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**THE EAST, CENTRAL AND  
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& THE MINISTRY OF HEALTH  
KINGDOM OF ESWATINI**



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**ABSTRACT BOOK**

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### Sub-theme 1: Building sustainable improvement for Nursing and Midwifery workforce

**ABSTRACT ID: 140**

#### **Perceptions of EmaSwati Nurses Working in the United Kingdom About International Migration: Experiences and Plans**

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*Keywords:* diaspora, healthcare workers, migration, nurses, remittances

**Background:** The migration of healthcare staff from developing to developed countries has caused deleterious effects to already crumbling healthcare systems in many third world countries. Understanding the perception of EmaSwati Nurses working in the United Kingdom (UK) is important to inform potential changes to retain nurses in the country consequently reverse the adverse effects in the health system of the country following the migration of nurses. Currently, nurses' perceptions, experiences and plans as they work in UK remain unknown.

**Aim:** To investigate the perceptions of EmaSwati nurses working in UK about international migration including their experiences and plans

**Methods:** A cross-sectional descriptive qualitative survey was conducted among 48 purposively identified emaSwati nurses working in UK to explore their perceptions and future plans concerning their own migration. Questionnaires were mailed to nurses that consented to participate and responses were also mailed back in self-addressed and stamped envelopes. Data was collected using a semi-structured questionnaire. Data was analysed by reading over and over the responses from participants and looking for similarities or differences. Subsequently finding themes and sub-themes. Study was reviewed and cleared by the University of Eswatini Faculty of Health Sciences Ethics Review Committee (ref: UN/FHS/ERC2019/07).

**Results:** Findings from the study suggest that nurses in eSwatini are motivated by the higher pay and strength of the pound to emigrate (pull factors). Lack of accountability by the system of governance, equipment shortage, poor supervision, high workload, and lack of training opportunities were other push factors identified by the participants. The

eSwatini Government, through the Ministry of Health, engaged several strategies to reduce overseas migration of nurses. However, with the slow improvement of the country's political and economic developments, the crises may remain and recur.

**Conclusion:** Increased remuneration, investments in healthcare infrastructure, purchase of appropriate equipment and reduction in workloads could improve working conditions and reduce the loss of nurses to overseas countries. Development of inclusive policies to address migration of all citizenship of this country could greatly benefit from the practice economically, socially, and otherwise, and ensure input of knowledge into the healthcare system from personnel returning with experience from overseas exposure.

## ABSTRACT ID:83

### **Nurses' perceived stress and quality of life associated with deployment to rural/urban health facilities in Eswatini**

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*Keywords:* Quality of Life, deployment, nurses, perceived stress

**Background and purpose:** High level of work-related stress affect the wellbeing of the nurse adversely, leading to mental health problems, burn-out and poor Quality of Life. Work-related stress is the principal cause of occupational health challenge at Eswatini leading to poor Quality of Life among nurses and poor patient outcomes. In one hospital at Eswatini it was estimated that on average, only half of all nurses were able to do their full duty at any one time and half were unable. The inability of nurses to perform their duties maximally has not been systematically explored in Eswatini. The study investigated nurse's perceived stress and Quality of Life associated with being deployed to rural or urban health facilities in Eswatini.

**Methodology:** A quantitative, descriptive-correlational design was used. Four (4) settings and sample of 233 nurses of different cadres were selected using multistage-cluster sampling. Data were collected using questionnaires adapted from the Expanded Nursing Stress Scale and World Health Organization Quality of Life-BREF. Data collection tools used have established psychometric properties. Data were analyzed using descriptive and inferential statistics. All the ethical principles were observed to ensure that the participants' rights were not violated.

**Results:** Most participants were females (79.9%, n = 173). The mean age was 37.1 years with a SD of 8.3 years. A majority (77.0%, n = 173) were stressed by lack of opportunity to talk openly with other personnel about

work-related problems. More than half (57.0%, n=128) were stressed by sexual harassment in their settings. Seventy eight percent (78.2%, n = 176) were stressed from being asked questions by patients to which participants did not have satisfactory answers. A majority (83.1%, n=189) were stressed by physicians who ordered inappropriate medication. Most (82.3%, n=185) participants were stressed by the death of patients. A majority (94.2 %, n=211) were stressed by staff shortage. The overall perceived stress among the participants was rated as moderate (2.33). Most (57.3%, n=129) participants were satisfied with their health status. A majority (83.6%, n = 188) of participants needed medical treatment to function. Almost all (94.7%, n = 213) participants did not to have enough money to meet their needs. Most (56.9%, n =128) participants were not satisfied with access to health services. Participants deployed to rural settings had good Quality of Life (Mean= 86.86, SD=10.67) than those deployed to urban facilities (Mean = 85.97, SD, 13.97). Participants who worked with new-born babies had poor Quality of Life compared to other participants (r=0.212, p= 0.001). The participants' Quality of Life was moderate (64.25%). A majority of the participants were from urban facilities (68.0% n= 153). Fifty three percent (53.3%, n=120) preferred to work in urban settings, while 46.7% (n=105) preferred working in rural health facilities. The results indicated that deployment setting (rural/urban) was neither a predictor of perceived stress (F=1.876, p=0.172) nor Quality of Life (F=0.231, p=0.631).

**Conclusion and implications:** The nurse's perceived stress was moderate, and Quality of Life of nurses deployed to both rural and urban health facilities was moderate as well. There was no relationship between their dependent variable, deployment (rural /urban) and the dependent variables, perceived stress and quality of life ( $p \geq 0.05$ ). There is need for wellness programmes; continuous professional development programmes; the nurses' curriculum should introduce entrepreneurship; support groups be established in the various units; and structures through which abused nurses could report such facilities should develop or strengthen. Data collection tools were probably used for the first time among the nursing cadre in Eswatini, thus replicating the study to validate findings is essential.

**ABSTRACT ID:**200

### **Evaluation of adherence to continuing professional development guidelines of the Nursing Council of Kenya in Meru County – Kenya**

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**Keywords:** Adherence, Continuing Professional Development, Nursing Council of Kenya Guidelines

**Background and Objectives:** Continuing Professional Development has

remained one of the numerous approaches aimed at strengthening health care workers and deemed necessary to improve quality of patient care and safety. The present approach to CPD has intense faults with large gaps in research, regulation, and financing. The CPD activities are managed by different stakeholders operating in isolation and each conducting the training in their own different styles. The Nursing Council of Kenya has made it mandatory that nurses undertake CPDs for their licenses for practice to be renewed. Regulatory requirements are updated often, and it is important to know of these changes and to know how they could influence the nursing practices. Moreover, it is key for nurses to know which practices are pertinent to their patients especially with the technological advances. This study sought to evaluate adherence to the continuing professional development guidelines of Nursing Council of Kenya in Meru County- Kenya.

**Methods:** The study was a descriptive cross-sectional survey. A total of 276 participants (Nurse practitioners, CPD providers and County Health administrators) were interviewed using multistage sampling procedures. For primary data Collection, questionnaires and interview schedules were used with structured and unstructured questions while for secondary data, document analysis checklist was utilized. The Statistical Package for Social Sciences version (SPSS) 22.0 was used in data analysis and data analyzed descriptively using frequencies and proportions and standard deviations. Several steps were employed to minimize errors and biases. The study obtained clearance approval from relevant authorities.

**Results:** Nurse Practitioner's adherence to CPD guidelines of NCK: Majority (n= 101;36.6%) nurses interviewed were aged 30-39 years with 1-5 years of experience and a few (n=22, 8%) were >50years. 65% had undertaken some CPD courses while 35% had not done any course. 41% were registered with NCK and often renew their practicing licenses as required by the council and only 54% identify CPD activities based on needs and relevance while more than half (67%) of nurses do not keep evidence of participation in a CPD activity. Accreditation of CPD providers: Of the sampled CPD providers, 75% were accredited to offer CPD training. Only 62.50% of the CPD providers conform to the set guidelines to some extent (3) while half of CPD providers (50%) renew licenses to less extent (2). Adherence of the County to Monitoring Nurses CPD training: The county does not have a CPD coordinator and therefore low monitoring. Only 50% of the County administrators indicated that there are a record and details of nurses who have benefited from continuing professional development training opportunities, and not all the nurses achieve 40 credit points requirements for licensure.

**Conclusion & Recommendations:** Adherence to CPD guidelines by the nurses' practitioners is facing major challenges; nurses do not adhere to the CPD guidelines as stated by the council. The CPD providers hardly adhere to the CPD guidelines by some not being accredited by the regulatory bodies and their trainers not competently certified by NCK and other regulatory bodies. The county has done well in monitoring CPD activities,

though there are still gaps; county CPD coordinator is needed to link the county CPD activities to the national system. Whether a legitimate onus or a free deliberate choice, nurses must adhere to the regulators requirements by undertaking some trainings which will result to efficiency and improved patient's management and improved health outcomes.

## **ABSTRACT ID:130**

### **Exploring the current practices of incorporating integrative therapies among healthcare professionals in an intensive care unit**

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*Keywords:* family, healthcare professionals, integrative therapies, intensive care unit

**Introduction and Background:** There is growing demand among patients and their families for the incorporation of integrative therapies in hospitals and healthcare professionals are allowing their use in hospitals. Integrative therapies are treatment approaches, products and systems that are not part of Western medicine. The aim of incorporating these therapies is to promote healing environments and patient-centered care. Although studies have been conducted in other settings, the researcher found no literature on the incorporation of integrative therapies in the ICU where the study was conducted. Therefore, the study wished to explore the current practices of incorporating integrative therapies among healthcare professionals in an intensive care unit in a public regional referral hospital in Eswatini and to make recommendations for improving patient- and family-centered care in the intensive care unit.

**Methodology:** The study adopted a qualitative, explorative, descriptive, and contextual design. The population consisted of all the healthcare professionals (nurses and doctors) working in the selected intensive care unit of a public referral hospital in Eswatini. Non-probability purposive sampling was used to select the nine participants and data was collected by means of face-to-face semi-structured interviews. Content analysis using the DEPICT model of collaborative qualitative data analysis was used for data analysis. DEPICT is an acronym for Dynamic reading, engaged codebook development, Participatory coding, Inclusive reviewing and summarising, collaborative analysing and translating.

**Findings:** Four themes emerged from the data, namely patient-centered care; belief systems; current practices, and healthcare environment. The participants indicated that they allowed integrative therapies in order to promote holistic patient care in the ICU and expressed a need for policies and guidelines on the incorporation of integrative therapies in the ICU. The study makes recommendations for management, practice, education and further research.



## ABSTRACT ID:106

### Assessment of ethical competence among clinical nurses in health facilities

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*Keywords:* Clinical nurses, clinical practice, ethical competence, ethical competence prevalence, ethics education, moral competence

**Introduction:** Anaphylaxis is a life-threatening, systemic hypersensitivity reaction due to an allergen response leading to mast cell and basophil activation. It presents with dermatological, respiratory, gastrointestinal, cardiovascular and neurological symptoms. Delay in clinical diagnosis and treatment may result in death by airway obstruction or vascular collapse. On March 24, 2021, the Eswatini Ministry of Health launched the nationwide rollout of the AstraZeneca Vaccine among frontline workers in the country. At that time, 17,301 cases of SARS-CoV-2 (COVID-19) and 665 associated deaths had been reported in Eswatini. The incidence of anaphylaxis for the AstraZeneca Vaccine, its lifetime prevalence and associated mortality rate are not documented for Eswatini.

**Case Presentation:** This case report summarizes the clinical characteristics of an anaphylactic reaction in a 40yr old female medical doctor in Eswatini following administration of the first dose of the AstraZeneca COVID-19 vaccine. At vaccination on March 25, 2021, the recipient was otherwise asymptomatic and in excellent health. She had no history of hypersensitivity or anaphylaxis to childhood or annual adulthood vaccines. 15-minutes post vaccination, she developed dizziness and injection site tenderness, which resolved. 17-hours post vaccination, she developed sudden onset and rapid progression of high-grade fever(42°C/107.6°F) which was non-responsive to antipyretics, hypotension of 88/45mmHg, severe headache with visual blurring, chest tightness and rash. She was clinically diagnosed as having anaphylaxis secondary to a vaccine associated adverse reaction. Lab values showed elevated CRP and leukocytosis. Compared to her baseline CRP value of 3.9mg/L, her CRP value post COVID-19 vaccination was 17.8mg/L, representing a 356.41% percentage increase. Immunoglobulin E (IgE) was normal. A SARSCoV-2 RT PCR test post-vaccination was negative. Treatment from the emergency department was with intramuscular injections epinephrine, steroids and antihistamines. She fully recovered after 10 days.

**Discussion:** The results suggested that COVID-19 vaccination can cause anaphylactic reactions and emphasizes the need for post-vaccination monitoring and pharmacovigilance. The prompt and accurate diagnosis of anaphylaxis, albeit following an atypical, delayed presentation, led to optimal patient outcomes. Anaphylaxis with COVID-19 vaccines is a rare event. Even though the onset is rapid in the majority of cases, it can follow an unpredictable clinical course and has the potential to be fatal.

## ABSTRACT ID:100

## Hospital Based Midwifery Training Model in Zimbabwe: Student Learning Approaches and Readiness

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*Keywords: Learning Approaches; Learning Readiness; Midwifery Student; Hospital-Based Training Model*

**Background:** Health care workers (HCWs) are expected to role-model preventive measures, including uptake of the COVID-19 vaccines. However, little is known about HCWs' hesitancy and intention to take the COVID-19 vaccines in Eswatini.

**Objective:** To compare the ability of the Health Belief Model (HBM) and Theory of Planned Behavior (TPB) to predict HCWs' hesitancy and intention to take the COVID-19 vaccines in Eswatini.

**Methods:** We conducted a cross-sectional online survey and conveniently sampled 150HCWs from various social media platforms across Eswatini. We embedded a well-structured questionnaire in Google Forms and assessed TPB constructs (perceived behavioral control(PBC), attitudes towards COVID-19 vaccination, social norms, and intention) and HBM constructs (perceived susceptibility to COVID-19, perceived severity, barriers, benefits, and cues to action). Controlling for age, sex, employment status, and antecedents of vaccination, structural equation modeling was performed separately for each theory.

**Results:** Nearly two-thirds (64%) of the participants were female, 11.3% were unemployed, and their ages ranged from 19 to 72 (Mean = 33.77±8.92) years. In the TPB analysis, PBC was negatively associated with hesitancy ( $\beta = -0.45, p=.009$ ) whereas positive attitudes were negatively associated with both hesitancy ( $\beta = -0.41, p=.003$ ) and intention ( $\beta = -0.30, p=.003$ ). The TPB model accounted for 49% and 36% of the total variance in the hesitancy and intention scores, respectively. In the HBM analysis, the higher number of barriers reported, the higher the hesitancy ( $\beta = 0.29, p=.002$ ) whereas the higher the perceived benefits, the lower the hesitancy ( $\beta = -0.62, p=.001$ ). Low hesitancy ( $\beta = -0.33, p=.002$ ) and high perceived susceptibility to COVID-19 ( $\beta = 0.24, p=.003$ ) were associated with a higher intention to be vaccinated. The HBM constructs accounted for 54% and 34% of the total variance in hesitancy and intention scores, respectively.

**Conclusion:** The TPB was found to be superior in predicting HCWs' intentions to take the COVID-19 vaccines whereas the HBM was superior in predicting COVID-19 vaccine hesitancy. Thus, the Ministry of Health vaccination programme can integrate these theories and use them as frameworks to guide interventions aimed at reducing COVID-19 vaccine hesitancy and improving HCWs' intention to take the COVID-19 vaccines.



## ABSTRACT ID: 135

### **Nurses Knowledge, Attitude and Practices towards Pressure Ulcer Development in one of the Regional Hospitals in the Hhohho Region of Eswatini**

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**Keywords:** *Attitude, Knowledge, Nurses, Practices, Pressure Ulcer*

**Background:** Pressure ulcers is one of the major challenges in hospitalized patients, elongates hospital stays and increased hospital bills, endangering patient safety and contributes to disability and death. Data regarding pressure ulcer development prevention is very important to take action. However, in Eswatini, there are limited research that have been undertaken, and there is clear paucity of information in this regard. Hence, this study aimed at assessing nurse's knowledge, attitude and practices towards pressure ulcer development among nurses in one of the regional hospitals in Eswatini.

**Methods:** A cross sectional study was conducted among 70 randomly selected nurses working in one public hospital in northern Eswatini. Data was collected from the 20<sup>th</sup> of October to the 7th of November 2021 using a pretested self-administered questionnaire. Collected data was entered into SPSS version 22.0 for analysis. Bivariable logistic regression and adjusted odd ratios along with 95% confidence interval was computed and interpreted accordingly. Pressure ulcer prevention practice was determined based on mean calculation and a result above the mean value was categorized as good pressure ulcer prevention practice and a P-value <0, 05 was considered to declare a result as statistically significant. Study was reviewed and ethically cleared.

**Results:** In this study 88% (61) nurses possessed above average knowledge on pressure ulcer development prevention. It was found that 98% (68) nurses exhibited a positive attitude towards pressure ulcer development prevention. On the practice level, only 10 % (7) responded with an always practice to preventive measures for pressure ulcers. When we anticipated that practice would be informed by how much knowledge nurses possess and their attitude, however there are some independent variables that could have contributed to such numbers. We found that sex had a significant relationship with the practice of pressure ulcers prevention, and to a certain extent the level of qualification correlated positively with practice at 0.01

correlation significance. cited for hesitancy. Government through ministry of health needs to widen the vaccine options, provide more evidence- based information about the different vaccines using various media, and address the myths and misinformation perpetrated by social media in particular.

**Conclusion:** In this study self-reported practice was low compared to the knowledge and attitude output. Continuing education and training compiled with direct supervision to offer guidance should be considered for nurses to enhance their practices towards pressure ulcer prevention.

**ABSTRACT ID:**189

## **Strengthening nursing and midwifery workforce capacity in Supply Chain Management through digital learning**

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### **Keywords:**

**Background & Objectives:** Nursing and midwifery workforce play a vital role in saving lives and their success depends on an efficiently operating supply chain system. They must be able to provide effective, efficient, and equitable delivery of services till the last mile. Unfortunately, pre-service education for nurses and midwives does not prepare them for the fundamentals of ordering, storage, and dispensing of health commodities, and as a result, there are frequent supply chain challenges such as stock outs and excessive inventory. Therefore, it is critical to help nurses and midwives to understand their role in SC, not only in informing SC but also in ensuring that they understand essential SC aspects.

**Method:** Empower Swiss along with ECSACON and leading nursing associations, are developing a supply chain training curriculum in the form of e-learning courses that will help nurses and midwives understand their role in supply chain, as well as ensure an introduction to essential supply chain concepts they must manage, to have an effective and efficient supply chain. These courses will complement their existing responsibilities and help them perform their roles better in the community. The project will be implemented across five African countries which include Nigeria, Rwanda, Botswana, Kenya, and South Africa. Thirteen interactive and engaging courses with explanatory videos are being developed with a focus to help the nurses and midwives perform their roles effectively and efficiently. The content design and training approach has taken into consideration the cultural context, the existing knowledge, attitude, and practices of the frontline workers, digital penetration, and mobile connectivity through a thorough needs assessment to ensure effective implementation of the project. An immersive online learning management platform has also been developed which can be accessed on any device and even when there is no internet connectivity. The eventual ambition is to reach and train 100,000 FLHWs in the next 5 years.

**Results:** Pilot testing and feedback, as well as engagement and advocacy with essential stakeholders such as Ministries and professional associations, will ensure dissemination and uptake of the courses at all levels of the health system, and ensure scalability and sustainability of the initiative. The project is ongoing, and additional results and impact will be shared during the next ECSACON Conference.

**Recommendations:** Ensure sensitization and knowledge dissemination of supply chain management during pre-service education. Nurses and midwives must be engaged in supply chain discussions and decisions and their capacity must be strengthened to ensure sustainable improvement in health outcomes. Collaboration with partners such as funding agencies to align this initiative with their funded capacity-building strategies and workplans. Generate demand and enthusiasm among nursing and midwifery workforce by socializing supply chain courses from the perspective of nurses and midwives

**ABSTRACT ID:**137

## **Health care providers' perspectives on the Universal Test and Treat for all approach in Lesotho**

*Authors:* Maithabeleng Litlallo Tsolo /Scott College of Nursing

*Keywords:* HIV, Perspectives, challenge, universal Test and Treat for all strategy

**Background & Objectives:** Lesotho is one of the first countries on the African continent to implement the universal test and treat strategy in accordance with the World Health Organization's updated guidelines on HIV therapy. The World Health Organization guidelines disregard all constraints on antiretroviral therapy eligibility and recommend that anyone infected with the Human Immuno-deficiency Virus begin treatment as soon as a positive test result is obtained. This strategy was launched in Lesotho and put into practice ever since June 2016 in all health facilities across the country. At the local hospital in Morija Lesotho, the goal of the study was to explore and describe the health care professionals' perspectives on a universal Test and Treat for all strategy.

**Methods:** The study followed a qualitative, explorative, descriptive and contextual design. The study was ethically approved by the Stellenbosch University and the Ministry of Health Lesotho. The population which was purposively selected comprised of professional nurses, medical doctors and nursing assistants providing HIV services to clients from the 1st of June 2016. Data as collected through semi structured interviews and filed notes and the interviews were recorded with an audiotape recorder. Data collection continued until data saturation. The tape-recorded interviews were transcribed verbatim and analysed using Tesch's eight-step method.

**Results:** Four males and nine females with age ranging from twenty-seven (27) to sixty (60) years participated in the study. Three themes emerged

from the results: (1) Psychological challenges, where health care providers explained that test and treat leads to stress and depression in clients when they are initiated on treatment right away. (2) Barriers to treatment: the participants mentioned that there is increasing on lost follow-up as clients provide wrong contact details and lose health booklet deliberately. (3) resource challenge was another theme where participant raised an issue that increase in the number of patients on ART leads to increased staff workload and it is time consuming. Health care providers lack of capacity on test approach. Some of the challenges encountered include psychological challenges and physical adverse effects. Barriers to treatment included patient follow up challenges and fears. Human and financial resources were also identified as challenges.

**Conclusion/Recommendation:** Psychological difficulties can be avoided by educating communities about the importance of starting ARVs as soon as possible, as opposed to the past, when ART initiation was based on numerous parameters such as CD4 count. Counseling training and refresher courses for health care providers are required. Patients' anxieties will be alleviated as a result of increased counselling trainings, and they will adhere to their therapy, resulting in an improved quality of life. To avoid a resource deficit, a system that is focused on future demands must be developed. To address theory practice gap during pre-service education, the nursing education curriculum should also include new trends such as the universal test and treat.

## **ABSTRACT ID:182**

### **Women's perceptions of the quality of Antenatal nursing and midwifery care in two regional hospitals in the Manzini region of Eswatini**

*Authors:* Gcinile Nsingwane/Swaziland Democratic Nurses Union

*Keywords:* Antenatal care, health facility, maternal health, perceptions, pregnancy, quality

**Background and Objectives:** The world is still faced with unacceptable rates of maternal and neonatal deaths, most of which could be prevented by early antenatal care bookings as most of these complications are preventable, manageable and develop during pregnancy. About 830 women die from pregnancy or childbirth-related complications every day globally. Eswatini is not an exception, despite the availability of antenatal care services across the country. This may be attributed to the quality of the services, part of which being the quality of nursing and midwifery care. The purpose of this study was to explore women's perception of the quality of antenatal nursing and midwifery care services in Manzini region and describe the factors influencing these perceptions.

**Methods:** The study was a qualitative phenomenological study done at two

selected regional/referral hospitals in the region. Twenty (20) women who had delivered in these hospitals and had utilized ANC services in their last pregnancy were purposively sampled. The researcher conducted a one-on-one face-to-face interview with the participants using an interview guide with semi-structured questions. The researcher also took field notes while recoding the interviews. Data were analysed using Tesch's (1990) open coding method. Data trustworthiness was ensured by observing the four components of trustworthiness which are: credibility, transferability, dependability and conformability. The ethical considerations were observed and maintained throughout the whole study, and this included: obtaining approval for the study, obtaining ethical clearance from the Eswatini Health and Human Research Review Board and permission from the institutions where the study was conducted. The participants were asked to sign a consent form as prove for their willingness to freely participate in the study.

**Results:** The findings revealed that participants had mixed views about the quality of antenatal nursing and midwifery care. Both negative and positive perceptions were reported. The services were perceived as good because they were regarded as efficient with short waiting time, comprehensive and offered by competent and friendly personnel who gave themselves time with each woman and answered every question they might have. Patients were also allowed to bring their spouses for psychological support. To the contrary, the quality of care was perceived to be poor given that care providers were unqualified and inexperienced due to shortage of staff. History taking was incomplete and patient education was of poor quality. The health care personnel were also unprofessional when attending to the women, they were judgmental with negative attitudes and treating the women unfairly.

**Conclusions and Recommendations:** It was concluded that the quality of antenatal nursing and midwifery care was inconsistent across Health Care Facilities and from time to time. In some health facilities nurses and midwives still offer quality care which is efficient, comprehensive and satisfactory to the patients. At the same time there were also negative feelings of the quality of care that was provided as there were reports of inadequate human resource, hence the poor quality of services evidenced by long waiting time and unprofessionalism. It was recommended that: there is need to develop a strategy to standardize Antenatal nursing care practice and supervision in the region. There is also need to conduct further studies to quantify the magnitude and significance of the various views observed in this study.

**ABSTRACT ID: 203**

**Nursing brain drain ethical concerns in international migration of nurses**

*Authors: Pauline Kariuki | Nyamira County, Kenya*

**Keywords:** *Ethical concerns, International migration of nurses*

International migration of nurses, especially from low- to high-income countries, continues to increase. Every year, thousands of nurses from low- and middle-income countries leave their countries in search of “greener pastures”. The number of migrant nurses working in high-income countries has risen by sixty percent in the last decade. In 2018, there were nearly nine nurses per 1 000 population in the developed countries compared to less than two nurses per 1 000 population in the developing countries. The recommended ratio is 83:10,000. Over 80 % of the world’s nurses are found in countries that account for half of the world’s population. Many of the migrant nurses leave their countries that are already suffering from nursing shortages coupled with a high burden of disease. The international migration of nurses has contributed to nursing “brain drain” and worse health outcomes in developing countries. This large and increasing trend has raised questions as to whether actively facilitating the international migration of nurses is ethical. The aim of this study was to explore ethical concerns in migration of nurses. A literature review of five electronic databases was done. Only relevant articles published in English language between 2018 and 2022 were included. A multistep selection process was carried out and content analysis of the identified articles done. Out of the 1750 identified articles, only 19 met the inclusion criteria. This study concluded that there are several ethical concerns in migration of nurses; (i) low nurse-patient ratios cause weakening of quality of nursing care provided to patients in developing countries. This, therefore, raises the issue of ethics when high income countries take nurses to their countries leaving developing countries grappling with nursing shortages and disease burden; (ii) migrant nurses face racial discrimination from patients, some patients refuse to be served by migrant nurses, stigmatizing the nurses; (iii) discrimination from employers - some employers pay different rates of pay for nurses with the same qualification level whereby locally trained nurses in the high income countries are paid more than migrant/foreign trained nurses which is unethical; (iv) failure of developing countries to strengthen their healthcare systems, employ their trained nurses as well as meet their needs. Many low- and middle-income countries have inadequately equipped health care institutions and weak systems, coupled with over-worked and under-paid nurses. This greatly demoralize nurses fueling migration to countries with better equipped healthcare institutions and remuneration. Thus, preventing the movement of nurses to high income countries is an unethical and unfair way to improve access to nursing services in these countries. The study, therefore, recommends that; (i) migration of nurses must be health facilities. effectively monitored, and responsibly and ethically managed. International nurse migration policies and procedures such as the WHO Global Code of Practice on the International Recruitment of Health Personnel should be reinforced and implemented by countries, recruiters and international stakeholders in order to ensure equitable distribution of nurses to meet the nurse-patient ratios; (ii) countries that are over-reliant on migrant nurses should aim towards greater self-sufficiency by investing more in domestic production of nurses;



(iii) elimination of all forms of discrimination; and (iv) countries experiencing excessive losses of their nursing workforce through out-migration should consider mitigating measures and retention packages, such as improving salaries and working conditions, creating professional development opportunities, and allowing nurses to work to their full scope of education and training in order to mitigate international nurse migration.

**ABSTRACT ID:117**

**Work-based learning for Baccalaureate nurses in Uganda: perception and current practice**

*Authors: Elizabeth Namukombe Ekong /Uganda Christian University*

*Key words: Baccalaureate Nurses, Continuous Professional Development, Midwives, Workplace learning, Work-Based Learning, perception, practice*

**Background:** The changing disease burden, increase in technology and change in the treatment modalities of various illnesses pose a challenge in the need for continuous update of knowledge and skills among nurses. Failure of nurses to update their knowledge and skills compromises nursing and healthcare outcomes. Uganda joined other countries to implement the WHO resolution of strengthening nursing and midwifery services through higher education, hence, the preparation of baccalaureate nurses. Work-Based Learning (WBL) is a strategy that provides real-life work experiences and equips an individual with the required competencies for service delivery. Baccalaureate nurses in Uganda undergo different forms of WBL: Cooperatives during the Bachelor of Nursing Science program, Internship after graduation and On-the-job trainings. There was no clear evidence of how WBL is continued in the day-to-day clinical practice of baccalaureate nurses to facilitate the mandatory required credits by Uganda Nurses and Midwives Council (UNMC) before renewal of licensure.

**Objectives:** To explore the perception of baccalaureate nurses in Uganda on the ease of engaging in Work-based learning. To explore the perception of baccalaureate nurses in Uganda on the usefulness of work-based learning. To describe the current practice of WBL among baccalaureate nurses in Uganda. To determine any existing relationship between perceived usefulness and current practice of work-based learning among baccalaureate nurses in Uganda.

**Methods:** The study was conducted among baccalaureate nurses in 11 hospitals in central Uganda. Cross-sectional survey and exploratory descriptive designs were used for the quantitative and qualitative approaches respectively. Purposive, cluster, simple random sampling was used for the study setting given their different levels in service delivery, to increase reliability of the findings. Convenience sampling was used to obtain 251 baccalaureate nurses working in the selected study sites. Ethical

approvals and informed consents were obtained. Data was collected using an electronic survey tool, focus group and key informants interview guides. Descriptive, inferential and logistic regression analysis was done using SPSS 20. Thematic analysis was done for qualitative data.

**Results:** The study sample had both male and female at a ratio of 1:3.8; age range was 37; a mean work experience of about 12 years. Baccalaureate nurses perceived WBL as learning at or outside the workplace. The overall mean for perceived ease of WBL was 1.65 (Std. Dev. 0.48). The perceived ease was relative to a supportive workplace environment. The perceived usefulness of WBL to individuals, institution, and patient and care delivery was significant. Qualitatively, perceived usefulness of WBL to individuals and the institution translated into continuous improvement; perceived usefulness of WBL to the patient and care delivery translated into patient satisfaction. Almost all (98.8%) of the baccalaureate nurses practiced WBL (mean: 1.988; Std. Dev. 0.109) Baccalaureate nurses practiced WBL that was organized by the institution. Practice of WBL was influenced by personal, social, institutional and global factors. Perceived usefulness of WBL to the institution is four times more likely to influence practice ( $B=3.97$ ;  $p<0.05$ ; 95% CI. 4.40-641.23). Policies, guidelines and documentation tools for WBL and human resource are still a challenge.

**Conclusion:** Baccalaureate nurses learn during ward rounds and CMEs and not through the self-assessment and identification of learning gaps, setting goals and deciding on the learning methods as the process entails. There is need to grow the personal factors since they have the potential to inculcate a personal learning culture and influence the challenges and constraints faced during WBL. Health care institutions ought to focus at improving workplace environments to promote continuous improvement and patient satisfaction, a process that involves self (individual), interpersonal, community, and policy just like what the social Ecological Model (SEM) recommends. This will support the development of baccalaureate nurses and promote the success of WBL.

## ABSTRACT ID:103

### **Effectiveness of Low Fidelity Simulation on Improving Clinical Competence Among Undergraduate Nursing Students in Dodoma Tanzania; A Quasi-Experimental Study**

*Authors:* Lusajo Jason Mwalukunga/Assistant Lecturer at The University of Dodoma

*Keywords:* clinical competence, knowledge, low fidelity simulation, nursing students, self confidence

**Introduction:** Acquisition clinical competence has been a challenge in nursing education since students experience anxiety and worry during their clinical practice, due to lack of enough skills, preparation and lack of

enough knowledge, which affect students' ability to learn. This calls for innovative teaching and learning methodologies in order to produce competent nursing graduates, who can not only be able to acquire competencies during clinical practices but also add value in improving quality of health care services. The aim of this study was to test the effectiveness of the low fidelity simulation on improving competence among undergraduate nursing students in Dodoma, Tanzania.

**Methods:** A quasi-experimental study with control was carried out in Dodoma, Tanzania. A purposive sampling technique was used to obtaining participating universities. Purposively, the University of Dodoma was assigned to be the intervention group and St. John's University to be a control group. To achieve a sample size of 122 undergraduate nursing students (Intervention=52 and Control=70) participants were obtained purposively in respective institutions. The intervention group was enrolled in Low fidelity simulation on assessing the newborn and the control group continued with the traditional lecture method, and then both groups were assessed competence through structured questionnaire and Objective Structured Clinical Examination.

**Results:** The mean age of participants was 24.2 years with a range of 20 to 30 years. The mean scores in the post test between groups for knowledge on assessing the newborn were (M=24.94, SD=1.56) in the intervention and (M=5.65, SD=2.37) for control and  $p<0.001$ . For psychomotor skills was (M=61.42, SD=5.19 for intervention and (M=12.14, SD=2.98) for control and  $p<0.001$ . For Self-confidence (M=6.31, SD=0.81) for intervention and (M=0.57, SD = 0.60 for control and  $p<0.001$ .

**Conclusion:** Low fidelity simulation showed to be effective on improving clinical competence enough for learners to practice with no anxiety and worry during clinical rotations.

**ABSTRACT ID:**108

### **Levels of practices and influencing factors on the use of partograph on provision of health care among nurses in Singida municipality, Tanzania**

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**Keywords:** *Practices, health care and Singida, nurses, partograph, utilization*

**Background and Objective:** Partograph is the tool which is used to assess maternal condition, fetal condition contractions and progress of labour. As the result, well filled partograph helps the obstetric care provider to know

any abnormal changes and decide better decisions during delivery of health care to the pregnant mother in labour which can help to reduce maternal and fetal morbidity and mortality rate. Therefore, the broad objective of this study was to determine the level of practices and factors influencing partograph use among nurses during providing health care in Singida Municipality, Singida region.

**Methods:** Analytical cross-sectional study was conducted at Singida Municipality and involved 150 nurses who were randomly selected from maternity departments at Sokoine health center and Singida Regional Referral Hospital in Singida municipality, Tanzania. A practice and associated factors on partograph utilization self-administered structured

questionnaire was used to examine the levels of practices and factors influencing partograph usage on provision of health care. Chi-square test, binary logistic regression and multinomial logistic regression were used to test association and pinpoint significant predictors of level of practice and associated factors on partograph utilization.

**Results:** Findings indicate that out of 150 nurse midwives only 58(38.7%) of the study participants had high level of practice on the application of partograph during delivery of health care. Nurses who got the university education 35(83.3%) and nurse and midwife officers 36(81.8%) had high level of practice on partograph usage compared to assistant nurse officers and enrolled nurses 37(57.8%) and 25(59.5%) respectively. However, after

control of the extraneous factors, nurses who reached at university level were more than sixteen times likely to have a good practice on usage of partograph charts (AOR=16.757; 95%CI: 6.394; 43.915;  $p = 0.000$ ) and nurses and midwives officers were more than eight times likely to have a good practice on partograph utilization on delivery of health care

(AOR=8.323;  $p = 0.004$ ; 95%CI: 0.098; 0.642).

**Conclusion:** The overall levels of practices on partograph utilization were low. The study uncovered that education level and professional qualification were the main factors influencing usage of partograph during provision of health care in Singida municipality, Singida region-Tanzania. Therefore, on job training and workshop should be among of

deliberate efforts to ensure good utilization of partograph during provision of health care so

as to reduce maternal complications, mortality and fetal deaths in Tanzania.

**ABSTRACT ID:201**

**Perceptions of health professional managers concerning facilitation of a wellness program in the state health facilities of Oshikoto region in Namibia: A qualitative study**

*Authors: Julia Amadhila, Hans Justus Amukugo and Ndapeua Nehale Shifiona/ University of Namibia, School of Nursing and Public Health*

**Keywords:** *health facilities, health professional managers, wellness program*

**Background and objectives:** The purpose of this study was to explore and describe the perceptions of health professional managers concerning facilitation of a wellness program in state health facilities. Health professionals in the developing nations in Africa, particularly sub-Saharan Africa such as Namibia experience challenges of occupational stress due to insufficient resources, under-staffing, high demand for providing quality care to patients and work overload. The impact of unavailability of wellness programs on health professionals include work related stress, job dissatisfaction, unhealthy lifestyle, poor health/illnesses. Facilitation of a wellness program by health professional managers is necessary to improve the psychosocial, physical and personal well-being of health professionals in health facilities.

**Methods:** The study employed a qualitative, exploratory, descriptive, and contextual approach. An in-depth interview was done with the participants. Six health professional managers, including Senior Medical Officers (n=2), Principal Medical Officer (n=1), and Nurse Managers (n=3), were selected using purposive sampling with an all-inclusive sample size from the three state health facilities in the Oshikoto Region. The data was gathered using an unstructured interview guide, an audio recorder and field notes. Tesch's steps of qualitative data analysis were used to conduct the content analysis.

**Results:** Three (3) main themes, six (6) themes and twenty (20) sub-themes emerged. The main challenges that affect the facilitation of a wellness program in health facilities are psychosocial challenges such as unavailability of wellness policy and program, pressure from the public demanding better service delivery or lack of consultation regarding staff recruitment. Physical challenges such as staff shortage or inadequate facilities and lastly personal challenges which involve lack of knowledge, illnesses and lack of self-care. Some participants expressed knowledge about wellness programs which includes a program that ensures conducive working environment and provision of care and support to health professionals. Health professionals recommended approaches to facilitate wellness programs in health facilities such as policy development, establishment of a wellness directorate at the National level, staffing and staff development, provision of adequate equipment, awareness creation and in-service training on wellness, strengthening support and teamwork among health professionals.

**Conclusion and recommendations:** Firstly, it was concluded that health professionals are faced with psychosocial, physical and personal challenges that hinder facilitation of a wellness program in state health facilities. Secondly, only some health professionals have inadequate knowledge on wellness programs. The study recommended approaches to facilitate a wellness program in order to create a conducive working environment in state health facilities and that health facilities should develop a wellness directorate at the national level to curb the psychosocial, physical and personal challenges experienced by health professionals.

**Multipronged approach to improving quality of PPH prevention and management; key findings from Smiles for Mothers Project in Kenya**

*Authors: Michae Muthamia / Jhpiego Johns Hopkins University affiliate*

**Keywords:** *Client literacy materials, EmONC mentorship package, Tranexamic Acid, Uterotonics, postpartum hemorrhage*

**Background:** Post-partum hemorrhage (PPH) is the leading direct cause of maternal deaths globally. There are many contributing factors, however inconsistent health provider practice against standards and low PPH awareness are two important reasons. In 2017 and 2018, WHO updated recommendations for PPH prevention and management. Smiles for Mothers Project (SFM) in partnership with the Ministry of Health (MoH) and with funding from MSD for Mothers is implementing a multipronged intervention package in 40 health facilities in 10 counties to improve PPH prevention and management in line with WHO recommendations.

**Methodology:** A baseline assessment targeting 80 health care providers (HCPs) and 732 clients was conducted. The intervention package which was developed using Human Centered Design included clinical training using a facility based Helping Mothers Survive Bleeding after Birth Complete (HMS BABC) training approach. The training was conducted in July and August 2021 reaching a multidisciplinary team of 442 HCPs. Assessments were conducted to measure change in knowledge and confidence levels before and after training. Post training follow up was conducted to assess change in practice. Additionally, SFM developed, pretested and disseminated client literacy materials which included posters, audio messages and animated video messages. SFM advocated for national adoption of WHO recommendations on uterotonics and tranexamic acid (TXA). SFM supported maternal deaths auditing. Data sources included Kenya Health Information System and supplementary data from July 2020.

**Results:** Across the 9 skills assessed, there was a 59% point increase in participants who reported that they were either extremely or very confident after training compared to before. The percentage of clients who received an uterotonic within 1 minute of delivery increased from 80% (n=23,910) in Qtr4 2020 to 99% (n=38,204) in Qtr1 2022. PPH rate decreased from 2.8% (n=23,916) in Qtr4 2020 to 2.2 % (n=38,204) in Qtr1 2022. TXA for PPH management increased from 35% (n=930) in Qtr3 2020 to 72% (n=842) in Qtr. 1 2022. Maternal death audits increased from 66% (n=29) to 94 % (n=65). The percentage of PPH cases developing complications decreased from 38% (n=1596) to 30% (n=1423) in 2022. PPH case fatality rate did not decrease over time (1.6%, 2.0% and 2.1% in 2020, 2021 and 2022 respectively). 71.4% (n=732) of clients knew bleeding as a danger sign during baseline compared to 77 % (n=542) at end line. WHO recommendations on uterotonics and TXA were included in the national guidelines. Additionally, HMS BABC training package was adopted and included in the national EmONC mentorship package.



**Conclusion:** The HMS BAB training was associated with increased confidence levels across all the skills assessed. There was a decrease in PPH rate overtime. Low case fatality rates at the beginning were associated with poor documentation. Majority of the implementing sites are referral sites sometime receiving late referrals which contribute to high case fatality rates. A cluster-randomized trial in 20 districts in Tanzania on this training approach demonstrated a significant reduction of PPH near misses and long-term PPH near miss case fatality among women who suffered PPH in the intervention district compared with comparison districts. Adoption of the HMS BAB training package into the national EmONC mentorship package is anticipated to improve PPH prevention and management. Wider implementation of WHO recommendations is expected to positively impact quality of Maternal and Neonatal Health. SFM anticipated to introduce Heat Stable Carbetocin (HSC) to the public sector to address challenges with the quality of uterotonics. At the time of submitting this abstract, this was not done due to a delay in registration. A critical question still remains. How would the PPH rate and PPH case fatality rate change with the introduction of HSC in the public sector?

#### **ABSTRACT ID:101**

#### **Opportunities and challenges of Advanced Practice Midwifery (APM) in Kenya: a discussion paper**

*Authors:* Florence Mbuthia | Joyce Jebet | Elijah Kirop | Dedan Kimathi University of Technology | University of Nairobi | Moi University

*Keywords:* Advanced Practice Midwifery, Challenges, Midwife, Opportunities

**Background:** The high maternal and neonatal deaths remain a global concern especially in Low- and Middle-Income Countries. This is largely attributed to the limited skilled workforce including midwives who are required to offer quality maternal and neonatal care. Advanced Practice Midwifery (APM) training has been highlighted as critical in achieving high-quality maternal and neonatal care in all settings and countries. In Kenya, the APM training is at the initial stages, having been launched in May 2022. This paper presents the results of a literature review regarding opportunities and challenges for the APM training and practice with a goal of availing information to any institution willing to begin the program in Kenya and other LMICs.

**Methodology:** A descriptive overview was undertaken through a rapid literature review of the relevant local and international literature to highlight the opportunities and challenges for the APM training and practice based on the Kenyan Context.

**Results:** The APM training and practice has expansive opportunities such as the increased demand for quality care and reduced cost services, supportive policies, advances in technology, profession recognition and regularisation of the training and availability of midwives trained at lower levels. However, the challenges that the APM training is likely to experience includes; rural urban disparities, lack of expert trainers, technological challenges, workload challenges due to the high population in need of the services and clinical environment challenges.

**Conclusion:** APM training and practice has enormous opportunities despite the challenges that may be experienced. Therefore, for any institution preparing to start the APM training, there is need to exploit the existing opportunities and address the likely challenges to ensure the APM training and practice meets the desired outcomes.

### **ABSTRACT ID:193**

### **Coaching at scale: the lead, assist, observe approach in sustainable scale up of FP p in East Africa**

*Authors:* Nancy Aloo | Jhpiego-John Hopkins University

*Keywords:* Assist, Coaching, East Africa, Family planning, Lead, Monitor, Observe, Sustainable, scale up

**Background:** The Challenge Initiative (TCI), has partnered with over 40 cities across East Africa (EA) to empower them to rapidly and sustainably scale evidence-based family planning (FP) solutions. Cities in EA face challenges in continuous capacity building of their health workforce in the provision of FP interventions due to various resource limitations. High costs of conventional classroom training and human resource constraints to ensure service continuity impeding the quality of capacity transfer efforts as well as limit the pace of scaling interventions. To address this gap, TCI developed an innovative, yet flexible mode of capacity and knowledge transfer based on Lead, Assist and Observe framework. This was coupled with an innovative peer-to-peer learning strategy that utilizes counterpart coaching and mentorship approach. TCI also set up an online coaching platform “TCI University” to package technical and non-technical content and facilitate coaching requests.

**Methodology:** A total of 43 cities in EA (17 in Kenya, 14 Tanzania and 12 Uganda) were onboarded onto TCI platform between 2018 and December 2021. 17 master coaches drawn from the program identified city coaches based on competence, technical area and willingness to support peers. City annual implementation plans, and landscaping analysis findings were utilized to identify coaching gaps and areas. Coaching content covered technical, management, financial, leadership and data-for-decision making competencies. FP service outcome data were collected through routine city

HMIS while program data and coaching outcomes were collected programmatically through a mobile-based data collection platform (ODK) that included number of cascade coaches developed, coaching sessions held and type of coaching session. Quarterly review of data enabled identification of well and poorly performing coaches and cities and facilitated inter-city and inter-country peer-to-peer coaching exchanges.

**Results:** Over 2 years, 200 master coaches were developed across EA. 1,271 coaches developed at the city level through cascade coaching. A total of 2,919 coaching sessions were reported by city coaches in over 2,096 supported health facilities. 62% of coaching sessions were technical areas of FP while 38% were on non-technical areas - leadership, program management, data for decision-making, finance and advocacy for increased resources. As a result, we saw improved local capacity and program outcomes. There was a 44% increase in FP/AY clientele. FP commitments and expenditure towards FP/AYSRH increased by an average of 28%. Cities were able to adapt and institutionalized most of the high impact approaches in city annual plans and strategies. This result demonstrates strengthened health systems and ownership of the program by the local governments in EA.

**Conclusion and recommendation:** Cities require cost-effective and sustainable flexibility modes of capacity building to address the various challenges they are experiencing in building the capacity of their workforce in the provision of FP/AYSRH intervention. Developing a pool of coaches from the TCI- supported cities enabled the program to improve the technical and non-technical capacity of local government staff to provide a sustainable scale of FP/AYSRH interventions within a short period of time. As a result of the coaching sessions, there was increased client volume, FP financial commitments, institutionalization of the high impact approaches in city strategic documents, and sustained demand for the essential services beyond TCI observed across EA. This was achieved while keeping healthcare workers on site, eliminating the need for costly off-site capacity building. SKS was able to target specifically identified gaps in each location, ensuring that the sessions were relevant, timely and efficient. Based on the results, there is a need for stakeholders to adopt the SKS coaching approach for various programs. Cities needs to invest more in onsite internal capacity building mechanisms of its health workforce to address resource limitation whilst focusing on quality of service provision.

## **ABSTRACT ID:79**

### **Factors Contributing to Homebirths Among Day-Three Postpartum Women Attending a Well-Baby Clinic in Manzini, Swaziland**

*Authors:* Zethu Msibi / Ministry of Health

*Keywords:* Homebirth, intrapartum, postpartum, skilled birth attendant, traditional birth attendant

Homebirths are strongly undesirable in poor and least developed areas to avoid detrimental labour and childbirth complications including maternal

and perinatal morbidities and mortalities. Full guarantee that problems are devoid if intrapartum care is offered in healthcare facilities remain challenging, as literature confirming substandard care exists. However, healthcare facilities are constituted by skilled birth attendants (SBAs) as well as equipment to address intrapartum related challenges. Thus, avoidable intrapartum maternal and perinatal challenges could be averted if diligent care is provided by SBAs. Sometimes health care facilities are unwelcoming due to poor care provision, negative attitudes and overcrowding. Such environments could encourage home childbirth and deter perceived or actual health environment problems. The aim of this study was to explore and describe the factors for sustained homebirths despite such practices being discouraged in Swaziland. A qualitative design using convenient sampling was employed. Thirteen day-three postpartum women who gave birth at home and brought their new-born babies to the well-baby clinic for immunization took part in the study. Individual in-depth interviews were conducted, and data were analysed using thematic analysis. Personal factors represented the reasons for homebirth among the current study participants. Enhanced health education during antenatal care regarding signs of labour, reduced or no hospital fees for pregnant women and availability of ambulance services requires urgent attention.

**ABSTRACT ID: 156**

### **Lived experiences of second cohort Master of Nursing Science family nurse practice students in Eswatini**

*Authors: Jabu Masuku | Protus Simatende | Tengetile Mathunjwa-Dlamini | Ministry of Health | University of Eswatini | University of Eswatini*

*Keywords: Family Nurse Practice, lived experiences, second cohort*

Eswatini is facing significant health care challenges due to financial and political constraints that make high-quality patient care difficult to deliver. here is a shortage of medical doctors in the Primary Healthcare settings, along with the growing population of ageing adults who have comorbidities and complex needs in the rural areas. To meet this challenge, the University of Eswatini (UNESWA), introduced a Master's degree in Family Nurse Practice. This new cadre assume roles which were once held exclusively by primary care physicians. The study explored the lived experiences for second cohort Master of Nursing Science Family Nurse Practice (MNSc FNP) students in UNESWA.

**ABSTRACT ID:186**

## **Health Labour Market (HLMA) Analysis of Specialists Health Workforce in Zimbabwe: Towards needs-based training of clinical specialists**

*Authors: Lilian Dodzo | Ministry of Health and Child Care*

*Keywords: Human Resources for Health, evidence-based workforce, needs based training, specialist services, workload indicator staffing needs*

Zimbabwe continue to face problems of access to specialist services partially due to the inadequacies in the human resources for health (HRH) planning and projections adopted by Health Services Board (HSB) and the Ministry of Health. In a quest to develop its annual Workforce training plans, HSB and the Ministry requested for WHO technical support to build capacity in assessing specialist skills gaps. The request was informed by the need for evidence-based workforce planning tools to guide projections and to inform Ministry's needs-based training. Although Workload Indicator Staffing Needs (WISN) study was conducted for the Ministry in the past, utilization of the results had been difficult due to the limited fiscal space. As such there was need to have evidence driven workforce needs based plans that will address both the present and future needs for prioritization during implementation. WHO in the last quarter of 2020 agreed to support Zimbabwe to conduct HLMA study focusing on needs-based specialist skills projection and gap analysis which was to inform the health sector Training Based Plan. A process with the following steps was followed:

**Conceptualization:** HLMA conceptualized with buy-in from Health Services Board and Ministry of Health Technical and financial Support secured from WHO Technical Working Group constituted Virtual discussions on scope of analysis and potential data sources.

**Methodology workshop:** Capacity building on methodological approaches Consensus on choice of methods and assumptions Identification of data gaps, data sources and relevant stakeholders.

**Desk review and data collection:** TWG did desk review administrative data collected from Health Services Board and Ministry of Health, Professionals Councils Consultations with specialists to establish standards for health interventions and matching them with disease burden.

**Analysis and report writing,** Data quality review and verification; Descriptive labour market analysis; Forecasting need, supply, and gap analysis; Economic feasibility analysis; Report writing

**Validation and policy dialogue:** Internal review of draft report by Health Services Board and Ministry of Health; Quality review by WHO team of experts; Validation with stakeholders; Prioritization of policy actions

The findings included critical shortage of specialist nurses and there is urgent need to train specialist nurses and retain them.

**ABSTRACT ID:225**

**A vision for the future health care nursing fellows – much more than just a nurse**

**Authors:** Yangama Jokwiro /Admore Jokwiro /Peter Williams/Tapiwa eugenia Muhamba-Mundida/Yvet Turugari/JaneConnolly/ChionesoGambiza/Edward Zimbudzi/Vaka Health Foundation/Vaka Health Foundation/Vaka Health Foundation/Vaka Health Foundation/Vaka Health Foundation/La Trobe University/Vaka Health Foundation/Vaka Health Foundation

**Keywords:** *Entrepreneurship, Global Trends, Innovation, Nursing, Profession, Training*

**Background:** There is a dramatic change in context due to rapidly deployed changes in clinical care, nurse education and training, nursing leadership, and nursing-community partnerships as a result of the pandemic and economic challenges. In response, nurses need training, strong support, and sustaining professional community and career opportunities.

**Aim:** The aim of the project was to identify global trends in the training and career development of nurses.

**Method:** A scoping review of current and future global trends in nursing education, training, and deployment was examined. The review includes a gap analysis between developed and developing countries.

**Outcomes**

The following trends were revealed.

1. A looming shortage of nurses is obvious. This is compounded by a lack of staffing in nursing education and training.
2. The use of Telehealth and Technology in Health Care is increasing and offers significant optionality and tremendous opportunities for the delivery of more efficient and effective health education, training, and service delivery.
3. Awareness and education on self-care for nurses are becoming a priority in building sustainable health infrastructure.
4. Travel nursing is growing in popularity. It enables nurses to move between regions with the greatest health care needs and gain financial rewards and has much to offer in part of helping in training and mentoring nurses in developing countries.
5. The pandemic has necessitated the use of distance education in developing countries.
6. Professional sharing networks [ProSNet) are gaining importance. ProSNet are focused on sharing information and skills with a teamwork and



outcome focus.

7. Entrepreneurship and Intrapreneurship Opportunities are growing. This is for the broader community but also for nurses in remote communities, and for those who value independence and autonomy, entrepreneurship can be a good fit.

8. The importance of Nurse Navigators who use their medical knowledge, as well as management and people skills, to help patients make their way through the health care systems.

9. Increased Specialization: There is increasing demand for nurses who specialize in specific areas.

**Conclusion:** The role of the nursing profession in assuring that the voice of individuals, families, and communities are incorporated into the design and operations of clinical and community health systems remains critical to sustainable health infrastructure. The training and competency development needed to prepare nurses, including advanced practice nurses, to work outside of acute care settings and to lead efforts to build a culture of health and health equity, and the extent to which the current curriculum meets these needs, but needs some strategic development and action plans.

**ABSTRACT ID:** 136

### **Latching practices in primipara mothers during breastfeeding in the neonatal period in a maternity unit of a hospital in Swaziland**

**Authors:** Ms. Nozipho a. Khumalo; Dr Dayanithe Chetty/Mankayane Government Hospital

**Keywords:** Latching practices, Primiparous mothers, after delivery, breastfeeding, neonates

**Background:** Being a new mother can be exciting and stressful at the same time. Although these emotions may seem conflicting after childbirth, the anticipated parenting responsibilities and the ability to breastfeed the newborn, provides a sense of achievement for the new mothers. Breastfeeding is a natural way of providing a nutritious feed for the newborn baby. Proper and enjoyable practice and skill of breastfeeding, depends on the mother's ability to latch or attach the baby to her breasts. The Baby- Friendly- Hospital initiative, emphasizing the need for immediate postnatal care whereby the nurses are encouraged to support the mothers on how to attach the baby to the breast, for the stimulation of breastmilk production.

**Objectives:** 1. To explore and describe the latching practices of primiparous mothers on latching of their babies on their breasts during breastfeeding in the first 28 days after delivery in a maternity unit at a

Swaziland hospital.

2. To explore the support that is needed by these primiparous mothers in relation to latching their babies to their breasts during breastfeeding in the first 28 days after delivery in a maternity unit at a Swaziland hospital.

**Method:** A qualitative, explorative, descriptive, and contextual design was used in the study which was conducted at a regional government hospital in Swaziland. Purposive sampling was used to select the participants. Data was collected using face to face individual interviews. The data collected was transcribed verbatim and was analysed using Tesch's open coding method. Data saturation was reached by the 10th participant.

**Findings:** Six main themes emerged from the interviews (1) Knowledge and skill of latching practice (2) Relatives with both negative and positive influences on latching (3) Socio-cultural factors where society and culture had expectations from them on latching (4) Challenges in latching it was not easy for these primiparous mothers to latch (5) Professional support these mothers believed and trusted that nurses can assist them to latch (6) Family support primiparous mothers felt their relatives must avail themselves to assist them latch their babies and assist them when they are frustrated.

**Conclusion:** Primiparous mothers are challenged in latching their babies to the breast, they do not know how to latch and they lack professional support to do so. This led to nipple complications like sore and cracked nipples. Primiparous mothers demand for professional support from the nursing staff during pregnancy up to the time of delivery, so that they can learn the correct ways of latching their babies.

**Implications:** There is a need for nursing education to support breastfeeding, especially for the primiparous mothers. Professional nurses are expected to educate, supervise and support the mothers during latching and breastfeeding from the antenatal, maternity and postnatal periods.

**ABSTRACT ID: 220**

## **Experiences of nursing students working with preceptors in Eswatini**

**Authors:** Simelane, Sanele Nsiband, Bonisile S./Maibvise Charles/University of Eswatini/University of Eswatini / University of Eswatini

**Keywords:** nursing education, nursing practice, preceptor, student nurse

**Background and objectives:** Preceptorship remain an important method of ensuring effective clinical teaching and learning for nursing students since it guarantees that nursing students have consistent supervision and guidance throughout clinical placement from professionals who are experienced and competent in nursing practice. The preceptorship

programme has been newly introduced in the education and preparation of nurses in Eswatini, and since then, the experiences of nursing students working with preceptors has not been ascertained. The aim of the study was to explore the experiences of nursing students working with preceptors at Mbabane Government Hospital.

**Method:** The study employed a qualitative exploratory descriptive design where purposive sampling was used to select participants into the study. The population was all undergraduate nursing students in year two and three from the University of Eswatini who have been placed at Mbabane Government Hospital for their clinical placement and had worked with a preceptor. The sample size was sixteen as determined by data saturation. Data were collected through semi-structured in-depth individual face-to-face interviews using a semi-structured interview guide. Tesch's (1990) method of data analysis was used to analyze the data. The four principles of research ethics were observed. Lincoln and Guba's (1985) framework was followed to ensure trustworthiness of the study.

**Results:** Three main themes were identified from the data: (1) Preceptors facilitated the students' learning experiences; (2) Preceptors effectively mentored nursing students into professional nursing code of conduct, and (3) Preceptors were unavailable, unwilling or incapacitated to facilitate the learning experience. Unavailability of the preceptors for the students was a result of misalignment of preceptors' deployment or duty allocation with the placement of students in the different wards or units. Preceptors were reluctant or unwilling to assist students because there was no incentives for that extra responsibility and they were not obliged to do so. Some preceptors also had a preconceived negative attitude towards students, while others naturally had aggressive and impatient personality. Lack of resources as well as work overload related to shortage of staff made it very difficult for the willing and committed preceptors to effectively assist the students.

**Conclusion/Recommendations:** Students have both negative and positive experiences with preceptors, mainly influenced by preceptors' individual attitude or personality, availability of resources as well as coordination between the clinical and the academic staff. It is recommended that the preceptorship programme be strengthened by increasing collaboration close working relationships between the administrative authorities of the clinical areas and those of the nurses training institutions for effective scheduling and availing resources for learning purpose per rising need. Eligibility for enrolment of nurses into the preceptorship programme ought to factor in individual personalities as well as attitude and passion for students.

**Introduction of Early and Enhanced Clinical Exposure Model Through Development of Curricula for Advanced Practice Nursing and Midwifery**

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*Keywords: Advanced Practice Nursing/Midwifery, Curricula Development, Early Enhanced Clinical Exposure, Model*

**Background:** The need for Advanced Practice Nurses is increasingly recognized globally. An Advanced Practice Nurse is a generalists or specialized nurse who has acquired advanced skills thorough graduate education with a minimum of master's Degree. This paper describes the process which was undertaken by the University of Zambia-School of Nursing Sciences in reviewing and developing advanced practice nursing and midwifery curricula which are being implemented using the Early and Enhanced Clinical Exposure Model (EECE). EECE is a novel model which entails immediate placement of nursing and midwifery Masters students and their integration into the clinical area for continued hands on learning throughout the training period.

**Materials and Methods:** The curricula development/review process utilized a modified Taba's Model which followed a step by step approach including, 1) desk review, 2) diagnosis of needs (needs assessment), 3) stakeholder consultations, 4) content development, 5) validations and approval from which several lessons were learnt and recommendations made.

Findings and recommendations from different stage were used as a basis for reviewing and developing advanced practice nursing and midwifery curricula.

**Results:** Desk review, needs assessment and stakeholder consultations identified both strengths and weakness in the existing curricula. Major strengths were duration and core courses which met the minimum requirement for postgraduate nursing and midwifery training. Major weakness/gaps included some content which was too basic for masters' level and the delayed exposure to practicum sites which limited development of advanced practice skills. Others were inadequate competences for advanced practice, inadequate research methodology course, lack of content to foster development of personal soft skills and predominant use of traditional teaching methods. Stakeholders

recommended to implement advanced, clinical and hands-on Master of Nursing and Midwifery programmes which resulted into the review of four existing (MSc Clinical Nursing; Public Health Nursing, Midwifery and Mental Health Nursing, and development of five demand driven curricula (Neonatal, Critical Care, Trauma and Emergency, Oncology Nursing and Palliative Care).

**Conclusion:** The reviewed and developed curricula were strengthened to close the identified gaps. Both the reviewed and developed curricula will be implemented using the Early and Enhanced Clinical Exposure Framework with a view to produce Advanced Practice Nurses and Midwives who are competent to meet diverse health care needs and contribute to improved patient outcomes.

**ABSTRACT ID:** 222

### **A model for innovative partnerships that are transformational in Nursing Education**

**Authors:** Yangama Jokwiro/Peter Williams/Jane Connolly/Chioneso Gambiza/Yvet Turugari/Tapiwa eugenia Muhamba-Mundida/Edward Zimbudzi/Admore Jokwiro /Vaka Health Foundation/Vaka Health Foundation/La Trobe University/Vaka Health Foundation/Vaka Health Foundation/Vaka Health Foundation/Vaka Health Foundation/Vaka Health Foundation

**Keywords:** Education, Nursing, Partnership, Sustainability, Workforce Topic

**Background:** Health care workers are a critical part of health infrastructure, providing health care and improving health service coverage. The World Health Organisation (WHO) estimates a projected shortfall of 18 million health workers by 2030, mostly in low and lower-middle-income countries (LMIC).

**Aim:** The aim of this project was to build an innovative partnership in the delivery of effective health training in Africa.

**Method:** A participatory action-based approach was undertaken to achieve the goals of the project. The co-design team included nurses from Vaka Health Foundation and the ECSACON leadership.

**Outcomes:** The following outcomes were achieved:

- Created professional networks that provide career pathway options and opportunities through scholarships and fellowships
- Set up a world-class learning platform that is cost-effective, scalable, and relevant to the local context
- The platform is also secure to protect individual data to Australian

and European cybersecurity standards

- Created a foundation and structure for continuous professional development across East, Central, and Southern Africa
- Created a platform for mentoring nurses through relevant monthly webinars and seminars to enhance career opportunities and personal development
- Provided opportunities to display a transparent and rigorous method of training nurses and showing their ability to showcase talent and innovation through grants
- Work has begun to develop web-based career opportunities including micro-financing for health-related businesses
- The platform is available at <https://nursesguild.africa>

**Lessons Learnt:** Web-based and mobile health education and training are providing cost-effective, high-quality, solutions for health care workers in Africa. Openness, knowledge of local context, and strong alignment of purpose and communications were the key to the establishment of a sustainable partnership between Vaka Health Foundation and ECSACON.

**ABSTRACT ID:** 202

### **Midwife Related Factors Influencing Maternal Outcomes of Women Presenting with Obstetric Emergencies at the Maternity Unit of the Mbabane Government Hospital**

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**Keywords:** *Obstetric emergencies, maternal outcome, midwife related factors*

**Background:** Eswatini remains with a persistently high (437 per live births) maternal mortality. Government initiatives have been put in place to reduce it but the rate of reduction of the mortality has been unsatisfactory and requires acceleration. According to the national confidential enquiry into maternal deaths in Eswatini, health provider problems are one of the important areas needing focus to reduce poor maternal outcomes. The majority of women are cared for by midwives in the country and are only



seen by a doctor if referred by a midwife. Midwife specific problems that contribute to poor maternal outcomes have not yet been explored, however.

**Objective:** To identify midwife related factors influencing maternal outcomes of women presenting with obstetric emergencies at the maternity unit of Mbabane Government Hospital (M.G.H).

**Method:** A prospective audit over 5 months was conducted. Case audits of all women with obstetric emergencies who were looked after by each of the 40 midwives employed in the maternity unit were performed. Outcome variables were maternal and neonatal outcomes (death, near miss, and mild to moderate morbidity). Independent variables included midwife demographic, and EmOC training characteristics; as well as quality of care variables. Data was analyzed using descriptive statistics to compute frequencies, proportions, and illustrated using graphs. Pearson Chi-square tests were performed to determine association between independent and outcome variables.

**Results:** 31.7% midwives did not follow guidelines in managing women with EmOC; 75.0% of women experienced excessive delays before being seen by midwives in hospital; 26.7% of women were poorly assessed and misdiagnosed by midwives; 90.0% of midwives had not received in-service training on EmOC; and 58.3% expressed lack of confidence in giving basic EmOC services to women requiring them. Furthermore, 68.3% of women requiring EmOC experienced poor monitoring by midwives. These were either infrequent monitoring, lack of monitoring, or prolonged observations of complications without interventions. In addition, these midwife contributors identified occurred within broader health system problems that further disabled midwives from providing quality EmOC, which in turn led poor maternal and neonatal outcomes. These health system problems were insufficient midwifery staffing in maternity and unavailability of needed drugs and equipment. Overall, 55% of all women requiring EmOC had severe maternal outcomes (maternal near misses and death). 10% of these were maternal deaths. Severe neonatal outcomes (deaths) occurred in 26% of cases of women requiring EmOC.

**Conclusion:** Midwife related factors contribute substantially to severe maternal outcomes. As a result, the majority of women needing EmOC end up with severe maternal outcomes manifesting in deaths and near misses, while a notable proportion of neonates also end up with poor outcomes. Furthermore, health system challenges such as inadequate midwife staffing, unavailable EmOC drugs, and equipment compound these midwife related problems.

**ABSTRACT ID: 190**

**Assessment of factors affecting student nurses' compliance regarding standard precautions for preventing tuberculosis and HIV in Eswatini University**

*Authors: Ncobile Gina/Eswatini Medical Christian University*

*Keywords: HIV, compliance, factors, standard precautions, student nurses, tuberculosis*

**Introduction:** Healthcare workers, including student nurses face a lot of challenges including exposure to Tuberculosis and Human Immunodeficiency Virus as they provide healthcare services. To prevent the spread of these infections in a hospital setting, health care workers and students should apply a set of principles called “standard precautions”.

However, student nurses were found not complying to the standard precautions when allocated for clinical practice in the Eswatini healthcare setting.

**Aim of the study:** The aim of this study was to assess factors affecting student nurses' compliance to standard precautions with the intention of recommending measures that can be taken to facilitate this compliance among student nurses.

**Methodology:** A non-experimental quantitative approach was used to conduct a survey on senior student nurses of Eswatini University using questionnaires. The total population of third, fourth- and fifth-year students was selected through census sampling method. A Statistical Package for Social Science version 26 software was used to analyze the data.

**Findings:** Factors which influence compliance among student nurses were found to be adequate knowledge, students' willingness to take measure, hospital support through training and infection control policies, supportive nurses, availability of the post- exposure prophylaxis, the university's continuous support, lack of resources and poor role- modelling.

**Recommendations:** The researcher recommended that TB and HIV prevention skills be demonstrated to student nurses in the skills laboratory and that clinical facilitators should accompany students in the clinical area. In the hospitals, ordering and monitoring of supplies should be done well to eliminate shortage of resources and preceptors should be exempted from other duties so that they can be able to supervise student nurses.

**ABSTRACT ID:** 196

## **Addressing Health care providers bias in Uganda using whole site orientation**

*Authors:* Josephine Achulet | Jhpiego, The Challenge Initiative Uganda

*Keywords:* Facility integration, Family Planning, Health providers, High Impact Approach, Provider's bias, Whole Site Orientation

**Background & Objectives:** The Family Planning Program in Uganda continued to grapple with inadequate availability of trained service providers. This has contributed to service providers' bias, miscommunications and misconceptions as well as low uptake of family planning services. The challenge Initiative (TCI) East Africa, has partnered with 20 Local Governments in Uganda to rapidly scale up sustainable evidence-based approaches on Family Planning (FP) and Adolescence Youth Sexual Reproductive Health (AYSRH) services for the Urban poor women. This initiative has built the capacity of service providers through cascaded coaching of the high impact interventions (HIIs), including Whole Site Orientation (WSO). WSO approach aims to build the capacity of everyone at the facility on family planning; increase the knowledge of the Clinical and Non-clinical staff; decrease myths and misconceptions; increase facility and interfacility referrals; facility integration; and enhance provider-initiated family planning with long-Acting Reversible Contraceptive (LARCs) uptake. The approach is cost effective and is conducted in the most appropriate time when the facility staff are less busy. Sessions last an average of two hours day for 14 days on family planning basic package. This paper presents the outcomes of WSO in 18 local governments supported by TCI in Uganda.

**Methods:** A total of 211 health facilities in the 18 local governments were purposively selected based on clients' volume and number of departments available for FP integration between 2018 and 2021. Two FP service providers from each facility were selected for training as Master Coaches on family planning for two weeks. The training involved both theory and practical sessions on FP. After training, the Master Coaches were supported to conduct WSO orientations in their respective health facilities targeting at least 25 staff, at their appropriate learning time based on the facility routine schedules. Low dose high frequency approach was used for 14 structured days of 2 hours each. Participants' daily attendance were recorded, and certificates of completion were awarded upon successful completion of the orientation. Follow-up on-site technical assistance coaching was provided to all Master Coaches by the TCI Program Coordinator, who in-turn cascaded coaching to other staff within their health facilities. Family Planning registers and summary tools for integration were provided to the various departments within the facilities to capture family planning data.

**Results:** In the last 4 years, the 211 facilities reported 4,721 health care

providers that successfully completed the orientation. The analysis shown high attendance of health providers when learning was conducted in the same work environment with flexible time. Among the facilities that completed WSO, 73 were selected to report integration data due to existence of integration department for Family Planning. The data showed that 5,198 clients were reached with family planning counseling, and 2,674 took LARCs while 2,326 received short term methods. Among the clients reached with Family planning, 42% were AYSRH clients. Among the departments that integrated FP services across the health facilities, Child Health Clinics reported the most clients (22.66%), followed by Post-Natal Clinics (18.55%), Out-Patients Departments (13.3%), Maternity (9.49%), HIV Clinics (7.05%), and HIV Testing and Counselling (2.88%). Other health services outlets accounted for the rest (26.07%) of the clients.

**Conclusion/Recommendation:** Whole site orientation is an effective sustainable approach for capacity building of all health providers in a health facility, especially in departments integrating FP services. It reduces miscommunication and increases service uptake and peer-to-peer learning. The approach promotes facility-based learning, which is cost effective learning technique and reduces staff withdraw from the facility.

**ABSTRACT ID:** 75

### **End of life care: Nurses' knowledge, attitude and practice at Muhimbili National Hospital Dar-es-salaam Tanzania**

*Authors:* Marco James Marco | member of TANNA, ECSACON

*Keywords:* death with dignity, dying patient, end of life, suffering

**Background:** It is obvious that human life has an end either by sudden death, disease, trauma or aging. Most of deaths in hospitals occur within the nursing hands when the effectiveness of management is lost. It is significantly important for a nurse to understand whether she/he is dealing with a dying patient for accurate decision making and advanced end of life care plan because a dying patient and families need a holistic nursing care to reduce suffering, maintain quality of life and ensure death with dignity. **Aim of the study:** To assess nurse's knowledge, attitude and practice in end of life care at Muhimbili National Hospital Dar-es-salam Tanzania.

**Methods:** A cross-sectional descriptive study was conducted among nurses, 308 nurses were involved.

**Results:** Response rate was 89.0%. High number of participants 40.9% have 5-10 years working experience. 54.9% were female. Majority 68.6% have no training relating to end of life care. More than half 55.6% had poor knowledge of end-of-life care. 62.5% have poor attitude while 72.7% have poor practice.

**Conclusion:** Nurses have poor knowledge, attitude and practice regarding end of life care, this could have been subjected a dying patient and their families into suffering, unnecessary costs and death without dignity.

**ABSTRACT ID:** 157

## **Reduce sepsis among neonates with surgical conditions admitted at MNH Neonatal Unit**

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**Introduction:** Neonatal sepsis refers to infection acquired by neonates during their 28 days of life. Can be categorized as early onset neonatal sepsis which presents within 72 hours to 7 days of life and late onset neonatal sepsis which presents after 7 days of life. Neonatal sepsis has been implicated to increased days of hospitalization and mortality rate among neonates with surgical condition admitted at Muhimbili National Hospital (MNH) and contributing to economic burden to the hospital and parent or caregiver.

**Aim:** To determine the incidence, contributing factors and measures to reduce sepsis among neonates with surgical condition admitted at MNH Neonatal Unit.

**Methods:** This is a Quality Improvement (QI) for 2 months. Both retrospective and prospective data will be collected through chat review of medical files of neonates receiving treatment at Neonatal Unit. These will include clinical information, demographical information, antenatal and perinatal information of their mothers. Using Fish borne problem identification diagram we identified possible causes of neonatal sepsis and their possible strict measures.

**Results:** A total of 2173 neonates MNH from January 2021 to February 2022. Of these, 274 neonates had surgical condition. 82/274(29.9%) neonates with surgical conditions acquired sepsis during the period of hospitalization. Some causes of sepsis might be poor adherence to aseptic procedures by care providers and mothers' infection during pregnancy which can be prevented.

**Conclusion:** Commented [GSP1]: Are you working on Neonatal Unit or Intensive Care Unit? Either is fine just to make sure we are consistent

Commented [GSP2]: I would do a cross-sectional design to know the prevalence of sepsis and possible causes and suggest interventions to reduce and evaluate if these changes/strategies have any impact Commented

[h3R2]: From the preliminary results obtained showed that neonates with surgical condition who acquired sepsis some were admitted already having signs of sepsis and others acquired sepsis during time of hospitalization.

**ABSTRACT ID:109**

**Determination of rate, causes, pattern and strategies to address elective surgery cancellations at Paediatric Theatre at Muhimbili National Hospital**

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*Keywords:* Elective paediatric surgery, cancellation, resource limited setting

**Introduction:** Cancellation of planned paediatric surgery have substantial impacts on patients, family and healthcare systems. It may lead to psychological trauma to patients and their families, decrease overall theatre efficiency, prolong hospital stay, time and waste resources as well as accounting for high economic burden for the patients/families and hospital at large. Little is known on the reasons and reasons of reducing this situation in most of the resource limited settings.

**Aim:** To determine rates, causes, patterns and improvement strategies of cancellation of elective surgeries at Muhimbili National Hospital Paediatric (MNH) Surgery Theatre.

**Methods:** This is an ongoing Nurses led Quality Improvement (QI) project at MNH. Observational data were collected prospectively for a period of 3 months, recording both demographic and clinical information, occurrences and reasons for surgical cancellations. We will also record factors associated with cancellation. Guided by a Fishbone problem identification diagram, we designed possible measures.

**Results:** These are preliminary findings. We have reviewed a total of 489 patients were planned to receive surgery from January to March 2022. The rate of cancellation was 29.2% (143/489). The main reasons of elective surgery cancellation were time factor, presence of other medical illness, abnormal laboratory test results, unavailability of ICU bed and emergency surgery interference.

**Conclusion:** Based on these findings we have identified that most of cancellations are preventable with proper and timely QI strategies. Attention on improving patient flow, effective communication and



teamwork, may ensure effective theatre utilization and avoid unnecessary delays and cancellations. Nurses have a potential to lead QI in global surgery and improve patient care and safety.

**ABSTRACT ID: 90**

**Shifting medicine supply management from nurses to pharmacist assistants in a primary health-care setting**

*Authors: Sibusiso Zuma | UNISA*

*Keywords: essential medicines, medicine supply management, nurses, pharmacist assistant*

**Background:** Nurses in addition to their clinical care duties they are also responsible for medicine supply management in primary health setting. Due to multiple nurses responsibilities medicine stock-outs result in areas where nurses are responsible for medicine supply management. There is a need to improve essential medicine supply in the nurse driven primary health care clinics to ensure that the medicines used in treatment regimens are accessible, acceptable, safe, cost-effective and affordable to the population.

The purpose of the study was to assess the possibility of shifting the responsibility for medicine supply management from nurses to the pharmacist assistants in the primary healthcare clinics.

**Objectives:** The objective was to determine the medicine supply management practices in primary health clinics in order to make recommendations to promote good medicine supply management practices.

**Method:** A qualitative exploratory descriptive research design was used to assess the medicine supply management practices through document review coupled with semi-structured interviews.

**Results:** The study found that pharmacist assistants play a positive role in the medicine supply chain management processes in the primary healthcare clinics. The facilities in which nurses are responsible for medicine supply management were found to have erratic medicine supply management practices.

**Conclusion:** Nurses should be relieved of the medicine supply management responsibility in primary health care. There should be at least one post-basic pharmacist appointed in each primary health care clinic, in order to ensure efficient medicine supply management and consistent medicine availability.

**ABSTRACT ID: 89**

## **Professional nurses' challenges regarding medicine supply management in the primary health care clinics**

*Authors: Sibusiso Zuma | UNISA*

*Keywords: challenges, drug supply management, professional nurse, standard operating procedure*

**Introduction:** Drug supply management (DSM) is the core responsibility of pharmacists. However, in practice South Africa has shortage of pharmacists. In order to deal with the shortage of pharmacy personnel, the DSM responsibilities were delegated to professional nurses to improve access to medication, especially in primary health care clinics.

**Purpose:** The study explored the challenges experienced by professional nurses when implementing the standard operating procedure (SOP) for drug supply management in a primary health care setting.

**Setting:** The study was conducted in a South African District Health Context.

**Methodology:** An exploratory contextual qualitative research design was followed. The study population included all the professional nurses working in the district health services. Purposive sampling was used to select a sample of professional nurses with at least two years of experience. Semi-structured interviews were conducted, and the data was analysed, using qualitative content analysis.

**Results:** The study identified the following challenges: non-adherence to the standard operating procedure for drug supply management, human resource challenges, inadequate management support and compromised patient care.

**Conclusion:** The study demonstrated the importance of effective DSM and compliance with the approved SOP. Nurses are not coping with consulting patients and additional drug supply management duties. In order to meet the challenges related to drug supply management, pharmacist assistants should be employed to manage drug supply at primary healthcare facilities to promote adherence to the standard operation procedures for drug supply management outcomes.

**ABSTRACT ID: 84**

## **Secondary school student's perspective about nursing career and their motivations to become future nurses in Singida Municipal, a qualitative study**

*Authors: Pendo Paschal Masanja | Department of clinical Nursing, School of Nursing and Public Health, University of Dodoma, Dodoma Tanzania*

**Keywords:** *Nursing profession, career selection, healthcare delivery system, nursing workforce*

**Background:** Nurses are primary healthcare playing a vital role in delivering healthcare services to individuals, families, and the community. They form 59% of all healthcare professions' workforce. Nursing is an independent profession with promising employment opportunities. However, the shortage of nursing-workforce is still high. Factors influencing non-nursing career selection among young people remain unclear.

**Objective:** To explore the secondary school students' perspectives on nursing career and drives them to become future nurses.

**Methods:** Descriptive qualitative design using semi-structured focused-group discussion was employed on 15 secondary school students, in July 2021. Data were transcribed and analyzed through qualitative content analysis.

**Results:** Seven themes emerged resulting from perceiving nurses as a significant career playing a life-saving role. The aspirations of young people's selection for nursing-career depends on the nursing image portrayed through the nursing role, working environment, and position of the nursing profession in the healthcare delivery system. Therefore, relevant policies and strategies should be enacted to strengthen the nursing workforce to meet the demand and improve the delivery of quality healthcare services.

**ABSTRACT ID:** 172

**Is it feasible to adopt WHO guidelines on use of tranexamic acid for Post-Partum Hemorrhage management? Findings from 40 health facilities in Kenya**

**Authors:** *Dr Daisy Ruto | Michael Muthamia | Clara Kerich | Jhpiego Kenya | Jhpiego Kenya | MOH – County Government of Nakuru*

**Keywords:** *Guidelines, MOH, Postpartum Hemorrhage, Prevention and Treatment, Tranexamic Acid*

**Background:** PPH is the leading direct cause of maternal deaths worldwide. Over 90% of deaths from PPH occur in low- and middle-income countries. Maternal morbidity due to PPH has a negative impact on women, their families, and communities. Immediate health complications due to PPH include hypovolemic shock, heart or renal failure, loss of fertility (hysterectomy), and sepsis requiring prolonged hospitalization.

Long-term, PPH is associated with negative physical, psychological, financial, and social consequences to the patient and her family. The majority of PPH-associated deaths could be avoided by the use of quality prophylactic uterotonics during the third stage of labor and timely, appropriate management of PPH. Health workers, managers, and policymakers need clear, up-to-date, evidence-based recommendations. In 2017, WHO recommended use of intravenous tranexamic acid (TXA) within 3 hours of birth in addition to standard care for all women diagnosed with PPH following vaginal birth or caesarean section regardless of the cause of bleeding. TXA is an antifibrinolytic agent and can reduce bleeding by inhibiting the breakdown of fibrin clots. TXA is safe, effective and affordable for management of PPH. There have been reports of inadvertent intrathecal administration of TXA at cesarean delivery when it is mistaken for spinal anesthesia. Intrathecal TXA is a potent neurotoxin causing refractory seizures and 50% mortality. Smiles for Mothers Project (SFM) in partnership with the Ministry of Health (MOH) and with funding from MSD for Mothers is implementing a multipronged intervention package in 40 health facilities in 10 counties to improve PPH prevention and management including increasing utilization of TXA in PPH management. The guidance allowing TXA use for all clinically diagnosed PPH was adopted by the MOH and included in the national guidelines on quality obstetrics and perinatal care. The project also supported dissemination of these guidelines to 556 health care providers (HCPs).

**Methodology:** Implementing partners and professional bodies advocated for adoption of 2017 WHO recommendations on TXA use for PPH management. Between July and August 2021, 442 HCPs were trained across 40 facilities on PPH prevention and management including use of TXA. The project employed a tested simulation and facility-based training approach. Knowledge and confidence levels in TXA usage was assessed during the pre and post training. Additionally, HCPs were trained on pharmacovigilance to monitor and report adverse drug reactions related to TXA and other drugs. Continuous Medical Education sessions were conducted at the facility level to update providers on TXA use. SFM advocated for purchase of TXA for intravenous use in the supported facilities. Supplementary data were collected on a monthly basis to demonstrate TXA use.

**Results:** Before the HCP training, only 58% (n=351) of the trainees were either extremely confident or very confident in the use of TXA for PPH management compared to 98% (n=361) post training. Overall Utilization of TXA for PPH management increased from 39% (n=1595) in 2020 (Q3&Q4), to 49% in 2021 (Q1-Q4) n=3274 to 72% (n=842) in 2022 (Q1).

Among the 2,844 TXA uses, between Jul 2020-Mar 2022, no inadvertent intrathecal administration or adverse events was reported.

**Conclusion:** Advocacy efforts resulted in inclusion of WHO recommendation on TXA in the national guidelines. We anticipate that implementation of these guidelines nationally will be associated with improved health outcomes. It is feasible to translate these guidelines to

practice as demonstrated by increase in utilization of TXA for PPH management. With appropriate training, it is feasible to safely use TXA for PPH management considering no adverse events were reported. There is value in revising HMIS tools to routinely capture TXA data. There is need to assess the effect of utilization of TXA at the population level.

**ABSTRACT ID:** 166

**The roles of a Governance board in the management and performance of health training institutions; lessons from National Water and Sewerage Corporation (NWSC) of Uganda**

*Authors; Jovianne Barbra Mugobyia/Uganda Technology and Management University (UTAMU)*

*Keywords: Board Performance, Corporate Governance*

**Background & Objectives:** World over, corporate governance has remained critical for its enormous contribution to sustainable improvement of organization workforce and the development of both private and public organizations/institutions. The mandate of a Board is to represent the moral ownership in determining and demanding appropriate organizational/institutional performance. This also applies to Health Training Institutions (HTIs). It is worth noting however, that in Uganda, the primary aspects of corporate governance have been abused. For instance, board appointments are heftily politicized and in some cases these appointments are not affected at all, hence contributing to inefficiency and ineffectiveness in the way leadership undertakes its rightful mandate. We have all reason to believe that while an effective Board can and does contribute to tremendous leadership performance and accountability, the reverse is true. This study aimed at examining the role of corporate governance in enhancing the performance of management of institutions towards efficiency and effectiveness of the workforce. East Gate Consult and Associates is an indigenous Consultancy Firm that is attempting to adopt the NWSC Governance model to empower Governance and management in Nursing, Midwifery and Allied Health Institutions in Uganda.

**Methods:** NWSC of Uganda is one of a few public institutions that have over the years consistently improved in performance. There is evidence that the NWSC Board has earnestly undertaken its required roles and this has significantly contributed to the exceptional performance of the corporation. In order to discuss and examine the Board roles and how sound performance of these roles has greatly contributed to the performance of the organization, the study classifies the Board roles under monitoring, service and strategic roles. Both random and non-random sampling techniques were used to collect data.

**Results:** The findings reveal a positive significant relationship between the monitoring role of the Board and performance of NWSC ( $r = 0.350$ ,  $\text{sig} = 0.000$ ), a significant positive relationship between the service role of the Board and performance of NWSC ( $r = 0.350$ ,  $\text{sig} = 0.000$ ), and a significant positive relationship between the strategic role of the Board and performance of NWSC ( $r = 0.449$ ,  $\text{sig} = 0.000$ ).

**Conclusion/Recommendation:** We conclude that through proficient execution of its stellar roles, the NWSC Board has significantly contributed to the remarkable performance of the corporation, which is evident in the keenness with which Board roles must be executed to achieve public sector efficiency. The purpose of any Board is associated with the fundamental concerns of good corporate governance and the quality of its workforce. Health Training Institutions both private and public, could benchmark lessons from the operations of corporate governance from institutions such as NWSC that has successfully implemented and operationalized its governance structures. We therefore recommend that the NWSC model of governance be adopted as a 'role model' to drive the health workforce performance and quality improvement of Nurses and Midwives in the ECSA region.

**ABSTRACT ID:** 148

### **Influence of work - related stress on nursing performance – a case study of Kenyatta National Hospital**

**Authors:** Beatrice P. Oguttu ,Parseen, Isaac,Glory, Mathias, Et Al/Kenyatta National Hospital

**Keywords:** *Influence on work related stress in the Nursing work force*

**Background & Objectives:** Nursing is perceived to be a strenuous job and nurses across the world have been found to experience work-related stress. Work-related stress also considered as a hazard- in a traditional working environment is recognized worldwide as a significant challenge for workers' health and healthiness of their organization. Stress as a factor of performance leads to poor work performance, mental health issues, and burnout and makes employees more prone to Error and conflict in the workplace. Stress can be detrimental to an employee's health and performance of work, leading to low productivity. Previous studies have found an increasing number of stress among health workers, especially nurses, with adverse implications on their health than other professions, leading to low performance. The purpose of the current study was thus to investigate other stress factors that were potentially affecting the performance of nurses at the KNH. The specific objectives were to determine the influence of workload stress on nurses' performance, to determine the influence of work environment stress on performance among



nurses working at KNH, to determine the effect of stress caused by the excess workload on performance among nurses working at KNH, and to investigate the effect of stress caused by late referral on performance among nurses working at KNH.

**Methods:** The study employed an explanatory research design which involved administering the questionnaires online among the nurses at Kenyatta national hospital and recording the response data. The data was collected for each variable was cleaned and then entered statistical software. Both inferential Analysis and descriptive statistics were used to achieve the research objectives effectively.

**Results:** The findings of the analysis revealed that, work environment stress was statistically significant and therefore influencing nurse's performance. The study also established that excess workload was statistically significant at 5% level of significance and therefore influencing nurse performance. Furthermore, late referrals were statistically insignificant and therefore, not influencing nurse performance. The study found that in Kenyan hospitals, the concept of stress has become extremely relevant to the workforce in general, and nursing.

**Conclusion/Recommendation:** The study concludes that there is a great need for comprehensive studies that will examine these dynamics in a way that will yield more solid evidence on which to base future practice.

It is thus recommended that a different study should be done focusing on different measurement of occupational stress on employee performance in KNH.

**ABSTRACT ID:** 174

### **Guidelines for maternity care for women with mobility disabilities in the Hhohho and Manzini regions: Eswatini (Swaziland)**

*Authors:* Dr Fortunate N Magagula | University of Eswatini (Swaziland)

*Keywords:* Guidelines, Maternity care, Women with mobility disabilities

Research studies have highlighted that most people living with disabilities are women, the elderly, and from low-income families. This study was conducted due to paucity in research regarding women with mobility disabilities' experiences of maternity care during pregnancy, labour, and puerperium. A qualitative, exploratory, descriptive, contextual research design with a phenomenological approach was utilized. The aim of the study was to develop guidelines for maternity care for women with mobility disabilities in the Hhohho and Manzini regions.

The study was conducted in three phases. In Phase 1, women with mobility

disabilities' and midwives' experiences of maternity care for these women during pregnancy, labour and puerperium, were explored and described. Purposive sampling and snowballing were used as strategies to recruit women with mobility disabilities and midwives to participate in the study.

Results indicated that women with mobility disabilities experienced midwives as being cruel and unsupportive. They also experienced being judged and victimised by midwives; lack of support during pregnancy, labour and puerperium; challenges before and after giving birth related to a lack of protocols, equipment and infrastructure; and the need for support from midwives and family. Midwives experienced physical and emotional efforts required from them to provide maternal care to women with mobility disabilities; lack of equipment to meet the needs of women with mobility disabilities; and challenges in providing holistic care to women with mobility disabilities during pregnancy, labour and puerperium.

In Phase 2, the conceptual framework for maternity care guidelines of women with mobility disabilities was developed based on the findings of Phase 1. Based on the conceptual framework, the guidelines were developed in Phase 3. The guidelines developed for the facilitation of support and holistic maternity care were characterised by the practice of professionalism; respectful communication; caring and compassion; and mobilisation of resources to develop protocols and infrastructure. The guidelines were validated during an online focus group discussion with stakeholders from public health, non-governmental organisations, and the University of Eswatini (Swaziland). The original contribution of the study was the conceptual framework, and the developed and validated guidelines for maternity care for women with mobility disabilities.

**ABSTRACT ID:**122

### **Strengthening Midwifery Education in Africa through the development of Educational Capacity Frameworks**

**Authors:** Frances Ganges/Phelelo Marole/Nicole Warren/Sandra Maruatona/Jhpiego/Jhpiego/Johns Hopkins University/Institute of Health Sciences Gaborone

**Keywords:** Educational Capacity Framework, Midwifery Education, Pre-Service Education

**Background:** In order to make sustainable improvement for the Nursing and Midwifery workforce, quality pre-service education is essential. Investment in midwifery pre-service education in low and middle-income countries has been inadequate and sporadic. The midwifery shortage, although global, is most acute in Africa (SoWMy 2021). The need for

investment in midwifery is clear but there are few tools to help prioritize such investments. Most existing assessment tools are designed for use with external evaluators and lack specific guidance about how to address gaps. This limits schools' ability to self-assess prior to engaging in a formal evaluative and/or accreditation process. A method for internal stakeholder assessment is needed so schools can identify challenges in the current functionality of a midwifery pre-service education program and pinpoint where investment is needed to progress. The purpose of this study was to create tools that provide specific guidance and can be used internally by midwifery stakeholders to identify and prioritize areas of possible investment. The research project obtained non-human subjects research approval from Johns Hopkins University Institute Review Board.

**Methods:** We organized our work using the pre-service education model (Johnson P et al., 2013) which includes the following pre-service education domains: clinical practice sites, students, faculty, curriculum and infrastructure, and management). We used multiple methods achieve our purpose: 1. Assessed PSE education in the region via a mapping exercise of PSE institutions and a scoping review of published and grey literature.

2. Collaborated with regional midwifery partners (the experts) on the ground. The partners were as follows: East, Central, and Southern Africa College of Nursing (ESCSACON); Federation des Associations des Sages-Femmes d' Afrique Francophone (FASFAF); West African College of Nursing (WACN); and AFREHealth.

3. Using human-centered design, regional stakeholders brainstormed, organized, and synthesized essential functions of PSE education in Sub-Saharan Africa.

4. These functions were then mapped according to level of capacity, from low to high.

5. Criteria for identifying level of capacity were refined through an iterative process.

6. This work was operationalized using simultaneous translation, participatory method such e-whiteboards, and zoom polls among stakeholders and facilitated region-led ideas and solutions.

### **Key results:**

- This process provided a forum for front-line partners to define and organize what is- important to themselves.
- The work yielded a set of 5 locally vetted and edited Educational Capacity
- Frameworks (ECFs) to help midwifery stakeholders to identify and prioritize areas of investment. Each ECF addresses a pre-service education domain
- This project demonstrated that collaboration among midwifery leaders in Sub- Sharan Africa is an essential element for success.

### **Implications to Midwifery Education and Practice**

- These self-assessment tools can be used internally to assist the schools in identifying and prioritizing scarce resources as they work towards initial and continuous improvement and accreditation.
- These tools can help educators and trainers to make progress toward midwifery education excellence as described by WHO, ICM, and other regional authorities.
- These tools can support and complement the midwifery accreditation process.
- They are not in and of themselves an accreditation process.
- This project demonstrates that virtual collaboration can be used to advance midwifery education excellence in low-resource settings

**ABSTRACT ID:** 125

## **Disability Mainstreaming Governance Practices and Healthcare Service Delivery in Level-Six Hospitals in Kenya**

*Authors; Christine Mwikali Musee Kenyatta National Hospital*

*Keywords: Disability mainstreaming, Kenya, Nurse(s), healthcare workers with disability, level-6 hospitals*

**Background:** Disability mainstreaming is a collection of global governance practices envisioned to integrate the global 15%(n=1,000,000,000) persons with disability, who were formerly segregated and stigmatised, into the mainstream of the society, and away from the welfare mentality. Some of these practices include participation, accessibility, knowledge management and workplace environment management. Disability mainstreaming, which has received global high political profiling, would enable the disabled workforce to be optimally productive in service delivery. In healthcare, workers with disability would provide safe and responsive services. In Kenya, persons with disability forms 3.5-4.6% (1.33-1.6million) of the population and limited research has been done on disability mainstreaming and services provided by employees with disability.

**Statement of the Problem:** Although there is graded literature on disabled employees, limited research has been done on disability mainstreaming and productivity in service delivery of this population. Kenya has ratified to United Nations Convention on the Rights of Persons with Disability, and Organisation of African Union, and has a constitution that seeks to recognise and mainstream disability. This aims at making disabled workforce with disability, both recipients of and providers of responsive and safe services. The Kenyan government has subsequently cascaded disability mainstreaming to all institutions including level-6 hospitals. It is with this background that this research proposal has been undertaken to

assess disability mainstreaming and their service delivery in these organisations.

**Methodology:** This will be a cross-sectional qualitative and quantitative mixed method study in the eight level-6 hospitals in Kenya, which provide specialised healthcare for clients referred from levels 1-5 hospitals. Following ethical approval and institutional administrative permission, two different questionnaires each, will obtain information from the 70-100 healthcare workforce with disability, sampled on a census-basis, 70-100 direct supervisors (disabled and non-disabled) of the disabled workforce, one supervisor per worker, purposively sampled. A checklist will be used to collect data observational data on the workplace environment (five per site). A focused group interview-schedule will obtain information from two focused groups (workforce with disability) per institution, composed of at least six participants per group. A key informant interview-schedule will obtain information from hospital and departmental in-charges (disabled and non-disabled). Focused-group-discussions and key-informant interview will be audio-recorded, information transcribed and coded. Quantitative data will be analysed using Statistical Package for Social Scientist Version 27. Mean, median, mode, standard deviation, frequencies at descriptive level, correlation, statistical significance at inferential level and multiple regression level will estimate relationship between dependent and independent variables. T-test will determine co-efficient of the model. Pearson's correlation and Analysis of Variance will be done. Frequency tables, graphs, scatter plot diagrams will present findings. A cut of P-value < 0.05 will be significant. Cronbach Alpha will test reliability. Qualitative data will provide voices of participants.

**Study Findings:** will provide mean, median, mode, standard deviation of participants' biodata, relationship between dependent (healthcare service delivery) and independent (participation, accessibility, knowledge management, workplace environment management) variables, the curvilinear line of best fit, correlation between dependent variable and disability mainstreaming practices and the significance of the model.

**Conclusion:** will reveal if disability mainstreaming has been implemented in level-6 hospitals in Kenya and its influence on the services provided by healthcare workforce with disability.

**Recommendation:** will show what needs to be done to enhance disability mainstreaming and subsequently services delivery by healthcare workforce with disability in level-6 hospitals.

**ABSTRACT ID:** 175

**Building a sustainable improvement for Nursing and Midwifery workforce in Seychelles**

*Authors; Dr Gylian Mein | Member*

**Keywords:** Nurses, UHC, WISN, workforce

**Introduction:** The Universal Health Coverage and Sustainable Development Goals are focused mainly on the opportunities to promote comprehensive and coherent solutions for effective health management and equal health opportunities for various population groups. Such wise, meeting the SDGs must become helpful to strengthen the health systems. Around the world, nursing and midwifery are the critically important healthcare components that are helpful to ensure high-quality health services for the population. Unfortunately, the shortage of the mentioned professionals is widely observed (Pollock et al., 2021). Thus, encouraging the development of the new strategic plans and programs ensures a more effective work of the nurses and midwives.

**Aims and Objectives:** The current study will focus on the nursing and midwifery workforce in the Republic of Seychelles. Similar to many other high-income countries, it faces several challenges on the way to ensuring substantial health service coverage and health system resilience. The analysis of the workforce involved in the selected country reveals that the proportion of the practicing healthcare graduates, who work according to their profession varies depending on the type of the specialists. Ultimately, the investigation of the policies that can encourage the healthcare professionals work more effectively and their knowledge and skills to a full extent is requires. The main objective of the current study is to conduct a

comprehensive workload analysis and determine the staffing requirements in the Seychelles Department of Health. In such a way, understanding such requirements must improve the Nursing and Midwifery achievements through planning and policies.

**Method:** The Seychelles healthcare facility was selected on a census basis. The WISN method was selected to define and analyze the number of health workers and their workload (Stankovic & Santric Milicevic, 2022). It is the consultative approach that relies upon five basic variables including the working time, workload, activities, annual workload, and staffing. Based on these characteristics, the qualitative statistical analysis providing the answers to the research questions was conducted. Based on the WISN calculations for the activities, the selected tool helps to understand how different factors are related to the healthcare workers' involvement in their work. Thus, the major directions for change will be identified. Besides, the methodology refers to the category allowance factor, which is a source of accurate data on support activities that can be applied to improve the effectiveness of the staff and duties performance. All in all, two types of analysis were used. The first one represents the gap between the existing and required staff numbers. The second analysis represents the ratio between workload pressure and work quality. Thus, the WISN method becomes helpful to identify where the most urgent actions are required to promote the sustainability of the nursing and midwifery workforce.



**Results:** Based on the analysis, the number of the nursing and midwifery workforce in the hospital corresponded to the possibility to meet the basic tasks and needs. However, it lacked investments and additional HR policies. Seychelles hospital authorities must pay special attention to several issues. Among such, data standardization across the facility is recommended to get a better understanding of the categorized staff demands. The aging profile of the providers deserves additional attention. The lack of a health information system (HIS) was another barrier to accuracy and analysis. Finally, WISN training every 2 years was recommended for improved control over the staffing issues.

**Conclusions:** The study provides a list of the essential recommendation for the hospital-based on reliable and accurate evidence. Based on the report, WISN must help Seychelles hospital to support the positive practices and explore the new opportunities. In such a way, the health service delivery in the facility must be improved.

## Sub-theme 2: COVID19 Pandemic: Lesson learnt from Nurses and Midwives at the frontline

**ABSTRACT ID:** 188

### **Health workers Motivators to uptake of the Covid-19 vaccine at Iganga Hospital Eastern Uganda, and Mengo Hospital Kampala Uganda; A qualitative study**

*Authors:* Lubega Muhamadi/Stefan Swartling Peterson,/Safinah Kisu Museene/Lubega Institute of Nursing and Medical Sciences Iganga/Global Public Health, Karolinska Institutet/Global Public Health Karolinska Institutet;/Ministry of Education and Sports, Kampala

*Keywords:* COVID-19, Health workers, Motivators, vaccination

**Background & Objectives:** The government of Uganda like many other parts of the world continues extensive mobilization and administration of the COVID-19 vaccine to its people albeit the prevailing vaccine hesitancy within population (MOH 2021, Museveni 2021). The government projects vaccination of approximately 12 million people before December 2021. The first phase of the vaccination rollout started in March 2021 and targeted to vaccinate a population of 4.8 million people. The targeted categories included: health workers, security personnel, people above 50 years, below 50 years but with underlying co-morbidities, teachers and students aged 18 years and above by June 2021 (MOH 2021, MOH 2021, Museveni 2021). Unfortunately, the country still faces a hindrance of vaccine hesitancy among this target population. By September 2021, 81% of the targeted 4.8

million people had not received their first dose, while 91% had not received their second dose of the vaccine (Museveni 2021). The vaccine acceptance rate however varied amongst the different categories of the target population with 5.5% (people with comorbidities) being the lowest and 74.9% (health workers) being the highest, measured by 1st dose coverage (Museveni 2021). Amongst the health workers who are the most vulnerable frontline staff in the fight against COVID-19, approximately 70% of the health workers had received their first dose while 40% had received their second dose of the Covid-19 vaccine by September 2021. These figures represent a recognizable acceptance rate among health workers albeit some hesitancy compared to other categories among the target population (MOH 2021). The main objective of this study was to explore health workers perceptions and Motivators with regard to the COVID-19 vaccine in Mengo and Iganga hospitals in Uganda.

**Methods:** A qualitative research design was used utilizing focus group discussion and in-depth interviews. 12 focus group discussions and 20 in-depth interviews was conducted with health workers (vaccinated and unvaccinated) to understand the motivators to vaccine acceptance in their own perspective.

**Results:** The Reported motivators to COVID-19 vaccine acceptance included; risk susceptibility/protection, fear of death and/or cost of treatment and experiences of COVID-19 related grief. Other Motivators were trust in the vaccine, call to government policy and vaccine success stories elsewhere, real or perceived benefits of vaccination and peer influence.

**Conclusion/Recommendation:** The motivators for health workers accepting the COVID-19 vaccine were a function of multiple cross cutting themes including; risk susceptibility and protection, fear of death and/or cost of treatment and experiences of COVID related grief. Others included trust in the vaccine, call to government policy and vaccine success stories elsewhere, real or perceived benefits of vaccination and peer influence. The study recommends intensified dissemination of health worker tailor made tools/guides for information, education and communication about the COVID-19 vaccine. The tools need to emphasize the elicited themes/motivators. The information dissemination and peer narratives could be done through the health worker's social media platforms, union or association websites, personal statements, editorials or other media.

**ABSTRACT ID:**215

### **COVID-19 battle of the 21<sup>st</sup> century**

**Authors;** Jane Esau Bararukuliliza /Mt. Meru Regional Referral Hospital

**Introduction:** COVID-19 battle of the 21st century (COVID-19 vita ya karne ya 21) is a narrative friendly book written in Swahili language by Nurse Author responding to global COVID-19 Pandemic. Nurses close to

patients, families and communities opportunity to become hero fighters of COVID-19 battle of 21st Century among health care teams by demonstrating frontline hand on patients with COVID-19 and their vital roles in health promotion. In this battle, Nurses carries a lamp of hope that light darkness world. A book comprised of 10 chapters that covers basics of origin of Coronavirus, mode of transmission, case definition, epidemiological criteria, preventive measures, COVID-19 pandemics, trends of cases and deaths, basic sciences of virus host, PPE systematic donning and doffing of PPE, hand washing techniques. Masks and COVID-19 in elderly. It covers chapters on alternative medicine used in Tanzania during pandemic mainly nutritional therapy (NIMRCAF), under tent steam inhalation and spirituality- God in the Midst of COVID-19. Last but not least a book describing Nurses and Midwives as heroes of COVID-19 BATTLE OF 21ST CENTURY. A written book is friendly, uses simple Swahili words to describe and explain difficulty concepts make it comprehend by all stakeholders. The purpose of writing this book was to grasp all-important information on outbreak of COVID-19, communicate in simplified language that make individuals respond to the pandemic and use it as reference book.

**Methodology:** Use of simple language easy to understand by any Swahili speaker, review of reports related to COVID-19 pandemic as provided daily by CDC, WHO, ICN, and MOHCDGEC in Tanzania, close follow-up of published papers, mass and social Medias and clinical experience. Reviewed by professional editors and government officials then appreciated for registration by Maktaba kuu ya Taifa.

**Results:** A book contribute to community awareness on COVID-19 within and outside Tanzania to Swahili speakers, increases community participation in the battle, 3000 copies distributed in Training Institutions, to Government leaders, Religion leaders and bookstores. Some copies stored in National women Authors Museum bookstore at TICD Arusha, Tanzania. Several Institutions Public, NGOs, FBOs, Tourist companies and private book readers invites the Author to train and sensitize employees on COVID-19 referring a book. Areas covered include Denish International Training Institute to facilitate employees' sensitization on life with COVID-19 after partial lockdown, women on COVID-19 and stress management and National Parks through tourist companies in Ngorongoro, Tarangire, Serengeti and Kilindi Zanzibar. The Author received Awards from MoHCDGEC, TANNA, Hospital Management, Employer and international women's day celebration-TICD in March 2021. A book used in generating income as nursing entrepreneurship of which some copies sold for tshs 10,000 or 5 USD each to revolve funds.

**Conclusion and lesson learnt:** In battle against COVID-19, Nurses viewed as heroes. Book writing is less competitive area that creates more opportunities, entrepreneurship and information package to respond to challenges. It up lift authors to heroes.

**Recommendation:** I recommend this book be facilitated for translation in English, French, Arabic and Chinese languages to convey the message

globally (Readers demand).

**ABSTRACT ID:** 181

**Best practice of HIV care and treatment amid COVID 19 and floods in Bunyala Sub-County, Busia county Western Kenya**

*Authors:* Jane Wandera/Aquinatta lumili

*Keywords:* COVID, floods, HIV, treatment

**Background:** ART Services involves a wide range of services; from HIV testing, Identification of positives, treatment preparation, Initiation on ARVs, adherence counseling sessions, Pharmacovigilance and drug interactions monitoring, treatment of OIs, retention in care and finally viral load suppression to prevent further transmission and achieving epidemic control. Restriction of movement during covid 19 period blocked clients in the islands from accessing HIV services in Bunyala while flooding interfered with accessing services in facilities like Mukhobola and Rukala. The two issues contributed to high treatment interruptions among clients from the islands. Due to fluctuations in treatment current idea to form CARGs in the islands for continuity of care was generated during Bunyala Subcounty. Data Review Meeting that was conducted in May 2020.

**Objectives**

1. To maintain HIV care and treatment among cross border clients amidst COVID -19 and floods
2. To maintain retention of cross border clients on care at 95%

**Methodology:** Mixed methods used and Purposive and systematic sampling. A line list of all the clients was developed and characterization as per Island and beaches. WhatsApp group that involved Cross Border Health Unit was formed. Authority of different levels in Uganda were informed of the cross border services. Various Community ARVS Groups (CARGS) were formed in Kenya and Uganda islands with 2 peer leads to coordinate them. Drug refills were done every 3 months with other services like TB screening, bleeding for VLs and referral of female eligible clients for CxCa screening. Client's details were updated after every visit and service provision to the clients was optimal.

**Lessons learnt:** Distance, long waiting time, boat timing and travel cost hinder cross border clients' clinic adherence. Distribution of ARVs through CARGS to the clients has enabled them to honor 100% clinic appointments

**Conclusion:** Cross Border drug distribution and formation of CARGs have enabled over 95% honoring of clinics adherence since its inception as compared 60% before. Clients always appreciate and would love if CARGS are maintained as it helps reduce waiting time which happens when they

physically visit the clinic, reduction of inconveniences of boat timing and missed appointments due to cost and distance and get best drug regimen.

**Recommendations:** (1) Formation of Cross-border TWG will help understand variations in care and treatment to empower HCWs to support cross border populations. (2) Development of directory with regular updates to enhance frequent communication.

**ABSTRACT ID:**142

## **Basic Emergency Care Training for health care providers led to Improved Care for Patients in Kenya**

*Authors:* Rosemary N Njogu/Jhpiego

*Keywords:* Basic Emergency care training, COVID19, Health care providers

**Background and objectives:** In the context of global COVID-19 pandemic, an urgent need was identified in Kenya to expand health system capacity to treat acute respiratory illness. Training staff and utilizing stratified case management at lower-level health facilities was hypothesized to be an effective strategy to rapidly increase capacity and decrease the referral volume overwhelming higher-level facilities. The Kenyan Ministry of Health (MoH) partnered with Jhpiego through the USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project to implement an adapted World Health Organization (WHO) Basic Emergency Care (BEC) curriculum for health workers, aimed at increasing and decentralizing capacity to treat acute respiratory illness.

**Methods:** On behalf of GHSC-PSM, Jhpiego led a team of BEC specialists and MoH representatives to adapt, plan, coordinate, and implement a modified BEC training. The standard BEC course, which teaches triage and initial management of acute medical conditions to frontline health workers, was adapted to include additional modules on infection prevention and control, mental health, and treatment of hypoxia. Additional changes were made to allow online delivery of portions of the curriculum. 149 nurses, registered clinical officers, and medical officers were trained in 45 facilities. These initial trainees became local champions and were able to further cascade the new knowledge and practices to coworkers. To support dissemination at each site, job aids were developed, onsite mentorship was facilitated, and virtual communities of practice created. Crash cart trolleys and emergency trays were developed, enhanced with medications and checklists, and strategically placed for emergency use. Additionally, local practicum sessions were held on the rational use of oxygen and oxygen devices, breathing and circulation. Finally, weekly online training sessions took place through the communities of practice, continuously enrolling more participants in order to expand reach. Six months after the initial

training, the team assessed progress at five low- to middle-volume sites.

**Results:** Across the overall initiative, 198 frontline health workers in 45 health facilities were actively engaged with the intervention, including those reached after the initial training. We noted a 14% (from 247 to 215) reduction in referrals from supported facilities. Critical patients still requiring referral were found to have improved stabilization and care prior to transfer, and the number of emergency cases with reported good outcomes, such as appropriate identification and treatment of hypoxia, increased 130% from baseline. When surveyed, trained health workers reported that they felt more confident while handling the COVID-19 emergencies. Participants responded positively to training sessions and were eager to participate in future trainings, if available. In one participating hospital, staff felt empowered to submit a proposal to leadership to expand the emergency care space from two- to ten-bed capacity.

**Conclusion/Recommendations:** Training staff at lower-level health facilities can serve as a rapid mechanism to increase system-wide emergency care capacity and reduce the referral load to overburdened higher-level facilities. A modified BEC curriculum and creative roll-out strategy tailored to the needs and constraints of the COVID-19 pandemic was successful in improving the care of COVID-19 patients and empowering participants.

**ABSTRACT ID:** 235

### **The impact of COVID-19 pandemic on the notification of perinatal deaths surveillance and response in Eswatini, 2017-2021**

*Authors:* Vusie Lokotfwako/Ministry of Health: Epidemiology and Disease Control Unit

*Keywords:* Immediate Disease Notification System, active surveillance, mentorship, perinatal deaths, sensitization

**Background:** Perinatal deaths pose a public health threat in Eswatini and as such they are a notifiable condition. In 2017, there was limited data on perinatal deaths in routine collection methods particularly the Immediate Disease Notification System (IDNS). Therefore, the EDCU in collaboration with SRHU initiated the implementation of the MPNDSR in the context of IDSR to monitor the burden of maternal and perinatal deaths in Eswatini. This led to the establishment of the active surveillance in 2017 and as such all perinatal deaths are monitored on weekly basis.

**Objective:** To strengthen perinatal deaths reporting in Eswatini.

**Purpose:** To compare the notified perinatal deaths through IDNS with those reported through active surveillance in 18 health facilities offering maternity services during the period of 2017 to 2021.

**Methods:** Active surveillance was first piloted in four referral regional

hospitals which were selected as sentinel sites in 2017. In 2018, the surveillance was scaled up all 18 health facilities providing maternal services. Maternity staff were sensitized and mentored to ensure a smooth implementation of the MPNDSR as well as ownership of the surveillance.

The active surveillance is collecting PNDSR data from maternity and postnatal registers on weekly basis. Perinatal data was captured and analyzed using Microsoft excel.

**Results:** Findings from the analyses in 2017 indicated that only <1% (2/257) of perinatal deaths were notified through IDNS compared to surveillance data. Results were shared with stakeholders the gross under-reporting uncovered from the sentinel sites prompted the scale up to monitor perinatal deaths occurring in the 18 health facilities. Health care

workers were trained on IDSR, mentored and were provided with the IDSR reporting tools. Between 2018 and 2019 perinatal deaths notified through IDNS increased from 16% (102/633) to 32% (250/761), indicating a 100% improvement. In 2020 when COVID-19 started, only 29% (233/795) deaths were notified, which was a decline of 10%. During the pandemic in 2021, 48% (447/927) were notified indicating a 40% increase.

**Conclusion:** IDNS is the prescribed platform for notifying all notifiable conditions in the country. With continuous sensitization and mentoring, notifications have improved. However, the emergence of COVID-19 initially disrupted the sensitization initiatives which resulted in the decline of notification.

**ABSTRACT ID:** 209

### **Study on experiences of nurses and midwives in provision of care to covid 19 patients and lessons learnt**

**Authors:** *Kgomotso Magunga/PRN at Mmadinare Primary Hospital*

**Keywords:** nurses and midwives are key players in COVID-19 pandemic

**Background & Objectives:** COVID-19 pandemic has affected thousands of health workers world-wide, especially the nurses and midwives. It also overwhelmed the health care systems. With a reduction in the number of functional staff, those who remained were bearing the increased workload

resulting in increased work-related stress, lapses in preventive practices, and more exposure to the infection. The objective of the study is to scrutinize an in-depth understanding of the challenges experienced by nurses and midwives during COVID-19 pandemic and the lessons learnt from the pandemic.

**Methods:** the qualitative cross-sectional study was used. A structured questionnaire was used to collect data. 26 general nurses and 6 midwives



participated in the study, randomly selected in Mmadinare Primary Hospital.

**Results:** Out of 30 nurses and midwives who participated in the study, 93% of them have directly provided care to COVID-19 patients in isolation centres, some during contact tracing. Amongst them, 70% were fully trained on COVID-19 and only 43% were trained on case management. Furthermore, 73% were trained on donning and doffing of PPE. 97% of the nurses and midwives indicated that dealing with COVID-19 patients was stressful due to recurring of different variants, fast spread of the disease and high mortality rates caused by COVID-19, not only in the public but also amongst healthcare providers at large especially nurses. 83% feared the impact of the virus on themselves and their families. Despite having 97% of the nurses and midwives feeling that dealing with COVID-19 patients was stressful, 87% of them never thought of leaving their jobs, they persevered, soldiered on and continued providing quality health care to the patients as they were the key players of the forefront.

**Conclusion/Recommendation:** The facility was not prepared for COVID-19 pandemic, as there was a shortage of manpower, medication and transport. It was important for us to remain focused on saving lives and containing the virus as nurses and midwives. Despite shortage of manpower, we would go extra-mile to cover up where there is staff shortage. Furthermore, we have learnt that infection prevention and control measures like hand hygiene, waste management, linen management, donning and doffing of personal protective equipment are necessary to prevent all transmissible outbreaks at all times, COVID-19 inclusive. In addition to that, compliance to COVID -19 protocols by all, including the public, helped reduce the spread of COVID 19. As a result of the primary vaccination for COVID-19, we have seen a decrease in mortality rates (though we don't have actual statistics) and containment of the virus. Nurses and midwives should be trained on case management and PPE donning and doffing refresher training should be done as soon as the outbreak is declared a pandemic and guidelines for standardization in management of COVID-19 should be availed to all units. A mandatory psychosocial support program should be offered to all nurses and midwives who deal with COVID-19 patients, since 97% of the nurses said that dealing with the virus was stressful.

**ABSTRACT ID:** 98

**Story-telling: a behaviour change intervention in COVID-19 vaccine hesitant communities**

*Authors:* Mpho Shelile/National University of Lesotho

*Keywords:* Behaviour, COVID-19, Community, Hesitant, Lesotho, Nurse-Midwives, Vaccine

**Background:** The national COVID-19 immunization campaign was launched on March the 10th 2021; in Maseru District Lesotho. The approach was vaccinating groups of the population to reflect age-related risk. However, some members of the communities had chosen not to be vaccinated or had delayed their vaccination. From the COVID-19 vaccine

independent monitoring exercise, members of the communities were classified as non-believers, endorsers, and advocates of the COVID-19 vaccine. An effective behaviour change strategy for COVID-19 vaccine uptake was needed to address these multiple beliefs and behavioural determinants, reducing barriers and leveraging enablers identified from this

exercise. To promote and increase COVID-19 vaccine uptake; different approaches were needed to influence behaviour of members of the community towards the COVID-19 vaccine.

**Intervention:** The solution involved capacity development for the community and primary health care nurses on how to use stories to influence and change behaviour and attitude to address COVID-19 vaccine hesitancy among members of the community. The nurses were taught that they can use stories not only to teach people how to act-they inspire us to act. Stories communicate our values through the language of the heart and our emotions. And it is what we feel-our hopes, our cares, our obligations-not simply what we know that can inspire us with the courage to act. They were made aware that a good public story is drawn from the series of choice points that have structured the “plot” of the life-the challenges you faced, choices you made, and outcomes you experienced. The training was administered virtually via Google meet. This interactive training covered a story of self: why you were called to what you have been called to. A story of us: what your constituency, community, or organization has been called to its shared purposes, goals, and vision. A story of now: the challenge this community now faces, the choices it must make, and the hope to which “we” can aspire.

**Results:** The training was attended by forty-two (42) nurses of varying ranks though fifty-one (51) nurses had taken an online pre-test. This interactive training was attended by Coordinators of Departmental Services, Registered Nurse-Midwives, and Nursing Assistants from fourteen (14) health care facilities. The nurses used stories to teach members of the community how to act toward the COVID-19 vaccine, they used them to inspire members of the community to act and get vaccinated. This translated into community members’ behaviour and attitude change toward COVID-19 vaccine, more (56% increase) people were converted to COVID-19 vaccine advocates, and more people (42% increase) supported the COVID-19 vaccination campaign hence improving COVID-19 vaccine acceptance.

**Implications for the field:** The commonly used approach to influence behaviour in health care settings is health education which normally disregards the lived experiences. Therefore, this innovative approach augmented the current methodologies of health education. The nurses now

know how to use their lived experiences (stories) to influence behaviour. This was an in-service training and continuing professional development activity which can easily be sustained and rolled out to other countries, regions, and ultimately worldwide through training of trainers. This approach required all stakeholders' involvement to help identify those hot spot areas where this approach may be needed.

**ABSTRACT ID:** 78

## **Lessons learnt from nurses in the forefront fight against COVID 19**

*Authors:* Millicent Ochieng /none

*Keywords:* Covid 19, pandemic and lessons learnt., role of nurses

**Background and objective:** Pandemics and epidemics are public health emergencies that can result in substantial deaths and socio economic disruptions. Covid 19 was declared a pandemic by WHO in February 2020. It started in Wuhan and rapidly spread worldwide including Africa and Kenya was not left behind. Kenya reported its first case in March 2020. Nurses play key role in delivering direct patient care and reducing the risk of exposure of the infectious disease. This has a short and long term influence to individual nurses, society and the nursing profession. The objective of the study was to explore the perception and experiences of nurses working in covid 19 isolation center in Migori county.

**Methods:** The study was through an in-depth telephone interview with the frontline nurses and filling of questionnaires.

**Results:** 30 nurses participated in the study with majority being males (60%) and the ages were between 25-30 years. Most of the participants had attained diploma level of training with 55% having more than 5 years of working experience. only 40% were married. 90% reported to have experienced physical and psychological distress due to fear of covid 19 disease and social stigma and discrimination by the society. 85% cited the need for educational and informational needs and proper training and education in the nursing curriculum to equip and prepare the nurses well to handle future health emergencies.

**Conclusion and recommendations:** The study provided insights into the experience of nurses who took care of patients with COVID 19 in Migori county. Although COVID 19 is frightening with negative impact on nurses and their families, the commitment and professional obligation led to personal satisfaction in taking care of patients. Some nurses experienced physical and psychological distress, guilt related to limitation of care and discomfort associated with long hours of PPEs. Nursing leaders have a significant role in ensuring a comfortable work environment with adequate policies provision of adequate resources and training to support nursing

workforce. To face future health challenges there is need for new models of training programmes, nursing specialty, and favourable policies and ICT and technology development such as robotic intervention.

**ABSTRACT ID:** 97

**Behaviour change communication strategy for COVID-19 vaccine acceptance: the Lesotho context**

*Authors:* Mpho Shelile/National University of Lesotho

*Keywords:* Behaviour, COVID-19, Lesotho, Nursing, Vaccine

**Background:** The national COVID-19 immunization campaign was launched on March 10, 2021; in Maseru District Lesotho. The approach was vaccinating groups of the population to reflect age-related risk. However, some members of the communities chose not to be vaccinated when they became eligible or had delayed their vaccination. A COVID-19

vaccine-independent monitoring exercise was conducted in the Maseru district. Community members in the district were classified as non-believers, endorsers, and advocates of the COVID-19 vaccine. The exercise revealed a need for a behaviour change strategy for COVID-19 vaccine uptake to address these multiple beliefs and behavioral determinants, reducing barriers and leveraging enablers identified. To promote and increase COVID-19 vaccine uptake; different approaches were needed to engage and convert non-believers, endorsers, and advocates of COVID-19 vaccines.

**Intervention:** As primary care providers of vaccines in Lesotho, nurses needed effective engagement and versatility skills applicable to COVID-19 vaccine non-believers, endorsers, and advocates to increase vaccine uptake. The solution involved capacity development for community and primary health care nurses on versatility and effective engagement skills to address the COVID-19 vaccine acceptance issue. The three dimensions of community member segmentation on which nurses needed to be capacitated were: community member vaccine advocacy, community member message receptivity, and community member personal style: Community member vaccine advocacy and message receptivity training: The training was administered virtually via Google meet. This interactive training covered community members' level of support (advocate, Endorser, and Non-believer) for the Ministry of Health's vaccination campaign and the vaccine. Community member message receptivity training: Community members' attitudes, beliefs, and behaviours regarding COVID-19 vaccination were covered in this training. Nurses were made aware that community members can be health-focused, vaccine brand-focused, and vaccine resisters. Community member personal style training: Participants received instruction about adapting to community members'

preferred personal interaction style. Participants were made aware that people may be influenced and make decisions based on their personal styles.

**Results:** The training was attended by 62 nurses (from Maseru) of varying ranks through seventy-one (71) nurses had taken an online pre-test. This interactive training was attended by Coordinators of Departmental Services, Registered Nurse-Midwives, and Nursing Assistants from fourteen 14 health care facilities. Participant feedback revealed knowledge boosted the confidence and competence of nurses and helped our fellow nurses to engage with different members of the community and tailor their talk/message based on the segmentation that they have done prior to going into COVID-19 vaccine issues. This translated into community members' behaviour and attitude change towards COVID-19 vaccine surveys revealed a 60% increase in participants becoming COVID-19 vaccine advocates, and more people (66% increase) supported government COVID-19 vaccination campaigns.

**Implications for the field:** The commonly used approach to influence behaviour in health care settings is health education which normally disregards these three dimensions. This behaviour change approach led by nurses for nurses augmented the current methodologies of nurse health education. The nurses now know how to approach an advocate of a product or health promotion intervention, and convert an endorser and a non-believer, especially during door-to-door campaigns for vaccination or any other health promotion interventions. This was an in-service training and continuing professional development activity which can easily be sustained and rolled out to other countries, regions, and ultimately worldwide. As nurses are the largest cadre of health workers worldwide, their leadership and participation in SBCC campaigns are critical to sustained trust in immunization and uptake of vaccines. This approach required all stakeholders' involvement to help identify those hot spot areas where this approach may be needed.

**ABSTRACT ID:** 231

## **Leading role of nurses COVID 19 vaccination campaign in Seychelles**

*Authors:* Rosie Bistoquet | Nurses Association of Seychelles

**Background & Objectives:** Nurses in Seychelles are in the frontline of the Health Care System including a national vaccination campaign against COVID 1. The national immunization campaign against Covid-19 which officially kick started on Sunday January 10 as an additional measure against the rapid spread of the virus, is still in progress until to date and well on track. The Seychelles vaccination team is derived from the well-established Expanded Programme of Immunization lead, managed and implemented by nurses.

**Aim:** Ensure a successful and robust vaccination campaign in paving the way for Seychelles to rebuild and recover during the pandemic.

**Objectives:**

- To protect the integrity of the health-care system and the country's critical infrastructures.
- To reduce morbidity and mortality related to Covid-19
- To reduce the transmission of the virus within communities.

**Outcome:** A successful and robust vaccination campaign in paving the way for Seychelles to rebuild and recovery during the pandemic

**Methods:** National Immunization Programme Implementation plan 2019 of COVID 19.

**Results:** The Ministry of Health confirms the Covid-19 vaccination coverage among total population, as at Feb 24, 2022. Out of a total population of 99,258 people, 85% have been vaccinated with their 1st dose, 80% have completed their 2nd dose and 34% had received a booster dose.

**Conclusion/Recommendation:** In conclusion the national ambitious campaign, COVID-19 vaccinations in Seychelles is a success story, putting the island in the spotlight for holding one of the highest rates of vaccinations in the world. It has also Strengthened international and national Collaboration of different organizations and partners.

**ABSTRACT ID:** 141

**Teenage pregnancy During COVID-19 Lockdowns: The effect of National Standards for Adolescents and Youth Friendly Health Services**

**Authors:** *Lukhele Tholakele/Dlamini Zodwa/Shongwe Philile/Maphalaleni Clinic/Ngwenya Wellness Clinic/Hhukwini Clinic*

**Keywords:** *Adolescents, COVID-19, Teenage pregnancy*

**Background:** An increase in teenage pregnancy was observed in Hhukwini and Maphalaleni clinics during the COVID-19 lock downs. In Hhukwini 28 cases of teenage pregnancies were observed in the past 3 years which rose to 38. Similar trends were observed in Maphalaleni with an increase of 11 teenage pregnancies over the past 2 years rising from 8 cases. The aforementioned pose a threat to the lives of the teenagers and the unborn babies. It against this background, the national standards for adolescents and youth friendly health services (AYFHS) were implemented. However, the impact of the implementation has never been explored.

**Aim:** To determine the impact of implementing the national standards for AYFHS.

**Description:** Following capacity building implemented by the Ministry of Health on the national standards for AYFHS, Hhukwini and Maphalaleni clinics operationalised the standard through initiating of youth friendly corners targeting teenagers. The clinics specifically implemented Standards 1 (adolescent knowledge of health), 6 (adolescent and youth involvement) and 7 (Community involvement) were implemented. Standard 1 entailed enhanced capacity building with comprehensive information; 6 practically involving teenagers/adolescents in their care including monitoring and evaluation of their own health; 7 engaging the parents and the community at large to support teenagers in their pursuit of health. Thus far, no cases of teenage pregnancy have been reported in both Maphalaleni and Hhukwini clinics, respectively.

**Lessons learnt:** Teenagers appreciated the forum to be engaged in a friendly manner. The parents were not knowledgeable on how to support their teen children, however, learnt particularly after the launch of the AYHFS in Maphalaleni.

**Next steps:** To launch AYHFS in Hhukwini and all arrangements involving the Ministry of Health, Sexual Reproductive Health unit, Taiwan ICF and community leadership have been made. Share findings in Mangers' meetings to identify other facilities experiencing a surge of teenage pregnancies so that they can also initiate AYHFS. Carry out qualitative research to explore experiences of these teenagers.

**ABSTRACT ID:** 151

### **The role of nurses and midwives in managing COVID 19 pandemic in Homa Bay county in Kenya**

**Authors:** Prof Richard Muga CEC Homa Bay County/Dr Iscah Moth Ag. COH Homa Bay County/Dr Gordon Okomo CDH Homa Bay County/Mr. Daniel Okuku CDN/Homa Bay County

**Background:** World health organization (WHO) confirmed the new disease condition which presents with acute respiratory syndrome, reported in Wuhan City of China, as a new corona virus. It was first reported on 31st December, 2019. The virus was named SARS-COV-2, novel Coronavirus, -Ncovid, or Corona-Virus Disease 2019, later abbreviated as (COVID-19).

COVID-19 infection was first reported in Kenya on 12th March 2020, in Nairobi City, but has since been reported in all corners of the country. The countries response to the pandemic required adequate staff and supplies. The preventive measures included proper hand washing, sanitizing and wearing of face masks in public places and transport. The main objective was to prevent the spread and isolate those infected from spreading Covid 19 and to ensure compliance with the protocols provided by the government by the people of Homa Bay County.

**Methods:** This was action research a philosophy and methodology applied



in social sciences. The study sought transformative change through simultaneous process of taking action. Nurses and midwives were at the frontline in managing Covid 19 cases both at the out-patient department as well as those admitted for expert care in dependency and intensive care units. Community health volunteers sensitized communities taking personal responsibility regarding social distancing, hand washing and sanitizing, and wearing masks as per MOH guidelines and protocols.

**Challenges:** The big margin in the case fatality rate can be associated with the challenges that the county grappled with to minimize the negative effect of the pandemic. The major challenges faced included dealing with the pandemic, enforcement of COVID-19 regulations and requirement compliance with covid-19 protocols in learning institutions and public places.

**Lessons Learnt:** Putting nurses and midwives at the frontline provided all round staffing in the management and isolation of cases in the county. Home Based Integrated Care (HBIC) provided the answer to the escalating number of COVID-19 cases in the county. Referral and handing over of patients to the link facility and to the community unit for community based continuum of care was vital. CHVs provided link between primary facilities and the community referring patients from the community to the family and back when condition improves.

### Sub-theme 3: Innovation and use of digital technologies in nursing and midwifery

**ABSTRACT ID:** 133

#### **Exchanging global health perspectives via WhatsApp chat initiative: Participation patterns and areas of interest for undergraduate nursing students in the United States and Tanzania**

**Authors:** *Kija Malale/Jennie Van Schyndel/Asheri Kiyumbi/Amanda Sperry/ Faculty of Nursing, Catholic University of Health and Allied Sciences, Mwanza, Tanzania/College of Nursing, University of Illinois Chicago, Springfield, United States of America/Faculty of Nursing, Catholic University of Health and Allied Sciences, Mwanza, Tanzania/College of Nursing, University of Illinois Chicago, Urbana, United States of America*

**Keywords:** *Global health perspectives; Tanzania; Undergraduate nursing students; United States; WhatsApp*

**Introduction:** Lessons learned from the era of the COVID-19 pandemic suggest that health-related universities around the world should strive to instill global health experiences in their students, and thus alternative approach to internships or exchange programs for international students is urgently needed. As the most used social media in Tanzania (TZ) and the United States (US), WhatsApp was used as an initiative to facilitate the exchange of global health perspectives between Nursing students at Catholic University of Health and Allied Sciences (CUHAS) in Tanzania and the University of Illinois at Springfield and Urbana campuses in the US. Therefore, this study described the participation patterns and areas of interest of nursing students.

**Methodology:** The descriptive study retrieved data from a Global Health Perspectives exchange conducted in February-March 2022 through the WhatsApp Initiative project. The project involved 103 undergraduate nursing students from the University of Illinois (20- Springfield and 33- Urbana campuses)-US and CUHAS-TZ (50). Normalized scores of initial posts/chats (questions) and response posts per student were used to judge the participation patterns of students. Frequency (percentage) of initial posts/chats and response posts per discussant topic was used to judge the areas of interest. Normalized scores of each student's initial posts/chats (questions) and response posts were used to judge student participation patterns. The frequency (percentage) of initial posts/chats and response posts for each discussant's topic was used to determine their area of interest.

**Results:** Over a four-week period, the total number of initial posts was 144 (14.4 per group) and the total number of responses was 654 (65.4 per group). After normalization of students' posting scores, US students' initial posting scores were better than TZ students (mean difference 0.394,  $F=13.072$ ,  $p < 0.001$ ). Across campuses, only students from the Springfield-US outperformed students from CUHAS-TZ in initial posting scores (mean difference 0.614,  $p < 0.001$ ). Moreover, there was no significant difference between countries in response posting scores ( $F= 2.30$ ,  $p = 0.141$ ). TZ students scored higher on response posts than Urbana-US students (mean difference 0.459,  $p = 0.019$ ). Similarly, Urbana-US students scored lower than Springfield-US students (mean difference 0.404,  $p = 0.036$ ). Majority of students showed interest to discuss topics related to healthcare systems and global health (36.8%), followed by vaccine preventable diseases (28%).

**Conclusion:** The findings of this study suggest that WhatsApp chat platform is a promising alternative to international students' exchange programs in this era. International undergraduate nursing students are excited to exchange health information related to the healthcare systems and global health, but their participation on the WhatsApp platform needs to be monitored. Further research is necessary to explore participation patterns on the WhatsApp chat platform over a month.

**ABSTRACT ID:** 128

# Perception and Practice Among Kenyatta National Hospital Nurses Regarding Computerization and Computer Use

*Authors: Christine M. Musee/Kenyatta National Hospital*

*Keywords: computer use, funsoft, perception, practice, nurses, training, technical support*

**Introduction:** The nursing profession is facing new and unique challenges and trends in the 21<sup>st</sup> century. There are higher healthcare costs, and the need to stay current with rapid advances in medical knowledge and technology. Advances in telecommunication technology in the last two decades have led to the need to develop computerization and computer utilization. This allows storage and access to vast amount of information and services. Recently Kenyatta National Hospital developed an ICT master plan as an action plan to digitalise the institution's health services. It is with this in mind that this study was undertaken.

**Study Objective:** the purpose of this study was to establish perception and practice among Kenyatta National Hospital nurses regarding computerization and computer use.

**Methods and Materials:** A cross-sectional study design was applied. The study population was all qualified nurses working at KNH during the study period. Data was collected through self-administered questionnaires, guided focused group discussion and guided key informant interviews. Data was entered cleaned and coded to facilitate analysis. Quantitative data was analyzed using SPSS version 21.0. Descriptive statistics (measures of central tendencies and measures of variation) were used. Chi-square (Pearson's chi-square test) test of independence was used to determine whether there were significant relationships between two nominal (qualitative) variables. One sample binomial test was used to test whether a sample mean significantly differed from a hypothesized value. Binary logistic regression was used to test the relationships between variables. Qualitative data themes were grouped, coded and analyzed. Data was presented using tables, bar graphs and charts.

**Research Results:** 94% of the respondents felt that computers were available in the wards (p-value <0.001). The average number of computers per ward was three (3). Approximately 64% perceived the computers were inadequate (p-value- <0.001). About 85% of the respondents were computer literate. The majority (93.3%) of nurses used computers for nursing activities/duties (nursing notes (15.1%), ordering supplies (59%), billing (9.6%) and communication 9.6%). Approximately 71% of the respondents were proficient in funsoft (p-value <0.001). The nurses expressed the need for basic computer training (48%), installation for more computers (12.2%) and improvement of technical support (37.2%) to help scale up computer utilization (p-value <0.001).

**Recommendations:** There is need for additional training in funsoft, additional computers, maintained electric power supply, a system to monitor and evaluate computer use and computerization, improved technical support system by qualified human resource and consideration to make computer literacy to be a prerequisite for new employee entry in employment.

**ABSTRACT ID:** 72

## **Decentralised versus traditional model of nursing training: comparing knowledge and skills among graduates**

*Authors:* Prof Lonia Mwape / SolidarMed/Levy Mwanawasa Medical University

*Keywords:* Decentralised model, Key words: Quality of care, Midwifery, Nursing, Traditional model, Training

**Background:** The shortage of nurses and midwives in Zambia spans from over a decade ago when the then Minister of Health declared it a crisis. The skill-based shortage is of concern in a healthcare context characterised by global health indicators such as high maternal mortality ratio, under-five mortality ratio, HIV prevalence rate, and a life expectancy lower than the global average. In order to address the above challenges, a decentralised model in the training of nursing students was introduced at one College of Nursing and Midwifery in Zambia. The aim of this study was to investigate the quality of nursing and midwifery care provided by graduates from the decentralized model of training against the cohort of graduates of the traditional model of Nursing and Midwifery training.

**Methods:** The study utilised a cross sectional analytical study design involving 143 nurses and midwives from the two Colleges of Nursing and Midwifery, working in various health facilities across the country between November 2020 and February 2021. The participants were conveniently selected and, in the cases, where graduates on the list could not be reached, snowball sampling technique was used. Data was collected using a standardized checklist as the candidates performed mandatory procedures. To supplement information obtained from assessment of the candidates, a 5-point Likert scale questionnaire was used to obtain information from their supervisors, on additional aspects of graduates' clinical competences. The data were analysed using the Statistical Package for Social Sciences (SPSS) version 26. Measures of central tendency were used to analyse the data on demographic characteristics of the participants, while Chi square was used to determine the relationship between variables. In addition, independent samples t-test was used to determine the significant differences in means between the two groups.

**Results:** Results of the t-test show that there was no significant difference on overall knowledge levels between graduate nurses from the decentralized

model of nurse training ( $M=3.24$ ,  $SD = 0.93$ ) and the traditional model of nurse training ( $M=2.58$ ,  $SD =1.07$ ),  $p=3.285$ . In terms of skills, the study highlighted a significant difference in overall skills levels between graduate nurses from the decentralized model of nurse training ( $M = 23.52$ ,  $SD =3.02$ ) and the traditional model of nurse training ( $M= 21.72$ ,  $SD = 3.14$ ),  $p=0.018$ . In addition, results indicated a significant difference in overall attitudes towards patient care between nurses trained from the decentralized model of nurse training ( $M = 23.52$ ,  $SD = 3.20$ ) and those trained from the traditional model of nurse training ( $M = 21.73$ ,  $SD = 3.15$ ),  $p= 0.017$ . Comparison of supervisors' rating of graduates overall clinical skills revealed no significant difference in nurses trained under the decentralized model ( $M = 3.34$ ,  $SD = .88$ ) and those trained under the traditional model ( $M = 3.21$ ,  $SD = .77$ ),  $p= 0.119$ .

**Conclusion:** From this study, it can be concluded that some specific aspects of knowledge, skills and attitudes of graduate nurses are influenced by the model used in their training. Based on these results, the decentralised model of training can be recommended for scale-up to all nursing and midwifery training institutions.

**ABSTRACT ID:** 139

### **Knowledge and attitudes of nurses towards Client Management Information System in the Hhohho region of Eswatini**

**Authors:** Shongwe Sandile/Mhlongo Zanele/Shabalala Fortunate/Masuku Sakhile/Mbabane Government Hospital / Good Shepherd Nursing College/University of Eswatini, Faculty of Health Sciences/University of Eswatini, Faculty of Health Sciences

**Keywords:** Knowledge, Attitudes, Client Management Information System, Nurses

**Background:** The Client Management Information System (CMIS) is an electronic based data collection tool in healthcare worldwide. However, its implementation has been failing and nurses' knowledge and attitudes on CMIS are not known.

**Aim:** To assess the knowledge and attitudes of nurses towards CMIS

**Methods:** Two health facilities in the Hhohho region of were purposively selected for this study. Convenient sampling was used to identify nurses who were asked to complete a self-administered questionnaire. Knowledge of CMIS was measured with a tool that consisted of three categories with a total of 41 items, derived from a study on knowledge and attitudes of nurses towards Electronic Health Records which has been used by three different researchers and found and it was found to be reliable. Data was analysed using SPSS version 22 performing univariate analysis. Study was reviewed and ethically cleared.

**Results:** Data was analysed from 61 nurses; among whom 49 % (n= 30) were aged 30-41 years; and 80% (n=49) were females. About two-thirds of the participants were Bachelor's degree holders; 97% (n=59) received computer training. On knowledge; the modal score was 21.00 with (23.0%, n=14) participants. Out of the 61 respondents only (8.2%, n=5) of the participants were able to get the highest possible score 25, and the lowest score attained was 7 (28%) which was scored by only 1 participant. On benefits of CMIS: 1 respondent scored the highest and 1 respondent had the lowest score. The modal score was 31 obtained by 26 participants (42.6%). The highest possible score on attitude was 80 and the lowest possible score was 16. Out of the 61 respondents, (21.3%, n=13) were in the score range (35-44) while (60.7%, n=37) were in the score range (45-54) and (18 %, n=11) were in the score range (55-64). The mean score was 49 ± SD 5.6.

**Conclusion:** Even though Nurses had varying levels of knowledge and attitudes on CMIS but in overall the study shows that nurses are knowledgeable and have positive attitudes towards CMIS.

ABSTRACT ID: 143

### **Effectiveness of a Less Cost Improved Bubble continuous positive airway pressure (CPAP) on treatment of newborn babies with respiratory distress syndrome (RDS) at Muhimbili National Hospital-Mloganzila Tanzania**

*Authors:* Wilson Fungameza/Governmental Hospital

*Keywords:* CPAP-Continuous Positive Airway Pressure

**Background:** Globally newborn deaths (deaths within the first 28 days of life) account for 46 percent of all under five deaths, which translates to about 2.6 million newborn deaths in the first month of life. Likewise, Tanzania has one of the highest numbers of newborn deaths, which accounts for 40 percent of all under-five deaths (MoHCDEC 2019). Approximately 39,500 newborns die annually; nearly 50% of all deaths occur within the first 24 hours after birth and 75% within the first 7 days of life. Muhimbili National Hospital, the largest referral hospital in Tanzania had been striking to overcome the problem. Continuous Positive Air pressure (CPAP) and Mechanical Ventilation had been commonly used as respiratory support provided to neonates. Unfortunately, the two methods had been very expensive and technically complex for many resource-limited settings (Wilson, 2012). Considering this we recently developed a novel, low-cost Improved bubble CPAP system for low-resource settings that can be easily made and available at very low cost. The device delivers the same therapeutic flow and pressure as bubble CPAP systems used in high-resource settings. It does not require source of electricity to use it.

**Objective:** The objective of this study was to examine the outcomes of using Improvised bubble CPAP for treatment of newborn babies with respiratory distress syndrome (RDS) in NICU at MNH-Mloganzila Tanzania.

**Methods:** Retrospective observational study was used by comparing data before introducing Improvised bubble CPAP (February-July 2018) and after using improvised bubble CPAP (August 2018 – April 2019).

**Results:** Before introducing Improvised bubble CPAP data were collected 82 babies had RDS and received oxygen therapy as respiratory support. 37.8% (31/82) survived and 62.2% (51/82) died. After introducing Improvised bubble CPAP as a respiratory support, 128 babies with RDS were treated with the device. 72.7% (93/128) Survived and 27.3% (35/128) died. Therefore, at MNH-Mloganzila before Improvised bubble CPAP, RDS contributed 14.1% of all neonatal deaths, while after the introduction of improvised bubble CPAP deaths due to RDS reduced to 5.9% of all neonatal deaths.

**Conclusion:** Implementing appropriate improvised bubble CPAP devices could reduce neonatal mortality in developing countries, especially in areas with limited resources where there is no advanced CPAP Machines.

**ABSTRACT ID:** 223

### **A model for localized and sustainable quality delivery of CPD in Africa (The Zimbabwean Model)**

**Authors:** *Yangama Jokwiro/Peter Williams/Admore Jokwiro/Tapiwa eugenia Muhamba-Mundida/Yvet Turugari/Jane Connolly/Chioneso Gambiza/Edward Zimbudzi/Vaka Health Foundation/Vaka Health Foundation/ Vaka Health Foundation/Vaka Health Foundation/Vaka Health Foundation/La Trobe University/Vaka Health Foundation/Vaka Health Foundation*

**Keywords:** *Continuing Professional Development, Mobile Technology, Nurses, Online*

**Background:** Nurses and Midwives in Zimbabwe had poor access to decision support tools, and they had to travel for basic continuous professional development training, which had its risks and took them away from their work, families, and supportive communities. Mobile technologies provided a platform for innovative ways of delivering ongoing professional development to health care workers in a cost-effective and sustainable way.

**Aim:** The aim of this project was to build, design, and deliver continuous professional development for nurses in Zimbabwe.

**Method:** A participatory action-based, guided, the approach was undertaken to achieve the goals of the project. The project was co-designed by nurses' users, nurse educators, health informaticians, public health



workers, nurse council leaders, and technology programmers.

**Outcomes:** Accredited professional development courses for nurses and midwives were provided in partnership with the Nurses Council of Zimbabwe and the Ministry of Health and Childcare through its pilot project called MYCPDZW from Vaka Health Foundation. The solution allowed access to quality, relevant, technology-enhanced education, algorithmic protocols, clinical decision support tools such as national guidelines, and standardized continuous professional development activities. This web-based mobile application was successfully rolled out to health care workers in Zimbabwe before and during the Covid 19 pandemic. More than 80% of nurses in the country have completed at least 40-45 modules per nurse, translating to more than 1 million Continuous Professional Development (CPD) activities over a period of 3 years. Registered nurses have managed to renew their Practicing licenses online using the MYCPDZW platform. For more information visit the website [www.mycpdzw.org](http://www.mycpdzw.org).

**Lessons Learnt:** The platform improved access and delivery of up-to-date, quality, continuing professional development programs to the Zimbabwe health communities. Delivering quality health education and training has the potential to fast-track vastly improved holistic outcomes for health in an efficient and cost-effective manner, which can link education, training, entrepreneurship, and career development in a more holistic manner

**ABSTRACT ID:** 204

**eHealth and nursing, from concept to reality: leveraging eHealth to improve nursing care in the low and middle income countries**

**Authors:** *Pauline Kariuki /Nyamira County, Kenya*

**Keywords:** *ICT, Low and Middle Income Countries, Nursing, eHealth*

The United Nations member states agreed to achieve universal health coverage (UHC) by 2030. To help achieve UHC, different health care providers who play diverse roles are involved. One of them is the nurse. This is best done by embracing eHealth to enable healthcare services to reach everyone. Unfortunately, nurses in the low- and middle-income countries (LMICs) have been left behind in eHealth. The objective of this study was to critically appraise, synthesis and present evidence of the status of eHealth adoption, implementation and use among nurses in LMICs. To achieve this, nine electronic literature platforms and databases were systematically searched from July to December 2021. The inclusion criterion was that only original peer-reviewed research studies published in peer-reviewed journals and periodicals published in English language between 2017 and 2021 were included. A multistep selection process was carried out and content analysis of the identified articles done. All the

studies that were not related to the objective of the study topic were excluded. Out of 291 articles identified, 32 studies fully met the inclusion criteria. The study concluded that it is imperative to leverage on eHealth by ensuring that all nurses are knowledgeable about the many benefits that can be accrued from using it, as well as encouraging its adoption, implementation and use as this will bring tremendous changes to nursing services. It is recommended that nursing policy and education should address the eHealth literacy of nurses and integrate it into continuing professional education initiatives if we are to make eHealth a reality globally. Additionally, nurses need to be considered when designing ICT programmes. And lastly, the barriers elicited that limit the adoption, implementation and use of eHealth should be urgently tackled.

**ABSTRACT ID: 221**

### **Application Of Interprofessional Education Model To University Pre-Licensure Health Students In The Management Of Chronic Diseases In Zambia**

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**Keywords:** *Chronic Care Conditions, Interprofessional Collaboration, Interprofessional Education, Multidisciplinary Health Care Teams, Training Modules*

**Background and Objectives:** There is evidence that multidisciplinary healthcare teams can provide better quality of care and treatment outcomes compared to that delivered by individuals from a single health discipline. In 2019, the Strengthening Health Professional Workforce Education Programmes for Improved Quality Health Outcomes in Zambia (SHEPIZ)

project embarked on, among other aims, developing Inter Professional Education (IPE) in chronic disease management for undergraduate health Disciplines. The intended outcomes were premised on enhancing collaborative practice which could lead to strengthened health systems and optimal health service delivery in Zambia. The purpose of this paper is to present the process of developing and piloting IPE modules on chronic disease management for the undergraduate health professions training in Zambia.

**Methods:** Four distinct but interrelated approaches were applied. (1) desk review to

identify best practices in IPE focusing on competences, content, training materials, delivery methods, and assessment methods. (2) module development workshops which comprised diverse experts with experience in IPE, medical education, general education, and management of chronic diseases. (3) review and validation of modules by experts. (4) piloting and review of the training modules.

**Results:** The desk review, showed that there were best practices that could be relevant to IPE for undergraduate programmes at UNZA. Best practices identified from the review guided development of seven chronic disease modules which were piloted. The findings from the pilot showed that 74 - 87% (agree or strongly agree) of the students indicated that the module activities promoted interprofessional education.

**Conclusion:** The process was effective for putting forth an interprofessional training program at the undergraduate level, with the potential to improve quality of care for patients and safety for patients with chronic conditions. Due to the Covid-19 pandemic, causing limitations in the face-to-face interactions, all the seven modules on chronic conditions were adapted into the E-format and uploaded on the Moodle platform that allows online delivery.

**ABSTRACT ID:**119

### **Use of Online Digital Platforms for Patients' Health Education: A Case of Online Antenatal Classes in Uganda**

**Authors:** *Nimwesiga Christine/Lubega Martin/Uganda Nurses and Midwives Council, Kampala Uganda/Wakiso Comprehensive Institute of Health Sciences, Wakiso - Uganda*

**Keywords:** *Antenatal Care, COVID 19, Health Education*

**Background & Objectives:** Patients' health education is core to quality nursing and midwifery practice globally. Technology has redefined the way patients and providers communicate and obtain health information in many ways. The rapid development of various audio visual digital technologies

like zoom, social media offers convenient and efficient ways of delivering public and patients' health education owing to its wide coverage and potential to influence health behaviors among patients and the general population. Digital media is fast, interactive, accessible and has great potential to motivate and influence behavior not only of patients but of medical practitioners, and policymakers, leading to improved health outcomes. This study that was aimed at disseminating antenatal health care

education to expectant mothers and their spouses that would not access health facilities due to fear of contracting COVID 9 using digital zoom platforms was conducted for a period of four months in Uganda.

**Methods:** At the height of the COVID 19 Pandemic, it was scary for expectant mothers to access health facilities for antenatal health care services due to fear of contracting COVID 19, a team of Ugandan Nurses and Midwives initiated an online Antenatal Class dubbed “Antenatal Ku Sunday”, meaning Antenatal on Sunday. The campaign was widely publicized on social media inviting mothers to attend the virtual ANC health education. In this campaign, the Team held antenatal health education talks with mothers and their spouses via zoom. The two hour virtual sessions took place every Sunday from 4:00pm to 6:00pm using zoom for a period of four months, during which the nurses and midwives discussed various pregnancy related topics and provided free online consultations for the mothers who attended. After every session, mothers were requested to provide the comments which were analyzed and served as a guide to the Team for quality improvement.

**Results:** The campaign reached out to over 200 expectant mothers and their spouses. Participants reported that this was a very innovative and flexible approach for delivering health information regarding pregnancy since it offers them sufficient time to ask questions and interact with health workers at the comfort of their homes. The participants attended from the central, eastern, western and northern regions of the country indicating a wide coverage. The Team has won wide national recognition for the great efforts towards pregnancy health education, demystifying the constraints and the lockdown that were associate with COVID 19 Pandemic.

**Conclusion/Recommendation:** Zoom online antenatal Health Education proved effective in offering Antenatal Education to expectant mothers as it offered a very interactive and convenient style of health education. A growing body of evidence supports the use of digital health technology for improving patient education. It is upon this innovative approach to health education that nurses and midwives are strongly encouraged to utilize digital platforms to disseminate public and patient health education as new innovative ways to reach out to the wider population. It is cheaper, exciting, motivating and allows spouse participation at the comfort of their home.

**ABSTRACT ID:** 207

## **Improving capacity of Healthcare workers in Management and Control of TB in Kakamega County, Kenya**

*Authors:* Bryson Sifuma/Dennis Kinyua/Colleta Kiilu/George Gikunda/Amref Health Africa/Amref Health Africa/Amref Health Africa/Amref Health Africa

*Keywords:* Capacity, healthcare workers, TB

**Background & Objectives:** Tuberculosis remains one of the world's deadliest infectious diseases. Nearly 4000 people lose their lives to TB and close to 28,000 people fall ill with this preventable and curable disease. Global efforts to combat TB have saved an estimated 63 million lives since the year 2000. Frontline health workers though being the first contact with communities have challenges in distinguishing TB from other obstructive airway and respiratory illness like Asthma and Pneumonia. This poses a clinical challenge for diagnosis, treatment and clinical audits. Through the Amref GSK TB Malaria Project, Amref Health Africa trained health workers on diagnosis, management and control of TB. It was an integrated approach focusing on capacity building, quality and evidence-based actions for mid-level health workers to effectively manage TB. Included was advocacy to increase public awareness for prevention and management of TB and monitoring and evaluation to generate data for evidence based decision making.

**Methods:** A blended training approach of face to face and e & m-Learning was used to train health workers (both mid and community level) on effective management of Tuberculosis. An evaluation of the Amref GSK TB and Malaria project sought to find out the effect of training health workers as well as document lessons learnt and best practices.

**Results:** 1200 HCWs enrolled on TB e-content patients enrolled in the TB clinics with 95% of TB patients on appropriate treatment and 57% of them on follow up through clinic days and CHVs. 123 health care workers were trained on TB through a blended approach. 31% of public health facilities in Matungu Lurambi navakholo and Mumias west sub-counties were supported. 8197 people were reached through TB education. Improved coordination between the community unit and middle level health workers. Reduced hospitalization due to asthma attack and improved management of asthma evidenced by the frequency of hospital visits by clients. There was also improved patient tracing and referral to the health facility.

**Conclusion/Recommendation:** Training of health workers and equipping clinics are essential towards effective management and control of TB. TB support groups are important for information sharing & education among patients and avoidance of stigmatization. Partnership and coordination between the private and public sectors are key in optimizing resources for TB management. Community engagement is key in

identification, referral and follow up of patients. There is need to strengthen tools for TB diagnosis and management in order to generate evidence for proper treatment and decision making.

**ABSTRACT ID:** 194

**Potable technology to screen for TB and other lung conditions in hard to reach rural Communities in Lesotho**

*Authors:* Morephe santi | PIH Lesotho

*Keywords:* Nurses, Potable technologies, TB, communities

Lesotho health workforce is mostly compromised by Nurses who are responsible to carryout over 90% of key work done my ministry of Health. The scope of Nursing work keeps on increasing with the nurse patients ration has not been improving at all. As part of Nurses work in the communities, they are charged with responsibility to diagnose, treat, and prevent health conditions. High rates of HIV in Lesotho had most vulnerable and poor communities be at the risk of TB infection due to compromised immunity. Lesotho has therefore done a lot to address HIV, but TB has been lagging behind with most Basotho dying due to late diagnosis of TB even though the government provide highly effective treatment for both TB, MDR-TB and XDR-TB.

For few months now, Partners in Health Lesotho has supported the government of Lesotho with advanced Potable technologies to assist nurses in hard to reach communities with screening and test for TB at the communities even without having to go to the facility. All is done at the Community. The team of Nurses and radiologist and other support cadres travel for hours on horse backs in hard to ride terrains of the mountain kingdom of Lesotho for conduct comprehensive community outreach programs. At these outreaches, the scope of services include but not limited to consulting ill patients, ART refill, TB treatment refill, ANC and PNC checks ups as well as visit patients for adherence support. More recent the service added is use of technologies for TB screening. The potable Mobile x-ray machines are used to screen for TB and other abnormal chest condition. For all the suspects, the sputum specimen is collected for phenotypic and genotypic testing. Most clients used to report inability to produce sputum therefore now there is potable nebulizer used to sputum induction. Nurses are therefore able to collect sputum from both adults as well as pediatrics clients who are contacts of a TB client or symptomatic suspect of TB. All these machines use latest technologies and extended battery support and are easy to move from one place to another compared to the traditional Machines. In addition to computing with the potable mobile Xray machines, Nurses can use artificial intelligence application

installed on a mobile device to diagnose TB from an Xray image. These images can also be shared with expert doctors by email for review and virtual support of field staff. This is indeed use of latest nanotechnology to advance medical care and diagnosis for the rural and hard to reach communities. With the use of this Devices a good number of patients who would ordinarily die without diagnosis of TB are able to be diagnosed well on time and placed on Live saving and highly effective TB treatment. The potable nebulizer machines are also used when screening contacts of DR-TB clients who cannot produce sputum voluntarily. This is truly an innovation that will assist to rescue Lesotho from a decades long TB burden amongst former mine workers as well as general population. Nurses when they are well trained and supported are able to provide wide scope of health services to patients where they are. This helps to decongest the health facilities so that it's only patients who really need the services there and the rest can be assisted right in the communities. Investing in Nursing education and nursing jobs is therefore vital to reach universal health coverage.

**ABSTRACT ID:** 162

**Assessing a Blended Online Learning Approach for Transferring Knowledge and Skills to facilitate rapid scale up of Reproductive Health Best Practices in East Africa**

*Authors:* Paul Nyachae / Jhpiego

*Keywords:* Blended online learning, Reproductive Health, Scale Up

The activities described in this abstract were implemented by Jhpiego under The Challenge Initiative, a BMGF-funded program with the goal of enabling local governments sustainably scale up proven interventions in FP and Adolescent Reproductive Health. Program efforts are cover 170 cities in East Africa, West Africa, Pakistan, Nigeria, India, Pakistan and Philippines. In East Africa the program supports 59 cities. To facilitate rapid scale up, TCI set up in 2018 a blended coaching process for the rapid transfer of technical & managerial knowledge and skills to local government teams consisting mainly of nurses and midwives responsible for RH and FP services. This blended process consisted of 1) in-person or virtual coaching using a 9-step approach, 2) a curated-online platform of evidence-based FP interventions referred to as the “TCI University” and 3) an online-based community of practice. This was to provide user-friendly information in a variety of formats to reinforce learning, be flexible to cater for busy staff and ensure access to peers to assist knowledge sharing. Technical teams at the District health management teams, consisting mainly of nurses and midwives, were oriented on the online TCI University learning platform,



supported to download a mobile-app and developed to become coaches through an orientation process. The platform was able to generate printable certificates upon completion. Coaches also downloaded a mobile open data kit software to support reporting of cascade coaching activities on high impact interventions. Periodic program reviews were conducted through

Google analytics as well as tracking of online registrations from the 59 program cities across East Africa. In 2022, an online-based quality assessment was done in Kenya, Uganda and Tanzania with 143 coaches. Family Planning uptake was tracked through routine Ministry of Health HMIS data. By 2021, 1,265 coaches had been developed, an average of 12 per city who did 4,590 coaching sessions contributing to rapid scale up of impactful interventions. There were 1,312,998 additional FP users. Of the 10,192 that registered for the online-TCI University 36% were from East Africa, 18% from West Africa, 22% from India, 14% from Nigeria. Of registered TCI University learners, 54% were from Kenya, 20% Uganda & 26% Tanzania. Over 7,725 certificates were earned, an average of 2.65 per user. 43% (n=143) of coaches were from Kenya. 30% Tanzania and 24% from Uganda. 57% of had interacted with their coaches at least monthly while 25%, quarterly. Of coaches interviewed 61% had been coached directly by a program coach, while 45% had been coached by a cascade coach from MOH. 91% of coaches had been involved in the planning of their coaching while 94% developed action plans post coaching. Only 14 % had been coached exclusively through mobile/online. The majority (84%) had a face-to-face coaching. Of these, that received face-to-face coaching, 87% reported that the coach utilized TCI online learning platform. Since inception, there have been 1,312,988 additional FP users across East Africa.

Coaching through a blended approach is feasible can efficiently scale up knowledge and skills transfer. Overall satisfaction with coaching sessions done over the past 3 months was similar among those who had been coached directly versus those coached by a cascade coach, implying that there was adequate knowledge and skills transfer. Ability to motivate learners through offering online-certificates that could be utilized to earn Continuing Professional Development points upon completion was instrumental in the success of the online platform. While an online community of practice was set up to exchange learnings, the preference has been for organic WhatsApp communities of practice that are geography-based and involve ministry of health staff at similar cadres of responsibility. A key recommendation was to improve the frequency of contact with coaches.

## **ABSTRACT ID:191**

### **Using mobile technology for increased Visibility of Community Level FP data by the community health volunteers. The TCI EA experience**

*Authors: Nancy Aloo | Jhpiego-John Hopkins University*

**Keywords:** *Community health volunteers/Village Health Teams, Open data Kit, community efforts, data visibility*

**Background & Objectives:** Community health volunteers/Village health teams (CHVs/VHTs) are essential in the provision of primary health care services at the community level in many low- and middle-income countries. Most countries that utilize CHVs for community-based interventions have developed designated data capture and reporting tools that are used at the community level and the reports linked to HMIS. Despite these structures, there still exist low visibility of community effort which are attributed to various system level factors at local government. The Challenge initiative (TCI) has partnered with over 59 local government in East Africa (Kenya, Uganda and Tanzania) to scale up evidence-based family planning (FP) and

Adolescent, youth sexual reproductive health (AYSRH) interventions. Through the partnership, the program was able to build the capacity of CHVs/VHTs on FP and AYSRH enabling them to distribute the contraceptives, counsel and refer clients to facilities for other methods that were not within their scope. TCI employed a creative solution for timely data collection and making the community efforts data visible in an effort to address the low reporting and poor data visibility.

**Methods:** TCI in partnership with the Local government health teams identified CHV/VHTs/CHAs that were attached to the TCI supported sites/facilities, trained them on community FP and provided reporting tools. Coaching was provided on accurate data capture and reporting through a mobile application the Open Data Kit (ODK). At the end of each month, the CHVs/VHTs/CHAs were able to review their performance which was linked to the program dashboard. The variables collected included; number of clients served by type of visit, age segregation, method provided, referrals and the effective referrals

**Results:** Through the community effort a total of 2,264,906 WRA were reached with contraceptive services between September 2018-May 2022 by the CHV in TCI supported sites across EA (Kenya, Uganda and Tanzania). Of the total reached 67% $n=1,507,397$ ; 25% $n=570,125$  and 8.3% $n=187,384$  were reached from Kenya, Uganda and Tanzania respectively. The findings

further revealed that 62% of the total WRA were the adolescent and youths <24years, indicating the potential of CHV reaching the marginalized groups at the community level with contraception. Additionally, a total of 362,307 FP referrals were made to the health facilities by the CHVs/VHTs of which 65% $n=235,679$  were effective referrals. of the total referrals done 44% $n=157,985$  were among the AYs with an average of 71% being effective referral at 75%, 72% and 67% from Tanzania, Kenya and Uganda respectively. The technology allowed data review in real-time and faster correction of errors enhancing rapid feedback to the service providers for enhanced service quality and provide the real-time visibility into client information, including historic and current data via the program dashboard, enabling new insights, prompts and reminders for providers on areas for

improvement.

**Conclusion/Recommendation:** Data revealed improvements which is critical for evidence-based FP program planning. With such a creative solution, TCI EA has been able to assist local governments more effectively in monitoring their intervention's and make adjustment where necessary. Use of the digitalized mobile app to capture data on community-based distribution of family planning by the CHVs/VHTs was an innovative approach that fostered near -real time data capture, increased visibility and use for decision making. This process provided the evidence needed by stakeholders and implementing partners working with CHVs/VHTs as primary care givers on how to improve efficiencies in delivery and data reporting for community efforts.

**ABSTRACT ID: 177**

Use of mobile technologies to collect family planning data; TCI pharmacy experience from select cities in East Africa

**Authors:** *Kirole Ruto/Paul Nyachae /Peter Kagwe/Josephine Nabukeera / Rose Mnzava / Kenneth Owino /Morine Sirera / Jhpiego-Johns Hopkins University / Jhpiego-Johns Hopkins University | Jhpiego-Johns Hopkins University | Jhpiego-Johns Hopkins University | Jhpiego-Johns Hopkins University | Jhpiego-Johns Hopkins University*

**Keywords:** *ODK, TCI, TCI Dashboard*

**Background:** The Challenge Initiative (TCI) has partnered with over 40 local governments across East Africa to empower them to rapidly and sustainably scale evidenced based FP and AYSRH solutions. Data visibility from the private sector plays a key role in ensuring FP is accessible, acceptable and affordable for the population and helps determine demand and plan for action. Currently in East Africa data from pharmacies is siloed and rarely included into the national health information system (HMIS) thus not used in decisions making by the governments. The contribution of pharmacies is mostly dependent on intermittent population surveys. In response, the project implemented a pharmacy engagement strategy to improve data visibility and near time reporting by pharmacies. TCI engaged professional associations to map and identify pharmacies using predetermined criteria, then trained the identified pharmacies on data capture and reporting through the open data kit (ODK) that was configured in their mobile phones. This facilitated accurate capture and timely submission to the TCI dashboard for visibility and quick analysis for use by the MOH and pharmacy associations during the review meetings.

**Methodology:** The strategy was implemented between October 2019 to May 2021. In total, 320 pharmacies (202 Kenya, 46 Uganda and 72

Tanzania) were engaged. The variables collected through the pharmacies include; number of clients served by type of visit, age segregation and sex, FP methods provided and number of pharmacies reporting. TCI conducted coaching on near-real time data capture and reporting. Pharmacies captured data in ODK app and data submitted routinely to the TCI dashboard for visibility, analysis and utilization. The TCI dashboard provided an avenue for the pharmacists, professional bodies and program team to validate data and monitor performance. The data was retrieved from the TCI dashboard and analyzed using excel sheets the data is already aggregated in the dashboard.

**Results:** The 320 pharmacies were able to report through the ODK though inconsistent, a total of 72,720 (69%, female) clients were served while 608 clients requesting for long-term FP commodities were referred to government facilities. The data shows most of the clients accessing FP services from the pharmacies are clients above 24 years at 71% while teenagers account for 28% and adolescent at 1%. The most accessed FP method accessed was emergency contraceptive, 30% while FP injectable was the least accessed, 14%. The reporting has been fluctuating due to high turnover rates and high workload, the reporting rates was averagely 28% due to inconsistency of reporting by some of pharmacies.

**Conclusion:** The pharmacy low reporting is attributed to the high turnover rates, additionally the linkage between the pharmacies and MOH was low, but this has improved over time leading to improved reporting from 17% to 51%. The project will continue with coaching on reporting, and work with the government to facilitate reporting of the pharmacies directly to the HMIS and ODK. The TCI pharmacy engagement approach has demonstrated the need by the government to recognize community pharmacies as a key player in improving access and uptake of family planning commodities. Pharmacies serve a high number of clients as demonstrated by the data. This is because they are easily accessed in urban poor settings. The project has expanded its approach by targeting 30 pharmacies per geography to facilitate more clients accessing quality FP services as well as improving reporting. The program will continue working with the government and professional associations to ensure improved capacity of the pharmacist in provision of quality FP services, reporting and data used for decision making. The availability of the program dashboard has enabled analysis of service statistics data at the pharmacy level.

**ABSTRACT ID: 184**

## **Continuity of learning in nurse and midwifery education through E-Learning: The Zimbabwean Experiences**

*Authors: Lilian Dodzo/ Ministry of Health and Child Care*

*Keywords: E-learning, continuity of education, technology*

The advancement of technology platforms and internet availability has created opportunities for Zimbabwe Ministry of Health and Child Care to harness information, communication, and technology (ICT) for the improvement of training and education services. Introduction of E-Learning has been done in midwifery schools. It will assist in addressing the critical shortage of teaching staff as the tele-medicine concept will be used.

This will benefit all students and educators in different schools. The current Covid-19 pandemic with its requirement of physical distancing and others has only made the need for effective technology-driven learning systems more urgent.

Methodology used include:

- Development of concept note
- Rapid assessment of Training Schools ICT infrastructure
- Initial Content Development Workshop
- Content Development team in place
- Procurement of ePlatform license
- Customization of Platform
- Training of nurse and midwifery educators

Progress on E-Learning project are:

- E-Learning platform established
- Orientation of nurse and midwifery educators on use of the portal
- Content uploaded onto the system
- Launch of the E-Learning platform

**ABSTRACT ID:** 73

**Can medicine be taught online? Cavendish University's transition from contact classes to online learning during the COVID-19 pandemic**

***Authors:** Longa Kaluba / Christine M Mutati / Cavendish University Zambia/ Cavendish University Zambia*

***Keywords:** COVID-19, Online learning, School of medicine*

**Introduction:** Schools of medicine all over the world have an enormous responsibility to equip future doctors with the knowledge, skills and attitudes necessary for patient care. Thus, high standards are needed for the delivery of medical education. The teaching of medicine has evolved from

lecturer centred to student-centred learning. Several strategies have been incorporated by many medical schools ranging from the flipped classroom, team-based, problem-based or experimental (hands-on) learning to hybrid or blended learning which combines a didactic approach with the strategies named. However, the coronavirus pandemic has caused most to think outside of the box. The COVID-19 pandemic imposed dramatic changes on teaching and learning worldwide. Many universities transitioned from contact classes to utilizing fully electronic online modes.

**Objective:** The study aimed at evaluating Cavendish University School of Medicine students online learning experience during the COVID-19 pandemic.

**Method:** This was an exploratory cross-sectional study on the viability of teaching medicine online during the COVID-19 pandemic at Cavendish University Zambia, School of Medicine. Simple random sampling was used to select 385 to select students for whom regular online classes were started as soon as the university had to shut down. An online questionnaire was distributed to the selected students at the time of the conclusion of the semester. The survey was conducted in the preclinical year intakes (1 and 2) in the pursuit of a medical degree, the first two years in the nursing and clinical science degree and the bridging course to these programs called foundation years (years 1 and 2). The survey was voluntary, and all data were collected and recorded via google forms with maintaining anonymity.

The Kruskal Wallis test was applied to evaluate the statistically significant differences across different programs offered at the institution. The box and whisker plot was used to show the distribution of the data in Stata version 14.1. Results with a  $p \leq 0.05$  were considered statistically significant.

**Results:** A total of 385 participants took part in the survey. Most of the participants were female 124 (50.4%) and studying MBCHB 171 (44.7%). The study found that there was a significant difference in the level of understanding (P value= 0.01), the ability to explain online class (P value = 0.04), and internet reliability across and within programs (P value = 0.04). Female students in the foundation group found it easier to understand online classes as compared to other programs. Most of the students were by load shedding but the observed difference in median scores was not significant (P value = 0.07).

**Conclusions:** Teaching online presented an opportunity to complete the semesters' curriculum during the coronavirus pandemic. With obstacles like electricity load shedding and unstable internet reliability, students reported high rates of motivation, confidence in the materials taught and exam preparedness. Thus, with the right infrastructure in place, online teaching has the potential to be an added resource in medical education.

**ABSTRACT ID: 147**

**Significance of wild mushrooms for female mushroom hunters in rural Zambia on women's health**

**Authors:** *Concepta N. Kwaleyela/Jeane N. Banda/Margaret C. Maimbolwa/Florence M. Mutondo/Mai Lovaas/Mulungushi University, Zambia/ Mulungushi University/University of Zambia/Solwezi District Health Office, Zambia/Norwegian University of Science and Technology, Norway*

**Keywords:** *Mushrooms, Sustainable Development Goal, ethnomycology, hunters, women's health*

**Background:** Mushrooms are the fruiting bodies of the mycelium; the fungal organism living in the ground. They live in the forest only and cannot be cultivated. If their host trees are removed, mushrooms will not grow because of the mutually beneficial, symbiotic, and dependent relationship between wild mushrooms and trees. They have a complex metabolism and generate many byproducts. Among these are antibiotics, beta-glucans, psychoactive compounds, and toxins which give them their medicinal, entheogenic, toxic, or even lethal properties. They are a valued and notable contribution to the diet of many communities in central and southern Africa at a time when other food sources may be scarce. Wild mushrooms not only have beneficial nutritional and medicinal properties and hold valuable nutrients for humans; including proteins, vitamins, fats, carbohydrates, amino acids and minerals. Preliminary evidence, clinical and preclinical studies suggest that mushrooms support healthy immune and inflammatory responses, and that they have impact on cognition, oral health, and cancer risk.

**Aim:** To explore the significance of wild mushrooms for female mushroom hunters in rural Zambia as a source of livelihood, food, and medicine in settings undergoing environmental change, with a focus on women's health.

**Method:** A qualitative study with 15 focus group discussions (FGDs), 4 individual interviews and 2 walk-in-the-woods interviews. Total number of participants was 160 women across four provinces in Zambia; North-Western, Eastern, Southern and Central. The FGDs and interviews were audio recorded, transcribed, and analysed using thematic analysis.

**Findings:** Women are the ones teaching their children, both sons and daughters about wild mushrooms gathering. They possess a vast knowledge of mushroom folk taxonomy, forest ecology, food, and medicinal uses. Selling wild mushrooms was said to be part of the livelihood of the women, and wild mushroom collection was a source of enjoyment; hence, impacting positively on women's mental health. The mushroom hunters showed considerable awareness of environmental changes such as, drought, deforestation, and the mining industry, and how these changes impact on mushroom habitats.

**Conclusion:** There is need for further studies on ethno mycological knowledge in Zambia. Scientific data from such studies can be applied towards achievement of United Nations (UN) Sustainable Development



Goals (SDGs) in the alleviation of poverty and the sustainable use of natural resources for the improvement of women's health, because in many parts of Africa, mushrooms are an accessible and renewable natural resource that is still under exploited.

#### **ABSTRACT ID: 114**

### **Moodle: a digital teaching method for quality nursing and midwifery education in the error of COVID -19 among Christian Health Association Lesotho - Nurses' Training Institutions (CHAL -NTIS)**

*Authors: Titi Nelly Nthabane and Motebang Isaac Molainyane/Scott College of Nursing, Lesotho and Maluti Adventist College, Lesotho*

*Keywords: Covid-19, Moodle, Nursing and Midwifery education, Teaching and Learning*

**Background:** Quality education is one of the Sustainable Development Goals (SDG 4) established by the United Nations (US) in promoting lifelong learning opportunities for all, capacity building and presence of qualified educators. Nursing and midwifery education is not an exception. However, COVID-19 pandemic has created one of the largest disruptions of education systems in history affecting nearly 1.6 billion learners in over 190 countries and all continents. Efforts to contain COVID-19 have caused several governments to take drastic measures to curb its effects. One such measure was restricting movements by imposing lockdowns where educational institutions, among others, were forced to close. With Higher Education Institutions (HEIs) closed, the only way of saving the academic year by Christian Health Association of Lesotho, Nurses' Training Institutes (CHAL-NTIs) was through the adoption of Emergency Remote Teaching and Learning (ERTL) that was facilitated by advancements in technology to ensure continuity of teaching and learning during the Covid-19-induced tough times. Like many other HEIs in Lesotho, CHAL-NTIs shifted from face-to-face teaching and learning mode to ERTL. Moodle was the official Learning Management System (LMS) adopted to urgently curb the disruption and meet the stipulated regulatory bodies requirements and production of competent nurses and midwives.

**Objective:** To ensure continuity of teaching and learning during Covid-19 pandemic through Moodle as a digital technology platform.

**Methods:** Both heads of Institutions and heads of programmes from CHAL-NTIs had various strategic meetings with the common aim of reaching together the mechanisms that could support the continuity of Nursing and Midwifery education in the amid of COVID – 19. Among the identified strategies, Moodle was found to be the best teaching method. However, Moodle needs to be executed by qualified and trained personnel.

As such management from NTIs had to create an education friendly environment. Thus internal resources such as Information Technology (IT) Officers were engaged and trained effectively on Moodle for its administration purposes. Besides, institutions' academic staff was trained on areas of Information and Communications Technology (ICT) tools. Their training was significant due to the direct influence on teaching methods which in turn, had positive synergy to impact student learning. Through this, students had the opportunity to have training platforms and interactions with the IT officers and Nurse Educators. To support this, Nurse Educators and students were offered data. Moodle was then incorporated in the teaching and learning of the nursing and midwifery students across CHAL-NTIs.

**Results:** It is on this platform that Nurse educators and students engaged synchronously or asynchronously through lectures, discussions and assessments in learning. All the needed teaching and learning materials were loaded for students' access. Quizzes, tests and assignments were issued so continuous assessments for students was compiled. To some extent examinations were done via Moodle platform. The use of Moodle aided in continuity of nursing and midwifery education in the era of covid-19 which symbolizes the link between education and technology.

**Conclusion:** COVID -19 brought in longstanding challenges within the education sector. To ensure quality nursing and midwifery education, it is essential that CHAL-NTIs invest in digital technology learning platforms and have contingency budget for such during pandemic eras. Moreover, in these unprecedented times in the midst of the COVID-19 crisis, it is critical that the academic educational community learns from these experiences and prioritizes a forward-looking and practical academic approach as solutions to cope with current realities.

#### Sub-theme 4: Communicable and Non-communicable diseases including mental health

**ABSTRACT ID: 210**

**Delays to cancer care: exploring the factors associated with barriers to access comprehensive cancer care in Eswatini qualitative study**

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**Introduction:** Delays and poor cancer care in Low- Middle Income Countries (LMIC) including Eswatini has yield to high mortality rate. Specifically, the goal was to get their perspective on the cause of delay in seeking care, in being diagnosed and in getting treatment, as well as if and how individual, community and health systems factors influenced the delays.

**Methods:** A qualitative study design that was structured in two sets that included; fourteen key informant interviews through in-depth interview (IDIs) from facility management and six narratives from cancer survivors through focal group interviews (FGDs).

**Results:** For the in-depth interview we had participants employed in the health sector between 25 and 35 years with a mean of 21.9 years and have been in their current leadership/management position for between 6 months and 9 years. Whilst the narrative from focus group was six cancer survivors who had been living with cancer not less than two years. Participants, or family members and friends of participants, had been diagnosed with brain, breast, cervical, liver, lung cancers. All interviews and narratives were carried out in a secure place and in the local language (Siswati) and later translated to English for analysis. Major themes which resulted to delay to cancer care included; fear of diagnosis and denial even when symptoms were there, shock, disbelief and fear at time of diagnosis experiencing cancer as a slow poison- a slow developing disease that affects the physical body- and also social and marital relations, having to navigate local and referral health services to get proper diagnosis and treatment lastly coping with diagnosis, treatment and living with cancer

**Conclusion:** Delays in seeking care due to fear of a possible cancer diagnosis was the main rationale that led to poor survival rate whilst the health systems factors such as lack of diagnostic measures and treatment packages contributed immensely to patient's care.

**ABSTRACT ID: 178**

### **Registered nurses' perspectives on the barriers of cervical cancer screening in Eswatini: a qualitative approach**

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*Keywords: barriers, cervical cancer, registered nurses, screening*

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**Background:** Cervical cancer is highly preventable and curable if diagnosed and treated early, however, it is still the leading cause of death among women. The most effective way for early detection is regular screening with a Papanicolaou test (PAP smear) combined with the human papillomavirus (HPV) test. Unfortunately, developing countries still have limited access to effective screening, meaning that cervical cancer is frequently not detected until it is in the advanced stages with poor prognosis. Despite efforts to increase cervical cancer screening, its uptake is still low. The purpose of the study was to investigate the healthcare worker's perspective on the barriers of cervical cancer screening in

Eswatini.

**Methods:** An exploratory qualitative study design was carried out among registered nurses. The qualitative study design was chosen because it made possible to gain a deeper understanding of the perceptions of registered nurses on the barriers of cervical cancer screening. Four clinics providing cervical cancer screening were selected from each of the four regions of Eswatini. Purposive sampling was undertaken in this study. Nurses working in clinics that did not offer cervical cancer screening were excluded, therefore, the total sample size was 15 registered nurses. Data were collected using individual face to face interviews to gain an in-depth understanding, using an interview guide in both English and Siswati depending on participants' preference. An audio recording device was used for recording the interviews and notes were written while the interviews were progressing. The interviews took approximately 45 minutes to an hour for each participant. The audio transcripts from the interviews were transcribed verbatim by the researcher. Data captured were manually analysed using thematic analysis. Data were clustered into groups, coded, from there, main themes and categories were developed. The resulting categories were combined to form sub-themes or themes depending on the complexity of the categories. The coding of the data according to developing codes, categories, and themes that emerged were done manually.

**Results:** Four themes emerged which were barriers to cervical cancer screening: healthcare system related barriers, nurse related barriers and perceived patient barriers. The healthcare system related barriers included: in accessibility and unavailability of services, shortage of equipment, poor supervision from the program, the cost of the screening test, no means of patient follow, increased waiting time at the facility and the poor laboratory-results system. The nurse related barriers were shortage of staff, the gender of the nurse performing the screening, shortage of trained nurses and a nurse who is a resident of the community where the clinic is located. Perceived patient barriers were patient's fears, being screened by a male nurse, absence of the preferred nurse, lack of knowledge on cervical cancer and screening as well as the asymptomatic nature of cervical cancer.

**Conclusion:** The barriers of screening were healthcare system, nurse, and patients perceived related. There is, therefore, a great need for the Ministry of Health to address the different barriers of screening to reach the desired 80% target for women at risk. Therefore, political commitment is needed from the government to fund the program and provide the needed resources for successful implementation of cervical cancer screening.

**ABSTRACT ID: 85**

**Socio-demographic Determinants of Cervical Cancer Screening Uptake among Women of Child-Bearing Age in Mangochi, Malawi: A Cross-Sectional Study**

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**Keywords:** Determinants, cervical cancer screening, uptake, women of child-bearing age

**Background:** Cervical cancer (CC), has a high burden and mortality at global and local level. Despite the burden, Malawi registers low uptake of cervical cancer screening (CCS). This study examined the socio-demographic determinants of CCS uptake among Women of Child-bearing Age (WCBA) in Mangochi district.

**Methods:** A cross-sectional quantitative study was conducted in five health facilities. A total of 482 women between the ages of 18-49 participated and were sampled using a multi-stage sampling method. An interviewer administered structured questionnaire was used to collect data. Multivariate logistic regression model was used to identify determinants of CCS.

**Results:** Few respondents (13.1%) had ever done CCS. Age, religion, ethnicity and residence were determinants of CCS. Respondents between the ages of 18-24 years were less likely to undergo CCS compared to those between 25-35 years (AOR= 0.38, 95% CI 0.19-0.77). Respondents who practiced Christianity were 2.77 times more likely to undergo CCS than those who practiced Islam (AOR= 2.77, 95% CI: 1.23-6.22). Respondents of the Chewa ethnic group were 71% less likely to undergo CCS as compared to those of Yao ethnicity (AOR= 0.29, 95% CI: 0.09-0.95). Respondents who lived in semi-urban areas were 2.57 times more likely to go for CCS than those who were village residents (AOR= 2.57, 95% CI: 1.19-5.55).

**Conclusion:** This study shows that CCS uptake was low in Mangochi and the results further suggested that age, religion, ethnicity and place of residence were determinants of CCS uptake. The study recommends that comprehensive health education on CC should specifically target the young women and Muslim women in places where they meet. Further, the district health authorities should scale up CCS provision in all Antiretroviral Therapy (ART) and outreach clinics to improve uptake of services by those women residing in the villages. We also recommend that all CC program implementers to design programs that address these determinants of CCS among WCBA: age, religion, ethnicity and place of residence to improve CCS uptake in the district.

## ABSTRACT ID: 120

### Factors influencing relapse to drug abuse among individuals in two settings in the Manzini and Hhohho regions in Eswatini

**Authors:** Hlobisile Mamba | Nosisa Dlamini | Sannie Sibandze | Nomsa Magagula | National Psychiatry Centre | Nhlanguano Health Centre | Eswatini Nazarene Health Institutions | University of Eswatini

**Keywords:** *Drug use, Factors, Relapse*

**Background:** Drug relapse is a common problem worldwide as it becomes difficult for the drug abusers to refrain from the behaviour even after rehabilitation. Relapsing back to drugs can result to an increase in crime rate and decreased educational attainment. Therefore drug relapse among individuals has a great negative impact on societies from where they live. A comprehensive collaborative support and awareness on the dangers of abusing drugs are some of the solutions to this problem. In Eswatini, there is little or no literature on drug relapse hence the study. The study sought to determine factors influencing relapse to drug abuse among individuals in Manzini and Hhohho regions in Eswatini.

**Methodology:** The study population was 500 drug abusers based on the target earmarked to be reached in country per year by the Alliance of Mayors Initiative at Community on AIDS at Local Level. A quantitative descriptive-correlational approach was used in this study among 40 participants from Hhohho and Manzini regions. They were selected using non-probability, purposive sampling given the challenge of reaching out to this target population. Criteria for inclusion was; both sexes from Manzini and Hhohho who use drugs, individuals of ages 15-44 years and willing to participate. While exclusion criteria focussed on individuals aged below 15 years and above 44 years, non-relapsers and unwilling to participate. Reliability and validity were determined by using an adapted tool in which these parameters were measured. Data collected was entered into SPSS and analysed using descriptive statistics and Pearson's correlation. Ethical approval was sought from the Eswatini Health and Human Research Review Board through the University of Eswatini Faculty of Health Sciences Ethics Committee. The 3 basic principles of respect for persons, justice and beneficence were observed.

**Results:** Among participants, 77.5% (n =31) were males and 22.5% (n =9) were females. Mean age of respondents was 27.48 years with a standard deviation of 6.11years. More than 70% of participants had close family members who abused drugs which influenced relapsing. Unemployment was also a major factor contributing to drug relapse with 50% of respondents. Additionally, 50% relapsed because of having crisis and disappointments in life. Thirty five percent (35 %) of participants respectively reported to abuse drugs because of problems in life; and being lonely as well as feeling left alone. On another note, 25 % reported availability of drugs as a temptation to relapse. Most of the participants (75%) never attended rehabilitation and the few who did lacked proper follow-up care upon discharge. There was a significant relationship between age at initial drug use and money ( $r =0.412$ ,  $p =0.01$ )

**Conclusions:** Relapse among drug users was influenced by family members who abuse, unemployment, life crisis and idleness as well as availability of drugs. Rehabilitation is scarce and where accorded there is lack of follow-up. There is need to strengthen health education on drug use and relapse. Establishment and strengthening of comprehensive rehabilitation services is



essential in the country. One of the limitations of the study was that recruitment of participants was difficult because of sensitivity and illegality of drug use, hence the utilisation of non-probability sampling.

## ABSTRACT ID 213

### Exploring patients' and caregivers' experiences with transitioning to home-based palliative care in Eswatini

*Authors: Sizakele Phyllis Simelane | Ministry of Health Eswatini Lobamba clinic*

*Keywords: caregiver, experiences, home-based care, palliative care, patient, transition*

**Background:** Palliative care is a global priority. The need for palliative care is increasing in Eswatini as there is a rise in numbers of patients with cancer and other non-communicable diseases. Also, HIV positive people are living longer and are more prone to non-communicable diseases. This may be a complication arising from the condition itself or long-term use of anti-retroviral therapy. Almost half of the country's households are affected by HIV as 46.0% of households have at least one HIV-positive household member (GKOE, 2019). With the limited hospital infrastructure, transitions to home-based palliative care are inevitable. A transition to palliative care is a multidimensional phenomenon whereby patients and caregivers encounter new challenges while learning to live with a life-limiting illness. There is little information on the patient and caregiver experiences with the transition to palliative care in Eswatini yet patients are actively referred from hospitals to home-based palliative care. Therefore, there was a need to study the experiences of patients transitioning to home-based palliative care in order to understand the professional and social dynamics of the transition. Identifying the needs, challenges and difficulties of patients and caregivers during the transition is essential to develop effective and responsive palliative care system and interventions. The purpose of the study was to identify the needs of patients and caregivers as they adapt to home-based palliative care. The research question was: What are the patient and caregiver experiences when transitioning to home-based palliative care?

**Research method and data analysis:** A qualitative research approach, interpretive phenomenology design was used in the study. Purposive sampling of 14 participants was done, eight palliative care patients and six caregivers. The study setting was in Lobamba community. Inclusion criteria: male and female palliative care patients above 18 years enrolled into a home-based palliative care programme with at least three months in the programme. The participant had to be stable mentally and not in significant pain. The patient had to be fluent in Siswati. The caregivers were relatives or a helper who regularly provided care to the patient. The caregivers were above 18 years and fluent in Siswati. Data was collected using face to face interviews in the participants' home. The hermeneutic circle method of data analysis according to Diekelmann, Allen and Tanner's process was used.



**Results:** Five themes emerged: realizing condition as terminal, holistic care, home care challenges, home-based care relieved stressors and good home care services. Findings revealed that transitions to home-based palliative care were delayed due to the late diagnosis of the terminal illness. Communication of critical milestones was either delayed or not done up until a time where the patients were very sick. Poverty, lack of family support, overwhelmed caregivers and shortage of home care supplies were common problems experienced. Despite the challenges, participants appreciated the holistic care rendered by the nurses.

**Conclusion:** Participants' experience of palliative care was greatly influenced by the availability of medical and socioeconomic support. Therefore, there is a great need for public and private sector collaboration to support palliative care programs. With the growing urbanization and loss of extended family support, decentralization of palliative care services to community based support structures is essential. The decentralization comes along with the need to train more health workers on palliative care to improve the staffing patterns of the home based care teams.

**Limitations:** Generalization is impossible because the sample size was small and the study was conducted among participants who received home-based palliative care services from the same hospice centre.

**ABSTRACT ID: 145**

## **Parents-initiated interventions to prevent HIV among adolescents in Swaziland**

*Authors: Nomsa Magagula | University of Eswatini Abstract*

*Keywords: Adolescents, HIV prevention, appreciative inquiry, parents-initiated interventions*

Research has identified the important role played by effective parent-adolescent communication about sex and relationships in reducing the chances of adolescents engaging in risky sexual behaviour. However, many parents find it difficult to discuss issues related to HIV prevention at family level because HIV prevention is inherently linked to sex, which is still regarded as a taboo in some countries, including the country of the study, Swaziland. In addition to cultural barriers related to effective parent-adolescent communication, parents seem to lack the knowledge, approach and confidence regarding communication about sex and relationships.

The purpose of the study was to use appreciative inquiry to engage parents of adolescents in the design of interventions for use by parents in preventing HIV among adolescents in Swaziland. Participatory action research was conducted to involve participants actively in the process of initiating interventions for preventing HIV among adolescents.

Non-probability, purposive sampling was used to select parents of adolescent children (10-19 years) who attend school in two purposively selected high schools in Manzini. One school was public and the other private. In order to be included in the study, the participants had to be; male or female parents of adolescents aged between 10 - 19 years, having adolescent(s) attending school at the two Manzini city high schools and residents of Manzini.

Furthermore, participants needed to be able to read and write either Siswati or English, because Appreciative Inquiry activities require participants to write during the data collection and analysis process. They also needed to consent. All those who did not meet the afore-mentioned criteria were excluded. Twenty-four (24) parents took part in the study. Data was collected by means of appreciative interviews comprising paired and focus group interviews according to principles of the different phases of the 4-D cycle of appreciative inquiry. Thematic analysis of data was done throughout the 4-D cycle of Appreciative Inquiry.

The themes that emerged from appreciative stories of exceptional experiences shared during the i) discovery phase were perceived gains and open communication. The findings of the ii) dream phase included expressed wishes for open parent-adolescent sexual health communication, support for parents and a community of HIV free adolescents. In the iii) design phase, parents constructed interventions for effective parent-adolescent sexual health communication and parental comfort with communication about sex such as early discussions on sex issues. In the iv) destiny phase, parents made statements, which were based on what they committed to do for the prevention of HIV among adolescents such as creating a home environment conducive to open parent-adolescent sexual health communication. Ethical approval was sought from the UNISA and from the National Review & Research Board of Swaziland. While permission was sought from the respective schools. All ethical principles for the participants were observed.

There is perceived gains from parent-adolescent communication such as positive outcomes for prevention of HIV among adolescents. Parents yearn for open communication about sexual issues including HIV with their children. In addition, parents wish for a HIV free generation. Furthermore, the study implies that parents realize that a conducive environment is necessary for communicating about sex issues which would facilitate prevention of HIV. Using qualitative approach limited generalization of the study but findings can be contextualized in similar situation.

#### **ABSTRACT ID: 80**

### **The prevalence and correlates of alcohol use and alcohol use disorders among young people (15 – 24 years) and adults in Eswatini, Malawi and Zambia**

*Authors: Zethu Msibi / Ministry of Health/CDC Cooperative Agreement*

**Keywords:** AU, AUD, Alcohol use, Alcohol use disorders, Epidemiology

**Background:** Excessive alcohol use is a remarkable trouble in public health worldwide. It is escalating in Sub-Saharan Africa due to marketing aggressively and lack of individual and policy level interventions. We used the national representative population-based HIV Impact Assessment (PHIA) data to determine the prevalence and correlates of alcohol use (AU) and alcohol use disorders (AUD) in young people and adults in Eswatini, Malawi and Zambia.

**Methods:** PHIA surveys 2015 – 2017 data was analyzed. The surveys employed multistage sampling strategy to recruit study participants at household level. The sample in each country dataset were as follows Eswatini(n=9885) Malawi(n=19405), and Zambia(n=27,382). The analysis utilized multivariable models of logistic regression models that identify the correlates of AU and AUD. Analyses was adjusted for weights, stratification, and clustering using the survey platform analysis in Stata version 15. P-value of <0.05 was considered statistically significant.

**Results:** AU prevalence in young people and adults was 17.9% and 23.3% in Eswatini, 10.9% and 22.1% in Malawi, and 14.6% and 32.4% in Zambia. The prevalence of AUD in young people and adults was 9.1% and 14.2% in Eswatini, 3.5% and 11.2% in Malawi, and 7.6% and 20.6% in Zambia. The correlates of AU and AUD encompass being male (OR: 4.62 (95% CI: 3.35 -5.79), age group, higher education level (OR: 1.70, 95% CI: 1.16 -2.48), divorced or separated or widowed in all 3 countries (OR: 1.96, 95% CI: 1.55 -2.48), HIV positive status in Zambia (OR: 1.49, 95% CI: 1.12 -1.99), multiple sexual partners in Malawi (OR: 11.90, 95% CI: 6.76 -20.93), employed class in Zambia (OR: 2.06, 95% CI: 1.64 -2.59) and engaging in commercial sexual relations in Malawi.

**Conclusion:** The reported AU and AUD are common in youth and adults in Eswatini, Malawi and Zambia. Both AU and AUD are related with being male, age group 20 – 24 years old, educational level (higher), HIV status, transactional sex and multiple sexual partners, widowed or separated and HIV status and risky sexual behaviours in the three countries. There is an urgent need for targeted alcohol interventions and such interventions could be integrated with sexual and reproductive health programs.

## ABSTRACT ID 205

### **Impacts Of Genetic Diseases On The Sick Child's Parents In Africa: A Scoping Review Of Qualitative Studies**

**Authors:** Pauline Kariuki | Nyamira County, Kenya

**Keywords:** Africa., Children, Genetic Diseases, Parents

Almost all diseases have a genetic component. Some diseases are caused by mutations that are inherited from the parents and are present in an individual at birth while other diseases are caused by acquired mutations in a gene or group of genes that occur during a person's life. About 1 out of 150 live newborns has a detectable chromosomal abnormality. Unfortunately, this high incidence represents only a small fraction of chromosome mutations since the vast majority are lethal and result in prenatal death or stillbirth. Children with genetic diseases account for a disproportionately large percentage (nearly 10–20%) of pediatric hospitalizations. In industrialized countries, genetic disorders account for about 7 percent of birth defects, while it is much higher in the developing countries, estimated at 20–30 percent. Thus, the aim of this study was to determine the impacts of genetic diseases on the sick child's parents in the African region. A scoping review of eleven electronic databases was done. Only original peer-reviewed qualitative research studies published in peer-reviewed journals and periodicals published in English language between 2018 and 2022 were included. Thematic content analysis and synthesis was employed to analyze and present the findings. Out of 4765 identified articles, only 12 met the inclusion criteria. The study concluded that parents of children with genetic diseases face many challenges such as; (i) low quality of life scores in the four domains of physical, psychological, social and environmental health; (ii) lack of information; (iii) lack of specialized services; (iv) financial stress; (v) negative or inappropriate coping mechanisms; and (vi) existential concerns. The study recommends that; (i) counselling and social support for affected families to help mitigate the impact of genetic diseases; (ii) raising awareness of genetic diseases among the affected parents and their families as well as the public; (iii) international and national policies and programmes should be instituted to enhance screening and detection of genetic disorders, coordination of clinical management of genetic diseases, facilitation of training of medical genetics/genomics professionals, and the stimulation of research in genetic diseases; (iv) ensure affordability of treatment and healthcare services to parents with children with genetic diseases; (v) promote resilience and positive adaptive coping mechanisms; and (vi) provision of trauma counselling to the affected parents.

## ABSTRACT ID 158

### Health-seeking experiences of men with benign prostate hyperplasia in Eswatini

**Authors:** Phindile Lomke/ Nkambule Charles Maibvise Sabelo V. Dlamini/ Hlathikhulu Government Hospital, Eswatini / Department of General Nursing, Faculty of Health Sciences, University of Eswatini, Mbabane, Department of Environmental Health Science, Faculty of Health Sciences, University of Eswatini,

**Keywords:** BPH, Health- seeking, experiences, men

**Background & Objectives:** Worldwide, prevalence of BPH varies between 20 and 62% in men over 50 years old. The number of men who present to hospitals with complications of benign prostatic hyperplasia (BPH) and/or indications of nonadherence to their prescribed treatment is on the increase. This suggests bad experiences either when seeking care or during the ongoing home-based treatment support. This study explored the health-seeking experiences of men with BPH in Eswatini.

**Methods:** An exploratory descriptive qualitative research design was used, targeting all men with BPH seeking care in three selected referral hospitals in Eswatini, which is, Mbabane, Hlathikhulu and Mankayane Government Hospitals. Data were collected using in-depth unstructured face-to-face interviews from twenty (20) purposively selected participants. The interviews were audio recorded and field notes were also taken. Data were analyzed using Tesch's (1990) eightstep method of qualitative data analysis.

**Results:** Results showed that men with BPH experience lack of information, ignorance and misconceptions about their condition, which tend to affect selfcare. This results from inadequate campaigns aimed at creating awareness to promote health-seeking and early diagnosis, poor communication from health care providers at the point of seeking care, as well as influence from other belief systems that are parallel to conventional medicine systems. Participants also experienced reduced access to quality health care. There were no designated facilities to attend specifically to such urological conditions, including related information centres. In the general health service centres, specific services were either unavailable or scarce, (e.g., specialist urologists) or of poor quality, (e.g., the nursing care, health education, shortage of supplies, and language barriers). **Conclusion/Recommendation:** Men with BPH in Eswatini are likely to suffer severe consequences due to lack of knowledge about their condition. They also lack access to quality health care services, which tend to affect their quality of life. It is recommended that public health centres conduct awareness campaigns on BPH and routinely screen elderly men. It is also recommended that each region in the country has at least one facility designated for urological conditions.

**ABSTRACT ID: 149**

### **Accessibility to Care among patients with Non-Communicable Diseases during Covid-19 Pandemic**

**Authors:** Damaris Ochanda | Masinde Muliro University of Science and Technology

**Keywords:** COVID-19, Non-communicable Diseases, accessibility to care, chronic diseases

**Background:** Non-communicable diseases (NCDs) are a major risk factor for individuals with COVID-19, their prevention and control therefore is critical. Some of the restrictive measures used to reduce the spread of

COVID-19 infection in many countries have a direct impact on people living with NCDs by limiting their activity and ability to access health care services. Noncommunicable diseases increase vulnerability to COVID-19 while COVID-19 causes severe illness among NCD patients. Approximately, 39% of all deaths in Kenya are have been linked to NCDs. Kakamega County contributes to between 31-38% of the NCD deaths in the country. Effective COVID-19 response is dependent on the prevention and control of NCDs, and an adaptive response is required to account for the needs of people with NCDs. The study aimed at investigating accessibility to care among patients with non-communicable diseases in Kakamega County during COVID-19 pandemic. Four health facilities at the level of sub-county hospitals were selected purposively due to the high number of patients with NCDs they attend to and the specialized services provided. A total of 400 patients with different NCDs were sampled randomly for inclusion in the study. Ethical and Research approvals were sought from and granted by the Masinde Muliro University Institutional Research Ethics Committee (IREC) and National Commission for Science, Technology & Innovation (NACOSTI). Data collection was done using open data kit (ODK) Data was analyzed using specific tests depending on the variables as guided by the objectives. For quantitative data, the statistical significance level will be set at  $p \leq 0.05$ . Findings showed that majority of the respondents were females (n=207, 52.7%). The NCDs that the participants were treated for in the last one year before the study included diabetes (n = 138, 35%), heart disease (n = 22, 5.6%), hypertension (n = 249, 63%) and cancer (n = 49, 13%). Of the respondents (n = 78, 19.8%) reported to have missed healthcare services in their last visit including laboratory services and drugs. Notably, barriers to accessing available services during COVID-19 pandemic included distance from health facility (n=198, 50.4%), health care workers not always available (n=47, 12%), inability to pay for health service (n=121, 30.8%), services were not available (n=56, 14.2%) while others reported that clinics opened late (n=119, 30.3%). Long waiting time (n=47, 12%) and challenges with lockdown (n=37, 9.4%) were also cited as barriers to accessing care. This study concludes that patients with NCDs experienced various challenges that prevented them for accessing health care services during the pandemic. The study recommends that governments, the health systems and communities should adopt strategies that enhance access to care among NCD patients during a pandemic.

## ABSTRACT 206

### **Assessment of patient centered care model in individuals with tuberculosis and other comorbidities: A cross section survey**

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**Keywords:** *Patient Centered Care model, integration of Communicable and non communicable diseases, tuberculosis and other comorbidities*

**Background & Objectives:** Tanzania is one of the countries with high burden of tuberculosis (TB), high human immunodeficiency virus syndrome (HIV) and high TB/HIV coinfection. Recently, the country observed an increase of non-communicable diseases such as diabetes mellitus (DM) largely due to changes of life styles and longevity of life expectancy but also increase of occupational lung diseases such as silicosis due to expansion of artisan mining works. Both DM and silicosis are the risk conditions for developing TB diseases. The burden of DM in TB ranges 9-16% whereas the artisan mining population have approximately 14-fold increase of TB. Severe malnutrition, although unrecognized, frequently co-exists with TB. Due to diversity of patients, the one-size fits all traditional approach is no longer suitable for the current ambitious goal of End TB. We designed an adaptive diseases control expert control programme (ADEPT) to integrate TB and NCD which reinforces the patients centered care model (PCCM). In this study, we aimed to investigate the patient's perception on the implementation of PCCM in the health care delivery systems implementing.

**Methods:** This was a cross-sectional design and included participants from Mawenzi Regional Referral Hospital, Same District Hospital, St. Joseph Hospital, Pasua Health center, Siha Health Center and Majengo Dispensary, health facilities in Kilimanjaro region. Health care workers from these facilities participated in the step-wise training approach, a component in the ADEPT strategy for driving integration. The stepwise-training adapted the Gibb's theoretical framework. The estimated sample size was 39 and included patients with TB and at least one of the comorbidities either coinfection or non-communicable disease or both and excluded those who were unable to provide informed written informed consent. We deployed a validated tool from Cramm and Nieboer, 2018 which has eight components of the PCCM tool including (i) patients' preference (ii) information and education (iii) access to care (iv) emotional support (v) family and friends (vi) continuity and transitions (vi) physical comfort (viii) coordination of care. We used Likert with 5 points for each component of PPCM tool and calculated mean. Score of 1.0-1.8, 1.81-2.60, 2.61 – 3.40, 3.41 – 4.20 and 4.21 – 5 was equivalent to strongly disagree, somewhat disagree, neutral (neither disagree nor agree), somewhat agree, strongly agree respectively.

**Results:** We approached 44 participants and 39 (89%) met the eligibility criteria. The mean age of participants was  $45 \pm 14$  years and female contributed 19 (49%). TB comorbidities included HIV coinfection, 23 (59%), DM, 5 (12.8%) and others (silicosis, malnutrition, renal failure, liver cirrhosis, peptic ulcer disease), 11 (29%). Majority of participants strongly agree that their needs, values & preference were considered by the health care workers (mean upper limit= 4.82), physical comfort was supported (mean upper limit= 4.82), received a well-coordinated care ( mean upper



limit= 4.58), had a smooth transition between health care settings (mean upper limit=4.38), were informed ( mean upper limit=4.46), family and friends were involved in their care ( mean upper limit=4.58) and somewhat agree that they could easily access care (Mean =3.79 to 4.53). On the other hand, Majority of participants are neutral, (neither agree nor disagree) that they were informed about the possibilities of more intensive emotional support (Mean of 3.17).

**Conclusion & recommendations:** Patients with TB-multimorbidity in health care delivery systems implementing the ADEPT strategy successful implemented the PCCM. Expanding the ADEPT strategy in the health care delivery system will optimize care of individuals with TB and associated multimorbidity subsequently halting the transmission of TB in communities, minimize suffering and improve quality of life.

## **ABSTRACT ID: 212**

### **Health Systems Factors Predicting Severe Maternal Outcomes in Two South African Hospitals: A Case-Control Study**

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*Keywords: Health system, administrative factors, health provider factors, near miss, patient factors, severe maternal outcomes*

**Introduction:** Health system strengthening is one of the priorities identified by the national confidential enquiries into maternal deaths committee in order to reduce persistent maternal mortality in South Africa. However, the detail on what health systems weaknesses to tackle first or how remains less explored. We sought to measure the impact of health system factors on maternal outcomes in order to help define priorities for health systems strengthening in the delivery of emergency obstetric care (EmOC).

**Methods:** A prospective matched case-control study was used to identify administrative, health provider, and patient related avoidable factors that contributed to severe maternal outcomes (SMOs) in two regional hospitals over 12 months using two different control groups. A comparative analysis was performed to determine health system predictors in women with pregnancy and birth related complications and compared to predictors in women without complications. Conditional logistic regression was used to measure the impact of identified avoidable factors to SMOs using crude and adjusted odds ratios (AORs). Penalised logistic regression was applied where variables were sparse in controls.

**Results:** Overall, health provider (AOR=4.1; 95%CI=2.23-7.70; p-

value<0.000) and administrative (AOR=2.7; 95%CI=1.41-5.04; p-value=0.003) related factors contributed to SMOs significantly. Incorrect diagnosis (AOR=9.2; 95%CI=1.89-88.83; p-value=0.006), substandard care (AOR=4.0; 95%CI=1.36-11.55; p-value=0.011), and delays in giving care (AOR=3.4; 95%CI=1.37-8.48; p-value=0.008) were the most significant health provider problems. Inadequate EmOC facilities resulted in queuing of emergencies (AOR=19.0; 95%CI=4.04-89.37; p-value<0.001). Ambulance related referral delays (AOR=10.7; 95%CI=1.51-75.7; p-value=0.018) were significant in the occurrence of SMOs as well as high workload disproportionate to health providers available (AOR=4.5; CI=2.62-7.74; pvalue=0.000). Patient related factors yielded slight but insignificant adjusted for odds SMOs (AOR=1.3; 95%CI=0.72-2.31; p-value=0.402).

**Conclusion:** Health provider and administrative health system factors were the most important avoidable factors that led to SMOs. Patient related factors did contribute to SMOs but were not as important. Furthermore, the health system generally struggled when tested by women with pregnancy and delivery related complications compared to when women did not have complications.

#### **ABSTRACT ID: 195**

### **Survival time and predictors of death among HIV positive and HIV negative adults with chronic kidney disease on hemodialysis: At a central hospital, Harare, Zimbabwe**

*Authors:* Maceline Mutsa Mukwamba | Adult Rape Clinic

*Keywords:* Chronic Kidney Disease, Haemodialysis, Survival

Amongst Non-Communicable Diseases (NCDs), Chronic Kidney Disease (CKD) mortality has amplified by 31.7% over the past 10 years making it one of the swiftest chief cause of death, alongside diabetes and dementia. Mortality rates for dialysis are still rising despite improvement in pharmacologic treatment and dialysis technology. Antiretroviral therapy has reduced HIV associated nephropathy; however, the nephrotoxic effects of the drugs predispose HIV positive patients to chronic Kidney injury. Some studies have cited disparities on survival rates for chronic kidney disease in HIV positive patients on various renal replacement therapies against HIV negative patients. This study evaluated the survival rates between HIV positive and HIV negative adult patients with chronic kidney disease, receiving haemodialysis at a central hospital, haemodialysis unit. Data from 441 patients with chronic kidney disease from the renal haemodialysis admission register was retrospectively analysed from 1 January 2014 to 31 December 2018. The follow up was censored at the time of death or at the end of the study depending on the event that came first. The study cohort

had 299(138 males; 161 females) HIV negative and 142(75 males; 67 females) HIV positive CKD patients. The mean age for the cohort was 51.70 +10.56 years. In cox regression analysis, hazard of death was significantly associated with the three variables. Sex (HR .7324024, median survival time (males 22 months; females 33 months,  $P>0.0014$ ). The hazard increased with increasing age group (35-54yrs; HR 3.477833;  $P < 0.006$ ) and (55yrs<; HR 4.098449;  $P < 0.002$ ) and an HIV positive status increased the risk of death (HR 1.399571,  $P < 0.002$ ). With only 91 patients surviving to the end of the 5-year study period the survival for these adult patients overall was 20.6%. (29.43% of HIV negative; 2.11%.HIV positive). The Kaplan-Meier survival estimate curve demonstrated a significant difference in the survival of HIV positive and HIV negative patients. Comorbid conditions, marital status, religion, employment status did not display significant influence on survival. The burden of comorbid conditions has been noted to significantly lower the survival rates in patients with chronic kidney disease, more so HIV infection and antiretroviral therapy. Prevention of HIV is key in preventing chronic kidney disease predisposition from HIV Associated Nephropathy (HIVAN) and antiretroviral drug induced nephrotoxicity. Prevention interventions should also focus preventing other comorbid conditions especially hypertension and diabetes mellitus. Effective management of HIV positive patients with chronic kidney disease must be prioritized to reduce the survival disparity in comparison to the HIV negative patients.

## **ABSTRACT ID: 95**

### **Experiences Of Family Caregivers In Caring For Patients With Heart Failure At Jakaya Kikwete Cardiac Institute, Dar Es Salaam, Tanzania**

*Authors: Tunzo Lundgreen Mcharo | Prof. Edith Tarimo | Masunga iseselo | Samwel Kahema | Nursing officer | Senior lecturer | Assistant lecturer | Assistant lecturer*

*Keywords: Experience, Family caregiver, Heart failure*

**Background & Objectives:** Heart failure (HF) continues to be a global health problem with its ramifications more pronounced in the underdeveloped world. Family members play a pivotal part in patient management and may influence the patient's overall quality of life positively or negatively. In resource-limited settings, coping strategies used by family members in dealing with heart failure patients are poorly understood. This study aimed to explore the experiences of family caregivers of heart failure patients in an African setting.

**Methods:** A descriptive exploratory study design using a qualitative approach was conducted at Jakaya Kikwete Cardiac Institute (JKCI), Dar es

Salaam, Tanzania. A purposive sampling technique was used to select the potential participants. Data were collected using in-depth interview methods. A semi-structured interview guide was used as a data collection tool. A sample size of 10 caregivers of patients with HF was included in the study. Thematic analysis was used to derive the main theme and sub-themes.

**Results:** Two major themes emerged. Challenges to new role and lifestyle, and professional support regarding caring for patients with HF. Participants reported that financial problem was a big challenge for them in order to provide appropriate care to their patient. Inadequate social services in the hospital setting, caring for difficult patients, and lack of time to participate in community activity were also a problem family caregiver of patients with HF faced. Also, participants reported receiving beneficial information from nurses, being taught how to feed their patients, how to perform physical exercise, and being provided with psychological support, and they also appreciated receiving medical advice which helped them to have treatment compliance.

**Conclusion:** Caregivers of patients with HF need correct and relevant information and support from a health care professional to perform a significant caring role they have to take on. Also, caregivers of patient with HF needs financial support from family member as well as government support as caring for a family member with HF can affect the well-being of those responsible for the care, which may ultimately have consequences on the HF patients' health. Moreover, caregivers of patients with HF needed a conducive environment in caring for their patients with HF so that their health statuses do not be at risk.

**Recommendation:** Further studies should be conducted to assess the coping mechanism used by caregivers when facing challenges during caring for their patients with HF, Moreover, to explore the perception of nurses on the importance of cooperating with caregivers in caring for patients with HF

**ABSTRACT ID: 74**

### **Effect of HIV infection on COVID-19 related Mortality**

*Author: Dr. Muthuka John. K | Kenya Medical Training College*

*Keywords: COVID-19, HIV, Mortality, moderators*

**Introduction:** Established predictors for COVID-19 related mortalities are divers. The impact of these several risk factors on coronavirus mortality have been previously reported in several meta-analyses limited by small sample sizes and premature data. The objective of this systematic review and meta-analysis was to evaluate the evidence on the risk of COVID-19

related mortality with HIV serostatus using published data, and a metaregression for possible covariates

**Methodology:** Electronic databases including Google Scholar, Cochrane Library, Web of Sciences (WOS), EMBASE, Medline/PubMed, COVID-19 Research Database, and Scopus, were systematically searched till 30th February, 2022. All human studies were included irrespective of publication date or region. Twenty-two studies with a total of 19,783,097 patients detailing COVID-related mortality were included. To pool the estimate, a randomeffects model with risk ratio as the effect measure was used. Moreover, publication bias and sensitivity analysis were evaluated followed by meta-regression. The trial was registered with the International Prospective Register of Systematic Reviews (PROSPERO) CRD42021264761.

**Results:** The findings were consistent in stating the contribution of HIV infection for COVID-19 related mortality. The cumulative COVID-19 related mortality was 110270 (0.6%) with total events of 2010 (3.6%), 108260 (0.5%) among HIV-positive and negative persons respectively HIV infection showed an increased risk of COVID-19 mortality [RR =1.19, 95% CI (1.02 -1.39) (P=0.00001)]. The true effects size on mortality in 95% of all the comparable populations fell between 0.64 to 2.22. Multiple Centre studies and COVID-19 mortality with HIV infection showed a significant association [RR = 1.305, 95% CI (1.092 -1.559) (P = 0.003)], similar to studies conducted in America (RR=1.422, 95% CI 1.233–1.639) and South Africa (RR=1.123, 95% CI 1.052–1.198).The variance proportion explained by covariates was significant mortality ( $I^2 = 87.5\%$ ,  $Q = 168.02$ ,  $df = 21$ ,  $p = 0.0000$ ) ( $R^2 = 0.67$ ). This recent and updated meta-analysis indicated that, HIV infection is significantly associated with an increased risk for both COVID-19mortality which might be modulated by regions, study setting and year

**Conclusions:** We believe the updated data further anchoring Cytokine release syndrome and post- acute COVID-19 sequalae research will contribute to more substantiation of the findings reported by similar earlier studies despite the reduced incidence rates and reproductive ration of the corona -virus.

**ABSTACT ID: 144**

**Assessing prevalence of the breast cancer self-examination practice among the women of reproductive age in Singida region. A descriptive cross-sectional survey**

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**Keywords:** *Strive, excellence, for*

**Background:** Breast cancer is the disease that affects most of the women globally and it's hold second position in causing health problem and causing deaths in developed and developing countries. Awareness on breast examinations among women in both developed and developing countries seems to be low among women. Breast examinations is important in detection of breast cancer in early stage in a woman of reproductive age. Altitude and practice of regular breastfeeding among women of reproductive age of sub-Saharan Africa shows low prevalence. The aim of this study was to assess the prevalence of the breast cancer self-examination practice among the women of reproductive age in Singida region.

**Methodology:** A descriptive cross-sectional survey was done on 250 individuals who attended Mandewa hospital, are regional hospital in Singida region and Sokoine Health Centre in Central Tanzania. The study involved outpatients' participants between 15-29 were 60% and 30+ were 40%, chosen randomly. The information was gathered using a self-administered semi-structured questionnaire that had been pre-tested. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS 20) computer software. Means, frequency, and proportions were used in a descriptive analysis.

**Results:** 250 participants were recruited in study among them 60% were aged 15-29 and 40% were 30+. The findings showed that there was statistical significance between education level and breast self-examination practice and the statistical significance with education level was less 0.05 ( $P=0.004$  and  $X^2=11.065$ ). The participants with secondary education and above about 52(20.8%) shown to practices breast cancer self-examination. This signify that the low practices of breast self-examination practices are highly affected by the low education levels among the community members of singida region. The study results also highlight that there is significant relationship between Breast self-examination practice and occupation with significance interval level of  $p$  value  $<0.001$  and  $X^2 =23.457$

**Conclusion:** The study's findings revealed that in the Singidaregion, there is a low prevalence of breast self-examination among women of reproductive age, necessitating the implementation of various health programs that will educate people and increase awareness on the importance of breast self-examination practice and the entire process of how to perform breast self-examination

**ABSTRACT ID: 173**

**Knowledge and Adherence to Anticoagulant Therapy among Patients with Mechanical Heart Valves Attending Cardiac Institute Tanzania**

**Authors:** *Aisha Ahmed Omar | Jakaya Kikwete Cardiac Institute Abstract ID:*

**Keywords:** *Adherence, Knowledge, Oral Anticoagulant Therapy*

**Background:** Patients with mechanical heart valve require anticoagulation therapy for lifetime for prevention of thromboembolism. Warfarin is the main oral anticoagulant therapy used for post valve patients worldwide. Significant number of patients are coming back with complications related to warfarin therapy at Jakaya Kikwete Cardiac Institute. This could be associated to poor knowledge and adherence to warfarin therapy. Little was known about the knowledge and factors affecting adherence to anticoagulant treatment.

**Objectives:** To assess knowledge and adherence to oral anticoagulation therapy among patient with mechanical heart valves at Jakaya Kikwete Cardiac Institute.

**Methods:** This was a descriptive cross-sectional study. Self-administered questionnaires was used for data collection. Sample size of 155 patients with mechanical heart valves on oral anticoagulant therapy were recruited in data collection. Inferential and descriptive statistics was used to analyze data. Chi square was used to show association between variable and logistic regression was performed to assess the magnitude of the association. Data presented in the form of tables, charts and figures.

**Results:** Total 150 participants were analyzed .About half of the participants had moderate knowledge 84(56%) and 131(87.3%) had good adherence. The majority 104(69.4%) were not sure if it was safe to take herbal medicines without consultation. Also, 84(56%) were not sure if it was safe to take anti-inflammatory medicines with warfarin. Findings show statistically significant association between educational level and high knowledge ( $\chi^2 = 23.588$ ;  $p < 0.003$ ). Also, past education on OAT show a strong association with good knowledge ( $\chi^2 = 16.126$   $p < 0.001$ ).

**Conclusion:** The study has found that participants had moderate knowledge on oral anticoagulant, but some we're not sure if it was safe to take herbal medicines without consulting doctor. Some are not sure if it is safe to take anti-inflammatory medicines like ibuprofen with warfarin. Majority of participants had good adherence to oral anticoagulant therapy.

**Recommendation:** Health institution should consider training patient on oral anticoagulant therapy and to fill the gaps of those with poor knowledge to avoid skipping medicine and to minimize the risk of side effects of the oral anticoagulant therapy. And nurses should take their role in education patient on the use of oral anticoagulant therapy.



**ABSTRACT ID: 208**

## **Determinants Of Progression To Chronic Kidney Disease Among Diabetic Mellitus Patients**

*Authors: Bernard Mwega | Department of Health, Kilambu County*

*Keywords: chronic kidney disease, determinants, diabetic mellitus*

**Background:** Chronic kidney disease (CKD) caused by diabetes mellitus, commonly known as diabetic nephropathy, is a frequent microvascular consequence of diabetes mellitus and a grave public health issue. It is associated with significant morbidity and mortality demanding special attention as one of the major public health problems. The burden of CKD disproportionately impacts low-income countries like Kenya where hypertension and diabetes mellitus, the two most important risk factors for CKD growth rate, are a major burden. **Objective:** The aim of this study was to assess diabetic mellitus patients awareness on CKD, prevalence, and predictors of chronic kidney disease among diabetes mellitus patients. **Methods.** Hospital based cross-sectional study design was conducted at Gatundu Hospital among adult ( $\geq 18$  years) diabetes mellitus patients. Informed written consent was obtained from each participant and data was collected by interview and laboratory results review. Estimated glomerular filtration rate (eGFR) was estimated from serum creatinine using Modification of diet in Renal Disease equation, and CKD was defined using Kidney Disease: Improving Global Outcomes (KDIGO) definition. Multivariate logistic regression was used to identify independent predictors of CKD and variables with a p-value  $< 0.05$  were considered to be statistically significant. **Results.** Mean ( $\pm$ SD=standard deviation) age of participants was  $64.81 \pm 10.45$  years and 95 (62.5%) of them were females. Only 59 (38.8%) of the participants had awareness about CKD and its risk factors. The prevalence of CKD was 76% (95% CI; 70.3%-81.8%). Factors associated with chronic kidney disease were high blood pressure (adjusted odds ratio (AOR)=2.22, 95% CI=1.01-4.76), BMI  $> 24.9$  (AOR=3.70, 95% CI=1.75-7.69), lack of exercises (AOR=4.35, 95% CI=1.96-10.0), poor knowledge of CKD (AOR=3.69, 95% CI=1.48-9.20), and long duration of hypertension (AOR=4.55, 95% CI=1.72-11.11). **Conclusion.** The researcher found out that there was low level of patient awareness on risk factors for CKD and a high prevalence of CKD. The predictors of CKD were hypertension, BMI  $> 24.9$ , long duration of hypertension, lack of exercises, low awareness on risk factors and poor knowledge about CKD. **Recommendations:** The researcher recommended that the county's Department of Health and the national government offer health awareness workshops on best practices for CKD management in the community via community outreach programs and barazas. It is also recommended to enhance early diagnosis and treatment of identified risk factor to tone down the rising prevalence of CKD. So, diabetic patients will be better able to

understand and use the techniques that are needed to prevent and treat CKD effectively

**ABSTRACT ID: 180**

**COVID-19; demand creation for cervical cancer screening in Eswatini 2021: A community based cross-sectional campaign.**

***Authors:** Dr Teluleko Maseko | Xolisile Dlamini | Nokwethu Mkhumane | Nomalanga Hlophe | Bheki Vilane | Bandzile Mthethwa | Nelsiwe Mhlanga | Lindele Sithole | Busisiwe Tsabedze | Busisiwe Gama | Nokwanda Matsenjwa | Mildred Chigudu | Bongwiwe Mkhonta |*

***Keywords:** Eswatini, adult women, awareness, cervical cancer screening, demand multilevel*

**Introduction:** Cervical cancer is highly preventable and curable if diagnosed and treated early, however, it is still the leading cause of death among women in Eswatini. Despite efforts to increase cervical cancer screening, its uptake is still low. The campaign intended to explore awareness levels, understand cervical cancer screening behavior and create demand in communities. According to cancer registry 2021 data cervical cancer represents 37% of all cancers in Eswatini.

**Methods:** The campaign was designed with an entry and exit point (pre and post quasi experimental) whereby all participants who attended the campaign we asked questions in relation to cervical cancer on entry point. The same questions were administered at exit point. However, women's demand for cervical cancer screening, was defined as intent to get screened for cervical cancer (including undertaking screening), which was measured when a woman got screened either through VIA / Pap smear during the campaign. Women demand for cervical cancer awareness was measured when responded negatively at least one of three questions: 1) "Is cervical cancer preventable?" 2) "Is HIV a risk factor for cervical cancer?" 3) "Is Pre-Cancer lesions treatable?" Responses of "NO" for at least one of the three questions were considered as demand for cervical cancer awareness. On the other hand, women demand for cervical cancer screening was measured when responded negatively at least two of five questions: 1) "Is smoking a risk factor for cervical cancer?" 2) "Do you think you are more likely to get cervical cancer if someone in your family has it?" 3) "Do you think alcohol is a risk factor for cervical cancer?" 4) "Do you think obesity is a risk factor for cervical cancer?" 5) "Is having many different sexual partners a risk factor for cervical cancer?" Responses of "NO" for at least two of the five questions were considered as demand for cervical cancer screening. Individual-level variables were age, marital status and education.

**Results:** A total of 414 women were screened in the four regions (212 through VIA and 202 through pap smear) Lubombo region had higher

number of women who screened with 105 through VIA and 82 through pap smear. Furthermore, Shiselweni region had the lowest number of women screened when compared to the other regions (24 through Pap smear and 34 through VIA). Overall, the above statistics reflect that more women who are at postmenopausal stage attended the campaign and were screened when compared to women who are still at menopausal stage.

**Conclusion:** Demand for cervical cancer screening is low compared to the ministry of health's plan. Health professionals and rural health motivators need to focus on community level demand creation for cervical cancer screening by planning cervical cancer screening promotion and social marketing strategies.

## ABSTRACT ID 230

### **Experiences Of Midwives Caring For Pregnant Women Living With Mental Disorders At Mankayane Government Hospital**

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*Keywords:* Women with mental disorders, midwives, perinatal care, quality of care, quality of care

**Background:** Maternity care for women with mental health disorders is not routinely covered in either pre-service or in-service care training in Eswatini. Yet, it is conventionally known that women with mental health may have unique health needs when going through childbirth. Formal studies to investigate the experiences of midwives when giving maternity care to women with mental health disorders has not yet been explored. Health provider challenges that may affect the quality of care for women with mental health disorders when requiring maternity care is poorly understood.

**Objective:** To explore and describe the experiences of midwives when caring for women with mental health disorders during perinatal care.

**Methods:** A qualitative phenomenology design was used to recruit 11 midwives who worked in the maternity unit of Mankayane Government Hospital. These were all the midwives employed in this unit. Face to face audio-recorded key-informant interviews were conducted by the researcher. They lasted about 45 minutes and were conducted in either Siswati or English. Interviews were transcribed and inductive thematic analysis done to identify emerging themes.

**Results:** Identified themes were: lack of clinical guidelines in perinatal care of women with mental disorders; inadequate midwife skills in perinatal care of women with mental disorders; lack of midwife confidence in caring for women with mental disorders; midwife dissatisfaction with the referral process; missing mental health component in the perinatal multidisciplinary

health care team; unavailability of psychiatric drugs; pre-service; in-service midwife training gaps on perinatal care for women with mental disorders; suboptimal quality of midwifery care; women not involved in decision making process during care; comprehensive perinatal care not given; and lack of psycho-social support for women with mental disorders.

**Conclusion:** Midwives have difficulty giving perinatal care to women with mental disorders, and this has a negative effect on the quality of midwifery care received by these women.

## ABSTRACT ID 153

### **Evaluation Of Adherence To World Health Organization Guidelines On Clinical Management of Cryptococcal Meningitis Among Health Care Providers In Selected Hospitals, Kisumu, Kenya.**

*Authors:* Robina Ogendo | Kenya Medical Training College Kisumu

*Keywords:* Cryptococcal meningitis, Kenya., Kisumu County, adherence, guidelines, health care providers

**Background:** Prevalence of Cryptococcal meningitis has risen and remained high over the last several decades in line with the HIV/AIDS pandemic which has consequently led to the increase of Cryptococcal Meningitis associated mortality rates ranging from 17% to 100% in Africa. Effective outcome of Cryptococcal Meningitis depends majorly on early diagnosis of the infection, prompt initiation of appropriate antifungal therapy, monitoring and prevention of amphotericin (AmpB) toxicity, raised intracranial pressure (ICP) monitoring and management, institution of antiretroviral therapy, prevention of inflammatory syndrome caused by immune reconstitution and treatment response monitoring. Objective. The aim of the present study was to assess the adherence to WHO guidelines on clinical management of CM in adults among HCP in JOOTRH and KCRH.

**Design:** The study was a cross-sectional analytical study. Setting. The study was carried out in Kisumu County, Kenya. Sample. Proportionate random sampling method was applied in the selection of the sample, the sample size was obtained using Yamane (1967) formula. The sample calculation yielded a sample size of 119 respondents with a 97% response rate. Analysis. Bivariate analysis was done using logistic regression from which chi square, odds ratios and the p- values were drawn. Main outcome measures. Adherence to World Health Organization Guidelines

**Results:** Findings from demographics showed that many were females (n=64, 55.2 %). Distribution of age bracket showed that many (n=74, 64.3%) were aged 30 years or below. From the results, 76% (n=88) reported using lumbar puncture with rapid CrAg assay while very few reported using lumbar puncture with rapid cerebral spinal fluid India ink test (3%, n=4) in diagnosing cryptococcal meningitis. Majority (90.5%, n=105) reported using amphotericin B deoxycholate + fluconazole as first line antifungal therapy.

In management of hypokalemia, majority (93%, n=56) did not monitor potassium daily but all (100%, n=60) administered 1 liter of normal saline infused with 20 mEq of potassium chloride two hours prior to each infusion of amphotericin B. 93%(n=56) did not administer two of 250-mg tablets of magnesium trisilicate, or magnesium chloride 4 mEq twice/ day for supplementation of magnesium.

**Conclusion:** The study results concludes that, 61% (n=37) of the health care providers were adhering to WHO guidelines, the results further revealed that nurses were 40% less likely to adhere to the WHO recommended guidelines on management of CM compared to clinical officers (OR: 0.6; 95% CI: 0.4 – 0.9; p=0.01).In addition, males were 1.2 times more likely to adhere to the WHO clinical guidelines compared to females (OR: 1.2; 95% CI: 0.8 – 1.9; p=0.3).

This study recommends that the County government of Kisumu in collaboration with the two hospital management teams, need to organize and provide training opportunities for the health care providers on the WHO guidelines on management of Cryptococcal meningitis whose prevalence is high in this region, and consistently avail current recommended clinical guideline/protocols in all the clinical departments to ease reference, hence promote adherence. In addition, they should include the aspect of adherence to WHO guidelines on management of cryptococcal meningitis, as one of the yearly appraisal objectives and provide timely supportive supervision in order to promote and streamline optimal adherence.

## ABSTRACT 138

### **Improving Access to Cervical Cancer Screening and Treatment services for women living with HIV in Nairobi, Kenya.**

*Authors:* Nazi Lulul, Rianga Robert<sup>2</sup>, Arodi Susan<sup>1</sup>, Reson Marima<sup>1</sup>, Odhiambo Collins<sup>1</sup>, Fredrick C. Otieno<sup>1</sup>. <sup>1</sup>University of Nairobi, School of Medicine <sup>2</sup>Nairobi Metropolitan Services

**Keywords:** Cervical cancer screening, Women Living with HIV

**Background:** Cervical cancer is the leading cause of cancer-related deaths and the second most common cancer amongst females in Kenya. Screening is low with only 4% of women in Nairobi in 2019 having been screened for cervical cancer. Women living with HIV are at increased risk of developing cervical cancer. The global cervical cancer elimination strategy outlines 3 key strategies to ending cervical cancer morbidities and mortalities by ensuring that 90% of girls are vaccinated against HPV, 70% of eligible women are screened using a high precision test and 90% of precancerous

lesions are treated. It is with this in mind that the project purposed to strengthen cervical cancer screening and treatment services for WLHIV in supported care and treatment facilities in Nairobi.

**Objective:** To scale up cervical cancer screening and treatment services for women living with HIV receiving care in USAID Fahari ya Jamii supported facilities in Nairobi County.

**Methods:** Starting in January 2022 the project working closely with the Nairobi Metropolitan services implemented strategies to improve screening and treatment services. Women aged 25-49 were line listed and screening to identify eligibility was done at triage during routine clinic visits. Eligible women were then offered to screen using visual inspection with acetic acid. Women with precancerous lesions received same-day treatment in facilities with treatment devices while client booking for treatment by an experienced mentor within 2 weeks of diagnosis was done for facilities with treatment devices, 65 HCWs were also trained. A robust monitoring system was also implemented which included, daily performance tracking through WhatsApp groups, de-identified data entry onto an electronic platform, and weekly facility performance review during MDT meetings. Best Practice sharing and performance reviews were conducted with the program team every fortnight.

**Results:** The number of women screened for cervical cancer improved from 1890 in October to December 2021 to 4819 in January to March 2022, a twofold improvement in screening. The health facilities offering screening also increased from 34 to 54. Of the 12,024 eligible WLHIV, 6709 had been screened by end of March 2022. chi-square statistic of 134.9 (pvalue is  $< 0.00001$ ). Identification of pre-cancerous lesions also increased from 52 to 131. 72 out of the 131 lesions were treated with a 55% access to treatment. Of those referred for re-screening and treatment 35 were determined not to have a pre-cancerous lesion and no further treatment was required.

**Conclusions and Recommendations:** This approach has demonstrated improvements in both screening for cervical cancer and identification of pre-cancerous lesions. There is a need to further strengthen access to treatment services to reach 100% treatment. The project is pairing newly trained HCWs with more experienced ones for a maximum of 4 to 6 directly observed sessions to ensure the acquisition and retention of the screening competence.



## ABSTRACT 154

### **Integrating depression into cancer care at Kamuzu Central Hospital, Malawi: A qualitative assessment of service providers' acceptance**

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*Keywords: Cancer, Depression, Mental Health, Oncology, Qualitative*

**Background & Objectives:** Depression is common among cancer patients and a comorbidity that often results in worse cancer outcomes. Depression rates are especially high among patients diagnosed with advanced cancer; the severity of depression is likely to increase if not treated. Although depression is treatable, it is under-identified and under-treated in low- and middle-income countries (LMICs). While contributing factors include limited resources, many barriers to depression identification and treatment remains unknown. This study aimed at assessing acceptance of integrating depression screening and treatment into cancer care at Kamuzu Central Hospital (KCH) in Malawi. Specifically, the aims were to (1) determine the acceptability of integrating depression screening and treatment among oncology and mental health practitioners; (2) assess depression diagnostic and treatment knowledge among oncology practitioners; and (3) explore contextual factors that may promote or hinder integration of depression screening and treatment into cancer care at KCH.

**Methods:** This qualitative study used a semi-structured interview guide and conducted 30 in-depth interviews with oncology practitioners (OP) and managers (n=16) and mental health unit (MHU) practitioners and managers (n=14). All interviews were audio recorded, transcribed verbatim, and analyzed using thematic analysis to identify major themes.

**Results:** Thematic analysis revealed that almost all practitioners at both units highly accepted the concept of integrating depression screening and treatment into cancer care and would be willing to work together to integrate services. Both practitioners and managers suggested that integration should not just focus on depression and cancer but on a broader array of mental health disorders. OP reported a great need of mental health interventions at the unit because patients suffer from anxiety and depression disorders after cancer diagnosis, and they felt that the cancer treatment side effects exacerbated these disorders. Informants suggested that the two units should be working as a team by having MHU practitioners stationed at the oncology unit. OP want the MHU practitioners to be the ones delivering a cancer diagnosis, assisting patients who do not adhere to their clinic schedules, and supporting patients with poor cancer prognosis because the OP felt that they did not have the clinical skills to assist such patients.



The emerging facilitators to integrate depression and other mental health services into cancer care at KCH included availability of space at the oncology unit, willingness of practitioners to work on integrated services, and availability of consultation and referral policies at the hospital. Barriers included OP' lack of proper training on assessment and treatment of mental health disorders, lack of depression assessment tools at the oncology unit, lack of oncology training/knowledge by the MHU practitioners, and high workload in both units due to shortage of staff. At the patient level, long travel distances and lack of funds for food and transportation contribute to nonadherence to patients' scheduled visits. In addition, lack of established support groups may hinder oncology/depression integrated activities due to lack of peer to peer interaction.

**Conclusion:** These findings suggest an unmet need for depression and other mental health interventions in oncology care. Integrating depression screening and treatment would enhance supportive care for cancer patients. Depression care has been successfully integrated into clinical care in Malawi. However, implementation strategies are needed to harness the facilitators and address the providers' knowledge gap, workload, staffing shortages, and food and transport related issues for patients in order to effectively integrate mental health services into cancer care at KCH in Malawi.

#### **ABSTRACT ID: 110**

#### **Risk factors for Birth Asphyxia among Hospital term delivered Neonates in Dodoma, Tanzania. A case-control study**

*Authors: Laidi S. Msisiri and Stephen Mathew Kibusi | School of Nursing and Public Health; The University of Dodoma Abstract*

*Keywords: Birth asphyxia, antepartum, intrapartum, neonates, predictors, term delivery*

**Objectives:** The aim of the study was to determine risk factors for birth asphyxia among hospital delivered neonates in Dodoma, Tanzania.

**Methods:** Hospital based matched case-control conducted in two public hospitals which provide maternal and child health services in Dodoma from May to August 2017. A total of 400 neonates were included. Cases were neonates diagnosed with birth asphyxia and their biological mothers whereby control were neonates without Birth asphyxia and their biological mothers. Cases were matched to controls by gestation age and birth weight at a ratio of 1: 3. A semi-structure questionnaire adopted and modified was used for data collection. Data analysis was done using SPSS version 20 finally Binary logistic regression was done to determine the predictors of birth asphyxia.

**Results:** A total of 400 neonates and their biological mothers were enrolled in the study. More than half of the neonates (52.0%) were female and singleton delivery (98.8%). Majority (73.9%) of the neonates had normal birth weight. Majority (75.5%) of mothers were aged 20-35 years with the mean age 27.16 years. Majority of them (79.5%) booked early for ANC and almost all (99.9%) reported to be screened for HIV and VDRL. Multiple binary logistic regression analysis revealed out that factors for birth asphyxia were; advanced age > 35 years (AOR 2.774 95% CI; 1.465,5.252) P-value 0.002, residing in rural areas (AOR 1.692 95% C; 1.032, 2.775) p-value < .05, maternal anemia (AOR 1.856 95% CI 1.023-3.367) p<.05, the use of herbal medications during labor (AOR 2.713 95% CI; 1.037, 7.102) p-value <.05 and history of complicated previous pregnancy (AOR 0.301 95% CI; 0.113,0.802) p-value <.05.

**Conclusions:** Findings highlight the importance of expanded safe motherhood services including good pre-natal care, and improving antenatal, obstetric, and neonatal services, along with effective pregnancy monitoring and increasing patient's awareness regarding health pregnancy and safe delivery

**ABSTRACT ID: 199**

### **Initiating Differentiated Care In PMTCT**

*Author: Owen Aswan / MOH*

*Keywords: CQI, KQMH, QI*

**Background:** There has never been a differentiated model of care in PMTCT. This leads to having a high number of clients who are virally suppressed and not breastfeeding coming to clinic on a monthly basis. This causes a high number of clients and little time for individualized client care. Differentiated care will provide enough time for clinical staff to attend to viremic clients, Enhanced adherence counseling sessions, multidisciplinary team meetings, and reducing the risk of Covid 19 transmission.

**Aim:** To increase the uptake of PMTCT client into a differentiated care model from 0% to 50% from April 2021 to October 2021. Scope The scope of this project shall include: i.All stable clients in PMTCT/MCH model. Performance Measurement Performance will be monitored by use of a run chart on; i. Filling of DC register, ii. Booking and appointment register. KQMH Dimension/Organizational Strategy This project fulfills the organizational strategy as follows: i. The global 95:95:95 strategy towards HIV/AIDS epidemic control: to improve retention among PMTCT client.(3rd 95). ii. KQMH process dimension for HIV/AIDS program management and outcomes dimension for facility performance.

**Root cause analysis:** Countermeasure Line listing all stable client. Prompt

follow up on VL samples and results to determine stable from unstable clients. Formation of support group and Reinforce Enhanced adherence counselling. Effective management of suspected treatment failure clients to ensure over 95% have suppressed. Measures How will we know if we are improving?

### **Outcome Measure:**

- All stable client are identified and enrolled in DC.
- Reduction of clinic workload.
- Effective management of unstable clients since there will be enough time to attend to them. Process Measures
- Proper filling of DC tools.
- All staff in deferent SDP are aware of DC and complying.

### **ABSTRACT ID: 86**

### **Best Practice on Health Seeking Behaviour On NCDs at Rumbiye Dispensary, Samia Sub-County- Busia County**

*Authors: Truphena Kerubo Nyaenya / Rumbiyes Dispensary County:*

**Background:** Morbidity and mortality due to NCDs in particular hypertension and diabetes, are a growing trend and worry across globally and it is estimated 26% of world's population (972 million people) have high blood pressure. Prevalence of hypertension is likely to go up at 29% by 2025. In Kenya prevalence of hypertension is at 24%. Studies have revealed that in Kenya a population aged 18-69 years are estimated to have hypertension. In Busia County, over 25% of adult population have hypertension. Despite of the availability of antihypertensive therapy, control rates remain low largely due to poor health seeking behavior and ignorance on the importance of medical health check up in the hospital among the community. When people are sick they do not go to hospital for help/check up until when they are unable to move. At level two the availability of NCD Services are Limited. During screening for covid 19 vaccination, 500 clients were vaccinated and 56 clients were reported to have hypertension and diabetes. To address these issues, a program to create awareness and implement an integrated Management of hypertension and diabetes between Rumbiye dispensary and main sub-county hospital was started. A model of awareness and competency based treatment was embraced by the staff .In OPD, Clients above 24 years were Screened and use of HTN /DM Register - based treatment was started at the facility as from 2001.

**Objective:** To practice health seeking behavior among the community members in Rumbiye Location. Specific objective. To create awareness among the community members on importance of health seeking behavior. To screen all community members at the facility on NCDS. To initiate treatment of NCDs at the facility. To make follow up of clients with NCDs

at the facility.

WHO 2013 defined high blood pressure as Systolic of above 140 and diastolic of 90 while JNC VII defined high blood pressure as above 140/90 mm/Hg stating that Normal Blood Pressure is 120/80 mm /Hg. The JNC VII 2003 defined area between SYSTOLIC 130-139 and diastolic 80-89 mm /Hg as Pre hypertension. **Knowledge** Staffs at facility had a clue what high blood pressure means and its impact to clients if not followed up well but had limitations on care and treatment of such cases. **Attitude** - the Community members were not keen in following health advice like going for check- ups even if not sick (ignorance).

Rumbiye Sub-location with 10 villages with total population of 4473 people thus males 2175, females 2298 among which 2453 comprised of those above 24 years. A sample size of 200 clients were screened during the study period and a total of 56 clients were followed at the facility. Thus; 24 - 30 years were 30-45 year F-5 m -8 45 - 65 years F-10 M-9 Above 65 years F-11 M-13

**Methodology:** From January 2021 Nursing Office in-charge in collaboration with doctors from Sub-county hospital and the staff at Rumbiye health facility together with the CHVs, started sensitization in OPD and community during Chief Baraza meetings and on dialogue days. Health education on NCDs and screening of all clients for hypertension and diabetes for those above 24 years was started at OPD. There was no missed Opportunity at any given time. At screening area history taking was done whereby clients were asked if they had any chronic illness to include HTN or DM , then blood pressure taken and RBS done if one met the age criteria and regardless of response given on previous medical history. All newly diagnosed and those who had defaulted from treatment were captured and recorded in the HTN/DM register. All eligible clients with BP above 140/90mm/hg were registered and initiated on treatment and follow up as per guidelines and to continue with care at MOPC Clinic Every week, then monthly and at 3 months, they seek Evaluation of disease and treatment complications at the Sub-County hospital.

**Results:** As at January 2021 there were 0 clients on HTN/DM treatment at facility . Monthly facility Screened average of 200 clients. As at March 2022 there were 40 HTN clients who had defaulted from medication thus male 30 females 26, ages between 46 to 90 50% of these 40 defaulters cited long distance to pick drugs and lack of transport. 20% of the 40 cited lack of treatment fee at Sub-county hospital to get medication. 30% of the 40 defaulters had no reason for defaulting. 5% of the total defaulters had DM thus 2 Clients and all were male aged 48 and 59 years respectively. During the screening 20 clients were newly diagnosed. 50% of the newly diagnosed clients said they had no clue that they had HTN as they were looking healthy and had no major signs. However, they all cited that at one point or another they experienced headache, dizziness and sometimes fatigue. None was diabetic. They aged between 24 - 45 year old (males 11 F-9). 50% of the 20 newly diagnosed said, they knew the disease ran in their families hence afraid to confirm same on them. NB 98% of Overall clients came

from peripheral remote areas and were associated with lack of physical exercise, smoking and alcohol intake.

**Follow Up At 3,6 And 12 Months Respectively:** From Follow Ups done, it was realized that earlier diagnosis and proper health care messages from the start played a crucial role in outcome thus clients diagnosed earlier responded well in controlling HTN. -Managing defaulters not easy, it needs multidisciplinary team to include nutritionist and social worker and CHVs for follow ups at community level.

**Recommendations:** Need for all HCWs at peripheral facilities to be trained on NCDs and allowed to offer medication as per the NCD policy in Kenya.

- Need for hypertensive and DM drugs at peripheral facilities.
- Screening of all Clients at OPD and at all service delivery point for earlier diagnosis and timely management.
- Health education and sensitization to the community on lifestyle modification and physical exercise is essential to avert most of this NCDs in our societies.
- involvement of CHVs in clients follow up at community level is key

**ABSTRACT ID: 88**

### **Baseline Survey of Malaria indicators for Effective Prevention, Diagnosis and Management of Malaria, Busia County, Kenya**

*Authors: George Gikunda | Amref Health Africa*

*Keywords: Busia County, Diagnosis and Management of Malaria, Effective Prevention*

**Background & Objectives:** Globally, an estimated 229 million malaria cases in 2019 in 87 malaria endemic countries were reported, resulting in 409,000 deaths, with nearly 70% of those deaths occurring in children under five mostly in sub-Saharan Africa. Estimates indicates Malaria during pregnancy causes up to 10,000 maternal deaths each year and 3-8 % of infant mortality. Malaria remains to be the leading cause of children morbidity and mortality. Its estimated 75% of the Kenyan population are at risk of the disease. In Busia, Malaria prevalence rate stands at 19%. Objective is to promote effective prevention, diagnosis and case management of Malaria in Busia County, Kenya

**Methods:** Cross-sectional survey design; mixed methods using qualitative and quantitative approaches. Targeted care givers, community health workers (CHVs) and health care workers (HCWs). Ethical approval sought,

recruitment and training research assistants. Pretesting of data tools, actual data collection, supervision and quality controls were deployed. Statistical package for Social Sciences V.26 applied for analysis of quantitative data while qualitative data was analyzed via description

**Results:** A total of 98.7% of HCWs responded that RDT or microscopy is a need in Malaria diagnosis. More so, 82.1% were aware that Artemether Lumefantrine (AL) is recommended first-line treatment of uncomplicated malaria in Pregnancy. For Community-based Case Management of malaria (CCMm), 45% of CHVs reported they check the temperature, perform RDT (34.3%) and 20.8% inquire about other symptoms. When RDT is positive, only 35.1 % of CHVs would give ACTs while 25.1% would refer

**Conclusion/Recommendation:** Management of Malaria cases require clear strategies including training and retraining HCWs/CHVs, initiating community level programmes for improved, early identification and referral

## ABSTRACT ID: 210

### Delays to cancer care: exploring the factors associated with barriers to access comprehensive cancer care in Eswatini qualitative study

*Authors:* Xolisile Dlamini,<sup>1</sup> Teluleko Maseko<sup>1</sup>, Thokozani Maseko<sup>4</sup>, Nonhlanhla Mahlalela<sup>4</sup>, Lomalanga Hlophe<sup>1</sup>, Nomxolisi Mabuza<sup>3</sup>, Mandzisi Mkhontfo<sup>4</sup>, Zanele Khumalo<sup>4</sup>, Debrah Vambe<sup>2</sup>, Samson Haumba,<sup>4</sup> Okello Velephi<sup>1</sup>

*Keywords:* Eswatini, barriers, cancer care, health workers, survivors

**Introduction:** Delays and poor cancer care in Low- Middle Income Countries (LMIC) including Eswatini has yield to high mortality rate. Specifically, the goal was to get their perspective on the cause of delay in seeking care, in being diagnosed and in getting treatment, as well as if and how individual, community and health systems factors influenced the delays.

**Methods:** A qualitative study design that was structured in two sets that included; fourteen key informant interviews through in-depth interview (IDIs) from facility management and six narratives from cancer survivors through focal group interviews (FGDs).

**Results:** For the in-depth interview we had participants employed in the health sector between 25 and 35 years with a mean of 21.9 years and have been in their current leadership/management position for between 6 months and 9 years. Whilst the narrative from focus group was six cancer survivors who had been living with cancer not less than two years. Participants, or family members and friends of participants, had been diagnosed with brain, breast, cervical, liver, lung cancers. All interviews and narratives were carried out in a secure place and in the local language (Siswati) and later translated to English for analysis. Major themes which

resulted to delay to cancer care included; fear of diagnosis and denial even when symptoms were there, shock, disbelief and fear at time of diagnosis experiencing cancer as a slow poison- a slow developing disease that affects the physical body- and also social and marital relations, having to navigate local and referral health services to get proper diagnosis and treatment lastly coping with diagnosis, treatment and living with cancer

**Conclusion:** Delays in seeking care due to fear of a possible cancer diagnosis was the main rationale that led to poor survival rate whilst the health systems factors such as lack of diagnostic measures and treatment packages contributed immensely to patient's care.

**ABSTRACT ID: 227**

### **Factors Associated With Poor Neonatal Outcomes At A Shiselweni Regional Hospital Of Eswatini**

*Authors:* Vilakati Lomagugu, Thwala SBP | University of Eswatini, Hlathikhulu Government Hospital, University of the Witwatersrand

*Keywords:* Early neonatal period, associated factors., late neonatal period, poor neonatal outcomes

**Background:** Poor maternal health, inadequate care during pregnancy, inappropriate management of complications during pregnancy and delivery and sub-standard new-born care have an adverse effect on neonatal outcome. Poor neonatal outcomes have a significant effect on neonatal morbidity and mortality as well as the risk of developmental disabilities.

**Objective:** To identify factors associated with poor neonatal, outcomes in Hlathikhulu Government Hospital (HGH) in the Shiselweni region of Eswatini.

**Methods:** Institutional based unmatched case-control study was conducted among 240 neonates. Neonates who had adverse outcomes (120) were cases with their index mothers and those neonates who hadn't had adverse outcomes (120) were controls with their index mothers. Sociodemographic, potential neonatal risk factors, and clinical data were taken from the mothers and neonatal medical records. Stata 14 statistical software was used for data analysis. Contingency tables in a matrix format will be used to display frequency distribution of the variables. Chi-square will be used to establish associations between the outcome variables and the independent variables. The two-sided significance test  $<0.05$  will be used to determine associations. For numeric independent variables t-tests was used. A bivariate and multivariate logistic regression was performed to measure the strength of associations between severe neonatal outcomes and independent variables.



**Preliminary Results:** In this study, preliminary results show that complications of prematurity (61.5%), severe birth asphyxia (57.3 %) and congenital abnormalities (33.6%) are the major identified factors present in neonates with severe outcomes. Once measures of associations and bivariate tests are done, multivariable logistic regression equations will be built to test strengths of association to independent variables between poor neonatal outcomes and the dependent variables (e.g. severe pre-eclampsia), while controlling for confounders.

Background: Poor maternal health, inadequate care during pregnancy, inappropriate management of complications during pregnancy and delivery and sub-standard new-born care have an adverse effect on neonatal outcome. Poor neonatal outcomes have a significant effect on neonatal morbidity and mortality as well as the risk of developmental disabilities.

## ABSTRACT 87

### **Factors contributing to sepsis among children under sixteen years admitted at pediatric burn unit in Muhimbili National Hospital**

*Authors: Mwanahamisi Ally Mvimba | Prof Eunice Siaty*

*Keywords: burn injury, pediatric, sepsis*

**Introduction:** Over the years, survival in pediatric burns with sepsis has improved worldwide. However, burn wound infection and sepsis in Tanzania is still the most significant factors causing mortality in pediatric burn patients. The aim of this study was to determine factors contributing to sepsis among burn patients under sixteen years admitted at pediatric burn unit in Muhimbili national hospital

**Methodology:** this study was a descriptive cross-sectional quantitative methodology. Simple random sampling technique was used to identify participants. The researcher administered questionnaire which addressed mainly demographic information, causes of sepsis and factors contributing to sepsis was administered to mothers/guardian of the burned children aged 16 years old and below. Data was analyzed using SPSS computer software program. The targeted population was consisting of all parents/guardian with children.

**Results:** Majority of the participants in this study 107(89%) were female while male were 14(11.38%). Most of the participants 91(73.98%) were between 20-30 years, 29(23.58%) were between 31 to 40 years and the minority 3(2.44%) aged between 41-50 years. On the other hand majority of the children aged 1 month to 4 years 95 (77.24%) and the minority 1(0.1%) were 5 to 10 years. Factors contributed to burn wound sepsis were categorized in three groups: that included extent of burn injury, medication given at home and delay of the children to start management. For the

extent of burn injury it was found that majority of children who expected to developed sepsis 61(49.59%) had partial thickness burn followed by those who have mixed of deep and superficial burn 47(38.21%) and the minority group 15(12.20%) were those who had full thickness of burn. Most children were treated at home before hospitalization ( 105(85.37%) with local medicine including honey, rabbit fur, water and sugar 13(10.57%) were provided with antibiotics and small group 4(3.25%) were treated with herbal medicines. The results indicate that majority of children who delayed for one week 110(89.43%) developed sepsis compared to those who delayed for two weeks 8(6.50%), three weeks 3 (2.44%), and those who delayed for one month 1 (0.81%).

**Conclusion:** sepsis in pediatric burn patient can be prevented if preventive measures could be taken at early and on treatment as health care provider do not treat sepsis as a general population children there so special and very sensitive.

## ABSTRACT ID 91

### **Barriers and Facilitators to Uptake of Prostate Cancer Screening among Men in a Kenyan Rural Community.**

*Authors:* Ruth Gathoni Mbugua / Prof. Simon Karanja / Prof. Sherry Oluchina / Mount Kenya University / Jomo Kenyatta University of Agriculture & Technology / Jomo Kenyatta University of Agriculture & Technology

*Keywords:* Barriers, Facilitators, Prostate cancer, Screening

**Background and objectives:** Prostate Cancer is curable with screening and early detection yet it remains a major public health problem globally as it's among the leading cause of cancer-related mortality among men worldwide. African men suffer disproportionately from prostate cancer compared to other men in the world with higher mortality reported among men in Sub-Saharan Africa. In Kenya, prostate cancer is ranked as the most prevalent cancer in males. Despite the majority of men presenting with advanced prostate cancer for treatment, screening for prostate cancer is low.

**Objective:** The aim of the study was to explore facilitators and barriers to uptake of PC screening among men aged 40-69 years in a rural community in Kenya.

**Methods:** We applied a descriptive exploratory qualitative study design to explore the barriers and facilitators of prostate cancer screening among men aged 40-69 years. Purposive sampling was utilized to select the study participants. 6 Focus Group Discussions and 7 in-depth interviews were conducted among 59 men aged 40-69 years and key informants in Kiambu County, Kenya. Data was collected using a semi-structured guide and an Inductive thematic analysis was done.

**Results:** The facilitators of screening included; Experience of symptoms, Proximity of cancer, Accessibility, and Advocacy. The barriers to screening included; Lack of knowledge, Fatalistic beliefs, Low perception of self-vulnerability, Stigma associated with the disease and Male dominance factors.

**Conclusion/ Recommendation:** This study provides vital information for development of interventions to enhance decision making in regards to prostate cancer screening. Capacity building of clinicians, task shifting and provision of well-coordinated affordable culturally sensitive screening services should be explored. The concerted effort among policy makers and all health care workers to overcome the stated barriers to screening is highly recommended.

### **ABSTRACT ID: 163**

#### **Educational Interventions For Primary Caregivers Related To Infection Prevention And Control In Stroke Patients In A Rural Setting Of Mutasa District, Zimbabwe**

*Authors:* Violet Kestha Chikanya, Prof. Sindiwe James, Prof. Sihaam Jardien-Baboo / Nelson Mandela University, Port Elizabeth, South Africa Abstract ID: 163

*Keywords:* Educational interventions, home-based care, infection prevention and control, primary caregivers, rural setting, stroke, stroke patients

**Background & objectives:** Infection prevention and control (IPC) practices offer safe and effective approaches to avoid harmful infections among patients and healthcare workers in both the home and hospital settings. Applying IPC principles depends on acquired knowledge and training of the caregivers. The incidence of stroke has increased significantly in the sub-Saharan region. Most patients with stroke are briefly admitted into hospital during the acute phase of care, before being discharged for further management at home. Recovery at home after a stroke takes a long time under the care of primary caregivers (PCGs) with either little or no health care training, exposing these patients to infections. Educating PCGs on IPC is important to reduce infections among home-based stroke patients. The study sought to explore and describe knowledge and practices of PCGs, and information given by village health workers (VHWs) to PCGs to prevent and control chest infections, skin infections and urinary tract infections in homebased stroke patients in a rural setting in Mutasa district, Zimbabwe. The study also sought to develop and validate educational interventions for PCGs to prevent and control chest infections, skin infections and urinary tract infections in home-based stroke patients.

**Methods:** The study was conducted in three phases. In phase one, a

quantitative research paradigm using descriptive and exploratory designs was used. Multistage random sampling was used to select both the study participants and villages. The study sample consisted of 200 PCGs and 200 VHWs. Data regarding prevention and control of the infections were collected from PCGs and VHWs using a structured interviewer-administered questionnaire and a self-administered questionnaire for PCGs and VHWs respectively. The Visual Basic for Applications package was used for data analysis at  $p < 0.05$ . Phase two involved the development and translation of the educational interventions in the form of a job aid with worksheets for PCGs to prevent and control chest, skin and urinary tract infections in home-based stroke patients in a rural setting. Phase three involved validation of the job aid by a panel of eight purposively selected IPC experts. Feedback from the IPC experts was used to develop the final job aid.

**Results:** A third of PCGs did not know the standard IPC measures to prevent and control infections, and 39 to 73% of the PCGs did not practise the recommended measures to prevent and control chest, skin and urinary tract infections in home-based stroke patients. Village health workers provided limited health education on stroke, its complications, and measures to prevent and control chest, skin and urinary tract infections to PCGs. The assessment scores by the validators indicated that the job aid was simple, usable, relevant and understandable and they recommended minor revisions.

**Conclusion/Recommendations:** Overall, PCGs had limited knowledge of infections in home-based stroke patients while the VHWs seldom gave them the necessary information. The use of educational interventions by PCGs of homebased stroke patients can standardize care and improve the quality of life among patients. Job aids should be incorporated into the training guidelines for community health nurses, VHWs and PCGs of home-based patients. The developed job aid can be adopted and adapted for use in caring for other bedridden patients in other low-resource settings.

**ABSTRACT ID: 176**

**Common cancers that affect Eswatini: An analysis from the cancer registry 2021 during COVID-19.**

**Authors:** Xolisile Dlamini | Dr Teluleko Maseko | Nokwethu Mkhumane | Nelsiwe Mhlanga | Lindele Sithole | Bheki Vilane | Zamokuhle Lukhele | Bandzile Mthethwa | Nomfundo Mdluli | Mildred Chigudu | Bongiwwe Mkhonta | Nokwanda Matsenjwa | Busisiwe Gama | Busisiwe Tsabedze |

**Keywords:** *Cancers registry, Eswatini, burden of cancer*

**Background:** For the past years in Eswatini the burden of cancers has been increasing. This is evident from cancer registry which is an information system designed for collection, storage and management of confirmed cancers. A recent analysis of available data shows that 4859 new confirmed cancer cases were captured in the population based cancer registry between 2016 -2020. Is cancer curable? The short answer to this question is "Yes." In fact, all cancers are curable if they are caught early enough. Cancer cells continue to grow unless one of four things occur: (1) The cancerous mass is removed surgically; (2) using chemotherapy or another type of cancer-specific medication, such as hormonal therapy; (3) using radiation therapy; or (4) the cancer cells shrink and disappear on their own.

**Purpose:** The main objective of this analysis is to present the statistics according to standard rigorous epidemiological methods and disseminate them to a wide range of readers, including the lay public. Given the deep impact of the cancers on the general public, in this update we complement descriptive statistics with additional data and commentaries on issues of importance for public health, in order to provide unambiguous criteria on how to interpret the statistics.

**Method:** Data herein presented were provided by population-based cancer registry, covering the Eswatini population, in the period 2021. Confirmed cancer cases in Eswatini are monthly routine data collection from, National, Regional Hospitals, Health Centres, Palliative Centres, Laboratories, and death registry in Eswatini.

**Results:** In the period 2021 the cancer registry reported 834 confirmed cancer cases. Cervical cancer 32%, breast cancer 10%, prostate cancer 8%, skin cancers 5%, childhood (0-14 years) cancer 4%, colorectal cancer 4%, penis 3%, Liver cancer 2%, lung cancer 2%, lymphomas cancer 2% and bone cancer 2%.

**Conclusion:** The present findings update descriptive cancer epidemiology in Eswatini population based on data provided by an extensive network of general population-based cancer registry. Cancer registry has been able to evidently reflect the prevalent cancers in Eswatini. This has informed the country in programming for cancer control and care. Findings derived from cross-analysis data suggest that it is possible to further improve the efficiency of our healthcare system, in particular for cancers can be reduced with a more rational use of hospitals throughout Eswatini.

## ABSTRACT 216

### **Mental Health issues associated with management of Tuberculosis (TB)**

**Authors:** John Otieno | Amref Health Africa

**Keywords:** mental health issues in TB management

**Background and objectives:** Globally, mental and Substance disorders remains a significant cause of TB disease progression. Depression, Drug abuse, alcoholism and smoking may increase the risk factors for TB infection. Alcohol drinking increase the risk of TB threefold, which alone is associated with 12% of TB infection and Individual with TB are at increased risk of depressive disorder. Objective-To highlight mental health issues associated with TB management

**Methods:** Cross-sectional survey design; mixed methods using qualitative and quantitative approaches. Targeted TB patients and health care workers (HCWs). Ethical approval sought, recruitment and training research assistants. Pretesting of data tools, actual data collection, supervision and quality controls were deployed. Statistical analysis performed using STATA and Nvivo version 10.

**Results:** There is a strong association between mental/substance disorders and TB. In this study, 55% of TB patients had high rates of depression and increased risk of other mental and substance disorders such as anxiety, alcoholism and psychic disorders . In addition, mental and substance disorders increased in presumptive TB (98%). The impact of the stigma also differed significantly across subgroups defined by marital status and level of education and was significant among genders.

**Conclusions:** There is needs to align TB programmes with clinical guidelines for TB treatment and prevention, and guidelines for mental health and substance use disorder care.

**ABSTRACT ID: 198**

### **Best Practice on Health Seeking Behaviour on NCDS at Rumbiye Dispensary, Samia Sub-County busia County**

*Authors: Truphena Kerubo | Kenya; Samia*

*Keywords: CHV, DM, HTN, OPD*

**Background:** Prevalence of hypertension is likely to go up at 29% by 2025. In Kenya prevalence of hypertension is at 24%. Studies have revealed that in Kenya a population aged 18-69 years are estimated to have hypertension. In Busia County, over 25% of adult population have hypertension. When people are sick they do not go to hospital for help/check up until when they are unable to move. At level two the availability of NCD Services are Limited. During screening for covid 19 vaccination, 500 clients were vaccinated and 56 clients were reported to have hypertension and diabetes. To address these issues, a program to create awareness and implement an integrated Management of hypertension and diabetes between Rumbiye dispensary and main sub-county hospital

was started.

**Objective :** To practice health seeking behavior among the community members. To create awareness among the community members on importance of health seeking behavior; to screen all community members at the facility on NCDs.2. To initiate treatment of NCDs at the facility and to make follow up of clients with NCDs at the facility4.

WHO 2013 defined high blood pressure as Systolic of above 140 and diastolic of 90 while JNC VII defined high blood pressure as above 140/90 mm/Hg stating that Normal Blood Pressure is 120/80 mm /Hg. The JNC VII 2003 defined area between SYSTOLIC 130-139 and diastolic 80-89 mm /Hg as Pre hypertension. Rumbiye Sub-location with 10 villages with total population of 4473 people thus males 2175, females 2298 among which 2453 comprised of those above 24 years. A sample size of 200 clients were screened during the study period and a total of 56 clients were followed at the facility.

**Methodology:** Health education on NCDs and screening of all clients for hypertension and diabetes for those above 24 years was started at OPD. There was no missed Opportunity at any given time. At screening area history taking was done whereby clients were asked if they had any chronic illness to include HTN or DM , then blood pressure taken and RBS done if one met the age criteria and regardless of response given on previous medical history. All newly diagnosed and those who had defaulted from treatment were captured and recorded in the HTN/DM register. All eligible clients with BP above 140/90mm/hg were registered and initiated on treatment and follow up as per guidelines and to continue with care at MOPC Clinic Every week, then monthly and at 3 months, they seek Evaluation of disease and treatment complications at the Sub-County hospital.

**Results:** Monthly facility Screened average of 200 clients. As at March 2022 there were 40 HTN clients who had defaulted from medication thus male 30 females 26, ages between 46 to 90 50% of these 40 defaulters cited long distance to pick drugs and lack of transport. 20% of the 40 cited lack of treatment fee at Sub-county hospital to get medication. 30% of the 40 defaulters had no reason for defaulting. 50% of the newly diagnosed clients said they had no clue that they had HTN as they were looking healthy and had no major signs. However they all cited that at one point or another they experienced headache, dizziness and sometimes fatigue. None was diabetic.

**Recommendations:** Need for hypertensive and DM drugs at peripheral facilities. Screening of all Clients at OPD and at all service delivery point for earlier diagnosis and timely management. Health education and sensitization to the community on lifestyle modification and physical exercise is essential to avert most of this NCDs in our societies. involvement of CHVs in clients follow up at community level is key



## ABSTRACT 107

### **Sexual Rehabilitation Strategies and Outcomes among Cervical Cancer Survivors Attending Clinic at Bugando Medical Centre, Northwestern Tanzania**

*Authors: Samson Peter Mvandal | Mashaka sehemu | Kija malale | Catholic university of health and allied sciences | Catholic university of health and allied sciences | Catholic university of health and allied sciences*

*Keywords: Cervical cancer survivors, sexual dysfunction, sexual rehabilitation strategies*

**Background:** Sexual dysfunction is the most common side effect encountered by cervical cancer patients during and after treatment, and rehabilitation strategies are needed to improve their quality of life. A variety of rehabilitation strategies have been reported in previous studies, varying by country, race and even continent. However, the common rehabilitation strategies used by cervical cancer survivors in Tanzania and their outcomes are unknown.

**Aim:** The objective of this study was to unfold sexual rehabilitation strategies and outcome practiced by cervical cancer survivors who experienced sexual dysfunction during and after treatment in Northwestern Tanzania.

**Methods:** Descriptive qualitative study employing phenomenology study design used with a sample of 7 participants and data corrected via in-depth interview guided by 11 questions. Audiotaped and transcribed to get main themes and sub themes. Data collection was conducted between September and October 2021 after the ethical clearance approval from the ethics committee and permission from the Director General of Bugando Medical Centre.

**Results:** Most participants reported inability to achieve an orgasm and low libido and dyspareunia after treatment. Most participants were eagerly to have their sexual activity recovered. However, they were not familiar with any rehabilitation strategy after the experience of sexual dysfunction. Even though, some of the participants attempted various interventions, but all were unsatisfactory leading to a significant decline in sexual interest and activity.

**Conclusion:** Cervical cancer survivors are not familiar with any sexual rehabilitation strategies. Health education concerning various sexual rehabilitation strategies should be provided to survivors during and even after treatment.

**ABSTRACT ID: 104**

## **Feeding Patterns Among Stunted Children Under-Five Years In Dodoma City In Tanzania.**

*Authors: Mahamudu Rashidi Hussein | The University of Dodoma (UDOM)*

*Keywords: Feeding patterns, Stunting syndrome, Under-five years children*

**Background:** Appropriate feeding pattern is important to prevent malnutrition and to achieve normal growth. Aim of the study was to identify the feeding patterns among stunted children attending outpatient departments in central districts hospitals in Dodoma-Tanzania.

**Study design:** Descriptive cross-sectional study was used. Setting: This study was conducted in the 7 outpatient clinics affiliated to the 7 main hospitals in all districts of Dodoma city-Tanzania. Subjects: Convenient sample of 175 under-five children and their mothers/caregivers were selected. Tools of data collection: Three tools were used for data collection. The first tool was “Feeding Patterns of Stunted Children Structured Interview Schedule”. The second tool was “A 24 hours’ diet recall Structured Interview Schedule”, While the third tool was “Anthropometric measurement.

**Results:** The results of this study showed that the majority (81.7%) of the children had low dietary diversity. The vast majorities of the children were stunted and less than one fifth were severely stunted. On the other hand, less than one fifth of the children were underweight, 5.1% were wasted, 4.6% were severely wasted, and 2.3% were over-weight. Conclusion: The study concluded that low dietary diversity is prevalent among stunted under-five children with several correlates related to the children themselves and their families. Recommendations: It is essential to enhance the nutritional pattern of the under-five children and increase the dietary diversity in order to overcome the problem of malnutrition among them.

**ABSTRACT ID: 214**

### **Clinical predictors of severe maternal outcomes in two South African hospitals: a case-control study**

*Authors: Dr SBP Thwala, Dr Blaauw D, Prof F Ssengooba, Prof E Buchmann | University of Eswatini, University of the Witwatersrand, Makerere University*

*Keywords: Near miss, emergency obstetric care, maternal death, severe maternal outcomes*

**Objective:** To identify clinical predictors and determine the incidence of

severe maternal outcomes (SMOs), defined as near misses and deaths, in two South African hospitals. Design Prospective matched case-control study of SMOs Setting Two public regional hospitals in an urban district in Gauteng. Sample 175 SMO cases matched to two different controls: 175 controls without any maternal complications; and 140 controls with the same maternal complications as the SMOs.

**Methods:** A matched case control design used. Data on individual and clinical obstetric characteristics of cases and controls was extracted from clinical case files. Firth penalised conditional logistic regression was used to evaluate the impact of these factors on the likelihood of being a SMO case.

**Results:** The overall SMO incidence ratio and MMR were 34.7 per 1000 live births and 130.8 per 100 000 live births respectively. Haemorrhage (48.8%) and hypertension (46.9%) were the most common underlying causes of SMOs. For women without complications, anaemia (AORs=3.04), and hypertension (AORs=70.97), significantly increased the odds of SMOs. Not booking antenatal care (ANC) was the most significant risk for SMOs ( $p<0.001$ ). For women with complications, not booking (AOR= 11.00) or having less than 4 ANC visits (AOR=2.21) had the highest risk for SMOs and this was significant.

**Conclusions:** SMO incidence was high in both hospitals. Obstetric haemorrhage and hypertension caused most SMOs. Booking for ANC and frequent ANC attendance were protective against developing a SMO in both groups of women without or with complications.

## ABSTRACT ID: 93

### **Patients' Feedback Mechanism in the Surgical orthopedic Wards of Jaramogi Oginga Odinga Teaching and Referral Hospital**

*Authors:* Milka Ogayo / Masinde Muliro University of Science and Technology

*Keywords:* Feedback, Patients' experience, Quality Improvement

**Background:** The push to achieve sustainable goals by 2030 has created even more need for improved quality healthcare by putting the patients at the center of their care. Quality healthcare leads to improved client satisfaction, health outcomes, continued and sustained use of services. Minor acts can go a long way in improving patient's experience with health care that is provided. However, improvement can only happen if we become aware of existing gaps. Patient feedback is one of the strategies through which organizations listen to client's voice regarding their experience with healthcare. A vibrant, active and collaborative feedback mechanism which brings together all the stakeholders and engage them in a sustainable circle of smooth information flow is essential for a health care

organization with significant public interface. It is important to balance the unevenness in the patient-health care staff relationship and empower the patients. However feedback mechanism in the surgical orthopedic wards of Jaramogi Oginga Odinga Teaching and Referral Hospital have barely been assessed. The purpose of this study was to assess patients feedback mechanism in the surgical orthopedic wards of Jaramogi Oginga Teaching and Referral Hospital.

Specific objectives were: 1). To determine the existence of patients' feedback mechanism, 2). To describe the experience of patients with feedback provided while in the surgical orthopedic wards of Jaramogi hospital and 3). To identify the preferred feedback mechanisms by patients admitted to surgical orthopedic wards of Jaramogi Hospital.

**Methods:** This study which applied a quantitative descriptive design was conducted in the surgical orthopedic ward of Jaramogi Oginga Odinga Teaching and Referral Hospital, Kisumu City, Kenya. The surgical Orthopedic wards were two, male and female, with each having a bed capacity of 49. Male ward admits adults only while the female ward admits both adults and children. The cases for admission are general surgery, orthopedic surgery, ear nose and throat surgery, burns and dental surgery. Eighty adult patients with orthopedic conditions from both wards were purposively recruited to take part in the study. Those with orthopedic conditions were preferred because they stay in the wards for up to two or three months depending on the extent of their injury. Therefore, they are best placed to make more contributions about services and can give reports of short and long term reforms. A structured questionnaire was used to collect data through face-to-face interview. the individual interviews lasted for a duration of twenty to thirty minutes. Data collection was conducted from February to April 2016.

**Results:** The study found out that majority, 58% of the participants had stayed in the wards for more than four weeks and 86% were new admissions. The study also found out that on admission, majority, 78% reported that the kind of feedback mechanisms they were aware is medical staff (nurses and doctors), 16% were aware about suggestion boxes while 6% were aware of both staff and suggestion boxes. The participants, 67% , reported that they were informed about existing feedback mechanisms in those wards. For those who provided feedback while in the wards, 61% gave to nurses, 28% gave feedback to doctors and 11% used suggestion boxes. Most patients, 96% , who provided feedback agreed that their feedback was addressed to their satisfaction. When asked about their preferred way of providing feedback, 44% suggested that a particular staff be assigned to handle their feedback while 35% stated that a committee be formed to handle their feedback.

**Conclusion:** The study concludes that feedback mechanism existed in the surgical orthopedic wards, patients were generally satisfied with how their feedback was addresses and the patients preferred that a particular staff be assigned to handle their feedback.

**Fear of Childbirth: women's, males, nurse-midwives' and TBA's perceptions and experiences in the Pwani region, Tanzania**

*Authors: Agnes Fredrick Massae<sup>1,2\*</sup>, Margareta Larsson<sup>1</sup>, Andrea Barnabas Pembe<sup>3</sup>, Columba Mbekenga<sup>4</sup>, Agneta Skoog Svanberg<sup>1</sup>*

*1 Department of Women's and Children's Health, Uppsala University, Sweden; 2Department of Community Health Nursing, Muhimbili University of Health and Allied Sciences, Tanzania; 3Department of Obstetrics and Gynaecology, Muhimbili University of Health and Allied Sciences, Tanzania*

**Keywords:** *Childbirth, Childbirth, Fear of Childbirth, Labour, Postpartum, Pregnancy, Women*

**Background:** Fear of childbirth (FoB) is experienced by many women and can negatively affect women during pregnancy and their experience of birth. It has been associated with adverse obstetric outcomes and postpartum mental health challenges. This study aimed to explore the sources of FoB and how women overcome it.

**Methods:** An exploratory case study qualitative approach was used. Individual interviews were conducted among thirteen women classified as having FoB in our previous study done between Sept 2018 to July 2019. Also, three semi-structured interviews with traditional birth attendants were conducted. Further, two FGDs with males, five with women in the community who had ever given birth and four with nurse-midwives were carried out to seek their perception of the FoB construct. The content analysis approach was used.

**Results:** Three themes were identified by all groups: sources of fear during pregnancy, labour and after childbirth, such as limited male partner care and support in preparation for childbirth; negative attitude toward health care providers; memory etched on previous horror birth; and fear of upcoming labour pain and birth. Another theme was individual strength, family, community, and friendly health facilities as proposed sources of support to overcome FoB. The theme incorporates friendly health care services, early provision of childbirth preparedness information, provision of health talks about FoB; and care and support from a male partner. One further theme was generated on barriers to overcoming FoB. Nurse-midwives narrated that insufficient knowledge and skills among Nurse-midwives to manage women with FoB is one of the barriers to assisting women to overcome FoB.

**Conclusion:** FoB has various origins. FoB influences the experience of pregnancy, the labour process and the transition to parenthood. To overcome women's FoB, early identification of women with FoB, individual care, preparation for giving birth, support of a companion during pregnancy, labour, and postpartum follow-up is essential. The findings also suggest that health care providers need further training to meet and support

women with an intense fear of childbirth.

**Recommendation:** Pregnant women who fear childbirth are an exposed group in need of much support during pregnancy, labour and after birth. Nurse-midwives and the community need the training to discover and handle women with FoB.

**ABSTRACT ID: 165**

## **The Relationship Between the Mental State of A Mother and the Nutritional State of the Child, A Study Carried Out in Kampala, Central Uganda**

*Authors: Dolorence Wakida M.A. | NEXUS International University*

*Keywords: Maternal Depression and Childhood malnutrition*

**Background and Objectives:** While adequate nutrition is an essential prerequisite for maintaining good health, malnutrition is an important public health concern that contributes to more than a third of all child deaths. “For over 50 years, there has been global concern about the high prevalence of hunger and malnutrition in the world. Populations affected are mainly those from poor developing countries, which depend on subsistence agriculture and are predominantly rural” (Uganda Nutrition Policy 2003). Under-nutrition is the prevalent type of malnutrition in tropical developing countries and is a major cause of morbidity in children under 5 years”. (Burgess A, 2003).

It is estimated that 52 million children under 5 years are diagnosed with wasting and 17 million with severe wasting and of these, 26.9% are in Sub-Saharan Africa (Humphrey Wanzira, et al (2018). According to Harohalli R. Shashidhar (2014), malnutrition is directly responsible for 300,000 deaths per year in children under 5 years in developing countries and contribute indirectly to over half of all deaths in children worldwide.

Underlying causes of malnutrition in developing countries are inadequate water and sanitation safety and access, inadequate health infrastructure and access to health care, and food insecurity. In the case of Uganda, the common causes of food insecurity include, lack of diversification in livelihoods, dependence on agriculture and wage labour, declining wages and rising food prices (Humphrey Wanzira, et al (2018), The purpose of this study was to ascertain whether maternal depression is a risk factor for the malnutrition of under-five children.

**Methodology:** A descriptive, cross-sectional study was conducted among mothers whose children were admitted in Mwanamugimu Nutrition Unit at Mulago National Referral Hospital. Qualitative and quantitative approaches of data collection were used. The (DSM IV and V) were used to assess depression among the mothers. The research questions included: the

demographic characteristics of the mothers; how severe the malnutrition of the children was; whether or not the mothers were depressed and whether the mother's depressive state was a risk factor in the subsequent malnutrition of the child.

**Findings:** The mean age of the children in months was 20.6. The majority of the children 94(75%) were between the ages 1-24 months. The majority of the mothers 67(53.6%) were between the ages 15-24 years. A total of 100 (83.3%) mothers were depressed. The first Ho: Hypothesis was tested using the chi-square test and the second Ho: hypothesis was tested with Pearson product moment correlation coefficient. Both hypotheses were rejected at a level of significance of 0.001 equivalent to  $P=0.05$ .

**Conclusion and Recommendation:** The study concluded that there was a significant relationship between depression in mothers and child's nutritional status and therefore a risk factor for malnutrition and developmental state of the under-five. The critical role nutrition plays in health and development warrants global commitment to and investment in nutrition as a prerequisite for attainment of Sustainable Development Goals (SDGs).

**ABSTRACT ID: 164**

**Social capital and mental health; "Nigiina" s as coping mechanism of peri-urban low-income mothers in Kampala, Uganda**

*Authors:* Joan W. Nakirya / Makerere University

*Keywords:* Nigiina Associations, social capital, social networks, survival strategies, women groups

**Background & Objectives:** Low income mothers face a number of challenges that revolve around poverty, isolation, powerlessness, ill health, vulnerability and dependency. These challenges keep them in an unending cycle of poverty and ill health. Poverty is a causal factor and possible consequence of poor mental health, low drug adherence, poor access to mental health services and information among low income peri-urban mothers. Mental ill health of mothers and their children affects productivity and hence purges households into chronic poverty. The study on the nigina's aimed at examining the contributions of nigina associations (informal gift giving associations), to the welfare of women and their households in an urban neighborhood, not negating its contribution mother's mental health and well-being. East Gate Consult and Associates is an indigenous consultancy firm that is attempting to adopt the Nigiina model to strengthen mental health advocacy and support of peri-urban low-income mothers in communities to promote mental health including child and adolescent mental health services and reduce poverty among women and their households.



**Methods:** Data was collected through use of unstructured interviews, in-depth interviews, survey questionnaires and observation guides. Findings reveal that nigina associations, which use a rotational model and the principle of reciprocity offer gifts inform of household items, money, training, and loan opportunities for this sub-population. These gifts; tangible or intangible bridge a resource gap in the lives of the mothers, strengthen bonds and create linkages among women who although have no biological relationship are bound by their experiences and similarities.

**Results:** The study established that Nigiina's (an indigenous name implying dance) depicted the way low income peri urban mothers worked together to address their daily concerns and needs. Nigiina associations operate under the principles of reciprocity, mutual trust and solidarity conducting similar small projects in a similar manner. The study established that women with similar socio-economic characteristics such as marital status, age, sex or income levels and above all with similar goals and desires are more likely to develop and strengthen networks among each other, enjoy solidarity, share burdens and pull resources to address day to day challenges. Women join these associations for personal reasons which could range from strengthening networks, creating bonds, saving money, augmenting incomes and psycho-social support.

**Conclusion/Recommendation:** We conclude that the link between poverty and mental health cannot be underestimated neither can the relationship between social capital and mental health especially among the urban poor. Mental health problems have the potential of limiting women's ability to work hence affecting their income and purging them further into poverty, isolation, dependency and vulnerability as a result of catastrophic out of pocket expenditure on mental health medication and services.

We recommend that African leaders should invest considerably in mental health in order to address Sustainable Development Goals on; no poverty, good health and well-being and reduced inequalities (SDGs 1,3 and 10). Africa is privileged to have closely knit social systems. Capitalizing on systems and principles that are already ingrained in our day to day lives is a cost-less venture to reduce stigma around mental health, promote drug adherence and ensure early intervention especially among children and adolescents.

**ABSTRACT ID: 105**

### **Feeding Patterns Among Stunted Children Under-Five Years In Dodoma City In Tanzania.**

**Authors:** Mahamudu Rashidi Hussein | Azza Mostafa Darwish | Rasha Abd El Hakim Abdou | The University of Dodoma (UDOM) | Alexandria University | Alexandria University

**Keywords:** Feeding patterns, Stunting syndrome, Under-five years children

**Background:** Appropriate feeding pattern is important to prevent malnutrition and to achieve normal growth. Aim of the study was to identify the feeding patterns among stunted children attending outpatient departments in central districts hospitals in Dodoma-Tanzania.

**Methods:** Descriptive cross-sectional study was used. Setting: This study was conducted in the 7 outpatient clinics affiliated to the 7 main hospitals in all districts of Dodoma city-Tanzania. Convenient sample of 175 under-five children and their mothers/caregivers were selected. Tools of data collection: Three tools were used for data collection. The first tool was “Feeding Patterns of Stunted Children Structured Interview Schedule”. The second tool was “A 24 hours’ diet recall Structured Interview Schedule”, While, the third tool was “Anthropometric measurement.

**Results:** The results of this study showed that the majority (81.7%) of the children had low dietary diversity. The vast majorities of the children were stunted and less than one fifth were severely stunted. On the other hand, less than one fifth of the children were underweight, 5.1% were wasted, 4.6% were severely wasted, and 2.3% were over- weight.

**Conclusion:** The study concluded that low dietary diversity is prevalent among stunted under- five children with several correlates related to the children themselves and their families. Recommendations: It is essential to enhance the nutritional pattern of the under-five children and increase the dietary diversity in order to overcome the problem of malnutrition among them.

#### **ABSTRACT ID: 171**

### **Efficacy of premarital genotype screening and counselling on knowledge toward Sickle Cell disease among university students in Dodoma Tanzania: an uncontrolled quasi experimental study**

*Authors: Arnold Gideon Lumbe | The University of Dodoma*

*Keywords: Efficacy, Dodoma-Tanzania, Screening, Sickle Cell disease, knowledge, premarital, university students*

**Background:** Tanzania is experiencing an increasing burden of Sickle cell disease, with an estimate of 20.6% prevalence of Sickle Cell carriers. However, there is no preventive measure has been put in this area by the government; a great focus has been directed on the diagnosis and management and national guideline emphasise the care of people affected by Sickle Cell Disease.

**Methods:** A non-controlled quasi-experimental study was conducted from June to September 2020 among 697 randomly recruited first-year university

students from the University of Dodoma. Pre and post-test knowledge information were collected through structured self-administered questionnaires. Data were analysed using SPSS v20. A simple and multiple linear analysis models was used to test for significant association of variables at 95% CI, at  $p < 0.05$ . The results were presented using tables and figures.

**Results:** The mean knowledge score at the pre-test was  $0.009 \pm 1.014$  which improved to  $0.365 \pm 0.901$  in the post-tests, with a statistically significant difference ( $t = 6.965$ ,  $p < 0.01$ ). The results of linear regression showed that knowledge change was not statistically associated with other predictors ( $p > 0.05$ )

**Conclusion:** Health education demonstrated to be effective towards change in knowledge on sickle cell disease among University students.

## ABSTRACT ID: 132

### Effectiveness of community case management of malaria in the Homa Bay Kenya

*Authors:* Norah | Amref Health Africa

*Keywords:* Community Case management of malaria

**Background:** Access to prompt and effective treatment is a cornerstone of the current malaria control strategy. Delays in starting appropriate treatment is a major contributor to malaria mortality. WHO recommends home management of malaria using Artemisinin-based combination therapy (ACT) and Rapid Diagnostic tests (RDTs) as one of the strategies for improving access to prompt and effective malaria case management. Community Case Management of malaria (CCMm) is therefore one of the new approaches adopted by the World Health Organization for malaria endemic countries to reduce the burden of malaria for vulnerable populations. It is based on the evidence that well-trained and supervised community health workers (CHWs) can provide prompt and adequate treatment to fever cases within 24 h to help reduce morbidity and mortality associated with malaria among under-five children.

**Methods:** The study adopted a cross-sectional study design using mixed method which involved conducting a secondary review of project reports as well as documents in malaria. A total of 147 respondents from households in Homabay were interviewed with a mix of FGD with pregnant and lactating mothers and 13 KIIs were also conducted for primary data. The household interviews were conducted across the 4 sub counties of Suba South, Ndhiwa, Rachuonyo South and Rachuonyo East.

**Results:** The research established that the respondent had high level of knowledge on malaria and understood the signs and symptoms of malaria at

97%. The survey respondents also showed high awareness on preventive measures and the KII and FGD respondents noted several preventive measures that are available at the community level to prevent occurrence of malaria which included use of treated mosquito nets through the mass distribution; Clearing of nearby bushes; Draining stagnant water around homestead; Creating malaria awareness by educating the community through the CHVs; Educate on use of insecticides to kill mosquitos; Using mosquito repellents.; vaccination against malaria for children under 2 years of age; Use of prophylaxis malaria drugs, fansidar during pregnancy. The survey established that the patients received health services from CHVs with health malaria information being the highest at 72% while health education stood at 60% of the total responses. WASH services were the third most common services offered by CHVs. The respondents were satisfied by the services offered by CHVs and 51% cited service availability, 24% indicated that their services were timely while 22% indicated that services by CHVs were not costly.

**Conclusion:** Although the team noted a number of challenges in fully implementing community case management in malaria it still stands out as the best strategy for timely, prompt and effective malaria case management that will save a lot of lives at the community level. Extensive evidence has demonstrated the effectiveness of CHWs for malaria control. The research revealed that CHVs are capable of safely and accurately diagnosing malaria with rapid diagnostic tests (RDTs) if sufficient training and job aids are provided.

#### **ABSTRACT ID: 68**

### **Status Quo and The Relationship between Geriatric Depression and Cognitive Function among Older Adults at Central Tanzania**

*Authors: Elihuruma Eliufoo Stephano | School of Nursing and Public Health, The university of Dodoma, Tanzania*

*Keywords: Cognitive function, Elderly cognition, Geriatric depression, Geriatric depressive symptoms, Mild cognitive impairment*

**Background/Introduction:** Geriatric depression has adverse effects and may cause declining cognition with the status differs from one place to another. Few studies were performed to estimate the decline of cognitive function due to geriatric depression in Sub-Saharan countries. For this reason, we aimed to assess the relationship between depression and cognitive function among older adults in Central Tanzania.

**Methods:** A community-based, descriptive cross-sectional study design was conducted in central Tanzania among 435 older adults. The multistage

sampling method was used. Data were analyzed by SPSS version 25 in descriptive analysis, Spearman correlation, and binary logistic regression. The whole research process was ethically proved.

**Results:** Among participants, 90.3% were depressed, and 95.2% had mild cognitive impairments. Correlation was established at -0.316 ( $p < 0.0001$ ) and 96% of variance in cognitive function status can be explained by geriatric depression status (Adjusted  $R^2 = 0.96$ , OR = -0.312 at 95% CI = -0.52 - -0.288,  $p < 0.0001$ ). After controlling confounders, the following were noted to predict the cognitive function of older adults, the gender of respondents (AOR=0.227 at 95% CI=0.066-0.786,  $p$ -value=0.019), and the use of tobacco to smoke cigarettes (AOR=0.091 at 95% CI=0.023-0.352,  $p$ -value=0.001).

**Conclusion:** The exposed status of geriatric depression and cognitive function among older adults were unacceptably high compared to other places. The negative relationship between geriatric depression and cognitive function pictured the future of older adults. Further research has to be done and interventions to help older adults.

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