vendors a chi-square test was used it showed and it showed that only aprons are associated with the gender of the business owner, as 64% of males are using aprons while the remainder are not and only 45% of females were using aprons. There was no correlation between' attitudes of street food handlers and their work experience. Conclusion: Street food vendors were not knowledgeable on most tenants of food hygiene and safety and are not attuned to the need to ensure safe food practices. This study will form the basis for further training interventions to improve knowledge, attitudes, and practices of street food vendors in Umzimvubu Local municipality with regards to food hygiene and safety as well as to contribute to the body of knowledge in public health.

K9

[75]

**ASSESSMENT OF BUBBLE AND SEAL MEASURES TO DEVELOP A MODEL  
ADDRESSING EMERGING DISEASES IN FACTORIES**

Rattanawitton T<sup>1\*</sup> and Narkkorn S<sup>2</sup>

*<sup>1</sup>Division of Occupational and Environmental Diseases, Department of Disease Control,  
Ministry of Public Health, Thailand*

*[\\*Thanawat.envocc@gmail.com](mailto:Thanawat.envocc@gmail.com)*

**ABSTRACT**

During the COVID-19 pandemic, Thailand implemented the Bubble and Seal measures (BBSM) in factories to manage the outbreaks effectively, however, emerging diseases can be occurring in the future. This evaluation research aimed to assess the BBSM's efficacy and develop a model for managing future emerging diseases. Applying CIPP Model with mixed method, quantitative and qualitative data, were analyzed from April to September 2022. Thirty-five awarded for implementing Bubble and Seal Measures (BBSM) were studied, collecting data from presentations, literature reviews, interviews using mobile phone or online meetings and field studies. Descriptive statistics and content analysis were employed. Results revealed that 32 out of 35 factories (91.43%) participated, mainly large enterprises (78.13%), and most experiencing COVID-19 outbreaks (87.50%). Sugar production was predominant (21.88%). The results from CIPP Model indicated that, due to Context, the majority of the factories (78.13%) strictly implemented the BBSM after the outbreaks. Regarding Input, all factories established COVID-19 management committees, provided prevention and control guidelines, and collaborated with stakeholders. With respect to Process, all factories implemented the BBSM, created employee lists and those who were in vulnerable groups. They also utilized small bubbles by putting employees in small groups using signs for groups. Additionally, they highlighted creating small bubbles was the key success to control the outbreaks. According to Product, implementing the BBSM resulted a significant decrease in COVID-19 in factories and they also found innovative approaches to control the outbreaks. The key successes included the COVID-19 policy enforcement, executive-employee collaborations, effective communication and cooperation among relevant agencies. Suggestions included applying the BBSM with the 2P2R of public health preparedness and response theory to address future emerging diseases in factories.

Keywords: evaluation research, bubble and seal measures, COVID-19 in factories

L1

[76]

## ADDRESSING CERVICAL CANCER IN INDIA: ENABLERS, CHALLENGES, AND TECH INTERVENTIONS

Disha K<sup>1</sup>, Archita J<sup>1\*</sup> and Anupam M<sup>2</sup>

<sup>1</sup>*Department of Public Health, Dr Piyusha Majumdar, IIHMR University, Jaipur, India*

<sup>2</sup>*MBA Hospital and Health Management, IIHMR University, India*

[\\*yadavdisha16@gmail.com](mailto:*yadavdisha16@gmail.com)

### ABSTRACT

Cervical cancer is a dominant cancer among women in underdeveloped countries, owing to the failure to sustain effective cervical cancer screening programs. Young women in low-resource countries continue to die at an alarming rate from this potentially preventable and curable cancer. In rural regions, the majority of the women are without educational opportunities and unaware of health information. Various national programs are in place namely the National Cancer Registry Programme, National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS), Ayushman Bharat (PM-JAY, HWC), and Universal Immunization Programme to Control and create awareness of cervical cancer. Conducted systematic search from the year 2020-2024, generating 17,600 publications on the National Programme for Cervical Cancer in India from multiple databases such as Google Scholar, ScienceDirect and Web of Science. Around 32 Full-text Articles were chosen for review. Although enablers such as nutrition programs and NGOs help to reduce cases, technological advancements such as telemedicine raise awareness and access. Thus, we need targeted intervention for rural and other disadvantaged regions to improve nationally.

Keywords: cervical cancer, cancer, national programs, universal immunization programme, rehabilitative.



L2

[77]

**FACTORS ASSOCIATED WITH PREGNANCY OUTCOME AMONG PREGNANT WOMEN WITH COVID-19 IN INDONESIA: A SECONDARY DATA ANALYSIS OF A NATIONALLY REPRESENTATIVE HOUSEHOLD SURVEY**

Pertiwi R<sup>1</sup>, Gayatri RV<sup>1\*</sup>, Handayani IF<sup>1</sup>, and Makhrus I<sup>2</sup>

<sup>1</sup>*Department of Midwifery, National Polytechnic of Health Bandung, Ministry of Health, Republic of Indonesia*

<sup>2</sup>*Department of Nursing, National Polytechnic of Health Bandung, Ministry of Health, Republic of Indonesia*

[\\*gayatri171112@gmail.com](mailto:*gayatri171112@gmail.com)

**ABSTRACT**

This study aims to investigate the determinant factors of pregnancy outcomes associated with COVID-19 among pregnant women in Karawang, West Java Indonesia. A secondary, cross-sectional analysis focusing on Karawang, West Java Indonesia was conducted at the Karawang District Health Office. This data is integrated with the data of the Ministry of Health and the COVID-19 task force of the Republic of Indonesia. This survey was conducted and focused on Karawang West Java Indonesia. One hundred and forty-seven pregnant women were included in the data analysis of pregnancy outcomes (low weight birth vs birthweight). Approximately 7.5% of the participants were ≤ 20 years of age or younger, the majority (81%) of the participants were multipara. More than half of the participants had a third trimester (60.5%), and over half of the participants who had hospitalization and quarantine were in hospital during the pandemic (56%). The majority of them had assisted delivery by normal delivery (80%). More than one-fifth of the women with comorbidity (17.6%, n = 33) and one-fifth of participants had a complication of pregnancy during their had a positive Covid 19. Maternal age (OR: 4.43, 95% CI: 1.26–15.54), parity (OR: 2.56, 95% CI: 1.06–6.18), type of delivery (OR: 1.35, 95% CI: 0.15–1.82), comorbid (OR 2.26; 95% CI 0.97–5.26), and pregnancy complication (OR 1.84; 95% CI 0.76–4.43). Pregnancy outcomes among pregnant women with covid 19 were determined by not only demographic factors but also health history and pregnancy complications. The policies related to quarantine should prioritize support for those pregnant women with pregnancy complications.

Keywords: Covid 19; pregnant women; pregnancy outcomes; pregnancy complications; Indonesia

L3

[78]

**UNVEILING LONG-TERM CONSEQUENCES OF POSTPARTUM DEPRESSION  
ON MATERNAL AND CHILD HEALTH: A COMMUNITY-BASED COHORT  
STUDY IN INDIA**

Roy P<sup>1\*</sup>, Subba SH<sup>1</sup>, Singh AK<sup>1</sup>, Behera BK<sup>1</sup>, Behera P<sup>1</sup>, Mohanty PK<sup>2</sup>, and Parmar A<sup>3</sup>

<sup>1</sup>*Department of Community & Family Medicine, AIIMS Bhubaneswar, India*

<sup>2</sup>*Additional Professor, Department of Neonatology, AIIMS Bhubaneswar, India*

<sup>3</sup>*Associate Professor, Department of Psychiatry, AIIMS Bhubaneswar, India*

[\\*dr.payelroy1114@gmail.com](mailto:dr.payelroy1114@gmail.com)

**ABSTRACT**

The prevalence of Postpartum Depression (PPD) in India varies from 6.8-21.5%. About 5% of women reported persistent PPD symptoms even three years after giving birth. It not only affects the psychological health but also affects the physical health & quality of life of the mother. Maternal PPD not only affects the mother child bonding but also impairs the child growth & development. We have done a Cohort study with 290 mother child dyads in both rural and urban area of Khordha, Odisha. Mothers were screened using Edinburg Postnatal Depression Scale (EPDS) for PPD at 6 weeks to 6 months after delivery. The outcome for mothers and children were assessed at one year to five years after delivery. The chronic depression was assessed with EPDS, confirmed by psychiatric evaluation and suicidality of the mother with Suicidal Behaviour Questionnaire-Revised (SBQ-R); child anthropometric outcomes with WHO growth charts and development with Bayley Scale of Infant and Toddler Neurodevelopment. Among the 62 mothers screened positive for PPD, 18 (29%) were found to have Chronic or recurrent depression and a significant association was found between PPD and chronic depression (OR=11.25, CI- 4.60-27.69, p-value <0.001). The mothers with post-partum depression had a 16.74 times higher chance of developing increased suicidality (p-value<0.001). The mothers with PPD were also having increased weight gain and poor mother-child attachment. Cognitive (OR=7, p-value 0.021) and language development (p-value<0.001) of the child were also found to be impaired among the children of the mothers with PPD. The children were also found to be more underweight [OR= 3.59 (CI=1.42 – 9.08), p-value <0.007] and stunting [OR=6.82 (CI=3.19 – 14.54), p-value<0.001]. Maternal post-partum depression was found to have significant impact on the maternal and child health in the long term.

Keywords: postpartum depression, chronic depression, suicidality, child development, anthropometry, mother-child bonding

L4

[79]

**MATERNAL HEALTH OF MIGRANTS FROM SUB-SAHARAN AFRICA LIVING  
IN HIGH-INCOME COUNTRIES.**

Sadiq FU and Yeh Y\*

*Department of Healthcare Administration, College of Medical & Health Science, Asia  
University, Taiwan*

*[\\*fawziyyahsadiq@gmail.com](mailto:fawziyyahsadiq@gmail.com)*

**ABSTRACT**

Background: Maternal health pertains to the health of women during pregnancy, childbirth, and the postpartum period. In an era of heightened global migration, women who generally possess a higher health risk profile and comprise a significant portion of migrants have become more susceptible to the health consequences of migration. Immigrant women from sub-Saharan Africa residing in high-income countries are reported to face a greater risk of adverse maternal health outcomes. Moreover, women with a refugee background are at an even higher risk due to increased vulnerability and exposure to harsh conditions. Purpose: This study aims to examine the factors contributing to the maternal health outcomes of sub-Saharan African migrants living in high-income countries. Method: A systematic approach was utilized to search for relevant papers in Medline, CINAHL, ASSIA, and Scopus. Studies that addressed the factors responsible for maternal health outcomes of sub-Saharan African migrants in high-income countries were selected based on predetermined eligibility criteria. Sixteen studies met the extraction criteria. The findings were thematically analysed and presented in a narrative synthesis style. Results: The review revealed five major themes. These include: background health factors, socio-economic factors, health care-related factors, psychological factors and cultural factors. These factors are interconnected and contribute to poor maternal health outcomes. Based on these findings, several recommendations for practice have been proposed. Conclusion: Comprehending the factors that contribute to adverse maternal health outcomes among sub-Saharan African migrants in high-income countries would facilitate the recommendation and provision of improved healthcare services for these migrants. It would also aid in addressing issues of inequality both between and within countries.

Keywords: maternal health, migrants, Sub-Saharan Africa, high-income countries

L5

[80]

## **SOCIAL SUPPORT FACTORS FOR EXCLUSIVE BREASTFEEDING FOR WORKING MOTHERS IN INDONESIA: A LITERATURE REVIEW**

Ekayanthi NWD<sup>1\*</sup>, and Besral<sup>2</sup>

<sup>1</sup>*Public Health Study Program, Faculty of Public Health, Universitas Indonesia, Indonesia*

<sup>2</sup>*Department of Biostatistics, Faculty of Public Health, Universitas Indonesia, Indonesia*

*[\\*ekayanthijegeg@gmail.com](mailto:ekayanthijegeg@gmail.com)*

### **ABSTRACT**

This study investigates the role of workplace social support in promoting breastfeeding practices among working mothers in Indonesia. Despite the well-documented health benefits of breastfeeding for both mothers and infants, reintegration into the workforce postpartum presents a significant challenge. Globally, more than half a billion working women lack access to essential maternity benefits, and many more women do not receive support when they return to work, further hindering breastfeeding continuation. In Indonesia, with a rapidly growing female labor force participation rate exceeding 38.98%, fostering supportive workplace environments becomes critical. This literature review employed Google Scholar and Crossref to understand essential forms of workplace social support for breastfeeding. A comprehensive search was conducted for articles published in English and Indonesian between January 1, 2011, and April 21, 2024, using keywords related to "social support" and breastfeeding and workplace and "working mothers" and Indonesia. The initial search yielded a substantial number of 1,333 articles. After deduplication and applying inclusion/exclusion criteria, 23 relevant articles were selected for analysis. The review identified four crucial categories of workplace social support for breastfeeding mothers: informational support (providing access to lactation consultants, educational materials, and current information), emotional support (offering encouragement, empathy, and recognition), instrumental support (implementing formalized breastfeeding policies, dedicated lactation facilities, extended maternity leave, flexible work arrangements, workload adjustments, childcare options near workplaces, and support with infant caregiving tasks), and peer support (facilitating participation in breastfeeding support groups and fostering communication networks among mothers). By implementing comprehensive social support structures, workplaces can empower working mothers to provide breast milk for their infants.

**Keywords:** social support, breastfeeding, working mothers, workplace

L6

[81]

**ASSESSING INDIA'S NATIONAL MATERNITY BENEFIT PROGRAM: STATUS AND CHALLENGES IN IMPLEMENTING PRADHAN MANTRI MATRU VANDANA YOJANA IN STATES OF ASSAM, BIHAR AND GUJARAT**

Arunima G\*

*Public Health Foundation of India, India*

[\\*arunimaghosal93@gmail.com](mailto:*arunimaghosal93@gmail.com)

**ABSTRACT**

Poor maternal nutrition is a major public health concern in India. According to the recent National Family Health Survey, 19 per cent and 57 per cent of women of reproductive age are underweight and anaemic respectively. Since a majority of women are employed in the informal sector with little access to maternity benefits and policies, they remain vulnerable. To address this and bridge the gender gaps in ensuring their reproductive and food security rights; the Government of India implemented a maternity benefit program across the country in 2017 namely the Pradhan Mantri Matru Vandana Yojana (PMMVY). A national flagship maternity benefits programme, the PMMVY provides partial wage compensation to first-time pregnant and lactating mothers enabling adequate rest before and after delivery of their first child and promoting access to health and nutritional services for mothers and infants. The main objective of the study is to examine the current implementation of PMMVY and the underlying supply-side system bottlenecks in design and implementation, and demand-side community-level barriers in terms of access and use of cash transfers towards intended purposes. The study adopts a mixed method design combining qualitative and quantitative method to investigate the study objectives and the selected states are Assam, Bihar and Gujarat. Our findings suggest a large proportion of eligible women remained out of the reach of the scheme. Most of the eligible mothers across the states were not aware of the conditions and documentation requirements at different stages of registration. To improve the scheme's uptake and augment its intended purpose, the study provides recommendations for resolving the issues at various levels of implementation by simplification of process, strengthening community engagement and outreach.

Keywords: nutrition, cash transfer, maternity benefit, outreach

L7

[82]

**EXPLORING THE RELATIONSHIP BETWEEN PATIENT SAFETY CULTURE  
AND THE FULL-RANGE LEADERSHIP THEORY IN PRIMARY CARE  
SETTINGS: A CONCEPTUAL ANALYSIS**

Wijaya MI\*, Pradnyawati LG, Kartinawati KT, Juwita DAPR, and Pratiwi AE

*Faculty of Medicine and Health Sciences, University of Warmadewa, Bali, Indonesia*

*[\\*madeindrawijaya@gmail.com](mailto:madeindrawijaya@gmail.com)*

**ABSTRACT**

Patient safety culture and effective leadership are fundamental components in ensuring the delivery of high-quality healthcare, particularly in primary care settings. This study explores the intersection of patient safety culture and the Full-Range Leadership Theory (FRLT) within primary care, aiming to elucidate how different leadership styles impact safety culture. This conceptual analysis draws upon existing literature to develop a theoretical framework integrating patient safety culture and FRLT concepts. Key leadership behaviors outlined in FRLT, including transformational, transactional, and laissez-faire styles, are examined in relation to their potential influence on patient safety culture in primary care settings. Transformational leadership behaviors, such as inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence, are posited to positively impact patient safety culture by fostering open communication, teamwork, learning, and accountability among healthcare professionals. Transactional leadership behaviors may have variable effects on safety culture depending on context, while laissez-faire leadership is likely to be detrimental. Understanding the interplay between patient safety culture and leadership styles outlined in FRLT is essential for fostering a culture of safety in primary care settings. By leveraging transformational leadership behaviors and mitigating the negative impact of transactional and laissez-faire styles, healthcare organizations can enhance patient safety outcomes and improve the quality of care. Further research and practical interventions are warranted to validate and operationalize these findings in real-world healthcare settings.

Keywords: patient safety culture, full-range leadership theory (FRLT), primary care settings, conceptual analysis

L8

[83]

## EPIDEMIOLOGIC GUIDANCE FOR PRIMARY HEALTH CARE

Kubheka-Tshikala TN\*

*School of Doctoral Studies, Faculty of Public Health, Unicaf University, Zambia*

[\\*tntshiks60@gmail.com](mailto:tntshiks60@gmail.com)

### **ABSTRACT**

This paper has drawn background from the World Health Organisation (WHO) of the 1978 Alma-Ata International Conference on Primary Health Care (PHC). The Declaration had called for urgent action to address the need to protect and promote the health of the global population by all governments and the world community. The paper sets to explore the problem of PHC dynamic central role in global health systems as emphasised by the WHO Declaration principles. One objective is to understand the influence of epidemiologic data on national public health policies of governments in the ability to reach health goals. Another objective is to analyse international advocacy which has supported the commitment to PHC and expanded technical and financial support to developing countries. The study methodology has employed the participatory action research (PAR) approach. The choice has been based on the ability of PAR to describe the epidemiologic results and their translation into public health practice. Application of the methodology has reputationally bridged the gap between epidemiologic description and PHC action. Additionally, PAR approaches have enhanced data collection, data analysis, data validation, developed data synthesis and advanced capacity building for research and practice of the local public health system. The envisaged result is the essential technical link of research and health policy represented by epidemiology. The link has evidenced simplified and clarified health services data to enhance practices of PHC interventions in various health systems globally. The study foresees implications and contribution in practicality, scientific soundness and social acceptability of methods and technology which are fundamental to PHC. Subsequently the health system should maintain the development of PHC interventions and continuing health care for ultimate self-reliance and self-determination.

Keywords: epidemiology, health systems, primary health care, Alma-Ata principles

L9

[84]

## ECONOMIC CHARACTERISTICS OF REGIONAL LEVEL PRIORITY TO OUTBREAK CONTROL IN INDONESIA

Heryana A<sup>1\*</sup>, Adisasmito W<sup>2</sup> and Candi C<sup>2</sup>

<sup>1</sup>*Public Health Program, Health Sciences Faculty, Universitas Esa Unggul, Jakarta*

<sup>2</sup>*Public Health Faculty, Universitas Indonesia, Depok*

\*[heryana@esaunggul.ac.id](mailto:heryana@esaunggul.ac.id)

### **ABSTRACT**

The Covid-19 pandemic provides an important lesson that epidemic control was not effective if it is only prioritized on an individual level. It should be on districts/cities level to control infectious disease outbreaks. This research aims to identify the characteristics of a region as a basis to districts/cities level. This study analyze recovery and death during the increasing wave of the Delta variant for the period 26 May 2021 to 15 July 2021. Data collected from Java to Bali. Data testing was carried out to determine the presence of outliers, linearity and suitability of the normal distribution. Data analysis uses a Multivariate General Linear Model which assumes a correlation between cases of infection, recovery and death. The research results are divided into two segments, population characteristics and local policy setting. It showed that it is important to prioritize of reducing infections in areas with a high Gini Index and number of workers, prioritize of increasing recovery in areas with a low Gini Index and high poverty line, and prioritize of preventing deaths in areas with a high number of poor people and a decrease in deaths in areas with high social assistance recipients and worker ratios; prevent infection cases in cities with low social assistance, reduce infection cases in cities with a high number of workers, to increase recovery in cities with high social assistance and low number of workers, prevent deaths in cities with social assistance high, as well as a decrease in deaths in cities with a high number of workers and micro-small scale industries. Regional economic characteristics can be used as parameters for controlling disease outbreaks based on district or city status.

Keywords: outbreak, communicable diseases, pandemic, outbreak control



L10

[85]

## DEVELOPMENT AND VALIDATION OF SCREENING TOOL FOR MILD COGNITIVE IMPAIRMENT IN INDIAN PRIMARY HEALTH CARE SETTINGS

Gowda JR<sup>1</sup>, Mehta A<sup>2</sup>, and Jayanna K<sup>1</sup>

<sup>1</sup>*Department of Allied Health, FLAHS, M S Ramaiah University of Applied Sciences*

<sup>2</sup>*Department of Neurology, M S Ramaiah Medical College and Hospitals*

[\\*jeevithahtr26@gmail.com](mailto:*jeevithahtr26@gmail.com)

### ABSTRACT

Mild cognitive impairment (MCI) represents a transitional phase between normal ageing and dementia, making early detection crucial for effective intervention. However, existing cognitive assessment tools are often not culturally adapted for the Indian context, limiting their utility in primary health care settings. This study aims to address this gap by developing and validating a culturally appropriate screening tool for MCI, tailored specifically for use in Indian primary health care. The rationale for this research stems from the urgent need for accessible and reliable screening methods to facilitate early diagnosis and intervention in ageing populations. The study employed a multi-phase methodology, beginning with a comprehensive review of existing cognitive assessments and incorporating culturally relevant items to develop the new tool. A cross-sectional validation study was then conducted with 500 adults aged 60 and above from various primary healthcare centres across India. Participants were assessed using the new tool alongside established cognitive tests for comparison. The results demonstrated that the new screening tool exhibited a sensitivity of 88% and specificity of 85% in detecting MCI, with strong correlations to established tests ( $r = 0.78$ ,  $p < 0.001$ ). Healthcare providers reported the tool to be user-friendly and easily integrated into routine practice. The study concludes that the new screening tool is both valid and reliable for early detection of MCI in Indian primary health care settings. Its widespread implementation could significantly enhance early diagnosis and management of cognitive impairment, improving patient outcomes and reducing the burden on healthcare systems.

Keywords: mild cognitive impairment, screening tool, primary health care, India, early detection, dementia

L11

[86]

**STRATEGIES ADDRESSING THE EFFECTS OF THE COVID-19 PANDEMIC ON  
SEDENTARY BEHAVIOR IN LOW AND MIDDLE-INCOME COUNTRIES: A  
SCOPING REVIEW**

Widyaningsih V<sup>1,2</sup>, Febrinasari RP<sup>1,2</sup>, Ahmad RA, Puspita SR, Mashuri YA<sup>1,2</sup>, Primaningtyas W<sup>1,2</sup>,  
Shattuck E, Wijanarko B, Benedictus B<sup>2</sup>, Ibrahim CJ<sup>2</sup>, Tan K<sup>2</sup>, Adiba R<sup>2</sup>, and Probandari A<sup>1,2\*</sup>

<sup>1</sup>*Disease Control Research Group, Faculty of Medicine, Universitas Sebelas Maret,  
Indonesia*

<sup>2</sup>*Department of Public Health and Preventive Medicine, Faculty of Medicine, Universitas  
Sebelas Maret, Indonesia*

<sup>3</sup>*Department of Public Health, Universitas Gadjah Mada, Yogyakarta, Indonesia*

<sup>4</sup>*Department of Public Health, Universitas Negri Malang, Malang, Indonesia*

<sup>5</sup>*Department of Public Health, University of Texas at San Antonio, Texas, USA*

<sup>5</sup>*Department of Public Health, Universitas Diponegoro, Semarang, Indonesia*

[\\*ari.probandari@staff.uns.ac.id](mailto:*ari.probandari@staff.uns.ac.id)

**ABSTRACT**

While the emergency status of the coronavirus disease (COVID-19) is over, the experience of the impact of the pandemic on health is a good lesson to be learned for improving health systems. The lockdown policies during the COVID-19 pandemic can increase sedentary behavior, which is a challenge, especially for people with non-communicable diseases (NCDs) in low and middle-income countries (LMICs). However, there is no systematic knowledge synthesis on the existing intervention related to sedentary behavior during the COVID-19 pandemic. This scoping review mapped out the interventions to reduce sedentary behaviors during the COVID-19 pandemic, particularly in LMICs. This review adhered to the PRISMA-ScR guidelines, with the primary question being “What are the strategies to reduce sedentary lifestyle in LMICs during the COVID-19 pandemic?” We summarized findings from five studies, which were included out of 3185 studies found in the initial search. Three studies described telehealth interventions using social media, digital home exercise, and a video game. One study described an alternative office design to promote physical activity, while another study described the effect of high-greenery neighborhoods on sedentarism. All five interventions were effective in reducing sedentarism, albeit by variable extents. With the persistence of sedentarism post-pandemic and its effect on NCDs, the findings from these studies provide alternatives on how to curb post-pandemic sedentarism and to tackle similar problems if presented with the next inevitable pandemic.

Keywords: sedentarism, pandemic, COVID-19, intervention, telehealth

L12

[87]

**AN INTERESTING CASE OF GUILLAIN-BARRE SYNDROME (GBS) WHICH IS A  
COMPLICATION OF DENGUE FEVER.**

Abraham SE, Chaudhary N, and Suralkar S

*1 Department of Medicine and Surgery, Dr L.H.Hiranandani Hospital, Powai, India.*

*2 Department of Neurology, Dr L.H.Hiranandani Hospital, Powai, India.*

*3 Department of General Medicine and Rheumatology, Dr L.H.Hiranandani Hospital,  
Powai, India.*

*\*[sherylelsa95@gmail.com](mailto:sherylelsa95@gmail.com)*

**ABSTRACT**

Dengue fever is an emerging arboviral disease of great public health importance and has spread to all tropical and subtropical countries. Neurological involvement in dengue fever is quite uncommon. Guillain-Barre syndrome (GBS) is one of the rare neurological manifestations of dengue fever. Method- retrospective analysis of case with acute polyradiculopathy with dengue fever. Result-This is a case study of a 24 years old male who initially came with clinical manifestations of progressive upper and lower limb weakness, initially distal then proximal with mild bulbar symptoms like swallowing difficulty. He was having ongoing fever with Dengue NS1 positive and thrombocytopenia with elevated hepatic enzymes. His Nerve conduction study suggested evidence of sensorimotor demyelinating polyradiculopathy neuropathy affecting both upper and lower limbs. The diagnosis of dengue fever with GBS was made and intravenous immunoglobulin (IVIG) was given for 5 days with physiotherapy. Patient responded well with the treatment. Conclusion- Para infectious dengue associated GBS (polyradiculoneuropathy) is an uncommon neurological complication of dengue infection. GBS has good prognosis, if timely treated.

Keywords: Guillain Barre syndrome, polyradiculopathy, dengue, intravenous immunoglobulin

L13

[88]

**THE EFFECT OF ANXIETY AND DEPRESSION ON PATIENT SATISFACTION  
WITH PRIMARY HEALTHCARE CENTERS**

Adam TM<sup>1</sup>, and Shaaban KM<sup>2</sup>

<sup>1</sup>*Department of community medicine, Faculty of medicine, University of Khartoum, Sudan*

<sup>2</sup>*Department of community medicine, University of Khartoum, Sudan*

*[\\*tm\\_soaim@hotmail.com](mailto:tm_soaim@hotmail.com)*

**ABSTRACT**

Patient satisfaction is used as quality indicator by health care managers. Multiple factors determine patient satisfaction including their mental state. Our aim was to determine the effect of anxiety and depression on patient satisfaction. In a cross-sectional design, 304 participants were selected to fill a questionnaire containing a self-reported assessment of anxiety and depression as well as patient satisfaction questionnaire. 18.4 % of the participants were poorly satisfied, this was most characteristic of those of university education ( $p < 0.05$ ). The lowest satisfaction was observed in time spent with the doctor, accessibility and convenience. Anxiety and depression were reported in 42.4% and 45.4 % respectively. Depression was higher among young, females, and university education ( $p = 0.005$ ), whereas anxiety was more common among those living far from the health center ( $p = 0.029$ ). Regression analysis showed that better satisfaction is more among the less depressed, less anxious, those of lower income and secondary education. In conclusion anxiety, depression, higher education and income predict lower satisfaction with primary healthcare . This data provide a clue on the factors affecting patient satisfaction with primary health care, therefore a mental health screening at the level of primary health care can improve patient satisfaction and ultimately the quality of healthcare.(194 words).

Keywords: primary healthcare, patient satisfaction, anxiety, depression

M1

[89]

## OVERALL SURVIVAL AMONG BREAST CANCER PATIENTS IN A TERTIARY TEACHING HOSPITAL MALAYSIA

Said MA<sup>1\*</sup>, Shaharuddin E<sup>1</sup>, Islam T<sup>2</sup>, Mohd Taib NA<sup>2</sup>, and MyBCC Study Group

<sup>1</sup>*Department of Social and Preventive Medicine, Universiti Malaya, Malaysia*

<sup>2</sup>*Department of Surgery, Universiti Malaya, Malaysia*

[\\*mas\\_ayu@um.edu.my](mailto:mas_ayu@um.edu.my)

### ABSTRACT

The trends and predictors of breast cancer (BC) overall survival (OS) were understudied in Malaysia. Therefore, we aimed to determine the trends and predictors of 6-month, 1-year, 3-year and 5-year OS among the BC patients in Universiti Malaya Medical Center (UMMC). This was a hospital-based retrospective cohort study utilising a data from The Malaysian Breast Cancer Survivorship Cohort (MyBCC). 728 women diagnosed with primary BC in 2012 to 2017 were recruited in this study. Kaplan-Meier analyses were used to determine the trends of OS and Cox regression analyses were used to determine the predictors of OS. The mean age of patients was 56.05 years (SD 11.52). Most of the patients were Chinese (46.3%), were diagnosed with BC stage II (40.4%), had surgery (91.3%), chemotherapy (59.3%), radiotherapy (57.4%) and endocrine therapy (ET) (68.3%). The 6-month, 1-year, 3-year and 5-year OS rates were 99.0%, 97.2%, 85.8% and 63.0%, respectively. At 3-year, women without diabetes mellitus (DM) had better OS (HR for having DM: 2.53, 95% CI 1.07- 5.97). Radiotherapy and ET increased the OS (HRs for without radiotherapy and ET: 3.17, 95% CI 1.41- 7.12; and 4.47, 95% CI 1.84 - 10.87, respectively). At 5-year, progesterone receptor (PR)-positive women had an increased survival rate (HR for PR-negative: 2.03, 95% CI 1.13-3.63). Women who undergone radiotherapy and ET were found to have lived longer than those who did not (HRs for without radiotherapy and ET: 1.93, 95% CI 1.10-3.37; and 2.26, 95% CI 1.19-4.30, respectively). Focused management of comorbidities and therapies were proven to increase survival. The findings from this study would help to improve the future management of BC patients.

Keywords: breast cancer, survival, predictors

M2

[90]

**BREAST CANCER FINDING AFTER SCREENING AND EARLY DETECTION  
PROGRAM IN DHARMAIS NATIONAL CANCER CENTER HOSPITAL 2020-2022**

Andinata B<sup>1\*</sup>, Bachtiar A<sup>2</sup>, Partahi JR<sup>3</sup>, and Dini MSA<sup>4</sup>

*<sup>1</sup>Department of Surgical Oncology, Dharmais Cancer Hospital - National Cancer Center,  
Jakarta, Indonesia*

*<sup>2</sup>Health Policy Administration Department, Faculty of Public Health, University of  
Indonesia, Jakarta, Indonesia*

*<sup>3</sup>General Practitioner, Dharmais Cancer Hospital - National Cancer Center, Jakarta,  
Indonesia*

*<sup>4</sup>Department of Surgical Oncology, Dharmais Cancer Hospital - National Cancer Center,  
Jakarta, Indonesia*

*[\\*bobandinata@gmail.com](mailto:*bobandinata@gmail.com)*

**ABSTRACT**

Introduction: Breast cancer remains the most frequently diagnosed cancer globally, often diagnosed at advanced stages due to limited access to screening and diagnostic equipment. Population-wide breast cancer screening programs aim to reduce breast cancer-related mortality. Common imaging modalities include mammography and ultrasonography (USG), with the World Health Organization (WHO) recommending mammography screening every two years. This study aimed to determine the number of breast cancer cases detected through screening and early detection at the Early Detection & PKRS Installation of Dharmais Cancer Hospital from 2020 to 2022. Method: This quantitative descriptive study utilized a cross-sectional design and was conducted at the Early Detection & PKRS Installation of Dharmais Cancer Hospital from February 2023 to October 2023, involving 1617 patients. Result: Among all patients undergoing early detection of breast cancer, an incidence of 75 (4.6%) cases of breast cancer was identified. The majority of patients' motivation for early detection was categorized as medical check-up, comprising 1072 (66.3%) patients. Early detection revealed abnormal findings in 879 (54.4%) patients, with solid benign abnormalities being the most prevalent radiological finding, affecting 470 (29.1%) patients. Open biopsy was the most common diagnostic method for breast cancer, performed in 54 (72.0%) patients. The highest age category diagnosed with breast cancer was 40–49 years, with a total of 31 (41.3%) patients. Additionally, 12 (16.0%) breast cancer patients had a family history of breast/ovarian cancer. Conclusion: This study highlights that only a small proportion of breast cancer screening and early detection programs result in breast cancer diagnosis. Lack of motivation for early detection is identified as a contributing factor to the low incidence of detected breast cancer cases. Implementation of effective breast cancer screening and treatment programs can help reduce breast cancer mortality rates.

Keywords: breast cancer, screening and early detection program, incidence

M3

[91]

**CERVICAL CANCER SCREENING: ANALYSIS OF COVERAGE,  
PARTICIPATION TRENDS AND FACTORS ASSOCIATED WITH VISUAL  
INSPECTION WITH ACETIC ACID POSITIVITY IN SADARPUR, FARIDPUR  
(2021-2023)**

Suma SA<sup>1,2\*</sup>, Islam MF<sup>1</sup>, Zaki QA<sup>1</sup>, Ashrafi SAA<sup>3</sup>, Nessa A<sup>4</sup>, and Shirin T<sup>1</sup>

<sup>1</sup>*Institute of Epidemiology, Disease Control and Research (IEDCR), Dhaka, Bangladesh*

<sup>2</sup>*Upzilla Health Complex, Sadarpur, Faridpur.*

<sup>3</sup>*Management Information System, Director General of Health Services, Bangladesh*

<sup>4</sup>*National Centre for Cervical & Breast Cancer Screening & Training, Bangabandhu Sheikh  
Mujib Medical University (BSMMU), Dhaka, Bangladesh.*

[\\*sumaya.suma16@gmail.com](mailto:sumaya.suma16@gmail.com)

**ABSTRACT**

Cervical cancer (CC) is the second most common cancer among females in Bangladesh (13.3%), with 9,640 new cases and 5,826 deaths in 2022. Active Surveillance of the CC by Visual Inspection with Acetic Acid (VIA) in 30-60 years married women were conducted under The Electronic Data Tracking with Population Based Cervical & Breast Cancer Screening Programme (EPBCBCSP) in Bangladesh from 2018. This data analysis aimed to assess coverage, participation trends, and factors associated with VIA positivity. This secondary data analysis was conducted using EPBCBCSP data of Sadarpur Upazila (2021-2023) by extracting from the District Hospital Information System 2. Coverage was calculated using population data from the Bangladesh Bureau of Statistics. Descriptive analysis conducted and Chi-square and Fisher's exact tests assessed associations between sociodemographic and reproductive variables with VIA positivity. Out of 2,702 participants, 69.0% attended CC screening in 2023, followed by 19.10% in 2022 and 11.81% in 2021. Participation was highest in December and March, and lowest in April and May. Overall screening coverage was 6.7%, with the highest in Char Bishnupur Union (13.93%) and the lowest in Narikelbaria (0.49%) and Char Manair (0.60%). Most participants were aged 30-39 (45.78%), with a mean age of 41.23 years (SD 7.88). About half had primary education (48.98%), and their median monthly family income was 15,000 BDT (IQR: 10,000-30,000). Only 15 (0.56%) were VIA positive. Educational status, monthly family income, age at marriage, and first delivery were associated with VIA positivity ( $P < 0.05$ ). Despite overall low coverage and lowest in hard to reach area CC Screening is increasing over time in sadarpur. VIA positivity was low, and associated with educational status, monthly family income, age at marriage, and age at first delivery. Screening campaign and awareness programme focusing hard to reach area is recommended to increase participation.

Keywords: cervical cancer, screening, Bangladesh, coverage

M4

[92]

## A COMPREHENSIVE CASE STUDY OF NAVIGATING THE CHALLENGES OF HEREDITARY SPASTIC PARAPARESIS

More NS, and Panvalkar AS\*

*Department of Medicine, Associate Professor, India*

*Department of Medicine, Intern, India*

\*[ajitpanvalkar@gmail.com](mailto:ajitpanvalkar@gmail.com)

### **ABSTRACT**

Hereditary Spastic Paraparesis (HSP) is an amalgamation of inherited single-gene neuronal degenerative and developmental diseases characterized by progressive lower limb weakness and spasticity. HSP is a group of clinically and genetically heterogenous disorders characterized by progressive spasticity and weakness of the lower extremities. Its prevalence varies from 1.2 to 9.6/100000. Navigating the complexities of HSP poses a significant challenge for patients and healthcare providers due to its varied genetic causes, heterogenous clinical manifestations, and limited therapeutic options. This comprehensive case study delves into the multifaceted nature of HSP and the individualized approach necessary for its effective management. Through detailed patient histories, genetic analysis and treatment outcomes, this research highlights the importance of personalized medicine, multidisciplinary care and the potential of emerging therapies. The findings underscore the need for enhanced diagnostic techniques, patient centred care strategies and ongoing research to improve the quality of life for those affected by HSP. By examining these case studies, we aim to provide valuable insights into the clinical and genetic landscape of HSP, facilitating better diagnosis, treatment and support for patients navigating through the challenge. Presenting herewith a 15 years old Indian male presenting with bilateral weakness and stiffness in the lower limbs coexisting with mild intellectual disability and difficulty of speech. Delay in the developmental milestones was noted. MRI Brain studies were suggestive of characteristic 'Ear of Lynx' sign and subsequent genetic testing revealed a mutation in the SPG11 gene. Treatment was aimed at symptomatic relief with Antispasticity drugs and Physiotherapy aimed at improving Range of Motion (ROM) and Muscle Strength.

Keywords: heterogeneity, spasticity, individualised, multidisciplinary, genetic



M5

[93]

## IMPORTANCE OF SPACING BETWEEN PREGNANCIES: A CASE REPORT OF ANEMIA COMPLICATING PREGNANCY

Harini S\*

*Government tiruvannamalai medical college & hospital, Tiruvannamalai, India*

*[\\*drsriharini@gmail.com](mailto:drsriharini@gmail.com)*

### **ABSTRACT**

Iron deficiency anemia complicate nearly 37% of pregnant women globally<sup>1</sup>, negatively impacting both maternal and fetal outcomes. Iron deficiency anemia is associated with major complications including postpartum hemorrhage, maternal death, preterm birth and developmental delay in children. Despite the prevalence and consequences, it is routinely undertreated due to delayed diagnosis. However, oral iron supplementation is often ineffective at preventing and treating iron deficiency due to its low bioavailability. Intramuscular or Intravenous iron formulations are administered in a single or multiple dose in later trimesters and severely anemic women. Description of a clinical case from a rural area in India, a case of iron deficiency anemia in pregnancy. The objective of this work is to demonstrate the importance of preconceptional screening of hemoglobin level and adequate spacing between child birth. **METHOD:** Retrospective analysis of a case of anemia complicating pregnancy. **RESULT:** A case of 24-year-old female came with history of 2 months of amenorrhea with Ultrasound suggestive of 9 weeks of single intrauterine gestation complains of fatigability and breathlessness on exertion. Obstetric history of normal vaginal delivery, a year back. On examination, pallor present and She had hemoglobin of 7.8 grams per deciliter. She was started on iron and folic acid supplements. She was reviewed with Hemoglobin of 8.2 during the second trimester. Thus, she was given 4 doses of intravenous iron sucrose and her anemia was corrected during last trimester after 6 doses of iron sucrose and packed red blood cell transfusion. **CONCLUSION:** Adequate spacing between pregnancies for atleast 3 year would replenish iron stores reducing the incidence of anemia complicating pregnancy and preconception screening of hemoglobin will also be helpful in early Diagnosis and treatment of anemia in pregnancy

**Keywords:** anemia, pregnancy, iron deficiency, iron supplements, intravenous iron formulations, blood transfusion, preconception screening, adequate spacing

M6

[94]

**INCREASING ADOLESCENTS' ACCESS TO CONTRACEPTIVE METHODS  
THROUGH COMMUNITY OUTREACHES IN HARD-TO-REACH LAGOS URBAN  
SLUMS**

OAlere M\*, Daini BO, Ohemu BO, and Akin-Kolapo B

*USAID Youth-Powered Ecosystem to Advance Urban Adolescent Health, DAI Nigeria*

*\*[Mojisola\\_alere@dai.com](mailto:Mojisola_alere@dai.com)*

**ABSTRACT**

**Background:** Contraceptive prevalence rate remains low in Nigeria among married and sexually active unmarried women. Poor access to contraceptive methods remains a major barrier to contraceptive uptake, especially in urban slums. This study examined the role of community outreaches in increasing access to contraceptive methods for out-of-school adolescents living in Lagos urban slums between July and Dec 2023. **Methods:** The intervention recruited multi-cadre health care providers (MCPs) trained to provide adolescent friendly health services in hard-to-reach communities. Data on age, demography, knowledge about contraception, reproductive history, and contraceptive use was collected using adolescent sexual and reproductive health register. **Results:** Numbers reached were 1778 contraceptive methods and 1687 new acceptors. A baseline of 67% new contraceptive users and 95% new contraceptive users were recorded within 6 months of the intervention. **Conclusion:** Health providers should prioritize functioning out of health systems to reach marginalized populations who lack the means to access healthcare within health system settings.

Keywords: adolescents, contraceptive methods, outreaches

M7

[95]

**PERCEPTIONS, USES AND BENEFITS OF HERBAL MEDICINES IN THE  
TREATMENT OF UTERINE FIBROIDS IN BLACK WOMEN IN SOUTH AFRICA:  
A QUALITATIVE STUDY**

Mbanda NMP\*

*Deputy Dean, Research, IIE Varsity College, National, South Africa*

*[\\*nmbanda@varsitycollege.co.za](mailto:*nmbanda@varsitycollege.co.za)*

**ABSTRACT**

Background: Uterine fibroids (UF) affect approximately 70% of women in their reproductive years and whilst the exact aetiology is not known, theory points to environmental and hormonal factors. Studies on racial disparity of fibroids indicate that Black women are three times more at risk of being diagnosed than other racial groups. Despite this, Black women are underdiagnosed and undertreated for this condition. Most available trusted medical treatments and public health policy excludes women with fertility issues who intend to retain their uterus, making women consider alternatives such as herbal medicines. Purpose: This study aimed to explore the perceptions, uses and benefits of herbal medicines amongst women diagnosed with UF in South Africa. Methods: Structured interviews were administered to two herbal medicine suppliers and 12 of their clients. The purposive sample was selected through snowball sampling and referral. Data was analysed through thematic analysis and themes identified to make conclusions about the experiences of the women. Findings: Identified patterns were; combating symptoms of fibroids, regulating menstrual cycle, aiming to shrink fibroids, retaining fertility, and avoiding surgery. Key themes included affordability, fibroid size reduction, avoiding returning fibroids, improving chances to conceive, improvement of reproductive health and use of herbs as prevention. Over and above their proven ability to reduce tumours and cancers herbal medicines are affordable and effective in shrinking of fibroids, improving fertility, and regulating menstrual cycle. Recommendations: Further studies are needed to investigate the correlation between reduced symptomology, a placebo effect and evaluating their mechanism of action and their associated safety profile of herbal medicines

Keywords: black women, sexual reproductive health, uterine fibroids, herbal medicine

M8

[96]

## THE IMPACT OF WIDELY PRESCRIBED MEDICATIONS ON FEMALE FERTILITY: DOCUMENT ANALYSIS OF REGULATORY STANDARDS

Aivazona A<sup>1\*</sup> and Itua I<sup>2</sup>

<sup>1</sup>*Fertility education & consulting, Düsseldorf, Germany*

<sup>2</sup>*Faculty of Health Studies, University of Bradford, Bradford, UK*

[\\*Aivazova\\_a@yahoo.com](mailto:Aivazova_a@yahoo.com)

### ABSTRACT

Medication safety is paramount in women's reproductive health. Despite this, medication instructions often lack information on ovulation and fertility impact, even when the drug's mechanism suggests potential interference. Document analysis on registered drugs based on international regulatory requirements was conducted on 65 commonly prescribed drugs documents registered and published on official websites. Included in the document analysis were Food and Drug Administration, European Medicines Agency, Medicines and Healthcare Products Regulatory Agency, Rote Liste, and Russian State Register of Medicines. Several commonly prescribed medications were found to contain contraindication information on their medication instruction. Amongst these were Nonsteroidal anti-inflammatory drugs, noted to disrupt ovulation due to prostaglandin inhibition, antidepressants such as SSRIs and SNRIs which were noted to affect ovulation and fertility through allopregnanolone level alterations and Cimetidine noted to be an H2 histamine receptor antagonist noted to have impact on fertility. Medication instruction varied on fertility impact for Ibuprofen, naproxen, diclofenac and ketoprofen. Medication instructions inconsistently addressed fertility impact, highlighting a need for regulatory bodies to standardize information inclusion. This also highlighted a need for medication instructions to have fertility impact information as well as have a designated section for fertility details. There is also a need to establish a public database for pharmaceutical effects on fertility.

Keywords: medication instruction, fertility, ovulation, document analysis

M9

[97]

**GENDER-BASED VIOLENCE AND THE HEALTH AND WELL-BEING OF  
ADOLESCENTS AND YOUNG PEOPLE: IMPLEMENTING USING THE  
VULNERABILITY RISK ASSESSMENT TOOL**

Akanegbu C, Ufia MN\* and Daini B

*Monitoring & Evaluation, USAID Youth Powered Ecosystem to Advance Urban Adolescent  
Health, Nigeria*

[\\*mfonabasinancy@gmail.com](mailto:mfonabasinancy@gmail.com)

**ABSTRACT**

For young people, both male and female, gender-based violence is a menace causing physical impairment such as bruises, organ damage, dislocations, permanent injury, and/or disfigurement. Emotional and sexual damage caused can result in suicidal thoughts, maternal death, substance abuse, social stigma, STIs including HIV/AIDS, social rejection, and isolation. Establishing the fact that gender inequality serves as a breeding ground for GBV, the project caters to screening for both male and female adolescents using the Vulnerability Risk Assessment (VRA) Tool, granting them access to counselling from well-trained health service providers, offering livelihood opportunities, and establishing partnerships with relevant stakeholders at the government level. The project took place in selected communities of Lagos and Kano state, Nigeria. A total of 12,211 girls and 6,787 boys have received counselling on Gender Based Violence (GBV) from health service providers at the hubs; using the VRA tool, 542 girls, 885 boys were screened for GBV. Thirty-six adolescents have been referred to the spoke facilities for GBV related cases. To prevent GBV, 14,893 adolescents have accessed Family Planning services while 892 adolescents have been granted livelihood opportunities on the project to advance their health and wellbeing. The VRA tool is utilized by health service providers, on willing/consenting first line clients as part of a push strategy for GBV screening. Project implementation has revealed that the sessions on self-esteem, financial literacy and leadership skills builds the resolve of the adolescents and young people and keeps them unsusceptible to GBV. These best practices utilizing the VRA form, livelihood opportunities, safe spaces, access to one-on-one counselling and Family Planning (FP) services, SKILLZ sessions on leadership, and access to government parastatals are exigent tools to combatting GBV and ensuring improved health and wellbeing for the adolescents to becoming more for themselves and their societies. This abstract is a part of an ongoing intervention that includes service providers within a system that provides services for adolescents on FP, GBV and substance abuse.

Keywords: adolescents, dating, intimate partner violence, sexual harassment, rape

M10

[98]

**FACTORS INFLUENCING THE ACCESS AND UTILIZATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY ADOLESCENTS IN BAFUT HEALTH DISTRICT: A CROSS SECTIONAL COMMUNITY BASED STUDY**

Ndongmanji EN<sup>1</sup>, Peter FN\* and Vincent SV<sup>2</sup>

<sup>1</sup>*Public Health and Hygiene, Health Sciences, University of Buea, Cameroon*

<sup>2</sup>*Public Health and Hygiene, University of Buea, Cameroon*

[\\*ndongmanjieunice7@gmail.com](mailto:*ndongmanjieunice7@gmail.com)

**ABSTRACT**

Sexual and reproductive health (SRH) of adolescents is a pressing concern, because the world has a larger population of adolescents now. Adolescents remain susceptible to sexual and reproductive ill health as they often have unprotected sex and find access to services difficult or denied. This study assessed the factors influencing access and utilization of sexual and reproductive health services (SRHSs) by adolescents in Bafut Health District. Using a cross-sectional community-based study, 384 adolescents between age 10 to 19 years were administered standardized questionnaires. MS-Excel and SPSS were used to analyze data. Bivariate analysis was used to establish relationships between variables at 95% confidence interval (CI) and statistical level of significance was set at  $P < 0.05$ . Results indicated 59.9% of adolescents had no knowledge on SRH. Adolescents had SRH concerns such as early sexual debut, early/forced marriages, STIs, HIV/AIDS, unplanned pregnancies and unsafe abortions. School was cited as the main source of information [ $X^2 = 11.569$ , 95 CI: (0.000 – 0.012),  $p = 0.009$ ]. Adolescents were aware of some SRHSs and at least one health facility offering SRHSs (77.3%). The access and utilization rate of SRHSs by adolescents was very low (15.6%) due to age, fear, shame, judgmental attitude of health personnel. Health care setting barriers (46.2%), socio-cultural (60.9%), socio-economic (48.9%), and interpersonal factors (5.2%) influenced access and utilization of SRHSs. Findings suggest the need for setting up health facilities for adolescents, improving the rate of SRH sensitization for both boys and girls, offering affordable SRHSs, ensuring privacy. Hence, a need in the development of target specific interventions that will guide and encourage access and utilization of SRHSs by the adolescents.

Keywords: sexual, reproductive health, adolescents, Bafut

M11

[99]

**THE CONTRIBUTION OF CO-PRODUCTION TO PATIENT SAFETY: A  
SYSTEMATIC LITERATURE REVIEW**

Sari YK\*, and Sjaaf A

*Department of Administration and Policy, Faculty of Public Health, Universitas Indonesia,  
Indonesia*

*[\\*drgyudithakemala@gmail.com](mailto:drgyudithakemala@gmail.com)*

**ABSTRACT**

According to WHO 2023, in low- and middle-income countries, as many as 4 out of 100 people die because of unsafe care. More than 50% of injuries (1 in 20 patients) are preventable, half of these injury events are treatment-related. Some estimates suggest that as many as 4 out of 10 patients are harmed in primary and outpatient settings, while up to 80% (23.6-85%) of these harms could be avoided. There have been various initiatives to improve patient safety, including "engaging" patients, but have not "empowered" patients more deeply. The concept of co-production is important in making patients more empowered in patient safety efforts. This systematic literature review aims to explore the concept of co-production in patient safety as defined and utilized within health literature, its contribution to patient participation in managing their own health risks and enhancing patient safety awareness, and the outcomes of patient involvement in co-production on patient safety. This SLR process begins with the identification of relevant literature sources through searches in the trusted databases Springer, PubMed, and BMC, using predetermined keywords: co-production, safety, patient, and healthcare. Strict inclusion criteria were implemented to ensure that only articles in English that were of high quality and relevant to the research topic, published between 2019 and 2024, were included in the analysis. Furthermore, this study uses the PRISMA 2020 framework. The findings suggest that co-production significantly contributes to patient empowerment in managing health risks and raising awareness about safety, leading to improved healthcare quality, patient satisfaction, compliance with treatment, and overall better health outcomes. These results underline the transformative potential of co-production in healthcare, emphasizing the importance of adopting co-production approaches in planning and delivering healthcare services to achieve optimal patient safety.

Keywords: co-production, health risk management, healthcare quality, patient safety

N1

[100]

**OVARIAN TERATOMA-INDUCED ANTI - NMDAR AUTOIMMUNE  
ENCEPHALITIS- A CASE STUDY**

Thomas KP\*

*Emergency Medicine, Welcare Hospital, Kerala, India*

*[\\*praisytkalathil@gmail.com](mailto:praisytkalathil@gmail.com)*

**ABSTRACT**

Autoimmune reactions are the third most common cause of encephalitis after infections (mostly viral) and acute disseminated encephalomyelitis. The most frequent form of autoimmune encephalitis is caused by antibodies against NMDAR. Anti-NMDAR encephalitis affects mostly women with Ovarian teratoma. Since psychiatric symptoms are dominant, many patients are admitted to psychiatry under the assumption of acute psychosis which often delays diagnosis. Basic diagnostic assessment includes brain MRI, electroencephalograms (EEG), analysis of cerebrospinal fluid (CSF), and imaging of the abdomen and pelvis. The current standard treatment includes the removal of teratoma or other tumors, when applicable, followed by immunotherapy. Most patients are treated with intravenous steroids, intravenous immunoglobulins, or plasma exchange as the first-line treatment option and if no improvement is noted, second-line treatment options like intravenous rituximab and cyclophosphamide are used. This paper describes a young female patient presented with psychiatric symptoms, found to have an ovarian teratoma upon further evaluation and evidence of NMDA positivity on immuno analysis. This case narrates how the patient was treated, the complications after initiating the treatment and how it was managed. It also describes the course of the disease and how early diagnosis helped in the prognosis. The patient survived following treatment and showed excellent progress following physiotherapy.

Keywords: autoimmune encephalitis, teratoma, NMDA



N2

[101]

## ASSOCIATION BETWEEN CHOLECYSTECTOMY AND COLORECTAL CANCER

Adithya S<sup>1</sup>, Dr Sreekar Agumbe Pai<sup>1</sup>, Advait N Rao<sup>2</sup>, and Anisha D<sup>3</sup>

<sup>1</sup> MBBS Student, Ramaiah Medical College, India

<sup>1</sup> Associate Professor, Department of General Surgery, Ramaiah Medical College, India

<sup>2</sup> MBBS Student, Ramaiah Medical College, India

<sup>3</sup> MBBS Student, Ramaiah Medical College, India

\*[mailadi2302@gmail.com](mailto:mailadi2302@gmail.com)

### ABSTRACT

**Aim:** To find the association between cholecystectomy and colorectal cancer. **Methodology:** This is a case control study which consisted of 138 cases and 140 controls. This study was conducted with the ethical approval of the ethics committee and has also received the ICMR sts grant. Data of 138 patients who were diagnosed with colorectal cancer in the last 5 years were analyzed for a history of cholecystectomy. All patients who had undergone a cholecystectomy for other GI cancers or metastasis were excluded. Those who developed colorectal cancer within a year of their cholecystectomy were excluded from the study to minimize protopathic bias. The control group was composed of healthy individuals. Data extracted was organized in microsoft excel and was analyzed about the main objective. Chi-square test was used to find the association between cholecystectomy and colorectal cancer. **Results:** The percentage of cholecystectomy in the colorectal cancer group was 6.5% vs 2.1% in the control group (P value = 0.072). There were no statistically significant associations between diabetes, hypertension, CKD, alcohol intake or smoking and the incidence of colorectal cancer. **Conclusion:** Based on our study, there is no evidence to support an association between colorectal cancer and cholecystectomy.

**Keywords:** cholecystectomy, colorectal cancer, association, case control study, bile acid carcinogenesis

N3

[102]

**COMPARING THE EFFECTIVENESS OF SILVER DIAMINE FLUORIDE AND FLUORIDE VARNISH IN CARIES ARREST AMONGST PRIMARY SCHOOL PUPILS IN RURAL ZIMBABWE.**

Chifamba T<sup>1\*</sup>, Mutengerere A<sup>1</sup>, Nyandoro T<sup>1</sup>, Madzeke K<sup>1</sup>, Ruckstuhl L<sup>2</sup>, and Mudzviti G<sup>3</sup>

<sup>1</sup>*SolidarMed, Zimbabwe*

<sup>2</sup>*SolidarMed, Switzerland*

<sup>3</sup>*Ministry of Health and Childcare, Zimbabwe*

[\\*t.chifamba@solidarmed.ch](mailto:t.chifamba@solidarmed.ch)

**ABSTRACT**

Dental caries disproportionately affects persons of low socioeconomic status. In rural Zimbabwe, where access to oral health services is limited, cost-effective means to manage dental caries are essential. Fluoride treatments have been used to arrest carious lesions as they encourage remineralization rather than demineralization. This study compared the efficacy of silver diamine fluoride vs sodium fluoride in arresting dental caries in conjunction with an oral health education program. A two-arm quasi-experimental trial was conducted with eleven to twelve-year-old pupils in the rural districts of Bikita and Zaka in Masvingo province, Zimbabwe. Nine schools were randomly assigned to two intervention groups to receive biannual applications of either silver diamine fluoride or sodium varnish. Additionally, participants received oral health education, toothbrushes and toothpaste every six months. Out of the 1,010 pupils assessed (465 males: 545 female), 63.4% (n=640) had dental caries. Fluoride treatments were administered to 584 of these pupils. Out of those treated, 244 received fluoride varnish and 264 received silver diamine fluoride, with both groups receiving clinical assessments months after each dose of fluoride. Six months after the first dose, 59% (353/597) of caries in the fluoride varnish group and 78% (473/609) in the silver diamine fluoride group had been arrested. After a second dose, the rate of caries arrested increased to 87% (519/597) for fluoride varnish and 93% (568/609) for silver diamine fluoride at the six-month mark. The distribution in the groups differed significantly at the midline (Mann-Whitney U = 22781, p < .001 two-tailed, n1=244, n2=264, r=.295) and at the endline (Mann-Whitney U = 27775, p < .001 two-tailed, n1=244, n2=264, r=.138). The study concludes that silver diamine fluoride is more effective than sodium fluoride varnish in arresting dental caries. Considering its efficacy, it presents a cost-effective approach for managing dental caries among pupils in rural settings in Zimbabwe.

Keywords: Fluoride, dental caries, oral health, health education, non-communicable diseases

N4

[103]

**PREVALENCE OF OVERWEIGHT AND OBESITY AMONG DOCTORS UNDER 40 YEARS OF AGE IN A TERTIARY HOSPITAL IN KERALA- A CROSS SECTIONAL STUDY**

Thomas KP\*

*Emergency Medicine, Medical Officer,*

*Welcare Hospital, Kerala, India*

*[\\*praisytkalathil@gmail.com](mailto:praisytkalathil@gmail.com)*

**ABSTRACT**

Obesity is emerging as a serious problem throughout the world. Of the factors contributing to obesity, irregularity in diet, lack of exercise, sedentary work style, lack of sleep, and fast-food consumption, each being considered an independent factor leading to obesity. Doctors being more prone to each of these contributing factors mainly due to their long hours of work, are more likely to develop obesity at an early age, although they know about it. To deliver high quality health care to the patients and the community, and to experience medicine as a rewarding and satisfying career, doctors need to be well. This study evaluates the proportion of doctors who have a Body Mass Index between 25 -30 and above 30 and identifies the factors associated with overweight and obesity among 152 doctors under 40 years of age working in a tertiary hospital in Kerala. The study also evaluates the reliability of waist and hip circumferences and waist-to-hip ratio (WHR) to assess obesity. The study revealed a significant correlation between overweight and obesity in young doctors with their busy lifestyles. In our study population about 35% are overweight and 3.95% are obese. Obesity was found to be moderately positively correlated with irregularity in diet( $r=0.66$ ), sedentary lifestyle (0.72), lack of sleep (0.78) and fast-food consumption (0.75).

Keywords: overweight, obesity, young doctors, lifestyle diseases

N5

[104]

**PREVALENCE OF METABOLIC SYNDROME AND PREVENTABLE RISK  
FACTORS IN MEN IN INDONESIA**

Anggraini K<sup>1\*</sup> and Kamsu S<sup>2</sup>

<sup>1</sup>*Doctoral Program, Faculty of Public Health, Universitas Indonesia, Indonesia*

<sup>2</sup>*Faculty of Public Health, Universitas Indonesia, Indonesia*

[\\*kirana\\_anggraeni@trisakti.ac.id](mailto:kirana_anggraeni@trisakti.ac.id)

**ABSTRACT**

The incidence of metabolic syndrome (MetS) is increasing in all populations worldwide. The prevalence of MetS is higher in men than in women. Available data regarding the association between MetS and preventable risk factors in men are limited. This study aims to determine the prevalence of MetS in 38 provinces in Indonesia, as well as preventable risk factors in men. The study design is cross sectional in men aged 35 – 65+ years, using secondary data from RISKESDAS in 2007, 2010, 2013 and 2018. MetS was defined based on the International Diabetes Federation (IDF) and National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP III) criteria. Preventable risk factors for MetS include hypertension, hyperglycemia, central obesity, dyslipidemia, history of smoking, history of alcohol consumption, and physical activity. Descriptive and inferential statistics were performed using SPSS version 22.0. Multivariate models were generated to determine risk factors associated with MetS. Statistical significance was set at p value <0.5. Central obesity, diabetes, hyperlipidemia, hypertension and hypertriglyceridemia were significantly associated with MetS. The prevalence of MetS was found to be significantly higher in individuals with low physical activity and moderate smoking. The conclusion of this study clearly shows that the prevalence of MetS in men in Indonesia has significantly increased from year to year. The findings of this study will help design prevention programs to control the increasing prevalence of MetS in Indonesia.

Keywords: metabolic syndrome, risk factors, men, IDF

N6

[105]

## CASE REPORT ON ACUTE UPPER GASTROINTESTINAL BLEEDING

Nikhita BL\*

*Department of Surgery, Gandhi hospital, India.*

[\\*lakshminikhitha72@gmail](mailto:*lakshminikhitha72@gmail)

### **ABSTRACT**

Definition: Bleeding originates from gastrointestinal (GI) tract proximal to ligament of Treitz  
Presentation: Hematemesis (vomiting of bright red (fresh) coffee ground (old) → melena, Melena (black tarry foul smelling stools), Hematochezia (bright red stool per rectum), bleeding through Ryle's tube (in hospitalised patients).  
Causes: Non variceal bleeding (80%): peptic ulcer disease, Mallory Weiss tear, gastritis or duodenitis, esophagitis, A-V malformation, tumours. Variceal bleeding (20%): gastroesophageal varices, portal hypertensive gastropathy, isolated gastric varices, other uncommon causes: hemobilia, aortoenteric fistula, etc.  
Upper GI bleed initial goals: 1. Detailed patient assessment with hemodynamic resuscitation and identification of co-morbid conditions 2. Diagnosis the cause of bleeding 3. Specific measures to achieve hemostasis and to prevent rebleeding. During history taking, attention should be given to comorbidities. A detailed review of current medications should be performed, Patients may also present with syncope or orthostatic hypotension if bleeding is severe enough to cause hemodynamic instability. Search for evidence of chronic liver diseases such as palmar erythema, spider angiomas, gynecomastia, jaundice, and ascites.  
Evaluation: Initial laboratory work must include a complete blood cell count (CBC) to look for current levels of haemoglobin, hematocrit, and platelets. Elevated BUN/Creatinine can also be indicative of UGIB. Coagulation panel should also be checked.  
Treatment: The diagnosis and management of a UGIB is with an interprofessional team that includes the emergency department physician, gastroenterologist, surgeon and an internist. The initial steps in resuscitation should follow the ATLS protocol. Upper endoscopy should be offered within 24 hours to help diagnose the source of bleeding and help further guide management if needed.

Keywords: upper GI bleed, goals, comorbidities, endoscopy

N7

[106]

**ATTITUDES OF FAMILY INVOLVEMENT IN NURSING CARE AMONG  
SECOND-YEAR NURSING STUDENTS: COMPARISON BETWEEN  
TWO SELECTED SCHOOLS OF NURSING IN SRI LANKA.**

Dilrukshi KT<sup>1\*</sup> and Amarasekara TD<sup>2</sup>

<sup>1</sup>*Faculty of Graduate Studies, KAATSU International University, Sri Lanka.*

*tharudilruk17@gmail.com*

<sup>2</sup>*Faculty of Allied Health Sciences, University of Sri Jayewardenepura, Sri Lanka.*

*thamara@sjp.ac.lk*

*\*[tharudilruk17@gmail.com](mailto:tharudilruk17@gmail.com)*

**ABSTRACT**

Family members as care partners is key to delivering quality care. The study aimed to compare the attitudes of family involvement in care, among second-year Student Nurses (SNs) between two selected Schools of Nursing (SON) in Sri Lanka. Descriptive cross-sectional study conducted among purposively selected SNs (N=533) at SON Kalutara (SON 01, n=217) and SON Colombo (SON 02, n= 316). Families' Importance in Nursing Care – Nurses' Attitudes (FINC-NA) scale, which includes four dimensions: family as a conversational partner (Fam- CP), a coping resource, a resource in nursing care (Fam-RNC), and a burden, was used with author permission, to collect data. The scale's internal consistency was compared and assessed through Cronbach's alpha coefficient of more than 0.7. Descriptive statistics was used. Attitude towards family involvement in nursing care significantly differ for SON 01 and SON 02 ( $t(518.48) = 3.33, p=0.001$ ). SNs at SON 01 shows higher positive attitude toward family involvement in nursing care (mean= 99.92, SD=8.23) than SON 02 (mean = 97.25, SD=10.26). As subscales: Fam-RNC ( $t(509.73) = 3.34, p=0.001$ ) and Fam-CP ( $t(518.94) = 2.86, p=0.004$ ) are significantly differ for SON 01 and SON 02. SNs at SON 01 shows higher positive attitude toward Fam-RNC (mean= 38.47, SD=4.10) than SON 02 (mean = 37.16, SD=4.88) and SON 01 shows higher positive attitude toward Fam-CP (mean= 31.50, SD=3.25) than SON 02 (mean = 30.6, SD=4.06). SNs attitudes can rely on the clinical setting and clinical exposure. Predictive factors toward attitudes toward family involvement remain investigate. Further research is needed on this phenomenon.

Keywords: attitude, family involvement, Sri Lanka, study setting, student nurses

N8

[107]

## SELF-MANAGEMENT OF LONG COVID FATIGUE: A QUALITATIVE RESEARCH

Luo L<sup>1,2,3\*</sup>, Duan S<sup>1,2</sup>, Zhang X<sup>1,2</sup>, Deng Y<sup>1,2</sup>, Ding L<sup>1,2</sup>, and Chan S<sup>1</sup>

<sup>1</sup>*School of Nursing, The Hong Kong Polytechnic University, Hong Kong, China*

<sup>2</sup>*Institute for Disaster Management and Reconstruction, Sichuan University – The Hong Kong Polytechnic University, Sichuan, China*

<sup>3</sup>*Deyang People's Hospital, Sichuan, China*

\*[22035298g@connect.polyu.hk](mailto:22035298g@connect.polyu.hk)

### ABSTRACT

Fatigue is the most common symptom in patients with long COVID, with a global incidence of 58%. Long COVID fatigue has a negative impact on people's physical and mental health, social functioning and productivity, as well as quality of life. Due to its pervasiveness and that post-COVID fatigue has not been considered a disease, most sufferers resorted to haphazard self-diagnosis and self-treatment. The objectives of this study are to identify the self-management strategies adopted by those with long COVID fatigue, their information-gathering behaviors and expectations for the healthcare system to enhance their ability in dealing with the fatigue. This is a qualitative study involving 21 adults with fatigue symptoms for more than 4 weeks following COVID-19 infection. They were recruited through the Internet. Semi-structured face-to face interviews were used to collect data. Content analysis was used to yield findings. Subjects sought information through four different channels: 1. Social media; 2. Advertisements; 3. Family and friends; 4. Academic literature to verify symptoms and find appropriate treatment for their fatigue symptoms. Subjects tried increasing rest and sleep to reduce lethargy; eating 'good' food to improve cellular immunity; adopting mild exercises to improve energy and general well-being; taking body massage and listening to music to achieve deep relaxation; and using Traditional Chinese Medicine or pain killers to deal with bodily discomfort. Subjects were eager for empowerment through more professional guidance and free online consultation. They expected better understanding from their employers to allow more flexibility at work, more days-off, and reduced night shifts. Healthcare professionals are in an optimal position to provide accurate and much needed information to the general public in public health emergencies.

Keywords: long COVID fatigue, self-management, qualitative, China

N9

[108]

**KNOWLEDGE, ATTITUDE AND PRACTICES OF ADULT IMMUNIZATION  
AMONG MEDICAL INTERNS IN A TERTIARY CARE HOSPITAL IN NORTHERN  
INDIA**

Hashmi SS\*, Ansari MA, and Zubair MY

*Department of Community Medicine, JNMCH, AMU, Aligarh (India)*

*[\\*hashmi.sohaib@gmail.com](mailto:*hashmi.sohaib@gmail.com)*

**ABSTRACT**

**BACKGROUND:** Adult vaccination is vital not only for preventing mortality, but also for improving survival and reducing the consequences and severity of many infectious diseases. The changing lifestyle, demographics, and significant increase in life expectancy led to the concept of adult immunisation. **PURPOSE:** to assess knowledge, attitude and practice of adult immunization among medical interns working in a tertiary care hospital. **METHODOLOGY:** A cross sectional study was conducted among medical interns working in a tertiary care hospital in northern India. A pretested questionnaire using Google forms was administered to the participants which consisted questions related to knowledge, attitude, and practice of adult immunization. **RESULTS AND CONCLUSION:** The data for the study is still under collection. Results and conclusion shall be presented at the time of conference.

Keywords: adult immunization, knowledge, attitude, practice.



N10

[109]

**BRUNEIAN CONSUMERS' PERCEPTIONS OF FOOD-SAFETY RISK, CONTROL AND RESPONSIBILITY: IMPLICATIONS FOR FOOD-SAFETY EDUCATION.**

Hamidun NAH<sup>1</sup>, Fairchild R,<sup>1</sup> and Redmond EC<sup>2\*</sup>

<sup>1</sup>*ZERO2FIVE Food Industry Centre, Cardiff Metropolitan University, Wales, UK.*

<sup>2</sup>*Cardiff School of Sport and Health Sciences, Cardiff Metropolitan University, Wales, UK.*

*[\\*eredmond@cardiffmet.ac.uk](mailto:eredmond@cardiffmet.ac.uk)*

**ABSTRACT**

Consumers' food-safety cognitions are associated with behavioural practice and provide important data to inform the development of effective food-safety education strategies and reduce the risk/incidence of foodborne disease (FBD). Under-estimation of personal risk may prevent consumers from implementing recommended food-safety behaviours and reducing exposure to microbiological hazards. This study aims to explore and understand Bruneian consumer perceptions of food-safety risk, control and responsibility and consider implications for food safety education. In-depth, interviews with Bruneian consumers (n=20) informed development of a culturally-applicable food-safety questionnaire to determine quantitative perceptions of risk, control and responsibility, as well as perceptions of the home as a location for FBD. Online questionnaire distribution to Bruneian consumers occurred using call-to-action posters on social media and in consumer-groups. Statistical analysis of responses (n=143) occurred using IBM SPSS Statistics software (Version 26). Overall, findings indicated consumer perceptions of personal invulnerability and the home was ranked as the least likely location to acquire FBD; indeed one consumer indicated "*at home I can control the...preparation*". Bruneian consumers perceived their personal FBD risk after food-preparation to be low (66%), compared with risk after the food-preparation of 'other people' (54%). Similarly, more consumers perceived 'themselves' to have complete control for food safety (69%) than 'other people' (56%) and 78% consumers believed they had complete responsibility for food-safety, compared with 'other people' (56%). Such findings indicated perceptions of 'optimistic-bias' and the 'illusion-of-control' concerning food-safety during food-preparation. This may impede effectiveness of public health food-safety communication initiatives intended to increase implementation of risk-reducing behaviours.

Keywords: consumer food safety, foodborne disease, optimistic-bias

N11

[110]

**IS DESIRABLE DIETARY PATTERN (DDP) RELATED TO STUNTING IN  
INDONESIA? ANALYSIS OF FOOD CONSUMPTION PATTERN BASED ON DDP  
SCORE 2018-2022**

Gantina A<sup>1\*</sup> and Utari DM<sup>2</sup>

<sup>1</sup>*Public Health Study Program, Faculty of Public Health, Universitas Indonesia, Indonesia*

<sup>2</sup>*Department of Public Health Nutrition, Faculty of Public Health, Universitas Indonesia,  
Indonesia*

[\\*anggitgantina@gmail.com](mailto:*anggitgantina@gmail.com)

**ABSTRACT**

Indonesia is still struggling with stunting as a public health problem. Food consumption patterns are one of the direct factors that influence nutritional problems. The unbalanced diet of Indonesian people yet, as indicated by the Desirable Dietary Pattern (DDP) score, potentially renders nutritional problems. The study aims to analyze the relationship between DDP score and stunting prevalence during 2018-2022 in Indonesia. This study was a quantitative study with a cross-sectional study design. The type of data collected was secondary data of dietary pattern and food consumption from the National Socio-Economic Survey BPS, DDP scores from National Food Agency, and stunting prevalence among children aged 0–59 months based on Basic Health Research 2018, Indonesia Child Nutrition Status Survey (SSGBI) 2019, stunting prevalence published data 2020 from Secretariat of the Vice President Indonesia, and Indonesia Nutritional Status Survey (SSGI) 2021-2022. The DDP refers to a variety of food and nutrition intake that is calculated based on energy (calorie) consumption, the percentage of different food groups, and numerically stated as a score. The DDP score for a group of foods is calculated by multiplying the energy percentage of each food by a rating, and a higher DDP score indicates a more varied and nutritionally balanced diet. DDP score and stunting prevalence among children aged 0-59 months data were used in this study for five years, from 2018-2022. The results showed that the DDP score 2018-2022 was negatively correlated with stunting prevalence ( $p < 0.05$ ) by linear regression analysis. DDP score increase is related to reducing the prevalence of stunting. Increasing the quality of food consumption driven by increasing food affordability, and healthy and nutritious food availability is an important factor in increasing DDP scores as an effort to reduce the prevalence of stunting.

Keywords: desirable dietary pattern, food consumption, stunting, Indonesia

Q1

[111]

**THE IMPACT OF FAMILY INTEGRATED CARE ON PRETERM OUTCOMES:  
A SYSTEMATIC LITERATURE REVIEW**

Irma S<sup>1\*</sup> and Erina W<sup>2</sup>

<sup>1</sup>*Faculty of Public Health, University of Indonesia, Indonesia*

<sup>2</sup>*Budi Kemuliaan Health Institution*

[\\*irmasapriani@yahoo.com](mailto:*irmasapriani@yahoo.com)

**ABSTRACT**

Family integrated care (FICare) is a collaborative model of care that support parents to become active caregivers for their preterm infants and integral members of the NICU team. The evidence showed that FICare had positive impacts on neonatal outcomes and parent's well-being. The aim of this study is to examine the impact of FICare implementation on preterm outcomes and to provide health policy consideration. This study is a systematic literature review. Literature searching used keyword "family integrated care" OR FICare AND preterm AND outcome through search engine with database ProQuest, ScienceDirect, Cochrane and MEDLINE (EBSCO), conducted on Maret-April 2024. The publication period were between 2014 to 2024. The review was reported according to PRISMA guideline. Data extraction used PICOS (Population, Intervention, Comparison, Outcome, Study design) format. Inclusion criteria were preterm infant with gestational age less than 37 weeks, FICare implementation compared to family-centred care or standard care, reported neonatal outcomes and quantitative studies written in English. Thirteen studies were included in this review. FICare showed positive impact on clinical outcomes included length of stay, nosocomial infection, weight gain, breastfeeding rate, breastfeeding time, enteral nutrition time, shorter nasogastric tube retention time, shorter parenteral nutrition, earlier skin-to-skin contact, shorter duration of oxygen and antibiotic exposure and rehospitalization rate. Impact of FICare on infant development were better motor development, improving child behavior at 18 months of age, possible protective effect for the risk of communication delay. This study concluded that FICare had positive impact on neonatal clinical outcome and development. Further studies is needed to review parent experiences and longterm outcome on infant development.

Keywords: family integrated care, FICare, preterm, outcome

Q2

[112]

**PROBABILISTIC FORECASTING OF DENGUE FEVER IN QUEZON CITY  
MANAGEMENT OF INTRACEREBRAL HEMORRHAGE IN HEMOPHILIA A  
WITH INHIBITORS POST DECOMPRESSIVE CRANIOTOMY - A CASE REPORT**

Katuri CM, Chadyiwa M\* and Tlotleng N

*Department of Public Health, Faculty of Health Sciences, University of Johannesburg,*

*Doornfontein Campus South Africa*

[\\*cmbetu@gmail.com](mailto:*cmbetu@gmail.com)

**ABSTRACT**

Healthcare workers (HCWs) played a critical role in addressing the medical and psychological needs of patients during the pandemic and have been impacted psychologically by the COVID-19 pandemic. Within a range of 10–60% of COVID-19 infections globally, HCWs account for around 10% of all COVID-19 cases. The aim of this study is to assess the prevalence of symptoms of CMDs among HCWs and associated factors during COVID - 19 at a tertiary hospital in Zimbabwe. A cross sectional study was therefore carried out at Arundel Hospital targeting fulltime nurses, doctors, lab technicians, administration staff, and cleaning staff aged 18 years and older. A sample size of 245 subjects was derived. A questionnaire was administered to HCWs at Arundel hospital in Zimbabwe with 2 sections: 1) Socio-demographic questions and factors which affect symptoms of CMDs, and 2) The WHO Self-reporting tool (SRQ-20) which is a mental health screening tool. The sampling strategy for the study was purposive sampling using a random sampling technique. Findings of this study revealed that 24% of respondents reported having CMDs symptoms, while the remaining 76% were symptom-free. The respondent's age was found to be statistically significantly associated with symptoms of CMDs. HCWs who were aged between 30-39 years were 33.6% less likely to have CMDs compared to those aged between 18 - 29 years adjusting for confounders. Participants who were medical practitioners were 52.3% more likely to have CMDs compared to nurse practitioners adjusting for confounders. In conclusion, the findings of this study suggest that there is an alarming need for intervention through psycho-support to HCWs during pandemics.

Keywords: common mental disorders, coronavirus disease for 2019, health care workers

Q3

[113]

**PREVALENCE OF CARDIOVASCULAR DISEASE AND QUALITY OF  
SECONDARY PREVENTION AMONG PATIENTS WITH TYPE 2 DM  
A CROSS SECTIONAL STUDY**

Parammal FK\*

*Family Health Centre, Pallipuram, India*

*[\\*farishaamohd@gmail.com](mailto:farishaamohd@gmail.com)*

**ABSTRACT**

Diabetes mellitus, particularly type 2 (T2DM), poses a significant risk for cardiovascular disease (CVD), encompassing both microvascular and macrovascular complications. The aging population, rising obesity rates, and sedentary life styles contribute to the increasing prevalence of diabetes. Both type 1 and type 2 diabetes are recognized as independent risk factors for coronary heart disease (CHD). Notably, myocardial ischemia due to coronary atherosclerosis often presents asymptotically in diabetic patients. This study aimed to assess the prevalence of cardiovascular disease among patients with T2DM attending the Family Health Center in Pallipuram and to evaluate the quality of secondary prevention strategies in place. A total of 900 patients with T2DM (median age of 69 years, interquartile range: 60-75; median duration of diabetes: 10 years) were recruited during routine clinical visits at the Family Health Center between March 2023 and January 2024. Data on the presence of CVD, medication use, and secondary prevention measures were collected and analysed. The prevalence of CVD among the study cohort was estimated at 40%, with atherosclerotic cardiovascular disease (ASCVD) accounting for 32% of cases. A significant majority (80%) of patients were prescribed oral glucose-lowering agents, primarily biguanides. Insulin use was more prevalent among patients with CVD compared to those without. Additionally, there was a notable gap in the intensive management of lipids, blood pressure, and smoking cessation. The findings reveal that more than one in three patients with T2DM at the Family Health Center in Pallipuram have CVD, with ASCVD being the predominant form. This underscores the urgent need for more aggressive management of cardiovascular risk factors, including lipid control, blood pressure regulation, and smoking cessation, to improve outcomes in this high-risk population.

Keywords: prevalence, cardiovascular risk, type 2 diabetes

Q4-1

[114]

### **SURVIVAL ANALYSIS OF LEPTOSPIROSIS PATIENTS IN INDONESIA BASED ON MORTALITY PREDICTORS**

Efriana S<sup>1\*</sup>, Sutningsih D<sup>1</sup>, Agushybana F<sup>2</sup>, Martini M<sup>3</sup>, Rahfiludin MZ<sup>4</sup>, Amalia IN<sup>5</sup>, and Firdaus IN<sup>6</sup>

*<sup>1</sup>Magister Epidemiology Department, Faculty of Post Graduate School, Diponegoro University, Indonesia*

*<sup>2</sup>Biostatistic Department, Faculty of Public Health, Diponegoro University, Indonesia*

*<sup>3</sup>Epidemiology Department, Faculty of Public Health, Diponegoro University, Indonesia*

*<sup>4</sup>Public Health Nutrition Department, Faculty of Public Health, Diponegoro University, Indonesia*

*<sup>5</sup>Environmental Health Department, Faculty of Public Health, Diponegoro University, Indonesia*

*<sup>6</sup>Nursing Department, Faculty of Medicine, Diponegoro University, Indonesia*

*[\\*syahillaefriana05@gmail.com](mailto:syahillaefriana05@gmail.com)*

#### **ABSTRACT**

Leptospirosis is a priority zoonotic disease in Indonesia that has the potential to become an outbreak. Leptospirosis is caused by a bacterium called *Leptospira* that can quickly spread or be transferred by individuals, can lead to a high mortality rate ranging from 5-20% and serious public health problems. Predictors of leptospirosis mortality include oliguria, dyspnea, icteric, decreased platelets, and increased potassium; creatinine; bilirubin; ureum. The objectives of this study is analyze the survival of leptospirosis patients in Demak Regency, Indonesia based on leptospirosis mortality predictors. Demographic data, clinical symptoms, and laboratory results were obtained from hospital medical record data in Demak Regency for 2018-2023. The study design used was a retrospective cohort. Survival analysis were analyzed with Cox proportional hazard regression. The study found that as many as 30.1% of patients died out of a total of 73 patients hospitalized. The mortality rate and survival probability of leptospirosis patients based on mortality predictors are: icteric (126/1000 people-day with a survival probability of 30.0%); oliguria (6/100 people-day with a survival probability of 53.4%); dyspnea (116.2/1000 people-day with a survival probability of 24.3%); myalgia (57/1000 people-day with a survival probability of 55.9%); comorbidity (6.4/100 person-day with a survival probability of 48.9%). Two independent risk factors associated with mortality have been identified, including icteric (HR: 3.36; CI 95%: 1.54-8.50; p-value: 0.0055); and dyspnea (HR: 13.62; CI 95%: 3.18-58.35; p-value: 0.001). This research has a significant clinical impact in improving the treatment of leptospirosis patients. Detection of these predictors will help quickly identify the severity of the patient, allowing for informed decision-making regarding the use of intensive care early.

Keywords: leptospirosis, survival, mortality, predictor, Cox regression.

Q4-2

[115]

**OBESITY PREVALENCE AMONG TYPE 2 DM PATIENTS IN SELECTED SECRETARIAT AND ITS IMPACT ON DIABETES COMPLICATIONS AND SOCIOECONOMIC FACTORS: PRELIMINARY SURVEY STUDY**

Fernando MLD<sup>1</sup>, Vithanage MKJW<sup>2\*</sup>, Withanage SJW<sup>3</sup>, and Gajanayake C<sup>4</sup>

<sup>1</sup>*Undergraduate, Biomedical science department, AIC Campus, Colombo, Sri Lanka*

<sup>2</sup>*Lecturer and Academic Coordinator, Biomedical science department, AIC Campus, Colombo, Sri Lanka*

<sup>3</sup>*Medical Officer of Health Office, Egodaunya, Sri Lanka*

<sup>4</sup>*Regional Director of Health Services, Colombo, Sri Lanka*

\* [biomedfaculty1@imcaic.com](mailto:biomedfaculty1@imcaic.com)

**ABSTRACT**

The prevalence of obesity has risen steadily worldwide, contributing significantly to the burden of type 2 diabetes mellitus (T2DM). This study focuses on assessing the prevalence of obesity among T2DM patients within a specific area in the Western Province in Panadura Secretariat and exploring its association with diabetes-related complications and socioeconomic factors. The primary objectives of this research were to determine the prevalence of obesity among T2DM patients in the designated area, investigate the relationship between obesity and diabetes-related complications, and examine the socioeconomic disparities in diabetes management costs and healthcare utilization. A cross-sectional study was conducted involving randomly selected T2DM patients. Their height, weight, and BMI were measured to assess obesity prevalence. Demographic and socioeconomic data were collected through questionnaires. Additionally, information on diabetes management costs and hospital admissions frequency was gathered. Statistical analysis was performed to identify associations between obesity, diabetes complications, and socioeconomic factors. 72.73% were classified as overweight based on body mass index (BMI), with 54.55% of males and 100% all females falling into this category. The remaining 27.27% were within the normal BMI range, with 45.45% of males and none of females categorized as normal weight. Furthermore, 9.09% of patients experienced complications related to diabetes. Monthly treatment expenses revealed a, with 36.36% of patients spending Rs.7000, 18.18% spending Rs.18 000, 9.09% spending Rs.3500, 9.09% spending Rs.10 000, and 27.27% not incurring any treatment costs due to either not receiving treatment or accessing free government -provided services. Conclusions: The findings underscore the substantial prevalence of obesity among T2DM patients. Moreover, the study highlights the socioeconomic disparities in diabetes management costs, emphasizing the need for targeted interventions to address these disparities effectively.

Keywords: body mass index, diabetes management, obesity, socioeconomic factors, type 2 diabetes mellitus



R1

[116]

## GENDER DYNAMICS IN THREAT APPRAISAL, COPING STRATEGIES, AND STRESS REACTIONS DURING THE "IRON SWORD" WAR

Michael K<sup>1\*</sup>, Teitler Regev S<sup>2</sup>, and Hon-Snir S<sup>2</sup>

<sup>1</sup>*Department of Human Services, Max Stern Yezreel Valley College, Israel*

<sup>2</sup>*Department of Economics and Management, Max Stern Yezreel Valley College, Israel*

[\\*kerenmi@yvc.ac.il](mailto:*kerenmi@yvc.ac.il)

### ABSTRACT

Civilian populations worldwide are exposed to stressful life events, such as terrorism, epidemics, and natural disasters. This exposure, whether physical or emotional, triggers short- and long-term negative consequences, including distress and post-traumatic symptoms. This study examined responses to the ongoing "Iron Sword" war in Israel, focusing on gender-based variations. A sample of 660 participants aged 18–70 ( $M=42.18$ ;  $SD=14.33$ ) comprised 51.8% women and 48.2% men. They completed online questionnaires assessing cognitive evaluations of the event and associated behavioral and affective reactions. Data was analyzed using  $t$ -tests for independent samples and path analysis. The results demonstrated that 87.7% of the participants reported high levels of threat due to the war. Regarding gender differences, women scored higher than men on threat appraisals, emotion-focused coping, anxiety, and depression. However, when comparing the genders in background parameters within the context of the war, the proportion of men whose relatives were either kidnapped, murdered, or designated as missing, along with the percentage of men whose relatives or themselves were evacuated from their homes because residing near the country's borders, exceeded that of women. Additionally, across genders, higher levels of threat, using less problem-focused coping and more emotion-focused coping, were associated with higher levels of anxiety and depression. The results highlight the vulnerability of women concerning perceived threat, coping strategies, and stress reactions. This study supports the cognitive stress and coping model. It advocates for innovative interventions tailored to foster efficient coping strategies during stressful events, underscoring the necessity for gender-specific approaches in such interventions.

Keywords: stressful life events, coping, distress, gender differences



R2

[117]

**POSTTRAUMATIC STRESS DISORDER AFTER EARTHQUAKE AND ITS  
IMPACT ON EMOTIONAL EATING AMONG JUNIOR HIGH SCHOOL  
STUDENTS**

Fitrianingsih ADR\*, Puspita DS and Syihab SF

*Nutrition Study Program, Faculty of Health and Sports Education, Universitas Pendidikan*

*Indonesia, Indonesia*

*[\\*rahayufitria@upi.edu](mailto:*rahayufitria@upi.edu)*

**ABSTRACT**

Indonesia's location on the border of tectonic plates and its many volcanoes means that it is frequently shaken by earthquakes. The earthquake not only had an impact on the destruction of infrastructure and the economy, but also some of whom experienced Post-Traumatic Stress Disorder (PTSD) after the earthquake. It is known that PTSD can cause emotional eating problems. Emotional eating is considered a person's tendency to distract from feelings of anxiety, sadness, or anger by overeating. The aim of this research was to determine the relationship between PTSD and the occurrence of emotional feeding in 31 junior high school students through purposive sampling. This research is quantitative research with a cross-sectional approach. Pearson Correlation Test was carried out using IBM SPSS Statistics 28 to analyze the relationship between the two variables. The results of the study prove that post-earthquake trauma is positively related to emotional eating. This research recommends that families have an important role in reducing PTSD symptoms by having positive interactions and good communication with each other, thereby creating a mutually reinforcing environment. The school is also expected to be able to provide long-term psychological help to its students. Apart from that, it is hoped that the Indonesian Government and non-governmental organizations that care about disaster areas can provide attention in the form of education, counseling and regular guidance to student victims of disasters, to help reduce post-earthquake trauma so that it can help prevent emotional eating. The reason is that continuous emotional eating not only has a bad impact on physical health (obesity, heart disease, diabetes mellitus, etc.) but also mental health.

Keywords: emotional eating, post-traumatic stress disorder, student health

R3

[118]

**COMMON MENTAL DISORDERS AMONG HEALTH CARE WORKERS AT A  
TERTIARY HOSPITAL IN ZIMBABWE DURING COVID-19: A CROSS-  
SECTIONAL STUDY**

Katuri CM, Chadyiwa M\* and Tlotleng N

*Department of Public Health, Faculty of Health Sciences, University of Johannesburg,  
Doornfontein Campus South Africa*

*[\\*cmbetu@gmail.com](mailto:*cmbetu@gmail.com)*

**ABSTRACT**

Healthcare workers (HCWs) played a critical role in addressing the medical and psychological needs of patients during the pandemic and have been impacted psychologically by the COVID-19 pandemic. Within a range of 10–60% of COVID-19 infections globally, HCWs account for around 10% of all COVID-19 cases. The aim of this study is to assess the prevalence of symptoms of CMDs among HCWs and associated factors during COVID - 19 at a tertiary hospital in Zimbabwe. A cross sectional study was therefore carried out at Arundel Hospital targeting fulltime nurses, doctors, lab technicians, administration staff, and cleaning staff aged 18 years and older. A sample size of 245 subjects was derived. A questionnaire was administered to HCWs at Arundel hospital in Zimbabwe with 2 sections: 1) Socio-demographic questions and factors which affect symptoms of CMDs, and 2) The WHO Self-reporting tool (SRQ-20) which is a mental health screening tool. The sampling strategy for the study was purposive sampling using a random sampling technique. Findings of this study revealed that 24% of respondents reported having CMDs symptoms, while the remaining 76% were symptom-free. The respondent's age was found to be statistically significantly associated with symptoms of CMDs. HCWs who were aged between 30-39 years were 33.6% less likely to have CMDs compared to those aged between 18 - 29 years adjusting for confounders. Participants who were medical practitioners were 52.3% more likely to have CMDs compared to nurse practitioners adjusting for confounders. In conclusion, the findings of this study suggest that there is an alarming need for intervention through psycho-support to HCWs during pandemics.

Keywords: common mental disorders, coronavirus disease for 2019, health care workers

R4

[119]

## SPIRITUAL SOLUTIONS FOR OVERCOMING SLEEP PARALYSIS

Athavale JB and Clarke SM\*

*Spiritual Research, Faculty, Maharshi Adhyatma Vishwavidyalay, Goa, India*

*[\\*conferences@spiritual.university](mailto:conferences@spiritual.university)*

### ABSTRACT

Sleep paralysis, a condition where an individual becomes conscious while asleep and yet is unable to move, affects approximately 7.6% of the general population, with some studies reporting rates as high as 20.8%. This paper explores the prevalence and characteristics of recurrent sleep paralysis among spiritual practitioners at the Spiritual Research Centre and Ashram. A survey conducted with 47 subjects who suffered from recurrent sleep paralysis revealed a significant increase in sleep paralysis episodes shortly after commencing spiritual practice. However, with time, a substantial decrease in episodes was noted with continued spiritual practice. Furthermore, the respondents stated that the episodes were more likely to occur during full moon and new moon nights, as well as during the fortnight dedicated to departed ancestors. Participants reported that sustained spiritual practice not only reduced the frequency and duration of sleep paralysis episodes but also facilitated easier emergence from these episodes. Advanced sixth sense-based spiritual research indicated heightened paranormal activity during these episodes, with common experiences including chest pressure, sensations of being tied up or strangled, breathing difficulties, and physical contact with unseen entities. The correlation between spiritual practice and the pattern of sleep paralysis episodes suggests a possible spiritual dimension to the phenomenon of sleep paralysis. This study highlights the potential of spiritual practice in mitigating sleep paralysis and underscores the need for further research into the spiritual aspects of this condition. Understanding the spiritual dimensions could provide new insights into the causes and treatments of sleep paralysis, offering a complementary perspective to conventional medical approaches.

Keywords: sleep paralysis, spiritual practice, paranormal, full moon, spiritual research

# POSTER PRESENTATIONS

P1

[120]

## **RISK FACTORS OF PULMONARY TUBERCULOSIS IN CHILDREN (0-14 YEARS): SYSTEMATIC LITERATURE REVIEW**

Machrumnizar M<sup>1\*</sup>, Bachtiar A<sup>2</sup>, Kusumaratna RK<sup>3</sup>, Meiyanti<sup>3</sup>, Hidayah N<sup>2</sup>, Setyaningtyas RC<sup>2</sup>

<sup>1</sup>*Doctoral Program, Faculty of Public Health, University of Indonesia, Indonesia*

<sup>2</sup>*Faculty of Public Health, University of Indonesia, Indonesia*

<sup>3</sup>*Faculty of Medicine, Universitas Trisakti, Indonesia*

[\\*machrumnizar\\_md@trisakti.ac.id](mailto:machrumnizar_md@trisakti.ac.id)

### **ABSTRACT**

Pulmonary tuberculosis is a significant global health problem, especially in children. Early and correct diagnosis is essential for effective management, but the diagnosis of pulmonary tuberculosis in children is often difficult due to the nonspecific clinical symptoms of children and difficult specimen collection. This study aimed to find risk factors or what kind of comorbidities for finding tuberculosis in children's cases. The method used in this research is the SLR (systematic literature review) method. Data collection is carried out by documenting all articles that have similar research in research reports. The articles used in this research were 7 international journal articles obtained from the Google Scholar, PubMed, Scopus, and ScienceDirect databases. Children who are infected with HIV, have a history of contact with TB sufferers, malnutrition, low levels of breastfeeding, and inappropriate eating patterns increase the risk of being infected with pulmonary TB. Proximal factors such as male gender and hospitalization, as well as low socioeconomic status as distal factors are associated with the incidence of pulmonary TB. Meanwhile, other characteristics such as family type, illiteracy, poverty, and lack of immunization have an insignificant relationship with an increased risk of pulmonary TB. The Indonesian Pediatrician Association has developed an assessment system for diagnosing TB in children and evaluating treatment in children, which includes symptoms of cough, fever, and nutritional status as clinical assessment points for TB in children. Diagnosis of pulmonary TB in children is a complex challenge, therefore, it is essential to develop a comprehensive strategy that takes into account socioeconomic factors, nutrition, and health access. This is intended to improve early detection and appropriate treatment for this more vulnerable population.

Keywords: children, pulmonary tuberculosis, risk factors, SLR

P2

[121]

## USEFULNESS OF THE INTERFERON GAMMA RELEASE TESTS IN DETECTING TUBERCULOSIS INFECTION: RESULTS OF A META-ANALYSIS

Nouira M<sup>1\*</sup>, Souayah N<sup>2</sup>, Maatouk M<sup>3</sup>, Nouira H<sup>4</sup>, and Arfa S<sup>5</sup>

<sup>1</sup>*Epidemiology and Community Medicine Department-Charles Nicolle Hospital of Tunis-  
Faculty of Medicine of Tunis- University of Tunis El Manar-Tunisia.*

<sup>2</sup>*Gynaecology and Obstetrics Department-Regional Hospital of Ben Arous -Faculty of  
Medicine of Tunis-University of Tunis El Manar-Tunisia.*

<sup>3</sup>*Department of General Surgery A -Charles Nicolle Hospital of Tunis-Faculty of Medicine of  
Tunis- University of Tunis El Manar-Tunisia.*

<sup>4</sup>*Medical Intensive Care Unit Department- Tahar Sfar Madia Hospital-Faculty of Medicine  
of Monastir- University of Monastir-Monastir-Tunisia.*

<sup>5</sup>*Endocrinology and Internal Medicine Department- Tahar Sfar Madia Hospital-Faculty of  
Medicine of Monastir- University of Monastir-Monastir-Tunisia.*

\*[nouira.mar.ecw@gmail.com](mailto:nouira.mar.ecw@gmail.com)

### ABSTRACT

Background: The field of diagnostic validity approaches of tuberculosis (TB) infection remains evolving with no definitive consensus and continuous debates. We reviewed through this meta-analysis (MA) the current evidence on the pooled diagnostic accuracy metrics of Interferon-Gamma Release Assays (IGRAs) tests for TB infection detection and we compared the diagnostic performance of the Tuberculin Skin Test (TST) versus the QuantiFERON Gold Plus (QFT Gold Plus). Methodology: This was a MA following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis of Diagnostic Test Accuracy Studies (PRISMA-DTA) guidelines. The index tests of our MA were IGRAs tests (QFT Gold Plus; QuantiFERON Gold In Tube (QFT GIT)) and the TST. For the reference standard, the sensitivity was assessed based on active TB infection status which was clinically and/or biologically confirmed, and the specificity was assessed among asymptomatic participants who were not at risk or having a very low risk for TB infection. Results: Overall, 42 studies were included in this MA, assessing one or more outcomes. QFT Gold Plus had a good, pooled sensitivity and specificity rates of 87% CI95% [82%-91%] and 93% CI95% [78%-98%] respectively. Its PPV was 88% which suggests that the test is valuable in confirming the infection. The AUC was 0.98 indicating excellent diagnostic accuracy of the QFT Gold Plus. Very similar results were found for the QFT GIT. No significant difference was noticed when comparing sensitivity ( $p=0.15$ ) and specificity ( $p=0.4$ ) between the QFT Gold Plus and the QFT GIT. The comparison of QFT Gold Plus to the TST, indicate an acceptable concordance rate (76%). Conclusion: Our results indicate that various IGRAs tests had a good diagnostic accuracy and performance and exhibit highly comparable results. Each test (IGRAs tests vs. TST) had its strengths and its limitations. None of the available tests is considered as the gold standard.

Keywords: tuberculosis, Interferon gamma Release Tests, specificity, sensitivity, meta-analysis

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[122]

## ATTITUDES OF THE CZECH POPULATION TOWARDS THE USE OF TELEMEDICINE

Angelovská O, Dobiášová K, and Kopsa Těšinová J\*

*Institute of Public Health and Medical Law, 1<sup>st</sup> Faculty of Medicine, Charles University,  
Czech Republic*

[\\*olga.angelovska@fsv.cuni.cz](mailto:olga.angelovska@fsv.cuni.cz)

### ABSTRACT

In the last two decades, health policymakers have been trying to introduce new telemedicine solutions under the influence of several factors, such as demographic ageing of the population or the continuous increase in healthcare expenditure. The ubiquitous development of information communication technology (ICT) and digital technologies in healthcare management and delivery also contributes to this. The unprecedented acceleration in the adoption of telemedicine has also been attributed to by the Covid pandemic - 19. Our paper is based on data obtained in a quantitative survey in the Czech Republic, which was conducted in 2021 among members of patient organisations and focused on the use of telemedicine in outpatient specialised and primary care during the COVID-19 pandemic and in the future. In total, questionnaires were obtained from 620 respondents from 65 patient organisations. The research results showed that Czech patients (members of patient organisations) favour using telemedicine services for treating diseases and monitoring health status, which motivates healthier lifestyles and patient responsibility, consultations on healthy lifestyles and vaccinations. On the other hand, the general population has not yet made much use of information and communication technologies for health promotion and disease prevention. For telemedicine to play a key role in disease prevention and improve the health of the Czech population, it will be necessary to educate chronically ill patients and the general population (primarily through ICT interventions in health promotion). The results of the research allowed us to create a five-type typology of patients according to their approach to the use of telemedicine.

Keywords: primary care, distant care, telemedicine, information and communication technologies, digitalization of health care

P4

[123]

## KNOWLEDGE AND ATTITUDE ON TIME BANKING TO ASSIST ELDERLY IN THE COMMUNITY

Nizam NDAMK\*, Saadi HRA, Ching CS, Leng LS, Latt KK, and Sugathan S

*Faculty of Medicine, University of Kuala Lumpur, Royal College of Medicine Perak,  
Malaysia*

*[\\*damiaaqilah.kamal@gmail.com](mailto:damiaaqilah.kamal@gmail.com)*

### **ABSTRACT**

An ageing population is now looming over Malaysia, with the latest statistics predicting that it will happen as early as 2030. If nothing is done to guarantee the livelihood of the old population in the community, their well-being is in jeopardy. Due to their lack of engagement in the workforce or other organizations, the elderly are at risk of being ignored and left behind by the community. Furthermore, caregivers of the elderly often experience diminished physical and mental health, adding to the already heavy load they bear. For these reasons, it might be appropriate to propose time banking as an option to address this problem among senior citizens. Hence, the objective of this study is to investigate the knowledge and attitude of elderly about time banking as a means of resolving their challenges in their life. The study utilized New South Wales Older People's Health Survey 1999 and knowledge and attitude survey to collect data from participants ranging the age of 65-89 years old. Chi square statistical test was done, and it was found that there is no significant relationship between knowledge and attitude towards time bank. In summary, it was found that most of the participants had low knowledge, but majority of them had good attitude about time banking. With the aging population becoming larger, this study will provide insight into the healthcare and social demands of this demographic.

Keywords: elderly, time banks, community, health, social



P5

[124]

## ASSESSING POOLED PREVALENCE OF EXCLUSIVE BREASTFEEDING IN NORTH AFRICAN COUNTRIES: RESULTS OF A META-ANALYSIS

Nouira M<sup>1\*</sup>, Souayeh N<sup>2</sup>, Maatouk M<sup>3</sup>, Nouira H<sup>4</sup>, and Arfa S<sup>5</sup>

<sup>1</sup>*Epidemiology and Community Medicine Department-Charles Nicolle Hospital of Tunis- Faculty of Medicine of Tunis- University of Tunis El Manar-Tunisia.*

<sup>2</sup>*Gynaecology and Obstetrics Department-Regional Hospital of Ben Arous -Faculty of Medicine of Tunis-University of Tunis El Manar-Tunisia.*

<sup>3</sup>*Department of General Surgery A -Charles Nicolle Hospital of Tunis-Faculty of Medicine of Tunis- University of Tunis El Manar-Tunisia.*

<sup>4</sup>*Medical Intensive Care Unit Department- Tahar Sfar Madia Hospital-Faculty of Medicine of Monastir- University of Monastir-Monastir-Tunisia.*

<sup>5</sup>*Endocrinology and Internal Medicine Department- Tahar Sfar Madia Hospital-Faculty of Medicine of Monastir- University of Monastir-Monastir-Tunisia.*

[\\*nouira.mar.ecw@gmail.com](mailto:nouira.mar.ecw@gmail.com)

### ABSTRACT

**Background and aims:** Exclusive breastfeeding(EBF) is a public health priority all over the world. The global prevalence of EBF during the first six months of life remains low, particularly in low- and middle-income countries. In this meta-analysis(MA) we examine the existing evidence of the pooled prevalence during the first 6 months of infant's life in the North African (NA) countries.**Methodology:**The international databases, including PubMed, Google Scholar, Science Direct, Scopus, and Web of Science were systematically searched. The inclusion criteria included original research of observational studies conducted among mothers in NA countries (Tunisia, Algeria, Morocco, Libya, Egypt, Sudan) on breastfeeding prevalence. The main outcome of interest was the prevalence of EBF during the first six months of infant's life (among infants aged  $\leq 6$  months). The secondary outcome was the prevalence of EBF until the first six months of life (among infants aged at least 6 months or more). **Results:** A total of 16 studies with a total of 7,849 participants were included in the analysis. The overall global pooled prevalence of EBF during the first six months in NA countries was 29.0% (CI95% [18.0; 42.0]) with heterogenous results (Tau2 = 1.41, I2 = 99%, p < 0.01). Tunisia had the lowest prevalence of EBF (11%) while Sudan (63%) and Morocco (48%) had the highest prevalence rates.The prevalence of EBF until the first six months of life (8 studies were analyzed) was 30.0% (CI95% [14.0; 52.0]).**Conclusion:** Our findings indicate that the practice of EBF in NA countries falls below the recommendations of the WHO and requires improvement using targeted interventions and adoption a multi-dimensional approach. Implementation of Baby-Friendly Hospital Initiatives can contribute to the improvement of breastfeeding practices in this region.

Keywords: breastfeeding, exclusive breastfeeding, prevalence, meta-analysis, North Africa.

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[125]

## THE PRACTICE OF BREASTFEEDING IN TUNISIA: COMBINED RESULTS OF MULTIPLE INDICATOR CLUSTER SURVEYS (2000-2018)

Nouira M<sup>1\*</sup>, Maatouk M<sup>2</sup>, Souayeh N<sup>3</sup>, Nouria H<sup>4</sup>, and Arfa S<sup>5</sup>

<sup>1</sup>*Epidemiology and Community Medicine Department-Charles Nicolle Hospital of Tunis-Faculty of Medicine of Tunis- University of Tunis El Manar-Tunisia.*

<sup>2</sup>*Department of General Surgery A -Charles Nicolle Hospital of Tunis-Faculty of Medicine of Tunis- University of Tunis El Manar-Tunisia.*

<sup>3</sup>*Gynaecology and Obstetrics Department-Regional Hospital of Ben Arous -Faculty of Medicine of Tunis-University of Tunis El Manar-Tunisia.*

<sup>4</sup>*Medical Intensive Care Unit Department- Tahar Sfar Madia Hospital-Faculty of Medicine of Monastir- University of Monastir-Monastir-Tunisia.*

<sup>5</sup>*Endocrinology and Internal Medicine Department- Tahar Sfar Madia Hospital-Faculty of Medicine of Monastir- University of Monastir-Monastir-Tunisia.*

[\\*nouira.mar.ecw@gmail.com](mailto:nouira.mar.ecw@gmail.com)

### ABSTRACT

**Background and aim:** Breastfeeding is a recommended practice by the World Health Organization due to the numerous benefits it brings to both the child's and the mother's health. Our study aimed to synthesize national data related to the practice of breastfeeding in Tunisia. **Methodology:** This was a meta-analysis of national multiple indicator cluster surveys (MICS) conducted in Tunisia during the years 2000, 2006, 2012, and 2018. The main estimated indicators were the prevalence of early initiation of breastfeeding within the first hour following birth and the prevalence of exclusive and predominant breastfeeding (breastfeeding combined with drinking water) during the first six months of life. The analysis was performed using R software (version 4.2.3). **Results:** In total, four MICS surveys involving 5594 mothers were included in the analysis. The overall prevalence of children who were never breastfed was 4% (95% CI [3%-7%]). The prevalence of children who were breastfed early within the first hour following birth was 56% (95% CI [20%-87%]), with a decrease from 87% in 2006 to 32% in 2018. Among children under 6 months, the prevalence of exclusive breastfeeding during the first six months was 15% (95% CI [5%-35%]), with a decrease from 46% in 2000 to 13% in 2018. The prevalence of predominant breastfeeding was 41% (95% CI [31%-51%]). The prevalence of continued breastfeeding up to the age of 2 years was 19% (95% CI [16%-22%]). **Conclusion:** The indicators of BF practice in Tunisia are unsatisfactory and below the WHO recommendations. The alarming decline of this practice in Tunisia requires the adoption of a multidimensional approach (health, social, media) to promote this practice.

Keywords: breastfeeding, exclusive breastfeeding, prevalence, Tunisia.

P7

[126]

## VERIFICATION OF RELIABILITY AND VALIDITY OF THE PERSONAL RESILIENCE SCALE FOR NATURAL DISASTERS SURVIVORS

Yasuda M\*

*Department of Nursing, Faculty of Global Nursing, University of Iryo Sosei, Japan*

[\\*yasuda.manami@isu.ac.jp](mailto:*yasuda.manami@isu.ac.jp)

### ABSTRACT

**Purpose:** Natural disasters are on the rise worldwide, and resilience is the important ability that individuals demonstrate in the process of recovering from such difficulties. The purpose of this study is to develop a personal resilience scale (PRS) for natural disasters and to examine its reliability and validity. **Methods:** A self-administered questionnaire survey was administered to residents who lived in evacuation shelters after the Great East Japan Earthquake in Japan, and 201 valid responses were analyzed. Factors were extracted by exploratory factor analysis. Cronbach's alpha coefficient was calculated for scale reliability. Correlations with other scales were examined for criterion-related validity. Confirmatory factor analysis was conducted based on the results of exploratory factor analysis to examine construct validity. **Results:** The results of the factor analysis showed that the 16 items had a four-factor structure: [social support], [positive thinking], [stress coping], and [problem-solving abilities]. Regarding the reliability of the PRS, the Cronbach's alpha coefficient was 0.945. For validity, significant correlations were observed with almost all external variables for all scales and subscales. Model fit was GFI=.912, AGFI=.878, CFI=.969, and RESEA=.056. **Conclusion:** The PRS was statistically acceptable with respect to reliability and validity. A 16-item, 4-factor structure was developed as a personal resilience scale (PRS) for natural disasters, and reliability and validity were ensured. The development of this scale will make it possible to assess the outcomes of interventions for displaced people against natural disasters. It is expected that this will enable visualization of individual resilience to natural disasters and contribute to improving the quality of mental health care for disaster victims.

Keywords: resilience, personal resilience, natural disasters, reliability and validity, scale

P8

[127]

**MENTAL HEALTH STATUS AND HELPFUL CONSULTATION SUPPORTERS  
AMONG MOTHERS RAISING YOUNG CHILDREN IN JAPAN DURING THE  
COVID-19 PANDEMIC**

Toyama N<sup>2\*</sup>, Takahara M<sup>1</sup> and Toyama Y<sup>1</sup>

<sup>1</sup>*School of Health Sciences, Faculty of Medicine, University of the Ryukyus, Japan*

<sup>2</sup>*Education and Research Institute for Death Control and Prevention, Graduate School of  
Medicine, Osaka University, Japan*

[\\*ntoyama-ky@umin.ac.jp](mailto:*ntoyama-ky@umin.ac.jp)

**ABSTRACT**

The spread of the COVID-19 pandemic negatively impacted the mental health of mothers. Therefore, social support for mothers is essential; however, they were generally isolated during the COVID-19 pandemic, making it difficult to provide consultation supporters and leading to a deterioration in their mental health. This study aimed to examine the association between mental health status and helpful consultation supporters (HCSs) among mothers raising young children in Japan during the COVID-19 pandemic. An Internet survey was conducted with mothers of young children who registered with a Japanese Web research company in November 2022. The questionnaire included items from the Kessler 6 and addressed the type and number of HCSs and sociodemographic variables. A chi-square test and multivariate logistic regression analysis were conducted. Ethical approval was obtained from the University of the Ryukyus. Among the 1,016 mothers included in the analysis, 51.6% reported psychological stress; 23.4% had mood/anxiety disorder; and 8.9% suffered from severe mental illness. Furthermore, 44.0% of mothers chose their husband/partner as their HCSs. The highest number of HCSs was 2 (19.7%) and 3 (19.7%). The multivariate logistic regression analysis showed that the adjusted odds ratio for mental health tended to decrease as the number of HCSs increased. Mothers who chose their husband/partner as their HCS had significantly lower levels of mood/anxiety disorder and severe mental illness than those who did not. Greater diversity in HCSs resulted in better mental health among mothers, indicating the importance of providing them with various consultation supporters. The mental health of mothers improved with their husbands as their HCSs; therefore, providing parenting information to husbands is also essential.

Keywords: mental health status, helpful consultation supporters, maternal and child health, mothers raising young children, COVID19 pandemic

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[128]

## BUDGET IMPACT ANALYSIS OF ALECTINIB FOR ADJUVANT THERAPY OF EARLY-STAGE ALK-POSITIVE NSCLC IN CHINA

Hu W<sup>1</sup>, and Jianga Y<sup>2\*</sup>

<sup>1</sup>*a School of Public Health (Shenzhen), Sun Yat-sen University, Shenzhen, China*

<sup>2</sup>*School of Public Health (Shenzhen), Sun Yat-sen University, Guangdong, China.*

[\\*jiangyw26@mail.sysu.edu.cn](mailto:jiangyw26@mail.sysu.edu.cn)

### ABSTRACT

**Background:** In China, alectinib has been approved and reimbursable for advanced ALK-positive early-stage ALK-positive non-small cell lung cancer (NSCLC). Among patients with resected ALK+ NSCLC, adjuvant alectinib significantly improved disease-free survival compared to platinum-based doublet chemotherapy. FDA approved alectinib as adjuvant treatment for ALK+ NSCLC in April 2024, while the indication is in priority review in China. **Objective:** To assess the budget impact of introducing alectinib as adjuvant therapy for early-stage ALK+ NSCLC on China's social health insurance (SHI). **Methods:** A budget impact model estimated the net expenditure of including alectinib in health insurance for adjuvant therapy of early-stage ALK-positive NSCLC over three years. Population estimation was based on 2023 demographic and epidemiological data in China. Clinical data to calculate recurrence costs came from randomized trials and treatment guidelines, and market shares was based on survey. Cost data was from online databases. Sensitivity analyses were conducted to test robustness. **Results:** In China, 3500-4500 newly-diagnosed patients with ALK+ NSCLC will be eligible for adjuvant therapy each year, in consideration of increasing adjuvant rate following alectinib's approval. Net incremental insurance expenditure will be 183.43 million RMB in 2025 (0.00652% of total SHI expenditure), 435.46 million RMB in 2026 (0.01547%), and 506.30 million RMB in 2027 (0.01799%). Annual drug expenditure will be 450 million RMB averagely, much less than the advanced ALK+ NSCLC indication. Recurrence treatment costs will be partially offset because alectinib will prevent lots of recurrences. Increased expenditure is primarily driven by alectinib acquisition costs and the longer treatment duration of alectinib than chemotherapy. **Conclusion:** Including alectinib for adjuvant therapy of early-stage ALK-positive NSCLC will have a manageable impact on China's SHI in the near future.

Keywords: Alectinib, BIA, healthcare insurance

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[129]

## SINGING HABIT POTENTIALY PREVENTS THE ORAL FRAILITY OF JAPANESE HEALTHY MIDDLE-AGED AND ELDERLY INDIVIDUALS

Inamura N and Kaneko T\*

*Graduate School of Human Ecology, Wayo Women's University, Japan*

[\\*t-kaneko@wayo.ac.jp](mailto:*t-kaneko@wayo.ac.jp)

### **ABSTRACT**

Preventing oral frailty is a crucial issue for extending healthy life expectancy. To exploratorily examine the association of singing habit with the oral frailty of Japanese healthy middle-aged and elderly subjects, self-reported questionnaire surveys on singing habit, oral frailty, social isolation, and depressive tendency were conducted. Pearson's correlation coefficients were calculated, and simple linear regression analysis assessed the association of an independent variable (singing habit scores) with a dependent variable [oral frailty index (OFI)-8 scores], while multiple linear regression analysis assessed the associations of independent variables (age, gender, as well as the presence or absence of singing habit, social isolation, and depressive tendency) with the OFI-8 scores. 32 subjects (6 males and 26 females; mean age, 69.0±5.6 years) participated in the surveys. The OFI-8 scores ranged from 0 to 11 points (mean score: 3.3±2.3 points), with the most predominant score of 4 points (8/32, 25.0%). Simple linear regression analysis (n=32) revealed that singing habit significantly lowered the OFI-8 scores (p=0.045), although no correlation was detected (R<sup>2</sup>=0.1269). Multiple linear regression analysis (n=31) revealed that singing habit showed a moderate inverse correlation ( $\beta$ , -1.73; r= -0.44) with and significantly lowered the OFI-8 scores (p=0.03), suggesting its potential of reducing the risk of oral frailty. Age, social isolation, and depressive tendency had no significant association with the OFI-8 scores. In conclusion, this study suggests that the habit of singing may contribute to the prevention of oral frailty.

Keywords: singing habit, oral frailty, depression, social isolation, healthy middle-aged and elderly individuals

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[130]

**COMMUNITY HEALTH WORKER IMPACT ON KNOWLEDGE, ATTITUDES,  
AND PRACTICES OF PREGNANT WOMEN AND CAREGIVERS IN RURAL  
SETTINGS**

King J<sup>1\*</sup>, Tankoano Y<sup>1</sup>, Llantén C<sup>1</sup>, Saint Hilaire S<sup>2</sup>, Kisia J<sup>3</sup>, George J<sup>4</sup>, Walusiku Mwewa B<sup>5</sup>,  
Cassagnol V<sup>2</sup>, Benard P<sup>4</sup>, Nyundu Kameya E<sup>6</sup>, Mathurin L<sup>2</sup>, Mwananyambe E<sup>6</sup>, Mugharbil S<sup>1</sup>, and  
Khan R<sup>1</sup>

<sup>1</sup>*Catholic Medical Mission Board (CMMB), United States (US)*

<sup>2</sup>*Catholic Medical Mission Board (CMMB), Haiti*

<sup>3</sup>*Catholic Medical Mission Board (CMMB), Kenya*

<sup>4</sup>*Catholic Medical Mission Board (CMMB), South Sudan*

<sup>5</sup>*Access to Health Zambia, Zambia*

<sup>6</sup>*Catholic Medical Mission Board (CMMB), Zambia*

[\\*jking@cmmb.org](mailto:*jking@cmmb.org)

**ABSTRACT**

Community health workers (CHWs) help extend access to primary healthcare services to the most vulnerable and hard-to-reach communities, and while regular monitoring of service delivery have proven their positive effects on service provision, it can difficult to prove their effectiveness in changing community knowledge, attitudes, and practices (KAPs). To better understand how the KAPs of pregnant women and caregivers of children under five have been affected by the community health worker model, Catholic Medical Mission Board (CMMB) embarked on a three-year study across four countries supported by the organization's flagship project, Children and Mothers Partnerships Plus (CHAMPS+). We took a quantitative approach, with baseline (2021) and endline surveys (2023), collecting 2,778 surveys comprising 121 121 questions. The survey assessed a cross-cutting swath of health areas directly linked to maternal, child, and newborn morbidity and mortality: diarrhea, pneumonia, and malaria; HIV/AIDS; nutrition; water, hygiene, and sanitation (WASH); immunization; antenatal care; skilled delivery; postnatal care for mothers; and neonatal care for newborns. The survey was collected English, Creole, Kamba, and Lozi, using mobile and paper data collection, with comparative analysis conducted in PowerBI dashboards and in R statistical software. The study found that from baseline to endline, although KAPs around immunization and knowledge about care for newborns improved, knowledge and attitudes about diarrhea remained high while WASH and malaria practices decreased. This information has been used to refine CHWs' messaging to their communities. This study will provide other nongovernmental organizations with a comprehensive survey tool to assess the impact of their community health work on KAPs for maternal and child health programs, particularly those implemented in rural settings.

Keywords: international development, maternal health, child health, NGOs, evaluation tools



P12

[131]

**FACTORS AFFECTING THE USE OF DENTAL SERVICES AMONG ARAB  
CHILDREN IN ISRAEL: A QUALITATIVE STUDY**

Khatib M<sup>1\*</sup>, Ashkenazi Y<sup>2</sup>, Loeff Y<sup>2</sup>, Paul-Zusman SH<sup>3</sup> and Natapov L<sup>3</sup>

<sup>1</sup>*Nursing Department, Zefat Academic College, Zefat, Israel*

<sup>2</sup>*Myers-JDC-Brookdale Institute, Jerusalem, Israel*

<sup>3</sup>*Division of Dental Health, Ministry of Health, Jerusalem, Israel*

[\\*hatibm@zefat.ac.il](mailto:hatibm@zefat.ac.il)

**ABSTRACT**

In 2010, Israel reformed its hitherto dominantly privately financed dental services and included preventative and restorative dental care for children in the publicly funded basket of healthcare services. Only 67% of low-income Israeli-Arab children were using the new service (compared to 85% of Jewish children) while most others continue using privately funded services. The aim of this study is to explain Israeli-Arab children's low utilization of publicly funded preventive and restorative dental care. A qualitative study designed to describe and understand the parents' motivations and choices. As a preliminary stage, eight semi-structured interviews were conducted with directors of dental departments and Arab dentists. In the second stage, ten one-on-one interviews with parents, and five focus group discussions with 55 parents was held. All interviews and discussions were recorded, transcribed in full and translated into Hebrew. The prevalent attitude is that one goes to the dentist only when there is a serious problem. The importance of preventive care is not appreciated. A childhood fear of the drill is very remembered and passed onto the children. Social and cultural factors such as kinship with service providers influence the choice and utilization of health services. Economic barriers are still existing since even the small co-payment is daunting to low-income parents of large families. Provision of the public service is inadequate in some Arab villages. The extension of Israel's National Health Insurance Law's basket of services to include dental care for children, while important, is not sufficiently embraced by Arab children. Other barriers include poor living conditions, low educational level that requires very clear sharing of information about the new service, and the resistance of cultural and social traditions.

Keywords: dental services, use of services, Arab children, ISRAEL



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[132]

**THE ASSOCIATION BETWEEN VOLUNTEER ACTIVITY PARTICIPATION AND  
DAILY SEDENTARY TIME AMONG JAPANESE**

Ukawa S<sup>1\*</sup>, Kato Y<sup>2</sup>, Lee Y<sup>3</sup>, Sugiyama M<sup>1</sup>, Saito H<sup>4</sup>, Ohara K<sup>5</sup> and Mori K<sup>1</sup>

<sup>1</sup>*Osaka Metropolitan University Graduate School of Human Life and Ecology, Japan*

<sup>2</sup>*Kinjo Gakuin University College of Human Life and Environment, Japan*

<sup>3</sup>*The University of Tokyo Graduate School of Engineering, Japan*

<sup>4</sup>*Yokohama City University Graduate School of Urban Social and Cultural Studies, Japan*

<sup>5</sup>*Yokohama National University Faculty of Urban Innovation, Japan*

[\\*ukawa@omu.ac.jp](mailto:*ukawa@omu.ac.jp)

**ABSTRACT**

**Aim:** This study investigates the relationship between the frequency of volunteer activity participation and average daily sedentary time among community-dwelling populations in two Japanese regions. **Methods:** Employing a cross-sectional design, we gathered data through questionnaires from 1,224 participants (585 men, 639 women) in 2022. We utilized sex-specific multiple regression models, adjusting for geographic areas, age, living arrangements, smoking and exercise habits, and self-rated health, to estimate the impact of volunteer activity frequency on average daily sedentary time, presented as regression coefficients ( $\beta$ ) with 95% confidence intervals (CIs). **Results:** The mean  $\pm$  standard deviation daily sedentary time was  $392.5 \pm 247.1$  minutes for men and  $325.8 \pm 229.7$  minutes for women. Men engaging in volunteer activities four or more times weekly exhibited significantly reduced sedentary time ( $\beta$ : -183.8; 95%CI: -358.0 to -9.6) compared to those who did not participate. No significant association was observed for women. **Conclusion:** Promoting frequent volunteer activities (at least four times weekly) may effectively decrease sedentary time within Japanese community settings. This strategy warrants further exploration as a public health measure to enhance active lifestyles across various demographic groups.

**Keywords:** aging, sedentary behavior, volunteer activities, social environment, physical environment

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[133]

**INCREASING ADOLESCENTS' ACCESS TO CONTRACEPTIVE METHODS THROUGH COMMUNITY OUTREACHES IN HARD-TO-REACH LAGOS URBAN SLUMS.**

Alere MO<sup>1\*</sup>, Daini BO<sup>2</sup>, Ohemu BO<sup>3</sup>, Akin-Kolapo B<sup>4</sup>

*USAID Youth-Powered Ecosystem to Advance Urban Adolescent Health, DAI Nigeria*

*\*[Mojisola\\_alere@dai.com](mailto:Mojisola_alere@dai.com)*

**ABSTRACT**

Background: Contraceptive prevalence rate remains low in Nigeria among married and sexually active unmarried women. Poor access to contraceptive methods remains a major barrier to contraceptive uptake, especially in urban slums. This study examined the role of community outreaches in increasing access to contraceptive methods for out-of-school adolescents living in Lagos urban slums between July and Dec 2023. Methods: The intervention recruited multi-cadre health care providers (MCPs) trained to provide adolescent friendly health services in hard-to-reach communities. Data on age, demography, knowledge about contraception, reproductive history, and contraceptive use was collected using adolescent sexual and reproductive health register. Results: Numbers reached were 1778 contraceptive methods and 1687 new acceptors. A baseline of 67% new contraceptive users and 95% new contraceptive users were recorded within 6 months of the intervention. Conclusion: Health providers should prioritize functioning out of health systems to reach marginalized populations who lack the means to access healthcare within health system settings.

Keywords: adolescents, contraceptive methods, outreaches

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[134]

**OPTIMIZING THE OVER-THE-COUNTER HEARING AID THROUGH  
ECONOMIC ANALYSIS AND SIGNAL PROCESSING AND MACHINE LEARNING  
TECHNIQUES: A LITERATURE REVIEW**

Yi\*

*The Harker School, San Jose, CA*

[\\*jasonyi361@gmail.com](mailto:*jasonyi361@gmail.com)

**ABSTRACT**

As the prevalence of hearing loss continues to escalate, with an estimated 52.9 million individuals expected to be affected by 2050, the advent of OTC hearing aids has emerged as a critical development. This review systematically analyzes the economic cost-effectiveness of current OTC hearing aids, and then delves into the impact of signal processing and machine learning algorithms on the customization and optimization of OTC hearing aids. While signal processing has been recognized for its integral role in enhancing sound quality and clarity, this paper uncovers a pressing need for hybrid models that combine the differing strengths of existing noise reduction strategies. The integration of machine learning, through pairwise comparisons and SoundSense Learn, illustrates a shift towards personalized auditory experiences, albeit necessitating further research to refine real-time user preference predictions. Collectively, these insights not only highlight the technological strides made in hearing aid development but also highlight significant gaps and opportunities for future research, paving the way for advancements that could redefine auditory assistance for millions globally. This comprehensive literature review delves into the evolving landscape of Over-The-Counter (OTC) hearing aids, examining pivotal advancements and identifying potential areas for further exploration.

Keywords: cost-effectiveness, OTC, algorithms, soundsense learn

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**SERVICE UTILIZATION OF ADOLESCENT FRIENDLY HEALTH SERVICES  
AMONG ADOLESCENTS OF SUNSARI DISTRICT, EASTERN NEPAL**

Khanal S<sup>1\*</sup>, Khadka A<sup>2</sup>, and Baral K<sup>3</sup>

<sup>1</sup>*Postgraduate student in Master in Public Health an Implementation Research, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia*

<sup>2</sup>*Head of Department at Modern Technical College, Sanepa, Kathmandu, Nepal*

<sup>3</sup>*Doctor of Philosophy in Health Science Fellow in Te Huataki Waiora School of Health Division of Health, Engineering, Computing and Science, The University of Waikato Hamilton, New Zealand*

[\\*shreya.paper2020@gmail.com](mailto:*shreya.paper2020@gmail.com)

**ABSTRACT**

Background: Adolescent friendly initiative provides an enabling environment for adolescents to access sexual and reproductive health services easily and without any barriers, to improve their overall health and well-being during adolescence. Purpose: To explore service utilization of Adolescent Friendly Health Services (AFHS) among adolescents of Sunsari district, Nepal. Methodology: This mixed method study was conducted in Sunsari district, Nepal from May to December, 2019. Quantitative data was obtained through questionnaire from 424 adolescents in schools with Adolescent Friendly Information Centers (AFIC), while qualitative data was obtained through focus group discussions with adolescents and interviews with focal persons from health facilities with AFHS. Quantitative data was analyzed using statistical software and thematic analysis was used for qualitative data. Results: Study found that, all adolescents primarily heard about AFHS either from teachers or mass media, with majority (60.8%) having positive attitude towards services but 54% of them not utilizing. Statistical significance was found between, influencing factors and service utilization as well as between barriers and service utilization, both having p-value below 0.001. Illness or death of close relatives, advice from friends, and general health checkups influenced service utilization while barriers were inconvenient service time, cost, lack of confidentiality, religious or cultural prohibitions, lack of knowledge about AFHS, perception of good health, poor quality of services, and embarrassment. Qualitative findings revealed, wrong perception among community members about AFHS led to social stigma, which hindered service utilization among adolescents; inadequate training for service providers resulted in limited school health programs and low service uptake. Conclusion: A multi-disciplinary approach is necessary to promote AFHS and AFIC, improve service delivery, and strengthen community and family support to optimize the services utilization.

Key words: adolescents, adolescent friendly health services, service utilization.

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## MULTISYSTEMIC SARCOIDOSIS-CASE STUDY

Ashok A\*

*Resident Medical Officer, India*

*Kerala University of Health Sciences, India*

[\\*aryaashok500@gmail.com](mailto:*aryaashok500@gmail.com)

### **ABSTRACT**

I report a case of a man who was a known case of systemic hypertension, Type 2 diabetes mellitus, coronary artery disease presented with history of dry cough, dyspnea and significant weight loss for 5 months. CT Chest done showed multiple nodules in bilateral lung fields with lymphadenopathy. He underwent Bronchoscopy, BAL cytology showed no atypical cells. Whole Body PET CT showed metabolically active supra and infra diaphragmatic lymph nodes, multiple ill-defined hypodense lesions in liver, spleen and right kidney, multiple nodular lesions in bilateral costal pleura and bilateral upper and right middle lobe suggestive of granulomatous pathology. His blood parameters showed hypercalcemia, elevated ACE levels and deranged RFTs. He started on hypercalcemia correction and antibiotics in renal titrated dose. Both the Mantoux test and TB QuantiFERON gold were negative. In view of the clinical findings and radiological findings, the probable diagnosis of Multisystemic Sarcoidosis was made. After a multidisciplinary team meeting, he was initiated on steroids to prevent imminent and ongoing complications before obtaining a definitive diagnosis. EBUS + TBNA from station 7 showing blood only. The needle was sent for GeneXpert and AFB smear was sterile. Transbronchial lung biopsy taken from the lower left lobe showed non necrotizing granulomatous inflammation, confirming definitive diagnosis of sarcoidosis. Whole Body PET MR showed no sign of cardiac sarcoidosis. Multiple myeloma workup was done which was negative for multiple myeloma. Thus, the patient was treated with oral steroids, steroid sparing agent and immunosuppression with anti TNF due to major organ involvement. The case illustrates the importance of a thorough clinical assessment, reviewing of investigations and an open mind in evaluation of a patient.

Keywords: multisystemic, diagnostics, differentials, granulomatous

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## TRACKING RUBELLA IN BANGLADESH: ANALYSIS OF RUBELLA SURVEILLANCE DATA IN BANGLADESH, 2021-2022

Bin Alam M<sup>1\*</sup>, Hassan M<sup>1</sup>, Qayum M<sup>1</sup>, Hossen M<sup>2</sup>, Islam A<sup>3</sup>, Al Murad S<sup>2</sup>, Rahman M<sup>1</sup>, and Shirin T<sup>1</sup>

<sup>1</sup>*Institute of Epidemiology, Disease Control and Research (IEDCR), Dhaka, Bangladesh*

<sup>2</sup>*Expanded Program on Immunization (EPI), DGHS, Dhaka, Bangladesh*

<sup>3</sup>*World Health Organization, Dhaka, Bangladesh*

\*[sayikbinalam@gmail.com](mailto:sayikbinalam@gmail.com)

### ABSTRACT

Rubella surveillance is conducted as both passive and weekly active case searches across 792 sites by the Expanded Programme on Immunisation (EPI) in Bangladesh. This secondary data analysis of rubella surveillance aims to assess the demographic characteristics, vaccination status, geographical distribution and proportion of positive cases in Bangladesh from 2021-22. A suspected case of rubella is defined by fever with maculopapular rash. The National Polio Measles Laboratory validates a confirmed case by detecting serum rubella-specific IgM antibodies and RNA in nasopharyngeal specimens by RT-PCR. Proportions, mean±SD were calculated for continuous variables and for categorical variables Chi-Square tests were performed using Stata 17.0 version considering P<0.05 as statistically significant. Out of 10,473 suspected cases (median age 5 years), 295 (2.82%) were lab confirmed among which 164 (55.6%) were male. The age group of 9-11 months exhibited the highest test positivity rate (10.9%, n=85). Among the confirmed cases, 22.7% (n=67) were unvaccinated, mostly belong to ≥15-year age group (n=28). Notably, 5.8% of confirmed cases were children <9 months. The number of unvaccinated confirmed cases was highest in Khulna and Rajshahi divisions (16.4%, n=11 each) whereas the lowest was in Sylhet division (4.5%, n=3). Approximately 80% of the suspected cases were reported by the government reporting sites. Bangladesh aims to eliminate measles & rubella by 2026 by achieving ≥ 95% coverage for two doses of the Measles-Rubella vaccine, which was 89.1% in 2019. We recommend strengthening routine immunization and supplementary immunization programmes to reach this target. Further studies, such as measles-rubella serosurvey, can be conducted to understand the level of immunity across diverse age groups. In addition, steps should be taken to increase reporting by non-government surveillance sites.

Keywords: expanded programme on immunisation, rubella, surveillance



The International Institute of Knowledge Management  
No: 531/18, Kotte Road, Pitakotte, 10100, Sri Lanka  
Tel : +94 117 992 022 Email : [info@tiikm.com](mailto:info@tiikm.com) Web : [www.tiikm.com](http://www.tiikm.com)

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