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P1

Determinants of Cholera Outbreak in Mwanza, January 2024: A matched Case Control Study

Sephord Saul Ntibabara¹, James Allan¹, Renard Charles², Thomas Rutachunzigwa³, Nsiande Lema⁴, Ally Hussein Hussein⁴, Prof. Saidi Kapiga⁵

¹Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²Mwanza Regional Health Management Team –EOC, Tanzania; ³Mwanza Regional Health Management Team, Tanzania; ⁴Tanzania Field Epidemiology and Laboratory Training Programme; ⁵National Institute for Medical Research-Mwanza Interventional Trial Unit, Mwanza, Tanzania

Correspondence: Sephord Saul Ntibabara (sesantiro@gmail.com)
BMC Proceedings 2025, **19(29):P1**

Background

Cholera is an acute diarrheal disease caused by *Vibrio cholerae*. It is persistent in areas with inadequate access to safe water, sanitation, and hygiene. In early January 2024, cholera outbreak was reported in Mwanza. Environmental, social, cultural, and economic factors propagate the spread of infection in communities. Factors that propagate the outbreak have not been studied. The study was conducted to determine factors that were associated with such cholera outbreak.

Material and Methods

A matched case-control study was conducted from January to March 2024. Standardized questionnaires were administered to all participants. Controls were matched to the cases in a 2:1 ratio based on sex, neighborhood, and age. The age difference between cases and controls was 5 years. Chi-square was used to test the significance of categorical variables. Conditional logistic regression was used to determine the association between cholera outbreak and risk factors. A *P*-value <0.05 was statistically significant.

Results

Of the 168 participants, 56 were cases. Eating away from home had 11.95 odds of contracting cholera (Adjusted Odds Ratio (aOR) 11.95, 95% CI: 3.29–43.35). Having contact with a cholera case had 29 times odds of contracting cholera (aOR 29.43, 95% CI: 4.62–187.58.62.58). Use of Lake Victoria water for domestic purposes had 20 odds of contracting cholera (aOR 20.22, 95% CI: 1.32–309.78). Individuals who received health education on diarrheal diseases before the outbreak occurred were protected from contracting cholera (aOR 0.19, 95% CI: 0.05–0.71).

Conclusion & Recommendations

The study found that eating away from home habits, contact with cholera patients, and using Lake Victoria water sources were risk factors for cholera outbreaks. Health education, infection prevention, clean water infrastructure improvements, and food safety practices are critical strategies to control an outbreak.

P2

Determinants of Mortality among Tuberculosis Patients in Manyara, Tanzania: A Retrospective Cohort Study (2019 - 2022)

Mandala Adam¹, Alphaxard Lwitakubi², Katherine Makoye², Damas Kayera¹

¹Regional Secretariat Manyara, Babati, Manyara; ²Elizabeth Glaser Pediatric AIDS Foundation, Dar es Salaam, Tanzania

Correspondence: Mandala Adam (betonymandala@gmail.com)

BMC Proceedings 2025, **19(29):P2**

Background

Tuberculosis (TB) remains a significant public health challenge in Manyara, Tanzania, contributing to considerable morbidity and mortality. This study aims to identify the determinants of mortality among TB patients in this region over four years (2019-2022).

Program Intervention/Methodology

This retrospective cohort study analyzed data from TB patients in Manyara, Tanzania, registered between January 2019 and December 2022. Patient records from regional health facilities provided comprehensive demographic, clinical, and treatment-related information. Mortality, defined as death during TB treatment, was the primary outcome. Data from the MoH-NTLP database (DHIS2-ETL) included variables such as age, sex, occupation status, HIV status, and type of TB. Data quality was ensured through cross-verification with hospital records and follow-up data.

Results Finding

During the study period, 16,475 TB cases were notified in the Manyara region, with 609 patients (4%) dying during TB treatment. Yearly mortality rates were around 4%, except for a decrease to 3% in 2020. Notably, 64 (10.5%) of the deceased were children aged 0–14, indicating their high vulnerability. A gender disparity showed 341 (56.0%) of the deceased were male, suggesting higher male mortality. HIV co-infection significantly impacted mortality, with 154 (25.3%) of the deceased being HIV positive. Pulmonary TB was predominant among the deceased (441 cases, 72.4%), highlighting its severity.



Program Implication & Lesson Learned

Understanding mortality determinants among TB patients in Manara is crucial for targeted interventions and improved treatment outcomes. This study offers key insights into factors influencing TB patient survival, guiding future public health strategies and resource allocation in the region.

P3

Incidence of Tuberculosis Disease and Associated Factors in Children Living With HIV On ART And Isoniazid-Preventative-Therapy in Dar Es Salaam, Tanzania

Edward Ngalya¹, Karim Manji¹, Evance Godfrey^{1,2}, Namala Mkopi²

¹Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²Muhimbili National Hospital, Dar es Salaam, Tanzania

Correspondence: Edward Ngalya (eddo1566@gmail.com)

BMC Proceedings 2025, 19(29):P3

Background

Tuberculosis and HIV synergistically cause significant morbidity and mortality among children. While the use of ART has reduced HIV-related morbidity and mortality significantly, TB has remained a major cause of illness and death. The WHO recommends Isoniazid Preventive Therapy (IPT) for high-risk groups, including CLHIV, to treat latent TB and prevent active disease. Although IPT's efficacy in adults is well established, more evidence is needed for its effectiveness in children.

Material and Methods

A retrospective cohort study used data from the National AIDS Control Program (NACP)—Centre of Treatment and Care (CTC) database, including children aged 1–15 newly diagnosed with HIV and enrolled between January 1, 2019, and December 31, 2022. The study included 480 newly diagnosed CLHIV on ART, who were followed for their IPT use status with 268 receiving IPT and 212 not. Participants were followed to assess TB disease development and mortality outcomes.

Results

Among 480 participants, the median follow-up was 6979.1 person-months for IPT users and 1752.4 for non-users. Most were aged 5–15 (57.9%), with many attending Ilala Municipal Council clinics (46.3%) and Mbagala Rangi Tatu Health Centre (17.3%). A significant portion had advanced HIV (63.4%) and were underweight (26.3%). During follow-up, 13 CLHIV developed TB, mostly within the first six months. TB incidence was higher in non-IPT users (228.3 vs. 129.0 per 100,000). IPT significantly reduced mortality (CHR = 0.01, 95% CI: 0.001–0.08.001.08, $P < 0.001$). Most deaths (79.6%) also occurred in the first six months.

Conclusion & Recommendations

Concurrent use of IPT with ART markedly curbs TB and mortality in CLHIV. TB incidence was 40% lower, and mortality dropped by over 99% in IPT users, aligning with WHO guidance. Appropriate use of IPT alongside other strategies is crucial for reducing TB rates and enhancing survival in eligible CLHIV.

P4

Optimizing Healthcare Resources by Integrating COVID-19 Vaccine in Routine Immunization in Kilimanjaro Region - Tanzania

Sarah Kweyamba, Juma Dyegula, Hashim Sasya, Mary Ngowa, Ndekyo Oriyo

Amref Health Africa, Dar es Salaam, Tanzania

Correspondence: Sarah Kweyamba (sarah.kweyamba@amref.org)

BMC Proceedings 2025, 19(29):P4

Background

Childhood immunization is one of the routine health services disrupted by the COVID-19 pandemic in Tanzania by diverging its resources to the COVID-19 response. The disruption led to a decrease in immunization coverage, increasing the risk of epidemics of vaccine-preventable childhood diseases, complications, and deaths. The Ministry of Health integrated the COVID-19 vaccine into routine

immunization to mitigate the effects of COVID-19 on immunization performance.

Program Intervention/Methodology

A team of mobilizers, vaccinators for COVID-19, routine childhood immunization and data recorders were stationed in health facilities and community outlets for vaccine administration. Vaccination data was collected on a daily, weekly, and monthly basis, and entered it into Chanjo COVID-19 and Amref database for performance monitoring. The approach was implemented in 355 facilities in Kilimanjaro region in collaboration with R/CHMT, frontline healthcare providers in health facilities and community level, community leaders, and staff from WFP, TRCS and Amref.

Results Finding

By April 2023, the region demonstrated improvement for COVID-19 vaccination with an 11% increase from a baseline of 126% coverage in November 2022 before implementation to 137% coverage by April 2023. For routine immunization, coverage increased from 99% in November 2022 to 126% in April 2023

Program Implication & Lesson Learned

The integration approach effectively optimized human resources by stationing mobilizers, vaccinators, routine immunization personnel, data recorders strategically in health facilities and community outlets for efficient vaccine administration. This approach can be implemented to ensure effective service provision. The government in partnership with IPs to scale up the initiatives to more regions.

P5

Lifecycle of Reusable Surgical Gowns and Drapes

Loti Kingori

Makini Pharma, Johannesburg, South Africa

Correspondence: Loti Kingori (loti.kingori@makini.co)

BMC Proceedings 2025, 19(29):P5

Background

Surgical gowns and drapes are intended to be used by healthcare personnel and patients respectively during surgery. The gown confers protection to healthcare personnel and patients against the transfer of microorganisms, fluid, and particulate matter whereas the drape provides a physical barrier that prevents the surgical field from contamination. Both attires are considered medical devices by regulatory authorities and consequently, are required to demonstrate their effectiveness throughout their lifecycle.

Program Intervention/Methodology

A survey using Google Forms was conducted amongst Tanzanian healthcare workers in public, private, and joint venture healthcare facilities to determine the lifecycle management of reusable surgical gowns and drapes. The electronic form was piloted before rollout to the participants to check the practicality of obtaining responses and to ascertain how well the participants understood the questions. Purposive sampling was employed with 14 respondents completing the survey.

Results Finding

79 % of the respondents cited the effectiveness of surgical gowns and drapes as the purchase criteria for medical devices. Cotton was the preferred textile for reusable surgical gowns and drapes despite having undesirable properties for cleanroom application such as high fluid absorption and linting. Polyester has been proven to be more effective in conferring protection due to its water-repellant and low-linting properties, and robustness in withstanding mechanical shear associated with routine laundry and sterilization.

64% of participants replaced the surgical gowns and drapes following a visual confirmation of compromised fabric integrity instead of after a certain number of use cycles.

Program Implication & Lesson Learned

- Sourcing, usage criteria, care and maintenance, and discontinuation of surgical gowns and drapes are not based on the current body of knowledge.

- The users and procurers of operating theater cleanroom attire should source fabric/products that fulfill the EU Standard, EN 13975 test requirements for invitro and diagnostic medical devices.

P6

Perception, Local Knowledge and Practices of Climate change and Malaria Transmission in Rural Southern Eastern Tanzania

Nancy Nshatsi^{1,2}, Emmanuel Kaindoa¹

¹Ifakara Health Institute, Morogoro, Tanzania; ²Nelson Mandela Institute of Science and Technology, Arusha, Tanzania

Correspondence: Nancy Nshatsi (nnshatsi@ihi.or.tz)

BMC Proceedings 2025, 19(29):P6

Background

Climate change is anticipated to cause 250,000 additional deaths by 2050 from malnutrition, infectious disease and heat stress. Studies suggests that it accelerates rates of malaria transmission through rising temperature, altered rainfall pattern and extreme events, embracing mosquito breeding. Yet little is known about local knowledge, perception and practices for climate change adaptation and malaria control. Therefore this study aims to assess these aspect in Southern-Eastern Tanzania.

Material and Methods

This is an ongoing study conducted in 2 districts Kilombero and Ulanga where three methods are utilized that is questionnaire survey, key informant interviews and focus group discussion. The study commenced on May 2024 involving 384 participants for questionnaire survey, 84 participants for key informant interview and focus group discussion. The participants included will be those having 18 years and above to ensure that they offer substantial information on the topic of interest.

Results

This an ongoing study, where data is still being collected. Therefore no conclusion has been made at the moment.

Conclusion & Recommendations

Understanding and leveraging local knowledge, perspectives and practices is crucial in the formulation and execution of climate change adaptation strategies and policies. Furthermore, exploring traditional practices used in adaptation and control of malaria will pave a way of integrating scientific and traditional practices in addressing climate change and its impacts

P7

Implementing Boosted TB Contact Investigation, A Promising Approach to Finding Missing TB cases - Experience from Dar es Salaam region, Tanzania

Esther Mukasa¹, Viocena Mlaki², Rose Olotu¹, Godwin Munuo¹, Michael Machaku¹, Esther Lisasi¹, Saudan Hassan³, Araf Madai⁴, Sultani Lusambi⁵, Emmanuel Lyimo³, Mbarouk Seif⁶, Mary Chiryamkubi³, Ayoub Kibao⁷, John Msaki⁸, Paschal Wilbroad⁹

¹Amref Health Africa, Tanzania; ²MKUTA, Dar es Salaam, Tanzania;

³Kinondoni Municipal Council; ⁴Dar es salaam City Council, Tanzania;

⁵Temeke Municipa Council, Dar es Salaam, Tanzania; ⁶Dar es salaam City Council (Ilala MC), Tanzania; ⁷Dar es salaam Regional Administrative

Secretary Office, Dar es Salaam, Tanzania; ⁸Ministry of Health-National TB and Leprosy Program, Dodoma, Tanzania; ⁹United States Agency

International Development-Tanzania

Correspondence: Esther Mukasa (esther.mukasa@amref.org)

BMC Proceedings 2025, 19(29):P7

Background

In Tanzania, 2022 data shows that, TB treatment coverage was 78% (101,000) against WHO estimate of 128,000 TB cases. That means, still there are 22% (27,000) missing TB cases annually (WHO Global TB Report, 2023). This suggests that specific efforts are needed to improve access to TB diagnosis and treatment

Program Intervention/Methodology

Through USAID funded Afya Shirikishi project, Amref Health Africa in Tanzania, conducts TB Contact Investigation (TBCI) in collaboration with NTLP using 158 CHWs in Dar es Salaam, for enhancing TB case finding. Boosted TBCI approach has been implemented from March to May 2024 TBCI.

Unlike ordinary TBCI whereas index household (HH) visits were done; before visits, two days community sensitization preceded TBCI/ screening. A team of CHWs conduct visits and TB screening to index patients' families/HH and neighborhood dwellers.

Results Finding

During the implementation, TB Index coverage raised from 98% by December 2023 to 100% May 2024. The overall index-Contact ratio raised from 1:1 by December 2023 to 1:38 in May 2024, implying that more contacts were comparatively reached for screening.

The approach yielded a total of 51 TB patients (46 bacteriologically positive) from Contact investigation for 60 TB index patients within total of 8 days (2 days per site).

Program Implication & Lesson Learned

The boosted TBCI approach has successfully increased the number of TB cases found among the Index TB patients. The NTLP can adopt this innovative approach to increasing TB cases among the index TB patients.

P8

Do Community Interventions through CHWs have a Direct Impact on TB Case Notification? Experience from USAID Afya Shirikishi - Amref Tanzania

Georgiah Nyamtondo kasori^{1,2,3,4}, Michael Machaku¹, Godwin Munuo¹, Pascal Wilbroad⁴

¹Amref Health Africa, Dar es Salaam, Tanzania; ²Regional/Council Health Management Teams, Dar es Salaam, Tanzania; ³Ministry of Health, National Tuberculosis and Leprosy Program, Dodoma, Tanzania; ⁴United States Agency International Development, Tanzania

Correspondence: Georgiah Nyamtondo kasori (georgiah.kasori@amref.org)

BMC Proceedings 2025, 19(29):P8

Background

The World Health Organization's 2023 report highlights a significant increase in TB case notifications among the 30 high-burden countries and three global TB watchlist countries from 2020 to 2022, despite COVID-19 disruptions. Amref Tanzania, through the USAID-funded Afya Shirikishi project, has addressed this challenge by engaging Community Health Workers (CHWs) to identify and notify missing TB cases.

Program Intervention/Methodology

Starting October 2020, CHWs conducted active TB case finding, leading community sensitization campaigns, providing health education, performing door-to-door visits, screenings, contact investigations, collecting samples, and linking patients to healthcare facilities. They also traced defaulters and facilitated chest X-ray waivers or remote sample collection for clients unable to afford service. Results were meticulously recorded using national registers, data was periodically reviewed to evaluate performance and strategize improvements. Supportive supervision and mentorship provided by Regional and District Tuberculosis coordinators and project staff

Results Finding

By December 2023, overall community TB notifications increased from 17% in 2020 to 31%. All regions, except Dar es Salaam (29%), recorded rates of 30% and above, surpassing the national target. Zanzibar's notification rate stood at 15% due to the low number of reported cases. These results underline the pivotal role of community TB interventions in identifying and notifying missing TB cases.

Program Implication & Lesson Learned

The community intervention through CHWs significantly improved TB case notifications in Tanzania. The comprehensive approach involving sensitization, education, screening, and robust follow-up mechanisms proves to be a successful model for TB case identification and notification, contributing to national and global TB control efforts.

P9

Antimicrobial Resistance in Africa: Exploring Socioeconomic, Climatic, and Stewardship Factors

Grace Gwanafyo, Majani Edward
Department of Public Health, St. Francis University College of Health and Allied Sciences, Morogoro, Tanzania

Correspondence: Grace Gwanafyo (graceabel587@gmail.com)

BMC Proceedings 2025, **19(29):P9**

Background

Antimicrobial resistance (AMR) is a significant global health issue, severely affecting both developed and under-developed nations. In low- and middle-income countries (LMICs) in Africa, AMR is exacerbated by health inequities, inadequate healthcare resources, and a high burden of infectious diseases. This scoping review explores the challenges of addressing AMR in Africa, focusing on the interplay of climatic factors, socio-economic disparities, and healthcare access.

Material and Methods

This narrative review examines existing literature on AMR in African LMICs. Key themes were identified through comprehensive analysis of studies discussing infection prevention and control strategies, the One Health approach, and surveillance and monitoring of AMR. Challenges related to organizational and governmental issues and the absence of leadership commitment were also explored.

Results

The review highlights the urgent need for infection prevention and control strategies to address antimicrobial resistance (AMR). Emphasizing a One Health approach, integrating human, animal, and environmental health, is crucial. Enhanced diagnostic capacity and robust surveillance systems are necessary for early detection and management of resistance patterns. Public and professional education is vital to promote behavioral changes. Capacity building across healthcare levels is essential for sustaining antimicrobial stewardship programs. However, financial constraints, political apathy, and inadequate coordination pose significant challenges to effective AMR management in Africa.

Conclusion & Recommendations

Addressing AMR in African LMICs needs sustainable solutions, enhanced diagnostics, effective surveillance, and robust education. Overcoming financial and political challenges is crucial. These measures will mitigate AMR, protect public health, and ensure responsible antimicrobial use for future generations.

P10

Tuberculosis Case Detection in Community through engagement of Accredited Drugs Dispensing Outlets (ADDOs): Insights Derived from USAID Afya Shirikishi Project

Elly Josaphat¹, Rose Olotu¹, Godwin Munuo¹, Michael Machaku¹, John Msaki², Paschal Wilbroad³

¹Amref Health Africa, Kigoma, Tanzania; ²Ministry of Health, National TB and Leprosy Program, Dodoma, Tanzania; ³United States Agency International Development, Tanzania

Correspondence: Elly Josaphat (elly.josaphat@amref.org)

BMC Proceedings 2025, **19(29):P10**

Background

Engaging all healthcare providers in TB control through a public-private mix (PPM) is essential in NTLP Strategic Plan VI 2020-2025 and WHO's End TB Strategy. NTLP is engaging ADDO as PPM. ADDOs play a key, yet under-documented contribution to TB control in the country. USAID Afya Shirikishi project is working in close collaboration with NTLP and R/CHMT to address this gap and document ADDOs contribution to inform NTLP/policymakers

Program Intervention/Methodology

In collaboration with R/CHMTs, 275 ADDOs across nine regions in Tanzania: Kigoma, Katavi, Rukwa, Songwe, Dar es Salaam, Pwani, Geita,

Mwanza, and Zanzibar were identified, trained on TB control using a standardized national curriculum. Equipped with TB materials, ADDOs provided education, screening, and referral services. Presumptive TB cases were linked with CHWs for assessment and testing at health facilities. Diagnosed TB patients received medication through DOT providers or DTL. Feedback was given to ADDOs to improve community TB identification

Results Finding

Project data from January 2022 to March 2024 was analysed. A total of 28,828 individuals were reached with TB health education from ADDOs. Out of those 16,995 (59%) were screened for TB disease. Of the screened for TB 7,255 (43%) were presumed to have TB and were referred to the nearby health facility for TB test through CHWs. Out of the referred, 6,672 (95%) were tested for TB, and 504 were diagnosed with TB and initiated TB treatment. This contributed to 2.1% of the total community TB cases notified in this period

Program Implication & Lesson Learned

ADDOs are essential in improving TB case notification in the community by reaching underserved clients and preventing complications from late diagnosis. Linking with CHWs improves referral tracking and reporting to inform programs and policymakers. ADDOs need to be recognized, engaged, trained/oriented, provided with working tools, and linked to CHWs.

P11

Implementation of Infection Prevention and Control (IPC) Standards: Experience from medical Laboratories in 26 public referral hospitals in Tanzania

Ruth Ngowi¹, Eliudi Eliakimu¹, Joseph Hokororo¹, Radenta Bahegwa¹, Doris Lutcum², Yohanes Msigwa¹, Edgar Lusaya²

¹Health Quality Assurance Unit, Ministry of Health, Dodoma, Tanzania;

²Management Science for Health, The Medicines, Technologies and Pharmaceuticals Services (MTaPS) Program, Dar es Salaam Tanzania

Correspondence: Ruth Ngowi (rngowi2016@gmail.com)

BMC Proceedings 2025, **19(29):P11**

Background

Laboratory biosafety is essential for protection of laboratory personnel and the wider community against exposure to and unintentional release of biological agents. Based on its unique environment, Laboratory presents infection risks that differ from other healthcare settings hence assessing implementation of IPC practices in the laboratory is key to determine level of compliance make improvement. This study aims to describe implementation of IPC standards in Laboratories among 26 referral hospitals.

Program Intervention/Methodology

From January to May 2024, annual IPC assessment and mentorship was conducted to 26 referral hospitals (4 Zonal Hospitals and 22 Regional Hospitals). Compliance to IPC standards was assessed by using country (Tanzania IPC assessment tool) and international tool (World Health Organization tool) in all hospital departments including laboratory department.

Results Finding

Average compliance to IPC standards among 26 laboratories was 74% using Tanzania IPC assessment tool, this reflects moderate performance in implementation of IPC standards. Overall median for the laboratory department was 74 with the lowest and highest scores being 38% and 94%, respectively. 58% and 35% of the assessed laboratories had moderate performance and excellent performance respectively. Overall compliance to IPC standards for all assessed facilities was 68% and 57% using Tanzania IPC assessment tool and IPC WHO tool respectively.

Program Implication & Lesson Learned

Laboratory departments take an important role in IPC, it helps to detect and identify microorganisms hence allow monitoring, prevention, and controlling of infection transmission. Despite moderate performance observed in majority of the assessed laboratories, improvement is still needed to ensure IPC standards are fully adhered.

P12

High seroprevalence and factors associated with Hepatitis B virus infection: A snapshot from HIV-1 infected population in Mtwara region, TanzaniaVulstan James Shedura¹, Geoffrey Mchau², Doreen Kamori³¹Department of Clinical Research, Training, and Consultancy, Southern Zone Referral Hospital, Mtwara, Tanzania; ²Tanzania Food and Nutrition Centre, Dar es Salaam, Tanzania; ³Department of Microbiology and Immunology, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania**Correspondence:** Vulstan James Shedura (vulstanshedura@gmail.com) *BMC Proceedings 2025, 19(29):P12***Background**

Hepatitis B virus (HBV) infection is still a global public health problem. As of 2019, there were 296 million people chronically infected with HBV, resulting in nearly 1 million deaths from hepatocellular carcinoma. Seroprevalence of HBV among pregnant women in Tanzania ranged 3.8% to 8.03%. We determined seroprevalence and factors associated with hepatitis B virus infection among pregnant women living with HIV (LWHIV) attending PMTCT in Mtwara, Tanzania.

Material and Methods

A health facility-based quantitative cross-sectional study was conducted among pregnant women LWHIV in selected health facilities in the Mtwara region. A structured questionnaire was used to collect socio-demographic characteristics, clinical, socio-cultural, and laboratory information (including syphilis, HIV viral load, and CD4 results). Blood specimens were screened for HBV and confirmed using rapid diagnostic tests and automated ELISA test (Abbott ARCHITECT-PLUS®i2000SR immunoassay analyzer, U.S.A.) respectively. Variables with p -value < 0.05 were considered significantly associated with HBV infection in pregnant women LWHIV.

Results

We enrolled a total of 220 pregnant women LWHIV, with a median age of 32.7 years (IQR: 27.6–37.6.6.6). The seroprevalence of HBV infection was 10.5% (Chronic infection (10.0%), and acute infection (0.5%)). Multiparous women [aOR=11.99; 95%CI 1.11–129.01.11.01, $p=0.040$], being infected with syphilis [aOR=27.65; 95%CI 9.07–84.30.07.30, $p<0.001$], and having HIV-1 viral load of 1000 copies/ml and above [aOR=16.00; 95%CI 1.70–150.63.70.63, $p=0.015$] were associated with HBV infection.

Conclusion & Recommendations

Seroprevalence of HBV infection of 10.5% showed high endemicity. We recommend scaling up screening and vaccination programs including: routine HBV screening, and other opportunistic infections including syphilis at PMTCT clinics, instituting HBV prophylaxis, and introducing HBV vaccine birth dose in neonates born from infected mothers to prevent perinatal transmission.

P13

Malaria trend and identification risky groups in an elimination setting– 2020 –2022

Safia Ali

Zanzibar Malaria Elimination Program, Zanzibar

Correspondence: Safia Ali (safmoas@gmail.com)*BMC Proceedings 2025, 19(29):P13***Background**

Zanzibar has achieved significant progress in reducing malaria transmission over the past fifteen years. However, elimination has not yet been achieved. In elimination settings, malaria infections tend to occur in older age groups and cluster in certain households and sub populations. The latter clustering is often related to certain types of risk factors, such as occupation or mobility, which place individuals at higher risk of malaria infection than others.

Case Report

We extracted malaria surveillance data from 2019–2022 available in the Coconut System (Zanzibar malaria surveillance system) to assess malaria case trends overtime and identify risk factors across sub-populations to inform developing a Reactive Drug Administration (RDA) strategy in Zanzibar. Malaria cases recorded in the Coconut system were identified passively through microscopy or mRDT testing at the health facility, or were actively detected through the subsequent testing at household level as part of the routine Reactive Case Detection (RACD). There was a notable decrease in malaria cases from 11,613 cases in 2020 to 4,389 cases in 2022. Over 60% of cases were classified as imported. Districts with high local: imported case ratio were Micheweni (45%), Mjini (33%), Wete (30%) and Magharibi B (30%). High risk of malaria cases, imported and local, were seen in males compared to female [OR=1.6; 95% CI 1.5–1.7.5.7] and in individuals aged 15–45 years old compared to those below 15 years old [OR=2.1; 95% CI 1.9–2.1.9.1].

Conclusion

A further investigation to unveil the high-risk population and an exploration of occupational risks, social behavior is highly recommended to maximum deploy appropriate interventions such as RDA and improve entomological foci investigation in this elimination setting.

P14

Strengthened Event-Based Surveillance to enhance timely alert detection and reporting in four regions from 2021 to 2023Atuganile Musyani¹, Marcelina Mponela², Lusungu Ngailo¹, Mwanakombo Khama¹, Kokuhabwa Mukurasi², Rita Mutayoba¹, Wangeci Gatei², Emmanuel Mwakapasa³¹Amref Health Africa, Dar es Salaam, Tanzania; ²The Center for Disease Control and Prevention, Dar es Salaam, Tanzania; ³Ministry of Health, Dodoma, Tanzania**Correspondence:** Atuganile Musyani (atuganile.musyani@amref.org)*BMC Proceedings 2025, 19(29):P14***Background**

Early warning alerts and rapid response (EWAR) mechanisms are crucial for health security. In 2021, Event-Based Surveillance (EBS) was established in Arusha, Dar es Salaam, Kagera, and Kigoma. However, a low alert reporting rate was documented, leading to delayed detection of outbreaks hence outbreak response. To address this, the Amref GHSA project, with CDC support, strengthened EBS from October 2021 to September 2023 to improve alert detection and response.

Program Intervention/Methodology

Between October 2021 and September 2023, the GHSA project facilitated EBS training and supportive supervision for Community Health Workers (CHWs) and health care workers (HCWs), focusing on alert detection, reporting, and verification. To enhance alert management, we also strengthened the regional alert desk. Furthermore, in October 2022 the project piloted electronic EBS (eEBS) in Ngorongoro District Council (DC) in Arusha and Kagera region where CHWs were equipped with mobile phones to improve timely alert reporting.

Results Finding

Between October 2021 and September 2023, a total of 1,565 (105%) CHWs, 692 (93.6%) HCWs, and 46 EBS surveillance officers received EBS training. Furthermore, 149 (16.6%) CHWs and 69 (20.7%) HCWs in Ngorongoro DC and Kagera region underwent eEBS training from September to October 2022. Following these efforts, 6,348 alerts with 4,448 (70%) being verified and 1,080 (25%) qualified as events of public health importance across four regions. The most reported alerts were related to measles, anthrax, and rabies.

Program Implication & Lesson Learned

Strengthening EBS is crucial for early detection and management of events. There is a need to train more HCWs and CHWs on EBS in other regions.

P15

Assessment on the Prevalence, Knowledge and Risk Factors Associated with Hepatitis B Infection among Adults in Kahama District, May 2024

Moses John Bahinkonko

University of Dodoma, Dodoma, Tanzania

Correspondence: Moses John Bahinkonko (mosesjohn2000@yahoo.com)

BMC Proceedings 2025, 19(29):P15

Background

Hepatitis B is a significant unaddressed clinical complication, primarily affecting low socio-economic groups in most African developing countries like Tanzania where an overall prevalence was between 4.4% and 6% from previous study reports. Kahama District is among the high-risk areas in Tanzania. This research assesses the prevalence, knowledge, and awareness of Hepatitis B virus infection among adults in four streets within Nyasubi Ward of Kahama District in May 2024.

Material and Methods

A cross-sectional study done among 895 individuals (27.9% males and 72.1% females) aged 18 and above. A detailed questionnaire, designed using KOBO TOOLBOX software and translated into swahili, smartphones, pen, notebooks, and special numbered cards were used to collect data from one household representative.

Testing center locations were chosen based on the geographical distribution of respondents. From the CDC triple panel screening only the HBsAg rapid test was conducted to obtain the results due to limited resources.

Results

The study showed that the overall prevalence of Hepatitis B viral infection was 2.3% among the 478 who arrived at the testing centres, out of the total 895 respondents who were interviewed during the study data collection. 11 individuals tested positive (2.3%), while 467 tested negative (97.7%).

A high prevalence was found among females 2.6%, and in males it was 1.5%. The association between Hepatitis B and risk factors like cigarette smoking, family history, blood transfusions as well as surgical treatment was insignificant with a P value > 0.05 . However, it was significant between Hepatitis B and number of hospitalization.

Conclusion & Recommendations

This research provides valuable insights into the general societal awareness and knowledge on the prevalence and risk factors for Hepatitis B viral infection. This calls for interventions from governmental and non-governmental institutions to ensure increased awareness and knowledge about Hepatitis B viral infection with more free screening programs being established.

P16

Antimicrobial susceptibility results' utilization and its implications for antimicrobial stewardship program at Bugando Medical Centre, Mwanza, TanzaniaInnocent Kitandu Paul^{1,2}, Adolfe Hokororo¹, Deus Sinibagiye³, Mathew Gabriel Maganga³, Zechariah Igembe⁴, Jeremiah Seni¹

¹Weill Bugando School of Medicine, Catholic University of Health and Allied Sciences, Mwanza, Tanzania; ²Youth Capacity Building (YOCAB), Tanzania Health Summit, Dar Es Salaam, Tanzania; ³Department of Pharmacy and Quality Assurance Unit, Bugando Medical Center, Mwanza, Tanzania; ⁴Clinical Microbiology Unit, Central Pathology Laboratory, Bugando Medical Center, Mwanza, Tanzania

Correspondence: Innocent Kitandu Paul (kitanduinnocent@gmail.com)

BMC Proceedings 2025, 19(29):P16

Background

Bugando Medical Centre (BMC) is contributing 35% - 40% of antimicrobial resistance (AMR) surveillance data to the National Public Health Laboratory and WHO-GLASS since 2020, and generated data are used to inform hospital antibiograms for priority infectious diseases. However, utilization of culture and antimicrobial susceptibility testing (AST) results to guide specific patients' management remain to be explored.

Material and Methods

A cross-sectional analytical study was conducted at Bugando Medical Center (BMC) in April 2024. Positive culture results and AST were obtained from BMC Clinical Microbiology Laboratory, and tracked in the electronic hospital management information system (eHMIS) to assess utilization, and conformity to antimicrobial stewardship (AMS) program targets.

Results

The median age (IQR) of 359 patients enrolled was 38 (13–61) years. Female and outpatients accounted for 59.3% and 54.0%, respectively. Empirical antibiotic prescription was 64.0%, and out of 250 antibiotic encounters; access, watch and reserve groups were 46.8%, 50.0% and 3.2%, respectively. The most common samples were urine (46.8%) and pus (28.7%). 470 bacteria species were isolated with predominance of *E.coli* (21.7%) and *K.pneumoniae* (14.9%). Overall laboratory results utilization was 42.1% (151/359), and was associated with inpatient ($p=0.001$) and lower median age group ($p=0.042$). Cephalosporins contributed to 27.2% of all antibiotics prescribed, resistance to this group among gram-negative bacteria was 59.0%.

Conclusion & Recommendations

Four out of every 10 patients' results are utilized to guide management. Empirical prescriptions largely involve access and watch groups, with only reserve group conforming to the WHO target of $<12.0\%$. Comprehensive AMS measures should be strengthened at patient-, prescriber- and system-levels to conform to country and global AMS targets.

P17

Assessment of coverage and perception of hepatitis B vaccination among health care workers at Dodoma Regional Referral Hospital, Tanzania

Rahel Kilimba, Elena Generalova, Hugo Yeste Nistal

St. Joseph College of Health and Allied Sciences (SJUIT), Dar es Salaam, Tanzania

Correspondence: Rahel Kilimba (kilimbarahel1998@gmail.com)

BMC Proceedings 2025, 19(29):P17

Background

HBV infection causes approximately 360 million chronic infections globally, and it is responsible for 1 million fatalities. So, controlling HBV infection is critical. HBV is successfully avoided via vaccination. But some healthcare providers are failing to receive the vaccine. The level of awareness among health care workers (HCWs) about vaccination varies widely, and this needs to be researched in order to develop supportive policies and effective HBV preventive strategies.

Material and Methods

A descriptive cross-sectional study using a simple random sampling technique was used to assess hepatitis B vaccination coverage and perception among HCWs at Dodoma regional referral hospital in Tanzania.

A total of 100 respondents were enrolled for study then a pretested semi structured questionnaire was used as a data collection instrument. Data was examined using descriptive statistics by SPSS and summarized using frequency tables.

Results

All of the respondents had heard about hepatitis B vaccine where by 60.0% of them heard from seminars, 29.0% from social networks and the remaining from radio & TV. However only 92.0% of them were vaccinated.

The overall hepatitis B vaccination coverage was moderately good. Only 72.0% of the respondents had received all the 3 doses of hepatitis B vaccine. The remaining had not completed the recommended doses (20.0%) and 8.0% had not received even a single dose. Among the unvaccinated HCWs, 03 mentioned the lack of need for vaccination and 05 was occupied working schedule as the reasons.

Conclusion & Recommendations

There should be more rise of awareness among HCWs through Seminars on advantage of the vaccine so as to increase vaccine uptake among HCWs.

The government should look for a way to provide the vaccine to HCWs at a reduced cost or free of charge when possible.

P18

Assessment of Attitude and Knowledge Of Hepatitis B Infection Vaccine among Adults in Kahama District, Shinyanga Region May 2024

Daniel Saideya^{1,2,3,4}, Secilia Ng'weshemi⁵, Colman Priscus^{1,2}, Kazi Maskati^{1,2}

¹University of Dodoma, Dodoma, Tanzania; ²Tanzania Medical Students' Association, Tanzania; ³Rotaract UDOM Youth, Dodoma, Tanzania;

⁴Youth United Nations Tanzania; ⁵Department of Community Medicine, University Of Dodoma, Dodoma, Tanzania

Correspondence: Daniel Saideya (dannysaideya@gmail.com)

BMC Proceedings 2025, 19(29):P18

Background

While the World Health Organization recommends all children to be vaccinated against hepatitis B infection. Various countries have implemented otherwise due to various reasons. For example before 2007 Sweden did not vaccinate children against hepatitis B infection. In Tanzania despite of rising prevalence of hepatitis B infection from 4.4% to 6% in Dar-es-salaam, vaccinating has been very challenging due to resistance from the population caused by various beliefs and attitudes.

Material and Methods

A community based cross-sectional study was done on 100 adults aged 18 years and above from different wards in Kahama district May 2024, by using convenience sampling method. The data was collected using a structured questionnaire. Using this questionnaire, demographic characteristics and necessary data concerning the attitude and beliefs towards hepatitis B infection vaccine were collected. Collected data was analyzed using SPSS software in order to investigate on the influencing factors towards vaccination in Kahama district.

Results

A total number of 100 questionnaires were analyzed, and knowledge on hepatitis was overall low. Among adults, 87% were ready to receive Hepatitis B vaccine, 87% believes Hepatitis B vaccine is safe, and 56% knows false beliefs about Hepatitis B vaccine most believes that vaccination causes infertility and 4% claim that they know individuals who are affected by Hepatitis B vaccine.

Also among adults 89% claims Hepatitis B vaccine is unavailable in their district, 43% know where they can get vaccination, 95% thinks it is important to get Hepatitis B vaccine and only 15% were hesitant on taking vaccination.

Conclusion & Recommendations

In a nutshell, despite the readiness of the population to get vaccinated, we recommend that the stake holders make more efforts in raising awareness and knowledge on matters related to hepatitis B vaccine. As it is evident that prevention is better than cure.

P19

Epidemiological Analysis of Animal Bite Cases in the Tanzanian Population Using DHIS- 2 Data

George Atmos Massawe

Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: George Atmos Massawe (atmoskerry@gmail.com)

BMC Proceedings 2025, 19(29):P19

Background

Animal bites, from dogs, cats, and monkeys, present significant global health challenges, transmitting infections like rabies. Severity varies by species, health, vaccination history, and healthcare accessibility. Rabies, a deadly viral disease, spreads through bites, with high mortality if untreated. In Tanzania, dog bites cause most animal-related injuries, affecting mostly children. This study analyzes Tanzanian data from 2018–2022, examining prevalence, trends, and demographic distributions to guide effective public health strategies.

Material and Methods

This study used a cross-sectional design, analyzing Tanzanian animal bite data from 2018 to 2022 obtained from District Health Information Software 2 (DHIS2). The dataset included all reported cases across Tanzanian regions. Convenience sampling was used to aggregate the data, which was then cleaned and coded in Microsoft Excel. Prevalence rates, trends, and demographic distributions (age, gender, and region) of animal bites were calculated and visualized using line graphs and pivot tables to guide effective public health strategies.

Results

The analysis showed that animal bite cases in Tanzania had a prevalence of 3.59 to 8.32 per 10,000 people annually from 2018 to 2022, averaging 5.90. Registered cases declined consistently, from 19,154 in 2018 to 8,837 in 2022. The case fatality rate (CFR) ranged from 11% to 16%. Gender-specific trends revealed 56% of bites in females under five years and 66% in males over five years. Dar Es Salaam (12,606) and Dodoma (14,979) had the highest cases. The linear regression model confirmed a strong downward trend in cases over the years.

Conclusion & Recommendations

Declining trend in animal bite cases and fatalities in Tanzania from 2018 to 2022 was observed, emphasizing the need for targeted awareness, preventive measures, and regional interventions. Strengthening community-based surveillance, improving healthcare access, and fostering a collaborative One Health approach are recommended to further reduce animal bite incidents and fatalities.

P20

Laboratory Capacity Reassessment for AMR Surveillance in Tanzania: Project Impact

Siril Kullaya, John Gamaliel, Ibrahim Ali

PATH, Dar es Salaam, Tanzania

Correspondence: Siril Kullaya (skullaya@path.org)

BMC Proceedings 2025, 19(29):P20

Background

Antimicrobial resistance (AMR) is a global public health threat with health and economic implications. In 2016, Tanzania assessed AMR surveillance capacity using Joint External Evaluation tool. PATH Tanzania implemented a five-year USAID funded Infectious Diseases Detection Surveillance project to build laboratory networks and surveillance systems for AMR detection and reporting. In 2019, a Laboratory Assessment of Antibiotic Resistance Testing Capacity was conducted in four Tanzanian sites with capacity score between 64–72%.

Program Intervention/Methodology

IDDS trained 12 laboratory staff at four surveillance sites namely Benjamin Mkapa, Morogoro, Temeke and Maweni hospitals on specimen collection, handling, culture, bacterial identification, and AST techniques, including WHONET workshops on AMR data entry, analysis, and reporting.

The assessment was conducted in four IDDS-supported facilities from May 31 to June 13, 2023, using CDC LAARC tool based on a hospital-based observational descriptive cross-sectional semi-quantitative approach. The findings were compared to the baseline assessment in 2019 before IDDS support.

Results Finding

Between 2019 and 2023, all four IDDS-supported laboratories saw an overall improvement in summary scores, from an average of 68% in 2019 to 86% in 2023. The number of annual bacteriological culture tests and antibiotic sensitivity tests increased. Sites achieved high scores (above 80%) in 10 technical areas, with 96% in specimen collection, transport, and management, bacterial identification methods, and safety. Laboratory information system, AST expert rules, and QC for AST had low scores (below 80%).

Program Implication & Lesson Learned

Laboratories had improved capacity in AMR surveillance, data management, quality assurance, and safety standards. They report data to the national and global level and use data cumulative antibiograms. However, sustained efforts and investments are needed due to staff turnover, inadequate supplies, and equipment at subnational levels.

P21

Anopheles mosquito bionomics and infection rate in Ukerewe Island, TanzaniaEdmond Bernard¹, Karen Nelwin¹, Dickson Lwetoijera², Frederic Tripet^{2,3}¹Department of Parasitic and Vector-borne diseases, National Institute for Medical Research, Mwanza, Tanzania; ²Environmental health and Ecological sciences, Ifakara Health Institute, Morogoro, Tanzania;³Swiss Tropical and Public Health Institute, Allschwil, Switzerland**Correspondence:** Edmond Bernard (edmondbernardhakiz444@gmail.com)

BMC Proceedings 2025, 19(29):P21

Background

Sustainable reductions in African malaria transmission require innovative tools for mosquito control. Despite of achievement made since 2000 by available interventions now malaria elimination process seem stalled due to rise of insecticide resistance together with other factors. Baseline data on *Anopheles* mosquito bionomics and infection rates are needed to model the possible impact of innovative malaria vector control tools such as genetically-modified mosquito releases.

Material and Methods

As part of the Transmission Zero project, monthly longitudinal collections were conducted in 2022 and 2023 in Bukongo, a village situated at 2.0885° S, 33.0926° E on Ukerewe Island. Indoor mosquito sampling utilized CDC-light traps (CDC-LTs), with morphological identification to species level followed by further identification to sibling species via PCR. Malaria vector sporozoite index and Human blood meal index were determined using ELISA, DHIS2 malaria data were used to calculate the prevalence of malaria in Ukerewe Island.

Results

A total of 828 female *Anopheles* mosquitoes were collected. *Anopheles gambiae* s.l. were 78.5% (n=650), *An. funestus* s.l. were 17.9% (n=148), and 3.6% (n=30) were other *Anopheles*. A total of 652 were analyzed for sibling species, revealing *An. gambiae* s.s. (83.7%), *An. funestus* s.s. (8.7%), *An. arabiensis* (7.4%) and *An. parensis* (0.2%). Overall sporozoite rate were 0.4%. *An. gambiae* s.l. and *An. funestus* s.l. sporozoite rate were 0.25% and 1.92% respectively. Human Blood Meal Index of *An. gambiae* s.l. and *An. funestus* s.l. were 75.8% and 93.75% respectively. Malaria prevalence during this period ranged from 0.1–1 malaria *Plasmodium falciparum* parasite rate (PfPR).

Conclusion & Recommendations

An. gambiae s.s. being predominant species is still the main malaria vector in the Ukerewe Island. Hence novel tools are required to speed up the process of malaria vector control and elimination in Ukerewe Island.

P22

Patterns of Antimicrobial Resistance in Out-Patients with Urinary Tract Infection in Isingiro District Western UgandaNuwareza Innocent^{1,2}, Kaweesi Anslem², Mbatide JoanitorNuwareza^{1,3}, Bamwesigye Micheal², Katushabe Jane²¹MINC Public Health Consultants (U) Limited, Mbarara, Uganda; ²MINC Medical Center Isingiro, Uganda; ³MINC Medical Center Laboratory and Ultrasound Service Point Ishaka**Correspondence:** Nuwareza Innocent (nuwareza.innocent@yahoo.com)

BMC Proceedings 2025, 19(29):P22

Background

Urinary tract Infections symptoms are the reason for frequent outpatient visits in Uganda with frequency of visits per patient estimated at 6-5 times per year per person who has had a baseline visits for the same complaints. This study aims to determine the microbial profile of infections in patients with urinary tract infection and to determine the antimicrobial resistance patterns for the pathogens

Material and Methods

A retrospective descriptive cross-sectional study was conducted from January 2020 to march 2024 at the largest private health facility in Isingiro district in western Uganda. Data of patients with positive urine cultures was collected from the laboratory department records. A retrospective descriptive cross-sectional study was conducted from January 2020 to march 2024 at the largest private health facility in Isingiro district in western Uganda. Data of patients with positive urine cultures was collected from the laboratory department records.

Results

Of all isolates, 80 (66.6%) were gram-negative bacteria (GNB), 30 (25.0%) were gram-positive bacteria (GPB), and 10 (8.3%) were fungal isolates. Fourteen isolates (11.6%) of GPB were *Staphylococcus aureus* followed by *Enterococcus faecium* (10, 8.3%), *Staphylococcus hemolyticus* (10, 8.3%) and *Pseudomonas aeruginosa* (4, 3.3%). The most frequent fungal pathogens were *Candida* species (6, 5.0%). GNB were found to be resistant to most antibiotics, mainly ampicillin (79.3%). *Pseudomonas aeruginosa* exhibited high resistance to ciprofloxacin (100%) and imipenem (75.3%). Among GPB, high resistance rates to oxacillin (82.1%) and gentamycin (78.8%) were found.

Conclusion & Recommendations

The findings of this study confirm the variations of microorganism species causing urinary tract infections. The several of microorganisms seen in patients with urinary tract infections show a high percentage of antibiotic resistance. Policies regarding antibiotic use and communal measures are needed to reverse the impending danger of antimicrobial resistance.

P23

Impact of Social Protection Support to Improve Treatment Outcomes for Drug-Resistant Tuberculosis Patients in Kigoma, Katavi, Songwe Rukwa Regions, TanzaniaJulius Njunwensi¹, Dorice Kiama¹, Consolata Mathew¹, Neema Chilo¹, Jane Mvungi¹, Annette Almeida¹, Kasanga Mkambu¹, Ola Farid Jahanpour¹, Bhavin Jani², Dismas Buhili³, Augustino Simon³, George Mrema³, Jeremiah Molle³, Benedicta Masanja¹¹Tanzania Health Promotion Support (THPS), Tanzania; ²United States Agency for International Development (USAID), Tanzania; ³Regional Health Management Team (RHMT), Rukwa, Tanzania**Correspondence:** Julius Njunwensi (jnjunwensi@thps.or.tz)

BMC Proceedings 2025, 19(29):P23

Background

In Tanzania, the treatment success rate for drug resistant tuberculosis (DR-TB) is at 73%, below the 90% target of the global End TB Strategy. Financial constraints and long treatment duration are among barriers to patients completing DR-TB treatment. We implemented social protection support (SPS) intervention to improve treatment outcomes for DR-TB patients.

Program Intervention/Methodology

All patients diagnosed with DR-TB are eligible to receive SPS. In addition, the elderly aged above 60 years and children aged below five years qualify for SPS. The SPS package includes financial support for baseline laboratory investigations, monthly follow up tests, transportation to health facility and nutrition. Eligibility screening is participatory and collaborative at facility, district and regional levels. Provision of SPS starts at diagnosis up to the end treatment of the DR-TB patient

Results Finding

A total of 107 DR-TB were enrolled to receive SPS from October 2021 to June 2024. Among them, 44 (41%) are currently in care by June 2024 and 63 (59%) have outcomes. In 63 patients with outcomes, 50 (80%) completed treatment and were cured, 9 (14%) died, 2 (3%) lost to follow up and, 2 (3%) were not evaluated.

Program Implication & Lesson Learned

Social protection support is vital to overcoming unfavorable outcomes associated with social economic barriers that DR-TB patients

encounter throughout the long course of treatment. With SPS good treatment success rate is feasible and there is good retention. We recommend SPS be included in the council's comprehensive health plans (CCHP)

P24

Engagement of private healthcare providers in TB cases notification: Experiences from USAID Afya shirikishi project in Geita, Tanzania

Agrey Cosmas¹, Rabia Abeid Khaji¹, Venance Muzuka¹, Michael Machaku²

¹Service, Health, and Development for people living positively with HIV/AIDS (SHDEPHA+), Shinyanga, Tanzania; ²Amref Health Africa, Tanzania

Correspondence: Agrey Cosmas (agrecosmas@yahoo.com)

BMC Proceedings 2025, 19(29):P24

Background

The systematic involvement of private healthcare providers in delivering TB services to all segments of the population is an essential component of Global Plan to End TB. This can be achieved through Public-Private Mix (PPM). In Tanzania, private and informal sectors include Accredited Drug Dispensing Outlets (ADDOs), pharmacies, and unqualified practitioners like traditional healers. A minimal engagement of private health sectors is still a challenge in provision of TB services.

Program Intervention/Methodology

To address the priority gaps in TB case findings at community level in Tanzania, the USAID Afya shirikishi project uses different approaches that includes active case finding (ACF), contact investigation tracing as well as Public-Private Mix (PPM). Under Public-private Mix, 100 ADDOs and 96 traditional healers have been oriented on identification of signs and symptoms for TB, preventive measures as well as referring presumptive cases to community health workers and then to diagnostic facilities.

Results Finding

From October 2021 - March 2024, in Geita region, the project has reached 3,386 people through ADDOs and 3,131 people through traditional healers. Of all reached, across all private health providers engaged, only 4,152 (64%) people were screened for TB and 1,997 were presumptive cases. A total of 1,681 sputum samples were collected for testing. Among 179 new TB cases notified, 65 cases were through traditional healers while 114 were through ADDOs. This total accounts 5% of all total cases notified by the project through community interventions.

Program Implication & Lesson Learned

The use of an intermediaries approach of Public-Private Mix by most of NGOs needs private healthcare providers with TB screening skills and enable them screening registers for easy capture of clients that use ADDOs and traditional healers as primary healthcare seeking place.

P25

Community Health Workers are instrumental in access to quality community active TB case finding; an experience from Amref Tanzania

Godwin Munuo¹, Esther Lisasi¹, Michael Machaku¹, Michael Mboya¹, Rose Olotu¹, John Msaki², Pascal Wilbroad³

¹Amref health Africa, Tanzania; ²Ministry of Health, National Tuberculosis and Leprosy Program, Dodoma, Tanzania; ³United States Agency International Development, Tanzania

Correspondence: Godwin Munuo (godwin.Munuo@amref.org)

BMC Proceedings 2025, 19(29):P25

Background

According to 2023 WHO TB Global Report; Tanzania is among the 30 high burden countries in the world with 78% treatment coverage which leaves about 32% of the estimated cases undiagnosed. Amref Health Africa Tanzania's Afya Shirikishi Activity in collaboration with NTLP is implementing community-based TB services aiming at finding

missing people with TB among vulnerable, underserved and at-risk population for TB

Program Intervention/Methodology

About 735 community health workers (CHWs) were trained to finding the missing persons with TB in the community in nine regions in Tanzania. Between October 2022 and September 2023) twice a week, TB screening was conducted by CHWs in the community hotspots using standardized TB screening questionnaire and the Presumptive TB individuals' produced sputum specimens were collected on the spot and transported for investigation at diagnostic facilities. For those individuals found with TB they were initiated TB treatment.

Results Finding

Project data were analyzed from October 2022 -September 2023. A total of 317429 individuals were screened for TB. Of these, 116018 were presumed to have TB and 111452 were referred for TB testing. Of those referred, 105267 were tested for TB and 10449 were confirmed TB cases. All confirmed TB cases were initiated on treatment. Furthermore, among hotspots contribution 36% of TB cases were identified through a house-to-house and least cases were from schools/universities.

Program Implication & Lesson Learned

Community health workers are crucial in finding missing people with TB disease in the community when given the proper training and incentives hence promoting access to quality TB care and services.

P26

Surgical outcomes in chronic venous insufficiency related to varicose veins at JKCI, Tanzania

Christine Hyasint Paul, Moses Byomuganyizi^{1,2}, Evarist Nyawawa²

¹Department of Surgery, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²Department of Surgery, Jakaya Kikwete Cardiac Institute, Dar es Salaam, Tanzania

Correspondence: Christine Hyasint Paul (paul.christine22@gmail.com)

BMC Proceedings 2025, 19(29):P26

Background

Chronic venous insufficiency (CVI) is a prevalent condition affecting the lower limbs, with a global adult population prevalence of 1% to 40%. Despite its impact on quality of life and economic status, there is limited reporting on CVI, highlighting a public health concern. While international studies discuss surgical management, our setting lacks open surgical facilities, with insufficient studies on surgical outcomes.

Material and Methods

Study aimed to assess clinical profile and factors for surgical outcomes for CVI patients at JKCI. It employed a cross-sectional design, enrolling 97 CVI adults attending JKCI between January and December 2023. Sociodemographic and clinical data were extracted from patient records, focusing on age, residence, marital status, education, occupation, diabetes status, and history of Deep Venous Thrombosis (DVT). Surgical outcomes (good or poor) were the dependent variables, analyzed alongside sociodemographic characteristics, treatment type, and clinical parameters using Stata version 15.1.

Results

The majority of participants were male (60.8%) with a median age of 58 years. Many had primary education (47.4%), were self-employed (52.5%), and married (89.7%). The study found a 69.1% proportion of good surgical outcomes. Factors independently associated with favorable outcomes included the absence of active venous ulcers pre-operatively (aOR=2.01, 95% CI 1.10–4.70.10.70, $p=0.020$) and reduced post-operative edema (aOR=1.21, 95% CI 0.20–3.21.20.21, $p=0.001$).

Conclusion & Recommendation

The present study revealed a 69.1% success rate in surgical outcomes for CVI related to primary varicose veins. Factors like pre-operative ulcer absence and reduced post-operative edema were associated with positive outcomes. These findings emphasize the importance of a multidisciplinary approach to CVI management and structured post-operative monitoring.

P27

Using evriMED smart pillboxes to understand the real-world dynamics of missed doses of drug sensitive TB treatmentKassim Msaji^{1,2,3}¹ Kibong'oto Infectious Disease Hospital, Siha, Tanzania; ² University of Liverpool, Liverpool, United Kingdom; ³ London School of Hygiene & Tropical Medicine, United Kingdom**Correspondence:** Kassim Msaji (kassimmsaji206@gmail.com)

BMC Proceedings 2025, 19(29):P27

Background

Studies describing non-adherence to anti-tuberculosis treatment (missed doses) with granular dose-by-dose data are few, yet the pharmacological implications of different missed doses patterns are substantial. We aimed to describe real-world missed dose patterns across the treatment course within a cohort of Tanzanian patients, including how patterns mapped to a changing underpinning architecture of reasons for missed doses.

Material and Methods

200 bacteriologically confirmed, rifampicin-sensitive, tuberculosis patients are ≥ 18 years and starting standard six-month treatment regimen were recruited into a prospective cohort study in Tanzania, 2022-23. evriMED 500 pillboxes recorded box opening as a proxy for doses being taken and a 'heartbeat' signal but was not opened as a proxy for non-adherent. If neither 'heartbeat' or box opening signals were recorded, then it was considered a box failure. Missed doses of treatment were summarized across 168 doses (6 months x 4 weeks).

Results

The cohort was 92.5% male, with a median age of 42 years. Two (1%) died within the first two weeks of starting treatment. Overall adherence was high median=99.4%. Missed doses became more common over time, both in terms of sporadic missed doses and early discontinuation. The median period length of sporadic missed doses was 2. Dose timings were altered within a day in one-third of patients. Inconvenience was cited more and more commonly as a reason for missed doses over time, with side effects and a lack of support being more common in early months of treatment.

Conclusion & Recommendations

Missed doses of treatment are a temporally complex phenomenon driven by a compounding and interlocking series of factors across time. Clinicians should be aware of the likely causes of missed doses at different stages of treatment, and bear in mind that life events (e.g. family issues) may unexpectedly derail treatment.

P28

Quality of Life among Road Traffic Accident VictimsMoses Enerico Evaristo^{1,2}, Joachim Kilasi¹, Lilian Malisa³¹ St. Joseph's Mission Hospital Peramiho, Ruvuma, Tanzania; ² Mobile Facilitation Team, Tanzania; ³ Songea Regional Referral Hospital, Songea, Tanzania**Correspondence:** Moses Enerico Evaristo (mosesevaristo@gmail.com)

BMC Proceedings 2025, 19(29):P28

Background

According to WHO data, road traffic accident victims often face significant declines in quality of life. Injuries can lead to chronic pain, disabilities, and psychological issues, impacting daily activities and social interactions. Studies show that 20–50 million people globally suffer non-fatal injuries annually, with many developing long-term conditions that reduce their overall quality of life, emphasizing the need for improved safety measures and rehabilitation services.

Material and Methods

A descriptive cross-sectional study was conducted among 230 road accident survivors at St. Joseph's Mission Regional Referral Hospital Peramiho and Songea Regional Referral Hospital in Ruvuma Region. Participants included inpatients and outpatients, with 2 used for a pretest. Semi-structured questionnaires were administered to survivors over 18 years old admitted to the surgical department, excluding

those critically ill in the ICU or emergency department. A simple random sampling technique was employed, and data were analyzed using SPSS version 26.

Results

A study involving 230 participants, with a 99.6% response rate, examined the impacts of road traffic accidents on survivors. Physically, 44.54% experienced severe pain limiting daily activities, with 62.45% affected in sleep and 37.99% in sexual relationships. Psychologically, survivors faced anger, depression, and sadness, decreased community respect, amnesia, and reduced confidence. Post-accident, 77.19% couldn't engage in vigorous activities, 50% in moderate activities, and 46.72% depended on painkillers. Socially and spiritually, survivors reported limited support and financial instability due to prolonged hospital stays. Demographic factors significantly affected quality of life, age, gender, injury location, occupation, and marital status as key influences

Conclusion & Recommendations

The study highlights significant gaps in road accident impacts, affecting mainly young males, certain occupations. Key factors include over-speeding, inadequate training, and alcohol use. Recommendations include grassroots efforts, multidisciplinary approaches and government support for disabled survivors, improved road safety training, adequate health facilities, further studies on accident impacts, management, disability rates.

P29

Empowering self-disclosure: Lessons from a peer-led intervention for adolescents and young adults living with HIV (AYALWH) in TanzaniaAlan Malongo¹, Elizabeth Senkoro², Wilfred Mwero¹, Winner Elimwaria¹, Neema Kipiki¹, Eunice Ketangenyi¹, Lumumba Mwita¹, John Gallis^{3,4}, Dorothy Dow^{2,3,4}¹ Baylor College of Medicine Children's Foundation Tanzania, Mwanza, Tanzania; ² Kilimanjaro Christian Medical Center-Duke Collaboration, Moshi, Tanzania; ³ Duke Global Health Institute, Durham, NC, United States; ⁴ Duke University, Department of Pediatrics, Durham, NC, USA**Correspondence:** Alan Malongo (amalongo@baylorfoundationtanzania.or.tz)

BMC Proceedings 2025, 19(29):P29

Background

Among adolescents and young adults living with HIV (AYALWH) in Tanzania, readiness to disclose their HIV status, and deciding how, to whom, and when to disclose their diagnosis are often sensitive matters due to fear of violence and rejection. This study reports the prevalence and shared experiences of HIV self-disclosure among AYALWH within the Sauti ya Vijana (SYV) program

Material and Methods

SYV is a peer-led, group-based mental health and life skills intervention for individuals aged 13–24 years, incorporating evidence-based psychotherapy to address issues such as coping, stigma, and disclosure. This is a cross-sectional analysis of a question in the study enrollment questionnaire (March 2023– July 2024) that asked participants if they ever verbally disclosed their HIV status on purpose to another person. By thematic content analysis we analysed discussion on disclosure to others and to summarize examples of self-disclosures shared by AYALWH

Results

Prevalence of the participants who reported they purposefully disclosed their HIV status to someone else was $N=534$ (79.6%). Among them, 45.9% were female and 15% were not virologically suppressed (<400 copies/mL). Common themes included fear of rejection, being isolated were the main barriers to non-disclosure. Across several sites and waves participant shared experiences including, the romantic partner not believing the information because the AYALWH looks too healthy; bringing a romantic partner to clinic for testing and the partner now very supportive in ART adherence reminders; disclosure to a romantic partner who leaves, and how AYALWH handled the outcome.

Conclusion & Recommendations

Our findings suggest that purposeful disclosure is uncommon. Structured peer-led interventions can support AYALWH in navigating their disclosure journeys safely and positively, applying steps of disclosure, practice through roleplay, and peer-led discussions. Many youth haven't disclosed their status but interventions like SYV may facilitate easier disclosures in the future.

P30

Trend and Factors Associated with Road Traffic Injury Outcomes among Adult Patients who Received Care at Kcmc Hospital 2018-2023

Alice Andongolile^{1,2}, Rosalia Njau^{1,2}, William Nkenguye², Timothy Peter², Edwin Shewiyo², Paige O'Learly³, Joao Ricardo Vissoci³, Catherine Staton³, Francis Sakita², BLANDINA THEOPHIL MMBAGA^{1,2}, James Ngocho²

¹Kilimanjaro Clinical Research Institute, Moshi, Tanzania; ²Kilimanjaro Christian Medical University College, Moshi, Tanzania; ³Global Emergency Medicine Innovation and Implementation (GEMINI) Research Center, Duke Global Health Institute, NC, USA

Correspondence: Alice Andongolile (andongolilealice@gmail.com)

BMC Proceedings 2025, 19(29):P30

Background

Road traffic injuries (RTIs) accounts for majority of deaths and disabilities globally. The burden is disproportionately high in low- and middle-income countries (LMICs). In Tanzania the RTI mortality is higher than African average. Understanding trends and factors associated with RTI outcomes is vital for targeted interventions. This study aimed to determine the trend and factors associated with poor RTI outcomes among adult patients at KCMC Hospital from 2018 to 2023.

Material and Methods

This was an analytical cross-sectional study which analyzed trauma registry data from KCMC Hospital 2018-2023. Data included demographic, clinical, and injury characteristics of RTI patients, categorized into motorcyclist-related injuries (MRIs) and other RTIs. The primary outcome was poor RTI outcomes, defined as in-hospital mortality or permanent physical disability. Data analysis employed STATA 18, with piecewise regression for trend analysis. Log binomial regression was used to determine factors associated with RTI outcomes, considering a 5% significance level and 95%CI.

Results

Of the participants, 355 (12.5%) had poor RTI outcomes: 111 (3.9%) deaths and 300 (10.6%) permanent disabilities. The trend showed fluctuating outcomes, with a significant mortality decrease post-2021 but a rise in permanent disabilities. Factors linked to poor outcomes included being involved in non-motorcycle accidents (APR: 2.71; 95% CI: 1.48–4.92.48.92), longer hospital stays (APR: 3.11; 95% CI: 1.75–5.51.75.51), unknown alcohol status (APR: 6.17; 95% CI: 1.93–19.80.93.80), and lower limb injuries (APR: 0.30; 95% CI: 0.17–0.53.17.53). For other RTIs, back/chest injuries and mechanism of arrival also influenced outcomes (APR: 2.56; 95% CI: 1.38–4.74.38.74 and APR: 0.47; 95% CI: 0.24–0.92.24.92, respectively).

Conclusion & Recommendations

Trend of poor RTI outcomes varied, with decreasing mortality and rising permanent disabilities. Influencing factors were vehicle type, hospital stay, alcohol status, and injury site for both groups, while back/chest injuries and arrival mechanism were significant for non-motorcyclists. Recommendations include enhancing rehabilitative services, reducing hospital stays, promoting road safety.

P31

Assessment of Eye Care Service Availability and Common Eye Problems in Selected Health Centers of Iringa Municipality, Tanzania

Veronika Bernikova, Benjamin Uisso

School of Medicine and Dentistry, University of Dodoma, Tanzania

Correspondence: Veronika Bernikova (berdnikova.va@gmail.com)

BMC Proceedings 2025, 19(29):P31

Background

Access to comprehensive eye care services is crucial for maintaining eye health and preventing vision impairment. However, there is limited data regarding eye health human resources and infrastructure in different regions of Tanzania, including Iringa. This study aims to assess the availability of eye care services and identify the most prevalent eye problems in selected health centers within Iringa Municipality, Tanzania.

Material and Methods

A cross-sectional survey using a semi-structured questionnaire was conducted among 333 health workers in 8 health centers of Iringa Municipality in July, 2023. The data was analyzed using Microsoft Excel to calculate frequencies and percentages.

Results

Two hundred seventy-one (81.4%) health workers (HW) were untrained medical practitioners in handling eye problems, 60 respondents (18%) were trained primary health care workers, and only two health facilities had a professional eye specialist (0.6%). About 210 (63.1%) HW didn't have access to diagnostic tools at their facilities, the remaining HW used a Snellen chart (26.8%), fundoscopy (8.8%), pen torch (49.4%), pinhole camera (14.2%), biomicroscopy (0.8%) for optic examination. The eye conditions diagnosed and treated included conjunctivitis (34.1%), trachoma (25.2%), cataracts (1.7%), and diabetic retinopathy (1.4%). Among common eye care services provided by selected facilities were vitamin supplements (43%) and eye ointment (37%).

Conclusion & Recommendations

The shortage of trained eye health workers and limited diagnostic resources in Iringa Municipality highlight the urgent need for enhancing and expanding eye care services through better policies, education, improved tools, implementing screening programs and consistent supply of high-quality materials and drugs.

P32

Enhancing Tuberculosis Case Finding through a Facilitated ADDO and Traditional Healers (TH) Model in Mwanza and Geita Regions: SHDEPHA+ Experience

Rabia Abeid Khaji¹, Venance Muzuka¹, Michael Machaku²

¹Service, Health and Development for People living positively with HIV/AIDS, Shinyanga, Tanzania; ²Amref Health Africa, Tanzania

Correspondence: Rabia Abeid Khaji (rabiabeid@gmail.com)

BMC Proceedings 2025, 19(29):P32

Background

In 2022, private providers contributed 15% of the total notified TB cases in Tanzania. Despite engagement through Public-Private Mix (PPM) program, weak collaboration with private health facilities, ADDOs, and traditional healers has hindered their involvement. A 2018 analysis showed most patients (68%) seek care informally from private providers or primary care levels. SHDEPHA+ addressed this gap through USAID Afya Shirikishi project, by improving TB case finding, treatment outcomes, and prevention.

Program Intervention/Methodology

Supported by USAID through Amref Tanzania, SHDEPHA+ implemented USAID Afya Shirikishi project in Mwanza and Geita from January 2021 to May 2024. 150 ADDOs and 110 THs were trained for TB screening, identification, and referral. Training included symptom identification, proper use of reporting tools, and patient referral processes. Enablers provided included TB reporting forms, sputum cups, and cooler boxes to enhance TB detection and notification. Regular follow-ups, supportive supervision ensured quality control and motivated continuous participation from ADDOs and THs.

Results Finding

Results showed that the intervention led to substantial increases in TB-related activities. Among ADDOs, health education sessions increased from 0 to a total of 8692 by May 2024, and TB screenings rose to 6282. Presumptive TB cases identified totaled 3754, with 3589 referrals and tests conducted, resulting in 436 TB diagnosed cases. For Traditional

Healers (TH), health education sessions increased to 10771, with 8891 screenings. Presumptive TB cases identified totaled 4268, with 4118 referrals and tests, leading to 435 TB diagnosed cases. The data underscores the effectiveness of engaging private providers in improving TB case detection and notification.

Program Implication & Lesson Learned

Engaging private providers is crucial for enhancing coverage and use of TB health services across the country and is cost-effective in the long run. Strengthening the engagement of private providers, whether informal or formal, is paramount in TB case notification. Building their capacity to provide TB prevention services is essential.

P33

The High Prevalence of Depression among Cervical Cancer Patients; What Should Be Done?

Alfateresia Mwasangama^{1,2}, Belinda Laizer³, Loveness Kimaro^{1,2}, Innocent Kileo⁴, Belinda Njiro⁵, Amani Kikula^{3,6,7}, Samuel Likindikoki¹

¹Department of psychiatry and mental health, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²Department of Epidemiology and Biostatistics, School of Public Health, University of Cape Town, South Africa; ³Department of Obstetrics and Gynecology, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ⁴Mwanza Interventional Trials Unit, National Institute of Medical Research, Mwanza, Tanzania; ⁵Department Epidemiology and Biostatistics, School of Public Health, University of Witwatersrand, Johannesburg, South Africa; ⁶Department of public health, Institute of Tropical Medicine, Antwerp, Belgium; ⁷Global Health Institute, Faculty of Medicine and Health Sciences, University of Antwerp, Belgium

Correspondence: Alfateresia Mwasangama (mwasangamaalfateresia@gmail.com)

BMC Proceedings 2025, 19(29):P33

Background

Chronic diseases including cervical cancer affects patients physically and mentally. Among the mental effects of the disease is clinical depression, which is commonly reported among women with cervical cancer in other countries. Little is known about the situation in Tanzania. It is therefore important to understand about how big the problem is, and factors associated for proper initiatives to be taken.

Material and Methods

A cross sectional hospital-based study was conducted among 588 women with cervical cancer at the Ocean Road Cancer Institute in Dar es Salaam. Data was collected on August 2023 and analyzed using STATA version 17. Median and interquartile range were used to summarize continuous variables. Frequency and proportions were used to summarize categorical variables. 95% CI and a *P* value of < 0.05 was used to determine the level beyond which, values of measures of associations were considered statistically significant.

Results

The median age and IQR were 54 and (48–60) respectively. The prevalence of depression was 77.71% and majority had moderate depression. Age, education level, perceived economic status, disease stage, pain, and duration of diagnosis were found to be individually associated with depression, *P* < 0.001. After multivariate analysis, not having formal education 3.51(1.36,9.11), reported low economic status 3.47(1.98,6.08), experiencing pain 2.64(1.43,4.89) and diagnosis duration of more than 5 years 0.16(0.04,0.67) had an association with depression. None of the participant reported to receive psychological care.

Conclusion & Recommendations

The prevalence of depression is high among cervical cancer patients and it is associated with a number of factors. None of the interviewed patients reported to receive mental health care. Implementation researches to ensure the available mental health services are effectively delivered to patients with cervical cancer are highly recommended.

P34

Establishing Protocols for Cord Blood CD34+ Cell Processing and Quantification in Tanzania

Mohamed Zahir Alimohamed^{1,2,3}, Aisha Fikirini^{1,3}, Salmaan Karim¹, Florence Urio¹, Zacharia Mtulo⁴, Fadhilun Alwy Al-beity⁵, Grace Moshia⁶, Julie Makani^{3,6}

¹Department of Biochemistry and Molecular Biology, School of Biomedical Sciences, Muhimbili University of Health and Allied Sciences, Dar es salaam, Tanzania; ²Department of Genetics, University Medical Center Groningen, Groningen, Netherlands; ³Tanzania Human Genetics Organization, Dar es salaam, Tanzania; ⁴Department of Microbiology, Muhimbili University of Health and Allied Sciences, Dar es salaam, Tanzania; ⁵Department of Obstetrics & Gynaecology Muhimbili University of Health and Allied Science, Dar es salaam, Tanzania; ⁶Sickle Cell Program, Department of Hematology and Blood Transfusion, Muhimbili University of Health and Allied Sciences, Dar es salaam, Tanzania

Correspondence: Mohamed Zahir Alimohamed (mzahir89@gmail.com) BMC Proceedings 2025, 19(29):P34

Background

Cord blood (CB) serves as an alternative source of hematopoietic stem cells, complementing bone marrow and peripheral blood. CD34+ cells in CB are progenitor stem cells essential for generating all lymphohematopoietic lineages, playing a crucial role in cell-based therapies for various disorders, including sickle cell disease. This study aimed to evaluate the clinical and laboratory techniques for the collection, processing, and quantification of CD34+ cells from umbilical cord blood in Tanzania.

Program Intervention/Methodology

44 CB samples were collected from consenting pregnant women at Muhimbili and Aga Khan Hospitals. Sickle cell status was screened using HemoTypeSC™. Mononuclear cells (MNCs) were isolated using Ficoll-Paque™ and counted by a haemocytometer. Contamination testing was performed with BacTec machine, and MNCs were preserved in 10% DMSO. CD34+ cells were enriched using CD34+ microbeads and FcR reagent. Enumeration of CD34+ cells was conducted using BD® SCE kit through a single-platform flow cytometry to obtain the absolute count of CD34+ cells.

Results Finding

Average transportation time to the laboratory was 15 minutes. CB samples screened for sickle cell status, 85.71% were AA, and 14.29% were AS. 6 CB samples tested positive for contamination. Median volume of CB collected was 65 mL (IQR 43.75–77.5), with a median MNC count per mL of CB 2,500,000 (IQR 1,800,347–2,981,730.5). Viability of MNCs was 95.30% pre-freezing and 64.23% post-freezing. MACS purification yielded CD34+ cell of purity 66.3% for fresh and 33.7% for frozen samples. Most enriched cells expressed CD34 antigen (66.3%), a small proportion expressed both CD34 and CD45 markers (1.51%), and CD45 was expressed by 32.0%.

Program Implication & Lesson Learned

The study successfully established a protocol for CB collection and CD34+ cells quantification enhancing the understanding of CD34+ cells characteristics in Tanzanian (African) populations. We recommend the establishment of donor cohorts and the development of genotyping infrastructure and capabilities to facilitate CB banking and transfusion practices in Tanzania.

P35

Social Determinants of Physical Inactivity and Unhealthy Diet Consumption among Adolescents Living With HIV in Ifakara Town, Tanzania

Justina Maganga^{1,2}, Clara Mollay², Maja Weisser¹, Sally Mtenga^{1,2}

¹Ifakara Health Institute, Morogoro, Tanzania, ²Nelson Mandela African Institution of Science and Technology, Arusha, Tanzania

Correspondence: Justina Maganga (jmaganga@ihi.or.tz)

BMC Proceedings 2025, 19(29):P35

Background

Physical inactivity and poor diet are the leading risk factors for non-communicable diseases (NCDs) globally. Although NCDs often occur in adulthood, these risk factors are initiated during adolescence and are associated with NCDs. HIV-infected adolescents are at a higher risk because, they additionally face HIV-related chronic inflammation and side effects of antiretroviral use. This study investigates the social determinants influencing physical inactivity and unhealthy diet in HIV-infected adolescents in Ifakara.

Material and Methods

This is an ongoing study at the Chronic Diseases Clinic in Ifakara (CDCI). Qualitative semi-structured in-depth interviews (IDIs) are being conducted using adolescents from the Kilombero and Ulanga Antiretroviral Cohort (KIULARCO). Adolescents are purposefully selected to ensure they meet the inclusion criteria (aged 15–19, under active care, and enrolled in KIULARCO). Data collection will also be extended to their parents and caregivers, also from KIULARCO. As a start, 15 adolescents and 10 parents and caregivers have been recruited for IDIs.

Results

This is an ongoing study; therefore, no results have been obtained and no findings have been reported yet.

Conclusion & Recommendations

Since most NCD risk behaviors are initiated during adolescence, exploring the underlying factors in HIV-infected adolescents provides an opportunity for Tanzania's health care system to develop interventions to prevent HIV/NCD multimorbidity. The findings from this study may add concrete evidence to support adolescent-specific interventions addressing NCDs and lifestyle modification.

P36

Experience of male partners of cervical cancer survivors at Bugando Cancer Centre in Mwanza, Tanzania

Felister William

Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Felister William (felisterwilliam1@gmail.com)

BMC Proceedings 2025, 19(29):P36

Background

Cervical cancer, affecting over 600,000 women globally, is a major health concern, especially in low- and middle-income countries like Tanzania, where incidence rates are exceptionally high at 54 per 100,000 people. Despite advances in early detection and treatment, survivors often face significant challenges such as sexual distress, intimacy issues, and relationship problems. Limited research on male partners' experiences in Tanzania highlights the need for further studies in this area.

Material and Methods

This study employed a qualitative phenomenological study design, which attempts to illuminate and comprehend how phenomena are encountered in daily life. Using purposive sampling 12 male partners of cervical cancer survivors were selected. Data were collected through in-depth interviews guided by a structured framework. The interviews were audio recorded, transcribed, and then coded. Analysis was conducted using a thematic approach to identify key themes and insights.

Results

Themes identified that male partners of cervical cancer survivors confront many challenges. They endure emotional distress witnessing their partner's diagnosis and treatment, grappling with fear, sadness, and anxiety. Communication barriers strain relationships as they struggle to express feelings and concerns. Role changes demand adjusting to new caregiving responsibilities. Intimacy issues arise, compounded by social isolation and financial strain due to cervical cancer expenses during treatment burden. Psychosocial

impact, cultural stigma, and self-care neglect amplify their burden, while the fear of losing their partner looms large.

Conclusion & Recommendations

Establish comprehensive support networks for male partners, addressing emotional distress, communication barriers, and psychosocial impact. Educate communities on cervical cancer to reduce stigma. Provide financial assistance to ease treatment costs. Offer male-specific counseling services for sexual intimacy, role changes, and fear of loss, promoting mental well-being. Prioritize tailored support programs.

P37

Hypertension, Structural Heart Changes and Associated Factors among Police Officers a cross-sectional Observational Study

Samwel Rweyemamu^{1,2}, Thomas Kawala³

¹Jakaya Kikwete Cardiac Institute, Dar es Salaam, Tanzania; ²Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania;

³Tanzania Police Force

Correspondence: Samwel Rweyemamu (rsjoshua1972@gmail.com)

BMC Proceedings 2025, 19(29):P37

Background

The global current prevalence of hypertension among the adult population is approximately 26%. It is anticipated to increase up to 60% (1.56 billion adults) by the years 2025. Uncontrolled hypertension leads to structural heart changes, coronary artery diseases, peripheral artery diseases, stroke, renal dysfunction, visual loss and mortality.

Police officers perform stressful duties in most of their times which are linked significantly with the risk of sudden cardiac death and hypertension.

Material and Methods

A cross-sectional study enrolled 360 POs in Dar es Salaam. BP of consented POs measured according to 2020 International Society of Hypertension Global

OMRON MI Compact BP machine used to obtain blood pressures. Doppler Echocardiography used to study structural heart changes. Standardized questionnaire used to record Echocardiographic findings.

SPSS version 20 and Microsoft excel 2017 V16.4, and Descriptive analysis used to present findings. Multivariate analysis done to determine association between dependent and independent variables, *p*-value less than 0.05 considered statistically significant.

Results

Prevalence of high blood pressure among police officers

Both systolic and diastolic pressure were measured. The prevalence of cardiovascular disease is reported to be 58%, implying that in every 10 police officers, six officers have high blood pressure.

Echocardiographic Findings

Seventy-seven participants (21%) were further screened for structural and non-structural heart disease by using 2D, M Mode TTE. Of the screened, 51 (66.2%) had HHD, 2 (2.6%), had Hypertrophic Cardiomyopathy, 1 (1.3%) had Sclerotic AV, 12 (15.6%) were normal and 11 (14.3%) had other diagnoses.

Conclusion & Recommendations

1. The prevalence of hypertension and hypertensive heart disease was higher, structural heart disease was significantly associated with hypertension and DM.
2. Regular BP check-up is recommended.
3. There is a need to design interventional program as prevention strategies to members of the TPF aimed to minimize risk factors.

P38

Understanding the Impacts and Perceptions of Alcohol Use in Northern Tanzania: A Mixed-Methods Analysis

Rosalia Njau^{1,2}, William Nkenguye^{1,2}, Alena Pauley³, Madeline Metcalf³, Mia Buo³, Kirstin West³, Sharla Rent³, Yvonne Sawe³, Marriana Mikindo¹, Joseph Kilasara², Bariki Mchome⁴, Blandina Mmbaga^{1,2,4}, Judith Boshe², Joao Vissoci³, Catherine Staton³

¹Kilimanjaro Clinical Research Institute, Moshi, Tanzania; ²Kilimanjaro Christian Medical University, Moshi, Tanzania; ³Duke Global Health, NC, USA; ⁴Kilimanjaro Christian Medical Center, Moshi, Tanzania

Correspondence: Rosalia Njau (rnjau2020@gmail.com)

BMC Proceedings 2025, 19(29):P38

Background

Alcohol is a leading risk factor for death and disability. Tanzania has particularly high rates of consumption and few resources dedicated to minimizing alcohol-related harm. Ongoing policy efforts are hampered by dynamic sociocultural, economic, and regulatory factors contributing to alcohol consumption. Using Kilimanjaro Christian Medical Center (KCMC) patient voices and a gender-focused approach, we explored alcohol perceptions and its regional impact.

Material and Methods

This was a mixed-methods study conducted at KCMC between October 2021 and May 2022. 678 ≥ 18 years old Swahili-speaking patients who presented to KCMC's Emergency Department or Reproductive Health Clinic were enrolled through systematic random sampling to participate in quantitative surveys. Nineteen participants were selected for IDIs through purposeful sampling. The impact and perceptions of alcohol use were measured through Drinkers' Inventory of Consequences scores analyzed in R Studio through descriptive proportions, and IDI responses explored through a grounded theory.

Results

ED men had the highest DrInC scores (16.4 [19.6]), followed by ED women (9.11 [13.1]), and RHC women (5.47 [9.33]), with higher scores indicating more perceived consequences. Participants recognized alcohol's dual nature in their community, with perceived advantages and clear harms. Negative consequences included increased conflict, long-term health issues, financial instability, stigma, and sexual assault. Benefits were primarily associated with men, including cultural preservation, economic growth, and social unity. Both genders suffered physical and financial harm due to alcohol, but women experienced a disproportionate impact, facing alcohol-related stigma and sexual assault.

Conclusion & Recommendations

Our findings suggest that perceptions around drinking and alcohol's social and physical consequences differ significantly by gender. To effectively minimize local alcohol-related harm, future alcohol-focused research and policy efforts should consider the distinct impacts alcohol has between genders.

P39

The effect of presenting after working hours on the outcome among Traumatic Brain Injury Patients at Emergency Medicine Department

Timothy Peter^{1,2}, Florida Muro¹, Fransis Sakita^{1,3}, Blandina Mbag^{1,2}, Alice Andongolile^{1,2}, Rosalia Njau^{1,2}, William Nkenguye^{1,2}, Edwin Shewiyo^{1,2}, Joao Vissoci^{4,5}, Catherine Staton^{4,5}

¹Kilimanjaro Christian Medical University College, Kilimanjaro, Tanzania;

²Kilimanjaro Clinical Research Institute, Kilimanjaro, Tanzania; ³Kilimanjaro Christian Medical Centre, Kilimanjaro, Tanzania; ⁴Duke Global Health

Institute, NC, USA; ⁵Department of Emergency Medicine, Duke University Medical Center, NC, USA

Correspondence: Timothy Peter (timothyantipas1@gmail.com)

BMC Proceedings 2025, 19(29):P39

Background

Traumatic Brain injury (TBI) is a time sensitive and life threatening medical condition which needs prompt care. We hypothesise that presenting for care outside of working hours, meaning between 15:30 to 07:30, weekends and public holidays may influence outcome in TBI especially in low resource settings, like the Kilimanjaro Christian Medical Centre (KCMC) in Moshi, Tanzania.

Program Intervention/Methodology

TBI Patients from KCMC Clinical Trauma registry between Jan 2020 to Jan 2024 were analysed. The main exposure was EMD presentation time. The main outcome was poor recovery as defined by GOS-e score of 1–4 at discharge, patients were followed up for 7 days. Cox regression model was used to estimate the effect size of presenting for care after working hours on poor recovery.

Results Finding

Of 1011 patients included in this study, 817(80.8%) presented to KCMC EMD after working hours, 699 (69%) presented between 15:30 to 07:30 hours, 316 (31.3%) presented during the weekend days (anytime Saturdays or Sundays) and 40(4%) presented at EMD during the public holidays. EMD presentation time was not statistically significant associated with patient's outcome after adjusting for potential confounders in a cox regression model. Hazards of poor recovery increase by 4% for patients who presented at EMD after working hours compared to those who presented within working hours, (HR, 95% CI 1.04 [0.81, 1.34], $p=0.7$).

Program Implication & Lesson Learned

EMD presentation time is not associated with patient's outcome in our study. This is the first investigation of presentation time on the outcome of TBI patients in a low resource settings, we suggest more multi-centred studies to investigate this effect in a low resource settings.

P40

Healthcare Providers and Traditional Healers' Perspectives on Late Diagnosis of Breast Cancer in Northern Tanzania: A Qualitative Study

Elizabeth Msoka^{1,2,3}, Bob Mulder⁴, Mackenzie Abraham⁵, Brandon Knettle^{6,7}, Alem Gebremariam⁸, Furaha Serventi⁹, Perry Cyril¹⁰, Adelaide Kavishe², Brenda Kitali^{2,3}, Vivian Saria^{2,3}, Gilead Masenga^{2,3}, Eva Kantelhardt¹¹, Maureen Joffe¹², Lily Gutnik⁵, Blandina Mmbaga^{1,2,3,7}

¹Kilimanjaro Clinical Research Institute; ²Kilimanjaro Christian Medical Centre; ³Kilimanjaro Christian Medical University College; ⁴Wageningen University & Research, Wageningen, Netherlands; ⁵The University of Alabama at Birmingham, Birmingham, AL; ⁶Duke University School of Nursing, Durham, North Carolina, USA; ⁷Duke Global Health Institute, Duke University, Durham, North Carolina, USA; ⁸Department of Public Health, College of Medicine and Health Science, Adigrat University, Tigray, Ethiopia. Tigray Health Research Institute; ⁹Kilimanjaro Christian Medical Centre, Tanzania; ¹⁰Kilimanjaro Clinical Research Institute, Tanzania; ¹¹Global & Planetary Health Working Group, Martin-Luther-University Halle-Wittenberg, Germany; ¹²Faculty of Health Sciences, Strengthening Oncology Services Research Unit, University of the Witwatersrand, Johannesburg, South Africa

Correspondence: Elizabeth Msoka (e.fbright@kcri.ac.tz)

BMC Proceedings 2025, 19(29):P40

Background

Breast cancer (BC) is the most common cancer among women in Sub-Saharan Africa. Late diagnosis is a leading cause of mortality among women diagnosed with BC in Tanzania. This study aimed to explore perspectives of both healthcare providers and traditional healers on the factors that contribute to late diagnosis of BC, to improve awareness and early detection programs for women in Tanzania.

Material and Methods

Semi-structured, in-depth interviews and a focus group were conducted with 10 doctors and 10 nurse healthcare providers (HCPs) in a hospital-based treatment centre, and with 18 traditional healers (THs) in community settings in the Kilimanjaro region. Data were analyzed thematically. Semi-structured, in-depth interviews and a focus group were conducted with 10 doctors and 10 nurse healthcare providers (HCPs) in a hospital-based treatment centre, and with 18 traditional healers (THs) in community settings in the Kilimanjaro region. Data were analyzed thematically.

Results

Findings were synthesized into five themes that help explain late diagnosis, for both HCPs and THs: 1) Limited knowledge and misperception of breast cancer: causes, signs, and symptoms on the part of HCPs and THs alike; 2) HCPs and THs blame each other for ineffective treatment and subsequent delay; 3) perceived barriers among patients pertaining to myths, misperceptions and spiritual beliefs; 4) stigma experienced by patients; and 5) high costs for access and affordability of treatments. HCPs and THs also made suggestions to reduce delay of diagnosis and treatment. HCPs and THs made suggestions to reduce delay of diagnosis, treatment.

Conclusion & Recommendations

Strategies to improve early detection and diagnosis of BC may include creating awareness and educating community members about the complex nature of the disease to reduce misconceptions and stigma. Both HCPs and THs may benefit from collaboration and development of strategies for recognition of BC early signs and symptoms.

P41

Barriers to Kidney Transplantation as a Modality of RRT among End Stage Kidney Failure patients in Dar es Salaam, Tanzania

Tarsila Emmanuel

Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Tarsila Emmanuel (tarsilawilly88@gmail.com)

BMC Proceedings 2025, **19(29):P41**

Background

Chronic kidney disease (CKD) is a major public health problem, it progresses through five stages where the fifth stage End-Stage Kidney Failure (ESKF) necessitates advanced treatment like transplantation. Identifying barriers confronted by patients and relatives regarding transplantation is crucial for better health outcomes. This study explored barriers to kidney transplantation as a modality of renal replacement therapy among end stage kidney failure patients in Dar es Salaam Tanzania.

Material and Methods

A qualitative study in Dar es Salaam, Tanzania from Feb to May 2024 explored barriers to kidney transplantation as a modality of renal replacement therapy among hemodialysis patients. Purposive sampling was employed to gather rich data. An In-depth interview (IDI) and focused group discussion (FGD) using semi-structured guides were used to explore data from patients and their relatives, recorded digitally, transcribed, coded, and thematically analyzed.

Results

Three themes emerged during the study. Perception of kidney transplant, perceived barriers, and strategies for kidney transplantation (KT) guided by socio-ecological model (SEM). The study revealed individual, interpersonal, institutional, and governmental factors that hinder kidney transplantation. Discrepancies in perceptions between public and government hospitals also emerged as a notable barrier. Additionally, participants suggested different strategies for the barriers identified, Government support and allocation of special funds as well as insurance coverage for kidney transplantation. To pin on this need for awareness and information about kidney transplantation was another concern.

Conclusion & Recommendations

Patients with end stage kidney failure often lack awareness of renal replacement therapy options, particularly Kidney transplant. In private facilities, patients are more inclined towards hemodialysis and lack information about KT. The absence of clear policy, guidelines, and high costs further hinder KT accessibility.

P42

Comparison of Injury Patterns and In-Hospital Outcomes between Younger and Older Adult Trauma Patients at Tertiary Hospital in Northern Tanzania

Edwin Joseph Shewiyo^{1,2}, Rosalia Njau^{1,2}, Natan Nascimento de Oliveira^{3,4}, Frijenja Gaspary Sumbai^{1,2}, Paige O'Leary^{3,4}, Frida Shayo^{1,2,5}, João Vitor Perez Souza^{3,4}, João Ricardo Nickenig Vissoci^{3,4}, Blandina T. Mmbaga^{1,2,5}, Catherine A. Staton^{3,4}

¹Kilimanjaro Christian Medical University College, Moshi, Tanzania;

²Kilimanjaro Christian Medical Center, Moshi, Tanzania; ³Global Emergency Medicine Innovation and Implementation (GEMINI) Research Center, Duke Global Health Institute, Duke University, Durham, NC USA; ⁴Duke Department of Emergency Medicine, Durham, NC USA;

⁵Kilimanjaro Clinical Research Institute, Moshi, Tanzania

Correspondence: Edwin Joseph Shewiyo (edwin.shewiyo@kcmcu.ac.tz)

BMC Proceedings 2025, **19(29):P42**

Background

The number of older adults (aged >60) in Sub-Saharan Africa is projected to double by 2050, leading to more traumatic injuries in this demographic. In Tanzania, 1 in 10 trauma patients is an older adult, yet geriatric specialization is lacking. To inform interventions to optimize healthcare among this unique population. This study analyzes injury characteristics and in-hospital complications among older adult trauma patients at KCMC to optimize their healthcare.

Material and Methods

This cross-sectional secondary analysis used data from an adult injury registry at KCMC, serving over 15 million people. It included all adult trauma patients (aged >18) from 2020-2024, comparing socio-demographics, clinical characteristics, and injury patterns between older and younger patients. Main outcomes measured were length of stay (LOS) and in-hospital mortality. Ethics approval was obtained from KCMC, the National Institute for Medical Research in Tanzania, and Duke University.

Results

Among 3,296 adult injured patients, 13.3% older adults (aged >60), the median age was 34 years (IQR: 26–48) for the overall sample and 70 years (IQR: 64–79) for older adults, with higher female representation (43% vs. 16%, $p<0.001$), took 4 hours longer to reach care ($p<0.001$), and experienced more falls (56% vs. 67% road traffic crashes, $p<0.001$), Had milder injuries (86% vs. 27%, $p<0.001$), required more hospitalization (91% vs. 85%) and surgeries (66% vs. 58%, $p=0.002$), diabetic (12% vs. 1%) and hypertensive (26% vs. 2%, $p<0.001$), longer hospital stays (4 days more), and higher in-hospital mortality (9% vs. 4%, $p<0.001$).

Conclusion & Recommendations

Our study highlights significant differences in older adult trauma patients, including higher comorbidities, longer times to reach care, more hospitalizations and surgeries, and higher in-hospital deaths. These findings support the need for older adult-specific interventions to improve outcomes and allocate healthcare resources effectively for this growing population.

P43

A Comprehensive BMI Prediction and Recommendation System in Non-Communicable Diseases Management

Prisca G. Shoo

University of Dodoma, Dodoma, Tanzania

Correspondence: Prisca G. Shoo (prisscashoo@gmail.com)

BMC Proceedings 2025, **19(29):P43**

Background

The increasing prevalence of non-communicable diseases (NCDs) such as obesity, diabetes, and cardiovascular conditions emphasizes the critical need for effective solutions to promote healthier lifestyles and facilitate the tracking of body mass index (BMI) across various population groups. This document presents a BMI Prediction and Recommendation System to address these important challenges.

Material and Methods

The system uses advanced machine learning algorithms to provide personalized recommendations for calculating Body Mass Index (BMI), conducting comprehensive medical assessments, suggesting tailored lifestyle changes, and creating individualized meal plans. It analyses a variety of user-provided data, including demographic information, medical history, dietary preferences, and levels of physical activity, to generate highly relevant and accurate recommendations.

Results

The system calculates precise Body Mass Index (BMI) based on user-provided height and weight data. It offers a wide range of customized lifestyle recommendations that encompass various aspects such as physical activity, sleep quality, stress management, and nutritional guidance. Additionally, it can generate tailored meal plans that are specifically designed to meet individual needs and health goals. By seamlessly integrating guidelines and user preferences, the system aims to facilitate sustainable lifestyle changes that effectively mitigate the risk of developing Non-Communicable Diseases (NCDs).

Conclusion & Recommendations

The system provides an advanced solution to empower individuals to adopt healthier lifestyles and manage their Body Mass Index (BMI) effectively. For future development, the system could prioritize refining scalability and integrating robust security measures to accommodate growing user populations while emphasizing data privacy and security.

P44

Prevalence, factors associated with Hyperuricemia and the Short-Term Outcomes among Patients with Heart Failure at Jakaya Kikwete Cardiac Institute

Samwel Rweyemamu^{1,2}, Reuben Mutagaywa²

¹Jakaya Kikwete Cardiac Institute, Dar es Salaam, Tanzania; ²Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Samwel Rweyemamu (rsjoshua1972@gmail.com)

BMC Proceedings 2025, 19(29):P44

Background

Patients with heart failure in Tanzania face the burden of hyperuricemia, which increases morbidity and mortality. There is a lack of evidence-based research on this issue. The aim of this study was to determine the prevalence of hyperuricemia and associated factors in patients with HF at JKCI and assess short-term outcomes.

Material and Methods

This study enrolled adult heart failure patients at Jakaya Kikwete Cardiac Institute and followed up with them after 30 days. A questionnaire collected data on socio-demographics, clinical, and physical examination. Multivariate regression identified factors for hyperuricemia and mortality. *P*-value <0.05 was statistically significant.

Results

In the study involving 352 patients, the average age was 44 years. 50.9% were 45–60 years old, 54.8% were female, and 57.7% were insured. The prevalence of hyperuricemia was 49.4%. Factors independently associated with hyperuricemia included male, age over 50, BMI over 25, diabetes, hypertension, renal insufficiency, NYHA class IV, elevated cholesterol, and ejection fraction <40%. The 30-day mortality rate was 13.9%, higher in individuals with hyperuricemia.

Conclusion & Recommendations

Severe heart failure patients commonly have hyperuricemia, associated with age, weight, diabetes, hypertension, renal insufficiency, and hypercholesterolemia. Increased hyperuricemia linked to higher

one-month all-cause mortality. Early detection of serum uric acid levels among patients with heart failure is highly recommended.

P45

Contribution of Menstrual Hygiene Health Lab towards Improving Girls' School Attendance and Dispelling Myths around Social Norms in the Community

Julius Kikoti, Fadhili Mzava, Nicodemus Gachu, Aisha Byanaku, Omari Mohamed, Verah Mdai
Plan International, Geita, Tanzania

Correspondence: Julius Kikoti (julius.kikoti@plan-international.org)

BMC Proceedings 2025, 19(29):P45

Background

Despite efforts made to address the challenges associated menstrual health and hygiene, the KAGIS baseline survey found low access to menstrual health information (40.4%) and commodities (39.3%) for adolescent girls, with primary school girls (ages 10–14) being the most affected and poorly prepared.

Significant proportion of girls face challenges related to MHH, with only 15.6% reporting that they discuss MHH-related topics with their parents/siblings, teachers, or other health professionals.

Program Intervention/Methodology

The survey utilized a mixed-method approach, incorporating both qualitative and quantitative data collection techniques to enable the triangulation of results. The qualitative method encompassed Focus Group Discussion with adolescent girls and boys, Key Informant interviews with MHH Lab facilitators and parents and care givers. The quantitative method encompassed In-depth interviews with teachers and adolescent girls and boys.

Results Finding

90% (*n*=10) teachers acknowledged that MHH knowledge and skills contributed to girl's comfort and confidence in managing menstruation while attending school. 87% (*n*=125) adolescent girls reported that the knowledge and skills provided in the Lab significantly contributed to their school attendance and performance. 33% (*n*=151) of in-school adolescent boys reported that they first received information about MHH from MHH Lab sessions. 86% (*n*=131) of adolescent girls feel more comfortable discussing menstrual hygiene with MHH lab facilitators than in any other setting. 44% of in school adolescent boys assisted girls during the menstruation while at school including making reusable sanitary pads.

Program Implication & Lesson Learned

As the project thrive, and interventions are harnessing positive results, future interventions should sustain and scale up MHH Lab approach, engage boys and parents to cascade knowledge and skills to enhance girl's well-being, and promote positive attitudes towards menstruation resulting better education outcomes.

P46

Assessing project's effect on delay marriage across communities for children below 18 in Rukwa Region

Halima Said, Kiasu Sikawanda, Adolf Kaingoda, Tiransia Shoo, Moyo Wema, Vera Mdai
Plan International, Rukwa, Tanzania

Correspondence: Halima Said (halima.said@plan-international.org)

BMC Proceedings 2025, 19(29):P46

Background

Plan International Tanzania implements the GGE Rukwa Project in collaboration with partners RUSUDEO, YES Tanzania, Rafiki SDO and PDF for five years. The main goal is reduction of child early and forced marriages in Rukwa across three districts of Kalambo, Nkasi and Sumbawanga. During baseline in 2020, 24.97% of women aged 20–24

were married or in union before 18 years and 4.74% aged 15–19 were married or in union before 15.

Program Intervention/Methodology

The study aims to assess the level of reduction of child marriages across 46 sampled community where GGE project works in Rukwa.

Project conducted impact level analysis in 2023 with the aim of assessing proportion of women aged 15–19 and 20–24 who were married or in union before 15 and 18 years since 2020. Random sampling was used and a total of 901 women were reached out of 920 sampled during assessment across 46 communities of Kalambo, Nkasi and Sumbawanga.

Results Finding

The project has achieved notable results, with a reduction of early marriage prevalence from 24.97% to 8.25% for adolescents under 18 and from 4.74% to 0.75% for marriage before 15 across project implementation areas. The emphasis on community support to end CEFM has further resulted in a decrease of traditional harmful practices that at large facilitated early child marriages. Project supported 1,631 critically poor families join VSLA groups for them to support children and families. More families now say that they are in a better economical position to support their children with scholastic materials and to keep them in school.

Program Implication & Lesson Learned

Through project efforts there has been a significant reduction in number of women who delayed marriages from 2020–2023. In recognition of the importance of education as a protective measure for girls to delay marriages, the project has implemented different strategies, including the Community-Based Child Protection Committees which contributed to success.

P47

Strengthening Referral Networks for Comprehensive Response to Survivors of Gender-Based Violence: Lessons from Scaling Up Family Planning Programme in Tanzania

Simon Mbele, Cosmas Kapinga, Moke Magoma, Lilian Lukumai, Deus Ngerangera, Nasibu Mwanamsangu, Ramadhani Mlange, Anna Temba, Danielle Garfinkel, Kate O'Connell
EngenderHealth, Dar es Salaam, Tanzania

Correspondence : Simon Mbele (smbele@engenderhealth.org)

BMC Proceedings 2025, 19(29):P47

Background

Gender-based violence (GBV) remains a public health concern and a human rights violation with adverse consequences that impact people's lives. Strengthening networks is crucial to providing survivors of GBV with access to appropriate services which respond to their multifaceted needs. We report on the results from 616 Scaling up Family Planning programme (2019–2024) supported health facilities in mainland Tanzania and Zanzibar.

Material and Methods

We conducted an analysis of programme outreach data for the period of Feb 2020 to March 2024 to assess progress from a Public Private Partnership (PPP) approach used to *build, strengthen, and maintain* GBV/VAC prevention and response. Program activities included mapping of service points, stakeholders' consultative meetings to develop/update referral lists/trees, identification of frontline volunteers, orientations to providers, distribution of referral lists, updating of referral lists, and periodic follow up fora.

Results

Of all 2,027,229 FP clients reached through various outreach service delivery models, a total of 1,238,976 (61%) were screened for GBV. The programme identified a total of 75,136 survivors who faced different types of violence such as sexual, emotional, and physical. Of those 75,136 survivors, 7,658 (10%) were referred outside the health facility for post care services.

Conclusion & Recommendations

Effective GBV programming should include referral networking (building, strengthening and maintaining) as an essential component for survivor-centred care.

P48

Women at the Helm of Community-led monitoring of cervical cancer prevention and treatment in Tanzania

Joan Msuya^{1,2,3,4,5}, Angela Leon C²

¹Tanzania Network of Women Living with HIV and AIDS, Tanzania;

²Women4Global Fund; ³National Council of People Living with HIV,

Tanzania; ⁴Non State Actors for Health; ⁵International of Women Living

with HIV in East Africa, Tanzania

Correspondence: Joan Msuya (joanchamungu@yahoo.com)

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Background

Globally, WLHIV are 6 times more likely to develop cervical cancer infection than other women in general population. In Tanzania, HIV and cervical cancer disproportionately affect women due to inadequate prevention, screening and treatment services. We outline the findings from a CLM initiative conducted in Bahi and Kongwa districts, focused on cervical cancer services provision for WLHIV. This women-led process aimed to highlight community engagement to shape prevention strategies.

Program Intervention/Methodology

We implemented CLM in Tanzania in 7 stages 1) Reflection and Engagement 2) Inception and Planning; 3) Workshop; 4) CLM execution 5) Data Analysis; 6) Findings for advocacy; 7) Outcome and continuous monitoring. Data collection KIs (N=188) 59% of WLHIV, FGDs (N=5), and IDIs (4) with community advocates and health providers. Data analysis on availability, accessibility, affordability, acceptability on the quality of cervical cancer services under Global Fund programs conducted; 4 approaches used to measure results: Formal-quantitative, Participatory-quantitative, Formal-qualitative, and Participatory-qualitative.

Results Finding

16% of women found with different stages of cervical cancer, 80% were WLHIV of the 188, only 18.1% confirmed using family planning services, underlying high risk of transmission of HIV and STIs. 12.2% of women tested VIA + experienced Gender-Based Violence, divorce, emotional stress, and physical abuse. Only 36.3% received support. Some major barriers in accessing health care were stigma, myths and misconceptions and timely prevention, screening and treatment, uncomfortable to be screened by Male health Providers, distance from health facilities. Shortage of acetic acid and lack of skilled staff to operate equipment, were among the most impediments to quality services.

Program Implication & Lesson Learned

CLM underscores the role of community engagement in HIV and cervical cancer services. Community-led work has effectively raised awareness, addressed stigma, challenge of GBV, discrimination, lack of skilled professionals and supplies; highlight the need for collaborative actions with government, IPs, CSOs, health providers, and communities to ensure comprehensive HIV responses.

P49

Addressing Sexual Violence against Children (SVAC) in Zanzibar, Tanzania: Findings from the Rollout of the SVAC Prevention Toolkit

Leopold Tibyehabwa, Ediphonce Joseph Mchau

Pathfinder International, Tanzania

Correspondence: Leopold Tibyehabwa (ltibyehabwa@pathfinder.org)

BMC Proceedings 2025, 19(29):P49

Background

In Zanzibar, SVAC affects 6.2% of girls and 9.3% of boys before age 18, highlighting the need for effective prevention. Many victims remain silent. The National Plan of Action emphasizes societal change. The KUWAZA project, funded by the OAK Foundation and executed by Pathfinder International, ActionAid Tanzania, and C-Sema, collaborated with ICRW to develop and evaluate a toolkit to train children (7–14 years), parents, and religious/local leaders on SVAC prevention.

Material and Methods

The study utilized a pre/post longitudinal cohort design involving children aged 7–14 and their parents/guardians, employing surveys and focus group discussions (FGDs). Trained enumerators administered electronic questionnaires to both children and parents at baseline and end-line. End-line FGDs were conducted with both groups. Ethical approval was obtained from the OCGS and the vice president's office. Children and parents provided informed assent and consent, respectively. Parents were present during interviews with the children. Data were analyzed using STATA Software.

Results

Children felt more supported by caregivers, increasing from 92.4% (baseline) to 99.5% (endline) ($p=0.00$). Recognition of sexual abuse and child marriage as harmful rose from 40.2% (baseline) to 65.1% (endline) ($p=0.00$) and 27.7% (baseline) to 36.5% (endline) ($p=0.00$), respectively. Instances of feeling unsafe decreased. Willingness to report SVAC perpetrators rose significantly from 87.3% (boys baseline) to 96.6% (boys endline) ($p=0.00$) and from 88.3% (girls baseline) to 99.5% (girls endline) ($p=0.00$). Parents/guardians increased discussions on body changes with children, rising from 12.7% (baseline) to 20.24% (endline) ($p=0.000$). These results highlight the toolkit's efficacy in promoting positive changes in SVAC prevention.

Conclusion & Recommendations

Future efforts should focus on early education, community engagement, and reporting mechanisms. Ongoing discussion on healthy relationships, with tailored interventions, capacity building, and robust monitoring, remains essential for creating safer environments and decreasing the risk of SVAC.

P50

Full Geographical Coverage Approach (FGC) for Improved Coverage to Cataract Case Finding and Management in Tanzania.

Athuman Tawakal, Joyce Lyamuya¹, Dr. Bernadetha Shilio², Dr. Barnabas Mshangila³, Dr. Fariji Killewa⁴, Charles Kubingwa Kalidushi⁵

¹Helen Keller International, Dar es Salaam, Tanzania; ²National Eye Care Program, Ministry of Health, Tanzania; ³Mbeya Zonal Referral Hospital, Mbeya, Tanzania; ⁴Mbeya Regional Referral Hospital, Mbeya, Tanzania; ⁵President's Office Regional Administration and Local Government, Tanzania

Correspondence: Athuman Tawakal, atawakal@hki.org

BMC Proceedings 2025, 19(29):P50

Background

Blindness and severe visual impairment present significant public health challenges in Tanzania, with cataract being the leading cause, contributing to over half of all blindness cases. The National Eye Care Program of the Ministry of Health highlights the most common barriers to cataract surgeries among people are fear, cost, unaware of treatment possibility, unfelt need, shortage of qualified eye health clinicians and limited access to eye health services and treatment.

Program Intervention/Methodology

Helen Keller Int'l supported Mbarali district in Mbeya region to pilot the Cataract Management to reduce Blindness in Tanzania project. The project used Full Geographical Coverage (FGC) approach for case finding and treatment. The FGC approach aims to comprehensively identify cataract needs and manage cases in targeted catchment areas, ensuring no one is left behind. Trained community case finders conducted house-to-house screenings, achieving high coverage and reaching marginalized groups. Free surgeries were provided by qualified teams at local health facilities.

Results Finding

The project reached over 90% of targeted households in the catchment areas, 62% of suspected cases listed by case finders were confirmed to have cataract highlighting effectiveness of community case finders in reaching many people and easy identification of cataract cases. A total of 927 people (1,168 eyes) received cataract surgeries from four high volume outreach camps where many people reached. Of the people who received surgery over 80% turned up for all three post-operative's follow-up and over 90% had improved vision

Program Implication & Lesson Learned

This model demonstrates effective coverage and treatment, addressing critical above-mentioned gaps in cataract management in Tanzania by providing free transportation to patients, free surgeries, good counseling during outreach camps, use of competent clinicians, close involvement of community case finders and community and village leaders as well high-volume surgical camps.

P51

Gombe village case report: Preventing Early Marriage and Teen Pregnancy through community efforts

Pendo Masunga¹, Benatus Sambili¹, Mary Yagalla¹, Karolin Pfeiffer², Michael Hobbs²

¹SolidarMed, Morogoro, Tanzania; ²SolidarMed, Switzerland

Correspondence: Pendo Masunga (p.masunga@solidarmed.ch)

BMC Proceedings 2025, 19(29):P51

Background

In 2022, the No Pressure to Get Married Early (Our Girl) pilot project, funded by Grand Challenge Canada aimed to break the cycle of poverty and harmful norms forcing girls into early marriages and pregnancies, causing school dropouts. Gombe village, the project established community-based social enterprise to ease economic pressure on families by providing financial incentives to parents, encouraging them to prevent early marriages and keep their daughters in school.

Case Report

Five female Community Health Workers (CHWs) empowered by the project-initiated business ventures in transportation (motorcycle), poultry, butchery, horticulture, and beekeeping. These businesses generated income for incentives given to parents who signed agreements with fifteen families, encompassing 24 adolescent girls. The project achieved the following:

1. Commitment to Delay Marriage: All 24 girls remained in school, with improved academic performance and attendance.
2. Incentive Payments: 100% of planned incentives were paid out monthly by the CHWs.
3. Parental Involvement: 100% of parents attended monthly reflection network meetings.
4. Changed Attitudes: Over 80% of parents reported changed attitudes towards early marriage and committed to keeping their daughters in school until age 18.
5. School Retention: More than 90% of the girls avoided early marriages and remained in school.

Challenges included maintaining gender equality, seasonal migration due to mining activities, and the failure of the beekeeping business due to rain. Despite these challenges, the project effectively addressed teen pregnancies, school dropouts and academic performance.

Conclusion

Age-appropriate sexual and reproductive health services, including voluntary family planning, especially in remote and marginalized areas. Raising awareness among parents, teachers, and community members about the harmful effects of early motherhood through a robust campaign is also crucial.

P52

Human centered design approach to designing and developing products: Girl Effect Approach

Girles Shaban, Steven Kilele, Rita Mbeya

Girl Effect, Dar es Salaam, Tanzania

Correspondence: Girles Shaban (girles.shaban@girleffect.org)

BMC Proceedings 2025, 19(29):P52

Background

Girl Effect employs a Human centered design (HCD) approach for designing products, ensuring that our audience is at the heart of our process. This leads to the creation of products that are relevant and impactful, capturing cultural nuances that raise demand for key services around health, early childcare or economic empowerment. Safeguarding systems are weaved throughout this process to ensure audience safety is always top of mind.

Program Intervention/Methodology

We engage audiences and relevant stakeholders step by step to ensure our content is relevant, impactful and represents cultural nuances.

We begin with Co-creation-workshops, where we engage creatives, audience and technical experts to form foundation of our content. Then move to the production phase, where content is scripted, reviewed and produced followed by pre-test the content with audiences to get first hand feedback on our content. Finally, content is reviewed, revised and approved by committee of technical experts for distribution.

Results Finding

Because they were involved in every step of the process, products resonate even more with our target audience - the content is youthful, incorporates local nuances and cultures and addresses key questions or worries that they have.

Additionally, our process has led to greater collaboration with the government, particularly the Ministry of Health, PORALG & Ministry of Community Development.

Program Implication & Lesson Learned

- Involvement of the target audience in generating demand creation activities is vital. This increases acceptance and diffusion of the products among the community.
- Using the local based community members helps creating contents and products that consider the local context.

P53

Contraceptive Methods Provision through ADDOs: Untapped Family Planning Services Reporting Opportunity; Experience from USAID Afya Shirikishi Project in Songwe, Tanzania

Malneste James¹, Godwin Munuo¹, Eva Mwakyusa², Mary Ngowa¹

¹Amref Health Africa, Songwe, Tanzania; ²Regional Administrative Secretary, Songwe, Tanzania

Correspondence: Malneste James (malneste.james@amref.org)

BMC Proceedings 2025, 19(29):P53

Background

The TDHS2022 reported an increase in total demand for family planning (FP) in Tanzania from 48% to 59% since 1999 to 2022. However, unmet need for FP has remained fairly consistent over time for more than 21% due to factors like weakness on reporting of FP services by Accredited Drug Dispensing Outlets (ADDOs). This abstract aims to show the importance of reporting FP services by ADDOs in Momba district, Tanzania.

Program Intervention/Methodology

Towards attaining the universal health coverage (UHC) through strengthening Public-Private Partnership (PPP), Amref Health Africa Tanzania through USAID Afya Shirikishi project engaged 10 ADDOs in its community-based FP project. ADDOs were oriented on using the developed and customized project recording and reporting tool for capturing contraceptive methods (CMs) provided to clients including condoms, pills (COCs/POPs), barrier methods (BMs), emergency contraceptive pills (ECP) and injectables. Data for CMs services provided, were collected in January-March 2024 and descriptively analyzed by using excel.

Results Finding

In the period of January-March 2024, the project observed effective use recoding and reporting tools for FP services by ADDOs. A total of 517 clients were recorded to have received either of CMs. The records showed that 242 clients received barrier methods (BMs), 174 received

pills, 99 received injectables and 2 received emergency contraceptive pills (ECPs).

Program Implication & Lesson Learned

The report showed that there are numbers of clients receiving CMs through ADDOs, whose information are nowhere formally recorded and reported in existing government system. In strengthening PPP for quality health care, FP stakeholders in Tanzania need to centralize the data reporting system for CMs being provided by ADDOs countrywide.

P54

Assessing adolescent and young caregivers' individual and social drivers for uptake of children's routine immunization and HPV vaccination

Girles Shaban¹, Rita Mbeba¹, Elia Msegu¹, Caroline Wangeci²

¹Girl Effect, Dar es Salaam, Tanzania; ²Girl Effect-Global

Correspondence: Girles Shaban (girles.shaban@girleffect.org)

BMC Proceedings 2025, 19(29):P54

Background

Girl Effect in collaboration with GAVI, the Vaccine alliance and the Ministry of Health is implementing an integrated innovative programme, to increase demand and uptake for routine immunization. This is a five year program that focuses on developing and implementing integrated innovative demand generation approaches to increase demand for the HPV vaccine amongst 13–14 year-old-girls and for routine immunization (RI) amongst caregivers (15–29 years old)

Material and Methods

This was a baseline evaluation study which was conducted using a mixed-method approach. A quantitative survey was used to collect data on adolescent and young adult caregivers in the regions. Whilst a qualitative survey was undertaken with 36 Key Informant Interviews (KIIs) and 23 Focus group discussions (FGDs).

Results

- Knowledge on immunization and vaccination; the knowledge gap among community actors on HPV vaccination and immunization has contributed to low utilization of the services.
- Misconceptions on children immunization and vaccination. There are fears that the HPV vaccination would lead to the children being unable to give birth.
- Male dominance and seeking consent. Participants reported needing to seek consent of their husbands and fathers respectively to get the vaccine.
- Shortage of awareness on vaccines' benefits and safety. There was evidence of a lack of education and awareness regarding the benefits and safety of the HPV vaccines.

Conclusion & Recommendations

There is a limited knowledge on routine immunization antigens and on the benefits of HPV vaccinations. Furthermore, respondents demonstrated some misconceptions on the effect of the HPV vaccination. Therefore it is recommended that content is designed and developed that raises awareness raising content that is relevant to the community's context.

P55

Comparative Analysis of Family Planning (FP) Outreach Clinics and Facility-based Special Service Days: Insights for Community Health Programs

Festo Komba, Ediphonce Joseph Mchau

Pathfinder International, Kigoma, Tanzania

Correspondence: Festo Komba (festo.komba@pathfinder.org)

BMC Proceedings 2025, 19(29):P55

Background

In Tanzania, modern contraceptive prevalence among women aged 15–49 remains low at 25%. Innovative FP interventions are crucial

for providing quality FP services, advancing reproductive health, and reducing global maternal and infant mortality rates. With USAID funding, the MOMENTUM Integrated Health Resilience (MIHR) project supports FP services in rural and hard-to-reach communities through FP mobile outreach clinics and routine services at health facilities in five regions of Tanzania mainland.

Program Intervention/Methodology

The project identified a significant burden on health care providers (HCPs) at supported facilities, which hampers FP service provision. In November 2022, MIHR introduced the Facility-based Special FP Services Days (FSSD) approach, designating a specific day for FP services with assistance from an expert HCP from a nearby facility or a member of the Council Health Management Team. MIHR implemented both outreach and FSSD approaches and collected data from January to December 2023, analyzed using descriptive statistics in Excel.

Results Finding

From January to December 2023, the outreach approach implemented 226 events, serving 14,705 clients and producing 41,495 couple years of protection (CYP). The FSSD approach conducted 116 events, reaching 8,671 clients and generating 22,299 CYP. On average, the outreach served 65 clients and produced 183 CYP per event, while FSSD served 75 clients and produced 192 CYP per event. Additionally, 79% and 70% of clients chose long-acting reversible contraceptives (Implanon, Jadelle, and IUCDs) for outreach and FSSD, respectively. Permanent FP methods were chosen by 0.5% and 1% of clients for outreach and FSSD, respectively.

Program Implication & Lesson Learned

The results show comparable productivity, with FSSD reaching 15% more clients and producing 5% more CYP per event than outreach. Clients' FP methods choice was similar. Outreach broadens coverage in remote areas, while FSSD promotes contraceptive uptake in health facilities. Both approaches strategically ensures equitable access to quality FP services.

P56

Menstrual hygiene practices and menstrual hygiene management among adolescent girls at selected secondary school in Bagamoyo district: Tanzania

Brian Luyenga, Peter Wangwe, Satrumin Shirima
Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Brian Luyenga (brianluyenga4052@gmail.com)
BMC Proceedings 2025, 19(29):P56

Background

Menstrual Hygiene is crucial to prevent infections and reduce discomfort. Globally, around 800 million women menstruate daily, with 500 million lacking access to menstrual products and proper hygiene facilities, especially in low-income countries like Tanzania. In the Bagamoyo district practice of menstrual hygiene, as well as the availability of menstrual hygiene management infrastructures and menstrual products, have not been well studied.

Material and Methods

This was a cross-sectional study, which was conducted among 366 secondary school girls 366 girls aged 10 to 19 years in Bagamoyo district. The data about menstrual hygiene practice was collected through a self-administered questionnaire, and the availability of menstrual hygiene management infrastructure was assessed through an observational checklist tool by observing the school environment. The data was analyzed by SPSS version 22.

Results

This study involved 366 girls with a mean age of 16.2 years (SD 1.916). 71.6% were from government schools. Only 87.2% use sanitary pads during menstruation, and only 64.8% manage to change sanitary pads three times a day. Overall 63.3% had good practices of menstrual hygiene. Girls who use pieces of old cloth as absorbent materials were less likely to have good menstrual hygiene practices as compared to

those who use sanitary pads (OR: 0.24, 95% C.I (0.104–0.55.104.55), $p=0.001$). Only 71.4% of schools had adequate toilets allocated for girls.

Conclusion & Recommendations

Despite improvement in the practice of menstrual hygiene among school girls, there are still several girls who have challenges accessing sanitary pads during menstruation, thus hindering their menstrual hygiene practice. Ensuring accessibility of sanitary pads among girls and improving WASH facilities in schools will improve menstrual hygiene practices.

P57

Promoting the uptake of family planning services among young mothers through first-time parents' intervention in Tanganyika and Uvinza districts

Ediphonce Joseph Mchau, Chaus Emmanuel, Vedastus Mugeta, Festo Komba, Felician Luchagula
Pathfinder International, Dar es Salaam, Tanzania

Correspondence: Ediphonce Joseph Mchau (ejoseph@pathfinder.org)
BMC Proceedings 2025, 19(29):P57

Background

Adolescents and youth face reproductive health challenges and limited livelihoods. Young mothers, a youth subset, have unique needs overlooked by traditional family planning (FP) programs. Funded by USAID, MOMENTUM Integrated Health Resilience (MIHR) implements the FTP intervention in 31 villages across Tanganyika and Uvinza districts, addressing these challenges by providing pregnancy timing information, enhancing RMNCAH service access, and facilitating income-generating activities (IGAs) for young mothers.

Program Intervention/Methodology

Peer leaders facilitate the intervention for first-time mothers (FTMs) - defined as women under 25 years old pregnant with or having one child. They engage in homogeneous groups with partners, mothers, and mothers-in-law. Monthly sessions cover FP, postpartum FP, gender, communication, decision-making, and child nutrition. The project also provides entrepreneurship training and supports IGAs for FTMs by connecting them with opportunities. Questionnaires were used to assess FP perception and care-seeking pre- and post-intervention, with data analyzed using descriptive statistics.

Results Finding

In March 2022 and November 2022, 234 FTMs were interviewed. At intake, 41% were aged 15–19, and the remaining 59% aged 20–24; 55% were married/cohabiting, 40% single, and 5% separated/divorced. Eighty-five percent had one child, and the rest were pregnant with their first child. Results between intake and outtake show significant changes in FP perception and uptake. The percentage of FTMs endorsing young women's FP use rose from 77% to 99%. Those believing contraceptives don't cause infertility increased from 70% to 92%. Additionally, FP method use among non-pregnant FTMs rose from 54% to 84%.

Program Implication & Lesson Learned

The tailored FTP intervention effectively enhances SRH knowledge and FP service uptake among young mothers. It helps delay their second pregnancy, contributing to their health and economic resilience.

P58

Empowering Adolescent Mothers in the Choice Of Contraceptive Methods At The Postpartum Period To Address Unintended Subsequent Pregnancy

Noel Maro¹, Lilian Mfugale², Wilfred Mongo², Noel Chibanji², Moke Magoma², Deus Ngerangera², Ramadhani Mlangi², Danielle Garfinkel²

¹Pathfinder International, Dodoma, Tanzania; ²EngenderHealth, Tanzania
Correspondence: Noel Maro (nmaro@pathfinder.org)

BMC Proceedings 2025, 19(29):P58

Background

Adolescent pregnancy is a major global health issue. Almost 80% of adolescent pregnancies are unplanned, and between 28% and 63% of adolescent mothers have a repeated pregnancy within 18 months, and this places them in overwhelming physical, social, economic, and psychological positions. We report on the provision of contraceptive methods at the postpartum period that help reduce subsequent unplanned pregnancies, decreasing the risk of maternal and child morbidity and mortality.

Program Intervention/Methodology

The SuFP program implemented by EngenderHealth, Pathfinder International, CCBRT and DKT aims to provide a broad range of contraceptive services, including PFP and PAC-FP. Approaches used includes integrating FP services with immunization activities, training/mentorship of service providers, engaging adolescent mothers in planning and provision of services, taking services closer to the community. Programme implementation data were analyzed in Excel for outreach services across 8 regions of Tanzania mainland and Zanzibar for the period of January 2022 to March 2024.

Results Finding

Of the 1,256,749-family planning (FP) outreach clients served in the past two years, 320,726 (26%) were adolescents (male and females). Of the 233,194 (19%) adolescent girls reached, 91% are adolescent mothers.

Program Implication & Lesson Learned

The review of program reports and client interviews revealed that outreaches have improved awareness and positive attitudes toward contraceptive uptake among adolescent mothers, demonstrating high acceptability. Evidence suggests availability of trained FP providers and methods will improve utilization of FP and thus reduce unintended subsequent pregnancies among adolescent mothers.

P59

Afya-Tek: Clients' Perceptions on Reproductive, Maternal, Newborn and Child Health (RMNCAH) Medicine use, availability & accessibility

Oscar Lugumamu¹, Emanuel Mang'ana², Neema Ringo²

¹Apotheker Health Access Initiative, Dar es Salaam, Tanzania; ²D-tree, Tanzania

Correspondence: Oscar Lugumamu (olugumamu@apotheker.co.tz)

BMC Proceedings 2025, 19(29):P59

Background

The research aimed to understand the barriers and challenges to accessing RMNCAH medicines and commodities through Accredited Drug Dispensing Outlets (ADDOs) and primary health facilities (HFs) for women, adolescents 18 and 19 years and children under the age of five in Kibaha District, Tanzania. The research results are grouped into four dimensions for accessing quality health care, medicines and commodities namely, demand, availability, affordability and accessibility of medicine

Material and Methods

Research was conducted at the ADDOs and HFs using qualitative (focus group discussion) and quantitative data (Survey) collection methods via a digital solution. The selected sample was 52% (100) and 48% (91) clients from Kibaha TC and Kibaha DC respectively. 191 exit interviews completed at ADDOs 48.6% (93) and 51.3% (98) at HFs also 30 qualitative (20 FGDs and 10 KIIs) done. The data collected was analyzed using STATA and thematic analysis for quantitative and qualitative data respectively.

Results

The results show a high demand for medicines among children under five, pregnant mothers and adolescents, with the lowest demand from postnatal women within 42 days. ADDOs served 76% of children under five, while HFs served 34% of pregnant mothers. Most clients received the medicines needed from both ADDOs (89%) and HFs (82%), though stock-outs and high costs were issues. Accessibility to medicines was good across all facilities, however

affordability was a challenge, with 46% of ADDO clients and 50% of HFs clients often lacking funds. However, 83% of ADDO clients and 40% of HFs clients found the prices fair.

Conclusion & Recommendations

ADDOs and health facilities in Kibaha effectively complement each other, addressing high demand for medicines. Challenges include stock-outs and affordability, especially for private facilities. ADDOs offer accessible, affordable options, crucial for rural clients, particularly for children and pregnant mothers, while providing necessary counseling service.

P60

Young people Steering Long-Acting Reversible Contraception Uptake: Programmatic Experience from USAID Afya Yangu Northern Tanzania

Emiliana Maswi¹, Jane Tesha¹, Anna Temba¹, Deus Ngerangera¹, Ramadhani Mlange¹, Roland Van de Ven², Fredrick Haraka²

¹EngenderHealth, Dar es Salaam, Tanzania; ²Elizabeth Glasser Pediatric Aids Foundation, Dar es Salaam

Correspondence: Emiliana Maswi (emaswi@engenderhealth.org)

BMC Proceedings 2025, 19(29):P60

Background

In Tanzania adolescents constitute 32% of the general population (2022 PHC) making them a crucial age group in-need of integrated reproductive healthcare (RH), including family planning. FP fosters healthy pregnancy outcomes, prevents unintended pregnancies and maternal deaths. USAID Afya Yangu Northern (2020-2027) supports provision of comprehensive ARH services in Arusha, Dodoma and Manyara. This study assesses the effectiveness of integrated RH interventions on the uptake of modern FP methods.

Program Intervention/Methodology

The project has built the capacity of health care providers in providing comprehensive integrated ARH services to enhance quality of life for young people. A retrospective analysis of the routine program data and DHIS-2 data among users of modern contraceptives inclusive of young people (10–24 years) was conducted for the period from October 2022 to March 2024. The data was analyzed using Excel to assess the FP uptake.

Results Finding

The project provided modern FP methods to 1,704,614 clients, including 426,525 (25%) were young people. The uptake of long-acting and reversible contraception (LARCs) among young people was 52% (221,313/426,525) compared to 38% (490,986/1,278,089) by adults. Among the 1,704,614 clients receiving FP methods, a subset of 39,565 (2%) were people living with HIV (PLHIV) including 5,520 (14%) young people. The uptake of LARCs among young PLHIV was 25% (1,374/5,520) compared to 16% (5,559/34,045) among adults.

Program Implication & Lesson Learned

The data presented underscores the efficacy of integrated RH services in reaching clients of diverse ages and reflects efforts in empowering clients to achieve reproductive goals. More multisectoral efforts to strengthen the integration of RH are needed to reduce missed opportunities for clients.

P61

Children with Special Healthcare Needs among patients admitted for acute malnutrition in rural Tanzania: retrospective analysis of population and defining factors

Francesca Dalla Porta¹, Martina Borellini¹, Laura Lucaccioni², Paolo Belardi¹, Emmanuel Kadinde³, Graston Mlimytonile³, Riccardo Buson¹, Lorenzo Lughetti²

¹Doctors with Africa CUAMM, Italy; ²Università degli Studi di Modena e Reggio Emilia, Italy; ³Tosamaganga Regional Referral Hospital, Iringa, Tanzania

Correspondence: Francesca Dalla Porta (f.dallaporta@cuamm.org)

BMC Proceedings 2025, 19(29):P61

Background

The relationship between malnutrition and disability has been increasingly recognized as bidirectional. Children with Special Healthcare Needs (CSHCN) are “those who have, or are at increased risk for, a chronic physical, developmental, behavioral, emotional condition and require health and related services of a type or amount beyond that required by children generally”. Our study aimed to assess the presence of CSHCN among our severely malnourished patients and characterize it.

Material and Methods

Retrospective descriptive analysis, data collected from January 1st - December 31st, 2022, for pediatric patients admitted for moderate and severe acute malnutrition to Tosamaganga Regional Referral Hospital's Malnutrition Unit, which has been supported since its creation by Doctors with Africa CUAMM, Italian NGO present in Tanzania since 1969. Data included anthropometric measurements and outcomes of inpatient and outpatient care provided according to Tanzanian guidelines (IMAM, 2019). The subpopulation of CSHCN children was studied and compared to the remaining cases.

Results

37/122 cases qualified as CSHCN: 35.1% for cerebral palsy, 8.1% for other neurological conditions, 5.4% for genetic syndromes, 35.1% for HIV-positive serostatus, 8.1% for chronic cardiopathies and 8.1% for prematurity. Regression studies showed two independent factors characterizing CSHCN alone: vomiting and milestone delay. The first, suggestive of wider feeding difficulty, resulting from multiple factors (oro-moto dysfunction, dysphagia, gastro-esophageal reflux, etc.), predisposes to malnutrition and to failure of treatment according to current protocols. The latter, assessed considering physiological milestones of neurocognitive and motor development, indicates neurodevelopmental disability, which has emerged not only as consequence but also as causative factor of malnutrition.

Conclusion & Recommendations

Our study confirms the presence of a significant population children qualifying as CSHCN in a Tanzanian low-resource setting, accounting for 30.3% of cases. Two factors emphasize the interaction between malnutrition and disability, especially neurodevelopmental one, prompting us to advocate for further research efforts and elaboration of specific guidelines.

P62

Enhancing Family Planning Programming Through Client Exits Interviews: Insight from SuFP Programme Tanzania Mainland and Zanzibar

Nasibu Mwanamsangu, Deus Ngerangera, Michael Tindo, Lilian Mfugale, Cosmas Kapinga, Moke Magoma, Kate O'Connell, Danielle Garfinkel EngenderHealth, Dar es Salaam, Tanzania

Correspondence: Nasibu Mwanamsangu (nmwanamsangu@engender-health.org)

BMC Proceedings 2025, 19(29):P62

Background

Client Exit Interviews (CEIs) are key for understanding service quality and comprehensiveness of family planning (FP) counseling for clients receiving RH services at health facilities. In the context of scaling up uptake of FP services where postpartum FP (PPFP) is included, measuring the comprehensiveness of counseling is vital. The SuFP programme conducts CEIs annually to assess the quality of FP counseling with regards to client satisfaction across its supported facilities.

Material and Methods

We completed a descriptive analysis of the programme's CEI results and PPFP uptake across 616 programme-supported health facilities. A total of 850 and 897 FP clients were interviewed in 2020 and 2023, respectively, across the 8 supported regions in Mainland Tanzania and Zanzibar to assess the quality of counseling on FP services. Analysis was done using MS Excel and STATA 17.

Results

Data demonstrated that as the reported quality of counseling increases the uptake of PPFP also increases. The results showed an increase in clients who reporting receiving comprehensive counseling from 88.0% in 2020 to 99.8% in 2023, and an increase in PPFP counseling and uptake from 11% in 2020 to 31% in 2023. Moreover, results show the number of clients counseled for PPFP also increased from 64,178 in 2020 to 535,967 in 2023 across 616 programme supported facilities.

Conclusion & Recommendations

The quality of FP counseling is important to foster the uptake FP services. CEIs are a feasible and useful approach to inform quality of counseling for interventions. SuFP programme will continue mentorship and coaching to healthcare providers to deliver comprehensive counseling to clients whilst monitoring the progress through future CEIs.

P63

Assessment of Knowledge, Attitude, Practices, And Beliefs on Emergency Contraceptive Pills among Women aged 18–30 in Kiambu County

Laura Nyiha, Edith Kandie, Jackie Nyambura, Judy Mbugua, Christopher Munyau, Fredrick Nundu, Harun Kimani, Isaac Mwanzo Kenyatta University, Nairobi, Kenya

Correspondence: Laura Nyiha (lauralynnnnyiha@gmail.com)

BMC Proceedings 2025, 19(29):P63

Background

Oral contraceptives have been met with cultural factors and negative beliefs that have negatively impacted the acceptability of this form of family planning in Kenya. Most of the negative beliefs point to the fact that these forms of family planning would cause serious side effects related to health and an individual's well-being. This study evaluated the knowledge, attitude, practices, and beliefs on emergency contraceptive pills among women.

Material and Methods

The study was a cross-sectional analytic study which included interviewer administered questionnaires after random sampling was done. The number of respondents was 188. The data collected was subjected to descriptive and inferential analysis using IBM SPSS, Chi Square and logistic regression. Tables were used for data presentation.

Results

Majority of the respondents had good knowledge on ECPs (54.3%) and level of knowledge was significantly associated with use of ECPs ($p = 0.027$). Majority of respondents had a negative attitude towards ECPs (51.1%) and the attitude of respondents was significantly associated with their use of ECPs ($p = 0.003$). Majority of respondents had negative beliefs (76.6%) towards ECPs and beliefs of respondents were significantly associated with the use of ECPs ($p = 0.001$).

Conclusion & Recommendations

The level of knowledge was significantly associated with use of ECPs ($p = 0.027$), attitude of respondents was significantly associated with use of ECPs ($p = 0.003$), and beliefs of respondents were significantly associated with the use of ECPs ($p = 0.001$).

P64

Performance, Job satisfaction and Associated Factors among Community Health Workers in Delivering Community-Based Health Care for MNCH

Girles Shaban Girl Effect, Dar es Salaam, Tanzania

Correspondence: Girles Shaban (girles.shaban@girleffect.org)

BMC Proceedings 2025, 19(29):P64

Background

Among other reasons for decreasing maternal mortality ratio is the utilization of community health workers. This study gives insights on how

the program can utilize community health workers by understanding their performance, satisfaction, and their associated factors toward providing community-based health care. The study was designed to explore the factors influencing the community health workers' job satisfaction and their performance to the provision of community-based health care (CBMNCH)

Material and Methods

A cross-sectional study deploying both quantitative and qualitative techniques was used in this research. A questionnaire survey was used in the quantitative approach to obtain the satisfaction, performance, and demographics of CHWs and other identified survey respondents. To complement the findings obtained from the quantitative, a qualitative technique including focus group discussion (FGDs) and key informant interviews (KIs) were conducted to explore the determinants and performances of community health workers in providing community based maternal, newborn and child health.

Results

Quantitatively, there was a relatively equal satisfaction level; 50.4% and 49.6% of CHWs reported a low and high level of satisfaction respectively. CHWs of ≥ 35 years were more likely to report high satisfaction (OR=2.05, $p<0.006$). The relationship between the satisfaction and number of children (OR=1.985, $p<0.022$) and the number of households in the community (OR=0.495, $p<0.021$) were statistically significant. Conversely, 214 (89.2%) expressed a high level of performance.

Qualitatively, access to transport facilities, CHWs selection, community acceptance, and acknowledgment, orientations, performing simple health facility services, and the relationship with health care workers were highlighted as key factors to the Performance.

Conclusion & Recommendations

Age, number of children, and the number of households served in the community had a direct impact on the performance and satisfaction of CHWs in both district in providing CBMNCH services.

The CBMNCH program should consider the selection process, linkage, and acknowledgment. It is also advised to consider age groups.

P65

Establishment of Skills and Simulation Laboratory, an Epicenter of Learning at the State University of Zanzibar (SUZA)

Dorice Twende¹, Nafisa Jiddawi², Grace Qorro¹, Shuwena Abdallah³

¹Laerdal Global Health; ²Wajamama Foundation, Zanzibar; ³School of Health and Medical Sciences, State University of Zanzibar, Zanzibar

Correspondence: Dorice Twende (dorice.twende@laerdal.com)

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Background

Laerdal Global Health, WAJAMAMA foundation and Ariadne Labs are collaborating on a program dedicated to improving quality of education at the State University of Zanzibar, School of Health and Medical Sciences. During the first phase of the project, collaborating partners were able to conduct a thorough needs assessment, establishment of high-fidelity skills and simulation lab, capacity building on simulation methodology and hosted a launching event of the simulation lab.

Program Intervention/Methodology

Comprehensive needs assessment comprised of:

1. Desk Review: (review of nursing-midwifery curricula, mapping of equipment needs against each nursing-midwifery competencies and skills lab required exposure time (as per curricula) according to student batch number
2. Qualitative Method: Interview (In-Depth interview with i) SUZA management and Mnazi Mmoja (clinical site) management ii) SUZA faculty; and Focused Group Discussions with SUZA students
3. Observation and Verification: Observation and verification of equipment at the skills lab, classroom and library, and clinical sites

Results Finding

Based on the findings, the mainstay of strengthening pre-service education was the establishment of high-quality simulation laboratory (to aid smooth transfer of knowledge to practice to enable the students obtain confidence in performing their skills and right attitudes) along with faculty development (capacity building of tutors) in implementing simulation-based education as a teaching methodology. Simulation acts as a learner-centred method which allows learning in a safe environment, mimicking the clinical scenarios where the students experience the situation and apply learned knowledge, think critically and gather meaning from the practice.

Program Implication & Lesson Learned

Although the current curricula is C-BET the main challenge remains in the availability of resources (human & materials) to operationalize it. Moreover, clinical attachment sites are not yet maximizing the learning potential of the students. High-quality simulation laboratories and use of simulation acts as a game changer towards improving pre-service education.

P66

Community engagement in Air Pollution Monitoring study: experiences from Moshi Municipality, Northern Tanzania

Julieth Bilakwate^{1,2}, Bibie Said^{2,3}, Ronald Mwasi^{1,4,2}, Blandina

Mmbaga^{1,4,2}, James Ngocho^{1,2}

¹Kilimanjaro Christian Medical University College, Kilimanjaro, Tanzania;

²Kilimanjaro Clinical Research Institute (KCRI), Kilimanjaro, Tanzania;

³Kibong'oto Infectious Disease Hospital, Kilimanjaro, Tanzania; ⁴Kilimanjaro Christian Medical Centre, Kilimanjaro, Tanzania

Correspondence: Julieth Bilakwate (julieth.sebba@kcmuco.ac.tz)

BMC Proceedings 2025, 19(29):P66

Background

The burden of human diseases linked to air pollution including asthma is rising in sub-Saharan Africa. Community awareness of the sources and impacts of air pollution is essential in creating sustainable solutions. However, misconceptions about device safety and concerns over personal data collection make community air pollution monitoring challenging. We aimed to engage the community in collecting community air pollution exposure data for school children in Moshi Municipality, Northern Tanzania.

Material and Methods

We held a stakeholder meeting with parents, teachers, and government officials to brainstorm community air pollution data collection. School workshops and radio sessions raised awareness and addressed misinformation. Four Primary schools in Moshi municipality were purposively selected for their exposure risk. After screening asthmatic pupils were trained and used backpacks with monitors to collect air exposure data across school, homes, and commutes. Peak flow meters were used to obtain daily lung function measurements. Stakeholder feedback guided data display and dissemination.

Results

For the first time, we engaged the community in designing the data collection method. Pupils and their families supported the research team by conducting evening lung function tests at home with remote support. Parents ensured the safety of the bags. Through air pollution monitoring, we found pupils experienced high exposure to air pollution while commuting also, those schooling around the industrial areas experienced air pollution compared to other areas. The research team engaged with pupils and teachers during workshops while radio sessions raised awareness among community at large on reducing air pollution, especially at home by using clean cooking fuel.

Conclusion & Recommendations

Community participatory design of data collection strategies can effectively achieve over 24 hours of community data collection. Coordinated efforts among stakeholders in the country are necessary to identify context-specific sources of air pollution and create sustainable solutions.

P67

High Prevalence of Sickle Cell Disease in Low Endemic Areas: A Pilot Study in Chunya Tanzania

Amani Twaha^{1,2}, Deocles Donatus³, Khanafi Said⁴, Moshi Moshi Shabani⁵, Maryjesca Mafie⁶, Stamily Ramadhani², Abdulrahman Hussein², Nazareth Mbilinyi⁷, Adam Kilungu⁸, Gwenyth Lee⁹, Kasia Maksym¹⁰

¹Regency Medical Center, Dar es Salaam, Tanzania; ²University of Dar es Salaam, Mbeya College of Health and Allied Sciences, Mbeya, Tanzania;

³Kamextra Pharmacy, Mbeya, Tanzania; ⁴The Research Department, One Health Society (OHS), Temeke, Dar es Salaam, Tanzania; ⁵The Department of Biomedical Research and Clinical Trials, Ifakara Health Institute,

Bagamoyo; ⁶The Laboratory Department, Mbeya Zonal Referral Hospital, Mbeya, Tanzania; ⁷Department of Pediatrics, Mbeya Zonal Referral Hospital, Mbeya, Tanzania; ⁸Head of Department of Hematology, Mbeya Zonal Referral Hospital, Mbeya, Tanzania; ⁹The Department of Biostatistics and Epidemiology, Rutgers School of Public Health, New Jersey, USA;

¹⁰University College London Hospital, United Kingdom

Correspondence: Amani Twaha (atwaha250@gmail.com)

BMC Proceedings 2025, 19(29):P67

Background

Tanzania has the fifth-highest prevalence of sickle cell disease (SCD) worldwide 11,000 births annually. Without interventions, only 10% survive to their fifth birthday. Climate change causes migration searching for arable land impacts SCD epidemiology. Suboptimal screening leads to late diagnosis while early diagnosis enables timely management, improves quality of life, and reduces the financial burden. This Study assesses opportunity to improve early identification of SCD risk in Chunya, Tanzania.

Material and Methods

Resource mobilization and stakeholder meetings were conducted, followed by a one-week campaign led by volunteers targeting secondary schools, hospitals, and the community in Mbeya Region, using onsite events, radio, and social media to promote screening for sickle cell disease. A cross-sectional study was conducted in Chunya District in February, 2020. About 523 community members, sorted based on their tribe's geographical origin, were screened using a point-of care test (sickle scan) with a sensitivity of 100% and a specificity of 99.2%.

Results

Among candidates, 54% were female, 46 % male. Ages ranged from one day to 64 years, median age of 16 years, SD 9.8 years. Candidates were sorted by tribes into 49 groups based on geography: Southern highlands, Central, East and Lake zones, further categorized by endemicity. SCD prevalence was 1.9%, and SCT prevalence was 8.4%. Having both parents from the low Endemic area is protective (OR 0.4), and both from the High Endemic area pose a risk (OR 6.0), Having a sibling with SCD (OR 11) also significant risk factor. All factors were statistically significant with a *P* value <0.005.

Conclusion & Recommendations

The prevalence of SCD in the Southern Highlands is increasing due to factors including migration. New strategies for screening, such as community-based genetic counseling and mobile health units, establishing a centre for Excellence and developing a referral algorithm should be developed to enable early diagnosis and management of SCD.

P68

"Closer Look: Unique Challenges Faced by HIV Positive Women Who are Using/Inject Drugs in Prenatal, Antenatal, and Postnatal Care"

Damali Lucas Kabwali¹, Grace Albert Mbawala², Agnes Wambura Hotis¹, Juma Kwame Mhina¹, Dr Cassian Leonard Nyandindi³

¹Tanzania Network for People Who Use Drugs (TaNPUD), Tanzania;

²Health Aid and Care for the Future Foundation (HACFF), Tanzania; ³Drug

Control and Enforcement Authority (DCEA), Tanzania

Correspondence: Damali Lucas Kabwali (damakabwali@gmail.com)

BMC Proceedings 2025, 19(29):P68

Background

WWUD/WWID experience stigma in society due to drug use. This put them in a high-risks of HIV and other blood borne infections. In 2011, MdM Tanzania conducted A Rapid Assessment PWUD/PWID in Temeke districts report showed; 36 WWID, 37 WWUD recruited for study, 24 WWID, 15 WWUD tested HIV+ which is 66.7% WWID and 40.5% WWUD. Among of 10 WWID, 3 WWUD tested HCV+ with 27.8% WWID and 8.1% WWUD.

Case Report**Description:**

In 2019 and 2021, HACFF reached 9 WWID and 19 WWUD in Dar es Salaam through hotspots and brothels. HACFF trained 3 WWID/WWUD for harm reduction outreach service delivery and referral for further medical services.

Findings:

18 women referred for medical services, 3 WWID and 2 WWUD referred for HTS tested positive for HIV, in different period tested positive for pregnant were referred for PMTCT services. They didn't have enough knowledge regarding pregnancy and drug use. During following up 3 got miscarriages due to violence and drug use. The remaining two pregnancy mothers referred for Methadone Services (MAT). After delivery, following up their testing schedule for their Infants Exposed to HIV (IEH) 1 of the two babies delivered tested positive for HIV. The mother didn't adhere for antenatal and postnatal clinics until are following up in their hotspots. They experienced stigma from fellow women at clinic and HCW due to their appearance, this made them to default from PMTCT.

Conclusion

Gender-based harm reduction program for WWID/WWUD should be strengthened by having special centers to support them during pre-natal, pregnancy and postnatal care for them and their babies in social and medical services. Training to HCW will reduce stigma and discrimination during service delivery at antenatal and PMTCT center.

P69

Youth Access to Health Services: Adaptation and Scaling of the Beyond-Bias Model

Haikael Mandari^{1,2,3}, Deus Kapinga², Upendo Laizer²

¹Y Labs, USA; ²T-MARC, Tanzania; ³United States Agency International Development, Tanzania

Correspondence: Haikael Mandari (hmandari@gmail.com)

BMC Proceedings 2025, 19(29):P69

Background

Tanzania's population is predominantly young, with 32% aged 15–24 (Tanzania Census, 2022). Despite their numbers, youth health needs are often overlooked. In sub-Saharan Africa, adolescents face significant sexual and reproductive health (SRH) challenges, including limited access to youth-friendly services (YFS) like information on growth, gender-based violence, sexuality, and family planning. Barriers to accessing SRH services lead to risky sexual behavior, high STI and HIV rates, early pregnancies, and delivery complications.

Program Intervention/Methodology

Beyond Bias model, a project implemented by Pathfinder and UNICEF in Dar es Salaam and Songwe regions, takes a comprehensive approach to activate provider behavior change to ensure the provision of unbiased and non-judgmental reproductive health service to youth.

The USAID Kijana Nahodha project, in collaboration with the Ministry of Health in Zanzibar and Tanzania Mainland, expanded this impactful model to 50 additional health facilities in Morogoro and Zanzibar. The project also incorporated new components; nutrition, mental health, and malaria.

Results Finding

The project observed an increase in youth accessing youth-friendly services at the project sites from July 2023 to April 2024. The feedback collected from 481 youths in April 2024, indicates:

1. 99.5% youth acknowledged that HCPs provided friendly services with politeness and sympathy, demonstrating attentiveness and careful listening compared to 64.2% at the baseline.
2. 99.4% youth confirmed that services were provided in a confidential manner within closed rooms, compared to 69.6% at the baseline.
3. 98.8% youth recognized that HCPs allowed youth to express their opinions and comments during service provision, compared to 64.2% at the baseline

Program Implication & Lesson Learned

Provision of non-judgmental and unbiased youth-friendly health services is critical towards reducing rate of STIs and HIV prevalence among youth, early pregnancy, and vulnerability to delivery complications. There is a strong need to continue strengthening and addressing existing barriers before rolling out the Beyond Bias program across all health facilities.

P70

Family Planning and Nutrition Services in Tanzania: A Review of Policy and Program Documents

Yohana Laiser¹, Innocent Yusufu¹, Mashavu Yussuf¹, Kevin Kashamba¹, Uttara Partap², Sachin Shinde², Amani Tinkasimile¹, Shraddha Bajaria¹, Innocent Mboya¹, Given Sam¹, Frank Mapendo¹, Ndeniria Swai³, Mohamed Mang'una³, Iqbal Shah², Mary-Mwanyika Sando¹, Wafae Fawzi²
¹Africa Academy for Public Health; ²Harvard T.H. Chan School of Public Health; ³Dar es Salaam Regional Medical Office of Health

Correspondence: Yohana Laiser (ylaiser@aaph.or.tz)

BMC Proceedings 2025, 19(29):P70

Background

Women of reproductive age (WRA) in Tanzania are prone to diverse complications during pregnancy as a consequence of an interplay between family planning and nutrition among other factors. Integration of these services in routine healthcare services have the potential to ensure desirable health outcomes for the mother and child. We aimed to examine mechanisms and practices outlined in policies and programs for integrating family planning and nutrition services in Tanzania.

Material and Methods

We conducted a desk review of 25 family planning and nutrition policy and program documents produced between 2010 and 2022 in Tanzania. This review encompassed official documents obtained from government websites, health departments and from key stakeholders. Data were extracted using a standardized data extraction tool and analyzed using the Walt and Gilson policy triangle framework.

Results

Evidence suggested limited information on integration. Six documents had an element of integration but lacked implementation details. One document entailed an integrated program of family planning and nutrition services by combining newborn nutrition and birth spacing. Mothers were encouraged to exclusively breastfeed for six months, then transition to modern family planning methods for better birth spacing. Activities included engaging influential community members, lactation amenorrhea method (LAM) tracking and follow-ups by community health workers and self-tracking tools, capacity building and monthly supervision. Key outcomes were increased exclusive breastfeeding prevalence and proportion of mothers using LAM transitioning to another modern method.

Conclusion & Recommendations

This study provides an overview of the integration of family planning and nutrition policies and programs in healthcare services in Tanzania to stimulate uptake and improve health outcomes. This integrated approach should be further explored to generate evidence and ultimately contribute to decision making in future policies and programs.

P71

Reducing Neonatal Mortality at Dodoma Regional Referral Hospital: Successful Interventions and Outcomes

Glory Massawe, Swalehe Salum, Hadijah Tangazo
 Dodoma Regional Referral Hospital, Dodoma, Tanzania

Correspondence: Glory Massawe (dorothymassawe13@gmail.com)

BMC Proceedings 2025, 19(29):P71

Background

Perinatal mortality, encompassing late pregnancy and early infancy deaths, remains a critical challenge in Dodoma, Tanzania. Despite advances in maternal and neonatal care, imbalances persist, particularly in resource-limited settings. By monitoring and addressing perinatal mortality in hospitals can improve maternal and neonatal outcomes, intervene able factors such as proper delivery practices and perinatal care can significantly impact mortality rates

Material and Methods

In this retrospective study, we analyzed perinatal mortality data from the Neonatal Unit and NICU at Dodoma Regional Referral Hospital, Dodoma, Tanzania. The data from January 2021 to May 2024. Interventions were introduced in July 2022. Data collected from hospital records, focusing on the number of admissions and perinatal deaths monthly. We conducted a statistical analysis to compare the perinatal mortality rates before (January 2021 to June 2022) and after (July 2022 to May 2024) the introduction of the interventions.

Results

The analysis revealed a reduction in perinatal mortality rates following the implementation of the interventions. The average perinatal mortality rate decreased from 114.1 per 1000 admissions in the pre-intervention period to 82.9 per 1000 admissions in the post-intervention period. Specifically, the monthly mortality rates showed a significant decline from an average of 119.9 per 1000 in 2022 to 96.4 per 1000 in 2023, and further down to 61.7 per 1000 admissions in the first five months of 2024.

Conclusion & Recommendations

The implementation of advanced neonatal care practices, enhanced infection control measures, and improved neonatal resuscitation protocols at Dodoma Regional Referral Hospital significantly reduced perinatal mortality rates. These findings show the importance of targeted interventions in improving perinatal outcomes in a resource-limited setting. Further research is recommended to sustain these improvements.

P72

The prevalence, outcomes and factors associated with caesarian sections among women delivered in Njombe region from March to May 2024.

Jonhas Masatu^{1,2}, Rose Mpembeni², Roghat Kishimba³, Ismail Habib⁴

¹Tanzania Field Epidemiology and Laboratory Training Program, Tanzania;

²Department of Epidemiology and Biostatistics, School of Public Health and Social Sciences, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ³Tanzania Field Epidemiology and Laboratory Training Program (TFELTP) Dodoma, Tanzania; ⁴Reproductive and Child Health Directorate (RCH), Ministry of Health (MoH), Dodoma, Tanzania.

Correspondence: Jonhas Masatu (masatu.jm@gmail.com)

BMC Proceedings 2025, 19(29):P72

Background

The caesarean section (CS) rate in Tanzania is a public health concern, particularly in the Njombe region, which reported 29% rate in the year exceeding the World Health Organization's recommended threshold of 15%. Excessive CS utilization carries significant maternal and neonatal health risks. We aimed to investigate CS prevalence, outcomes, and associated factors among women delivering in the Njombe region from March-May 2024 since there is limited data.

Material and Methods

We conducted facility-based cross-sectional study utilizing quantitative methods. A multistage cluster sampling technique was used to recruit 567 postpartum women from four hospitals and two health centers offering caesarean section services across three District councils in Njombe region. Data collection was conducted using the Kobo Toolbox, and descriptive statistics and proportions were employed for preliminary data analysis. To identify associated factors, we used Stata version 15 to perform both bi variate and multivariate analyses, with significance determined at $p < 0.05$.

Results

Prevalence of CS in Njombe region was 46%, with 57% fetal deaths among post-caesarean women. Factors associated with CS were Kinga tribe (aOR = 1.21, $p = 0.03$), business/self-employed partners (aOR = 1.36, $p = 0.01$), single (aOR = 1.32, $p = 0.041$), ANC visits 13+ weeksGA (aOR = 1.25, $p = 0.031$), height <150 cm (aOR = 1.67, $p = 0.001$), danger signs during pregnancy (aOR = 1.44, $p = 0.05$), baby weight > 4.1 kg (aOR = 1.87, $p = 0.002$), religious-based facilities (aOR = 1.68, $p = 0.041$), and NHIF financing (aOR = 1.65, $p = 0.000$).

Conclusion & Recommendations

CS was associated with social demographic factors like occupation, tribes and marital status, ANC related factors like ANC visits, height <150 cm, chronic medical conditions, Health facilities factors like Referral, facilities ownership, Enrolled Nurses, NHIF financing method, and baby sex, baby weights, twins, GA and danger signs during pregnant period.

P73

Use of the Power to Girls (PtG) methodology to improve access and uptake to sexual reproductive health among adolescents

Elizabeth Dossa^{1,2}, Revocatus Sono¹, Lusekelo Njongo³, Joseph Massenga³, Rita Noronha³, Gerald Vitus Kihwele⁴

¹Amani Girls Organization, Mwanza, Tanzania; ²USAID Afya Yangu-Mama na Mtoto, Tanzania; ³John Hopkins Program for International Education in Gynecology and Obstetrics, Mwanza, Tanzania; ⁴Ministry of Health, Dodoma, Tanzania

Correspondence: Elizabeth Dossa (elizabethdossa64@gmail.com)

BMC Proceedings 2025, 19(29):P73

Background

Young people in Tanzania still face limited access to Sexual and Reproductive Health information and services, this being a contributing factor to high number of teen pregnancies. The USAID Afya Yangu Mama na Mtoto project adopted and implements Power to Girls (PtG) methodology, a community mobilization process to address harmful social norms affecting access of SRH information and services, and promoting positive health seeking behaviors among adolescents and youth.

Program Intervention/Methodology

Using the PtG methodology with 4 phases (start, awareness, support, and action), a total of 222 peer volunteers; Girl Mentors (165 female) and Youth Health Champions (57 males) aged between 18–24 years were engaged and capacitated to establish clubs and conduct weekly Sexual Reproductive Health sessions for in and out of school adolescents and youth. Additionally, 69 school focal person from 24 selected secondary schools and 90 health care providers were engaged to ensure smooth linkages to health facilities.

Results Finding

In the period of January to December 2023, the trained GMs and YHCs established 327 out of school groups and 255 in school clubs across 11 project supported regions and Zanzibar. A total of 279,695 adolescent and youth were reached with comprehensive ASRH education, of which 13393 adolescents were identified and linked to obtain health services the health facilities; ANC (329), FP (6,661), L&D (41), and other reasons such as STI Screening, HPV (6,311). 10,772 (80%) of the total adolescent and youth referred to adolescent friendly health services successfully accessed the services.

Program Implication & Lesson Learned

Empowering and deploying a network of PtG trained mentors, champions and health care to provide an improved access to ASRH information among adolescents and generates demand and utilization of RMNCAH services at health facilities.

P74

Community-health workers and the need for a new model: Lesson from evaluation of an integrated community-based health intervention

Mangi Ezekiel¹, Winfrida Onesmo¹, Lilian Kapinga², Melanie Yahner³, Sarah Elaraby³

¹School of Public Health & Social Sciences, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²Save the Children International, Tanzania; ³Save the Children, USA

Correspondence: Mangi Ezekiel (e_mangi@yahoo.com)

BMC Proceedings 2025, 19(29):P74

Background

Community health workers (CHWs) are the backbone of community health globally, yet they are often under-resourced. In Tanzania, CHWs are volunteers relying on time-limited donor-funded projects for training, tools, supervision, and stipends. We worked with CHWs to implement an integrated health initiative for adolescent and young first-time mothers ages 15–24 years (FTMs) to improve child nutrition and postpartum family planning (PPFP) use through community support groups and home visits.

Material and Methods

We conducted a qualitative study to understand how community health activities are shaped by the health system context, and the mechanisms by which they produce intended and unintended outcomes. In 2023, we conducted 22 in-depth interviews with national officials ($n=5$), regional and local officials ($n=5$), CHW supervisors ($n=4$), and CHWs ($n=8$). This study was complemented by implementation learning group discussions (with 30 CHWs and 7 supervisors) exploring feasibility and acceptability of community-based approaches to CHWs and their supervisors throughout implementation.

Results

Our findings demonstrate that CHWs are perceived by decision-makers as an integral part of healthcare delivery, and their role aligns with government priorities. Yet coverage and support to this cadre is fragmented and unsystematic, with trainings, scopes of work, recruitment procedures and incentives varying by project. Additionally, CHWs' roles are stymied by weak coordination mechanisms, supportive supervision, and recognition. Participants highlighted the important role of community leaders in supporting CHW work and facilitating access to community members. Despite the low financial incentives, CHWs emphasized their passion, commitment to and the pride that they take in serving their communities.

Conclusion & Recommendations

Our findings support current governmental initiatives to standardize and formalize CHW training nationwide. We recommend that the shift from the volunteer model towards a salaried CHW cadre be accompanied with enhanced supportive supervision, and stronger referral mechanisms to improve community health quality and coverage and to realize strategic health goals.

P75

Prevalence, knowledge, and attitude on emergency contraceptive use among female students from higher learning institutions in Dodoma region, March 2024

Astelius Kalugaba Alistides, Secilia Kapalata Ng'weshemi, Mangu Kipara Kujonjo

University of Dodoma, Dodoma, Tanzania

Correspondence: Astelius Kalugaba Alistides (asterium104@gmail.com)
BMC Proceedings 2025, 19(29):P75

Background

Despite being one of the contraceptive methods, emergency contraception is meant to be only applicable in the emergency settings though some of female students tend misuse them which impart significant health consequences to them. Currently, information regarding knowledge on emergency contraception is scarce and this study was designed to fill this gap.

Material and Methods

A cross-sectional study design was employed, and female students from certificates to postgraduate levels were conveniently sampled in specific colleges/schools (SoMD, SoNPH, CoED, CIVE, SOCIAL, COESE, HUMANITY and LAW) from The University of Dodoma. 502 participants were interviewed, but only 385 completed the survey and provided information through a designed online kobo toolbox questionnaire, data was analyzed using SPSS software and results obtained.

Results

Among female students, 69.9% were aged 18–23, 26.5% aged 24–29, 2.6% aged 30–35 whereas only 1% were aged 36–41 whereby mean age was 22.8. Among respondents, 77.1% are taking degree programs, 18.4% diploma programs, 3.4% postgraduate students and 4% taking certificate programs where 89.9% were unmarried. Among married, 82.1% ever used contraceptive(s), Among unmarried, 74.6% had at least one male partner where by 80.9% living in hostels. Male condom being the most used contraceptive and levorprogestrel being the most used emergency contraceptive by 59.7%. 70.6% showed negative attitude and 81.8% awareness.

Conclusion & Recommendations

Findings indicate relatively low prevalence and knowledge on emergency contraceptive use in Dodoma region despite the level of awareness on emergency contraceptives being high. This news highlights the need for continued efforts to maintain and improve healthy sexual practices in the area through targeted health education initiatives with new policies.

P76

Applying Human Centered Design Approach towards co-designing the community Respectful Care (RMC) package of interventions (SBC Strategy)

Musa Lunyonga¹, John Fulli¹, Neema Isuja²

¹Americares, Tanzania; ²Breakthrough Action Tanzania – JHU

Correspondence: Musa Lunyonga (mlunyonga@americares.org)

BMC Proceedings 2025, 19(29):P76

Background

USAID Uzazi staha project collaborated with Breakthrough Action Tanzania to develop an SBC strategy and community RMC package of interventions based on local context/formative research findings. The package aims to address behavioral determinants, drivers, and barriers among women of reproductive age (WRA), girls, male partners, and communities in RMNCAH and FP service uptake, while also emphasizing client rights and RMC-seeking behaviors.

Program Intervention/Methodology

The process was rigorous that entailed ideation, prototyping, pre-testing, and iterative refinement of SBC packages using an HCD

approach. The project also engaged PORALG, MOH, R/CHMTs, and IPs to develop tools that will be used to provide a step-by-step guidance on implementation, monitoring, and evaluation of the community RMC package of interventions under the CPRC project. Then the tools and materials were submitted to the MOH content review committee as a normal procedure when you develop any material in the country.

Results Finding

This process ultimately led to the identification of four distinct interventions including Health Market (**Gulio Afya**), a Feedback and Reporting Mechanism (**Mifumo ya Utoaji Maoni na Mrejesho**), Neighborhood Health Platform (**Nzenzo Afya**), and men's corners (**Vijiwe vya Wanaume**) will be implemented in the coming project year. This process ultimately led to the identification of four distinct interventions including Health Market (**Gulio Afya**), a Feedback and Reporting Mechanism (**Mifumo ya Utoaji Maoni na Mrejesho**), Neighborhood Health Platform (**Nzenzo Afya**), and men's corners (**Vijiwe vya Wanaume**) that are currently implementing by the project year.

Program Implication & Lesson Learned

The human-centered approach emphasizes both the perspective and participation of the people we are trying to serve at every step, resulting in more inclusive, tailored and empowering solutions.

P77

Innovative mobile app for enhancing Reproductive, maternal and child health through early detection of cervical cancer

Mary Yonaza

Kampala International University, Dar es Salaam, Tanzania

Correspondence: Mary Yonaza (mbonea64@gmail.com)

BMC Proceedings 2025, 19(29):P77

Background

Cervical cancer is a health challenge for women worldwide, often misdiagnosed due to symptom overlap with other conditions like (UTIs) and sexually transmitted infections (STIs). To show this issue, I propose an innovative mobile application made to educate women on the specific symptoms of cervical cancer, empowering them to go for medical check up soon. This app for the knowledge, show the diagnostic process, ensuring timely and accurate medical intervention.

Case Report

The app shows symptom checklists, educational resources, and self-assessment tools made to help users distinguish between symptoms of cervical cancer and those of UTIs and STIs. By providing clear, a information, the app encourages women to discuss their concerns with healthcare providers, leading to earlier detection and treatment, app has symptom tracking feature, for users to follow changes gradually.

For Doctors, the app offers a clinical decision support tool that shows potential cervical cancer symptoms based on patient history. This helps doctors in prioritizing diagnostic tests for cervical cancer, reducing the chance of misdiagnosis and unnecessary treatments for other conditions.

The business model for this app is offering basic educational and symptom tracking for free, while advanced features such as personalized health recommendations, direct communication with healthcare providers, and access to consultations are available through a subscription service. Income will also be through partnerships with healthcare institutions and pharmaceutical companies, offering advertising and sponsored content within the app

Conclusion

This app not only empowers women with health information but also enhances the quality of the healthcare system, ensuring that more women receive the care they need soon. By including education, symptom tracking, clinical support, this innovative solution has the potential to improve women's health and reduce the burden.

P78

The Impacts of Donor Funded Project on Reproductive, Maternal, Newborn, and Child Health Performance in Serengeti District - Tanzania

Hassan Hamad
Serengeti District Council - Health Department, Open University of Tanzania

Correspondence: Hassan Hamad (h.hamad68@yahoo.com)
BMC Proceedings 2025, 19(29):P78

Background

Statistics shows that, donor development on Reproductive Maternal Newborn and Child Health worldwide has been tripled between 2003 and 2013; however, it was not known whether this ear-marked given funds have translated the lives of the people into better outcomes. But some studies report, the amount of official development assistance funds plus (ODA+) grants from the Bill & Melinda Gates Foundation increased by 25% over the period to nearly US\$14 billion (Glormmanet al., 2017).

Material and Methods

The study used correlation research design under quantitative research approach. Again the study involved 100 respondents in which data were collected by using questionnaires. Data were organized and analyzed by using Statistical Package for Social Scientist (SPSS).

Results

Findings indicated that, donor funded project contributes to reproductive and maternal care as it promoted safe delivery, reduced maternal death and promoting family planning status with a coefficient of 476,542,336,336, and 272. Again study findings revealed that donor funded projects significantly contribute to newborn well-being as they have improved provision of vaccination and reduced neonatal deaths with a coefficient of 492,524,314,308, and 243. Also correlate with a coefficient of 473,546,322,320 and 253 on improving nutritional status and promote child immunization.

Conclusion & Recommendations

The study findings conclude that there is positive correlation between the impacts of donor funded projects and Reproductive, Maternal, Newborn and Child Health, performance by correlation coefficient of 0.592 which statistically significant relationships

The study recommended that there is a need of improving public private partnership regarding on health project.

P79

Improving Experience and Non-Dignified Care during Childbirth: Findings from Respectful Maternal Care Project in Lake Zone Tanzania

Amasha Mwanamsangu¹, Scholastica Chibehe¹, Musa Lunyonga¹, Secilia Mrema², Yeronimo Mlawa³, John Fulli¹, Saman Nizami¹

¹USAID Uzazi Staha Project, USAID Respectful Maternal Care, Americares Foundation, Mwanza, Tanzania; ²Regional Secretariat, Regional Health Management Team, Mwanza, Tanzania; ³United State Agency International Development, Tanzania

Correspondence: Amasha Mwanamsangu (amwanamsangu@americares.org)

BMC Proceedings 2025, 19(29):P79

Background

Empowerment of women and families by increasing their knowledge of what services they should receive, how they should be treated and their rights, is important in trajectory of independent decision making leading to increased care seeking and improved quality of services. A significant issue emerging recently and well recognized globally, is the prevalence of disrespect and abuse and a lack of respectful maternity care in maternity services around the world

Program Intervention/Methodology

We analyzed data from cross-sectional community based household survey conducted by USAID Uzazi Staha project among 1,427 women

of reproductive age (WRA) aged 15–49 years who had given birth in one year preceding the survey in five councils of Mwanza region in April 2023. A two-proportion Z-test statistical hypothesis used to determine women's experiences of care during childbirth proportions during formative assessment and during mid-line evaluation are different.

Results Finding

Of the 1,427 women who delivered at health facilities, 582 (40.8%) delivered in eight project supported health facilities and 90.2% reported they were treated with respect. Moreover, there is notable D&A issues reported among women experienced types of D&A, overall 23.7% experienced any form of D&A specifically, 7.9% experienced verbal abuse, 6.4% physical abuse and 16.6% non-consented care. The analysis shows statistically difference in proportion of women experienced verbal abuse and physical abuse during L&D as well as women provide informed consent prior examination/services and treated in a friendly manner during childbirth compared to baseline findings.

Program Implication & Lesson Learned

The analysis revealed, improvement in women experienced high-level respectful maternal care during childbirth. The project should strengthen the respectful maternal care interventions in order to sustain gains obtained from implementation. Responsible stakeholders must disseminate the guidelines and strategies to monitor and harmonize respectful maternal care practices at all institutions.

P80

Assessing the Acceptability of the Group Antenatal Care (G-ANC) approach in improving the coverage of antenatal care visits in Geita

Hamid Mandali¹, Alen Kinyina¹, Raymond Bandio¹, Augustino Hellar¹, Yusuph Kulindwa¹, Frank Phiri¹, Abubakari Munga¹, Husna Athuman¹, Susan Massawe¹, Omari Sukari², Isaac Lyatuu¹

¹Prime Health Initiative Tanzania; ²Regional Secretariat (RS)-Geita, Tanzania

Correspondence: Hamid Mandali (hamidmandali@gmail.com)

BMC Proceedings 2025, 19(29):P80

Background

In Tanzania, the antenatal care (ANC) coverage of at least four visits is less than 51%. As such, various approaches have been taken to ensure high coverage of ANC visits, including the implementation of the Group Antenatal Care (G-ANC) model. G-ANC is a service delivery model where women with pregnancies of similar gestational age are brought together for ANC, incorporating information sharing, individual clinical consultation, and peer support.

Material and Methods

Six facilities were purposefully selected (stratified by hospitals, health centers and dispensaries) for participation in the G-ANC. We conducted interviews with pregnant women or mothers who have delivered within the past 6 months from each of the selected facilities' catchment areas. The snowball sampling method used to reach women who participated in G-ANC previously. In-depth interviews (IDs) conducted with ANC providers and health managers. Interviews were audio recorded and transcribed verbatim and findings were organized according to the themes raised.

Results

The study found that G-ANC model increased ANC attendance from 49% before introducing G-ANC to 91% after introducing G-ANC, improved health literacy and client satisfaction. Pregnant women indicate a preference for G-ANC over the routine ANC, citing its promotion of social connectedness and active engagement in learning about their health as compelling features of the model.

Conclusion & Recommendations

Effectiveness of G-ANC at increasing ANC retention, satisfaction and social connectedness indicate the acceptability of G-ANC to pregnant women and providers. These findings support a scale-up of this model beyond the Geita region to engage women in self-care, service satisfaction and ultimately increased coverage of health services utilization during pregnancy.

P81

Public Private Partnership and Its Effectiveness in Reduction of Under-Five Mortality Rate in Kilolo District Councils

Easter Mbunju

Kilolo District Council, Iringa, Tanzania

Correspondence: Easter Mbunju (embunju@gmail.com)*BMC Proceedings 2025, 19(29):P81***Background**

Public Private Partnerships (PPP) in health service delivery are gaining acceptance in developing countries, including Tanzania, to reach more people. Despite this, evidence on the model's effectiveness in Tanzania remains insufficient. This study explored PPP's impact on reducing the under-five mortality rate in Kilolo District Council, aiming to assess its effectiveness and contribution to improving health outcomes in the region.

Material and Methods

This study used a case study design, collecting and analyzing both qualitative and quantitative data. Quantitative data were coded and processed using SPSS software, while qualitative data were analyzed through content analysis. The sample included 220 respondents: council health management team members, council management team members, health workers, and health beneficiaries. Both primary and secondary data collection methods were employed to gather comprehensive insights for the study.

Results

Private-Public Partnerships (PPPs) effectively reduce the under-five mortality rate by pooling resources and expertise from both sectors. The study found significant relationships between service availability, accessibility, reliability, and affordability, with *P* values of 0.271, 0.230, 0.284, and 0.251, respectively. PPPs reduced the under-five mortality rate in Kilolo District from 171 deaths (22/1000) in 2015 to 46 deaths (1/1000) in 2022. This success is attributed to substantial improvements in comprehensive emergency maternal and neonatal care services, particularly when focusing on service availability, reliability, accessibility, and affordability.

Conclusion & Recommendations

The study found that public private partnership is effective in improvement and provision of reproductive health care services in Kilolo District Council. It is therefore recommended that the government should encourage partnership with different stakeholders in provision of medical equipment, financial, infrastructure and human resources in Hospitals.

P82

Self-medication with Antibiotics and Associated Factors among Under-Fives presenting with Fever In Dar-Es-Salaam, Tanzania.Innocent Kileo^{1,2}, Anab Issa¹, Loveness Kimaro³, Alfateresia Mwasangama³, Obrey Urio^{1,3}, Mecky Matee¹¹Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²Mwanza Intervention Trials Unit, National Institute of Medical Research, Mwanza, Tanzania; ³University of Cape Town, South Africa**Correspondence:** Innocent Kileo (innocentabisa2012@gmail.com)*BMC Proceedings 2025, 19(29):P82***Background**

Antibiotic self-medication is one of the most common forms of pediatric antibiotic misuse. It occurs since childhood illnesses often manifest as fever, prompting caretakers to try treating them before presenting to hospitals. This fuels development of antibiotic resistance especially in low-resource settings where AMR surveillance is insufficient. Our study aimed to determine the prevalence and factors associated with antibiotic self-medication in febrile under-fives at selected hospitals in Dar es Salaam.

Material and Methods

A hospital-based cross-sectional study was conducted at selected regional referral hospitals in Dar es Salaam including Amana, Mwananyamala, and Temeke. Quantitative data was collected from 308 parents/guardians with febrile under-fives presenting at pediatrics outpatient clinics. The data was cleaned, checked for correctness, and analyzed using SPSS V26 software. Descriptive statistics were applied for categorical and numerical variables, and a multiple logistic regression model was used to determine independent factors associated with antibiotic self-medication. *P*-value < 0.05 was considered statistically significant.

Results

Out of the 308 participants, 153 (49.7%) had given medications to their febrile children before presenting to the hospitals. Of these, almost a quarter (23.1%) had self-medicated their children with antibiotics. The most commonly used antibiotics were Amoxicillin (33%), Ampiclox (19%), Ampicillin (15%) and Metronidazole (12%). The main sources of pre-hospital treatment were buying from drug stores without a prescription 71% (109/153), leftover medicines at home 20% (30/153), and medication from neighbors or friends 8% (12/153). Being older (*P*=0.026), having high-grade fever (*P*=0.003), and being medically insured (*P*=0.013), were independently associated with children's self-medication with antibiotics.

Conclusion & Recommendations

Antibiotics self-medication for under-five febrile illness is prevalent in Tanzania facilitated by the ease access of to antibiotics from drug stores and the use of leftover medications at home. We thus recommend more effective implementation of antibiotic dispensing regulations and implementation of interventions for the safe disposal of home leftover medications.

P83

Availability of Nutrition services at reproductive and Child Health clinics in addressing maternal and child nutrition in Moshi urban, Kilimanjaro

Rozina Shirima

Kibong'oto Infectious Diseases Hospital, Kilimanjaro, Tanzania

Correspondence: Rozina Shirima (rozeshirima@gmail.com)*BMC Proceedings 2025, 19(29):P83***Background**

Nutritional status in pregnancy is a key determinant of birth outcomes. Under nutrition among pregnant women is clearly linked to negative maternal health outcomes. Maternal and Child Health care services include a variety of components such as antenatal care, care during child birth, postpartum care, and family planning, prevention and management of infertility as they are essential component to promote family health.

Material and Methods

This study examined the availability of nutrition services at Reproductive and Child Health clinics in addressing maternal and nutrition in Moshi Urban District involving 65 pregnant women and five RCH providers from two selected health facilities. Structured questionnaires and focus group discussions were used in data collection and analyzed by SPSS version 21.

Results

Results showed that, RCH providers had inadequate nutrition knowledge due to limited nutrition courses during nursing training and in-service training. The study also revealed that majority of the respondents 72.3% said that the Antenatal Clinic (ANC) services are very important to all pregnant women and it is appropriate to start ANC during the first trimester. About 98.5% of women were not satisfied with antenatal services provided at the surveyed clinics. Reasons mentioned were inadequate nutrition services provided, shortage of skilled service providers, some services are unaffordable.

Conclusion & Recommendations

This study recommends that continuous in-service nutrition education programs among RCH providers, improving working conditions and hiring clinical nutritionists in each Health facility may improve nutrition management among pregnant mothers at RCH clinics in Tanzania.

P84

First, do no harm: Considering unintended consequences of male partner engagement in reproductive health

Mangi Ezekiel¹, Lilian Kapinga¹, Judith Kimambo¹, Sarah Elaraby², Melanie Yahner²

¹Save the Children International- Tanzania office; ²Save the Children, USA

Correspondence: Mangi Ezekiel (e_mangi@yahoo.com)

BMC Proceedings 2025, 19(29):P84

Background

Men are important stakeholders in family planning (FP) and reproductive health (RH) programming. Male partner engagement can improve support for women and girls to use FP methods and foster positive gender norms. Many countries, including Tanzania, designed approaches to encourage male partner attendance during FP counseling, but few programs assessed the possible unintended consequences for these approaches.

Program Intervention/Methodology

To improve FP use among adolescent and young first-time mothers (FTMs), we designed an integrated community-based program using community support groups, and home visits to provide FP information, counseling, referrals and distribute methods. To illustrate the unintended consequences of male-partner engagement identified in this program, we share insights from formative qualitative research during the design phase, multiple rounds of “pause-and-reflect” sessions with community-health workers (CHWs), discussion groups with FTMs and their family members, and a cross-sectional survey with FTMs.

Results Finding

At the facility level, some providers misinterpreted strategies to encourage male participation as mandates for male partner attendance. Out of 1,129 FTMs surveyed, 31% believed they needed male partner attendance to receive FP methods, and 27% to access any health service. CHWs reported that unpartnered FTMs (34% of our sample) might resort to “hiring” men to pose as their partners to receive services.

At the community level, CHWs engage male partners in FP counseling during home visits. However, some FTMs preferred discussing FP questions privately, or receiving services covertly to avoid their male partner interference with their FP access.

Program Implication & Lesson Learned

Public health programmers need to assess the contextual gender influences and ensure monitoring of unintended consequences while supporting male engagement in FP services. This includes ensuring that women's and girls' agency and access to services are protected, particularly for vulnerable women and girls due to age, partnership status, and poverty.

P85

Determinants of Exclusive Breastfeeding Practices among Lactating Mothers at Mwembeladu Maternity Hospital, Zanzibar

Ali Hamad

Zanzibar Health Research Institute, Zanzibar

Correspondence: Ali Hamad (alibinshehe@gmail.com)

BMC Proceedings 2025, 19(29):P85

Background

Breastfeeding is crucial for child health, but only a small percentage of infants under six months are exclusively breastfed, contrary to WHO recommendations. South Asia has the highest prevalence, while France has

the lowest. Despite improvements in low- and middle-income countries, exclusive breastfeeding rates still fall short of international targets. Aims to identify the determinants of exclusive breastfeeding practices among lactating mothers at Mwembeladu maternity hospital, Zanzibar

Material and Methods

A cross-sectional study was conducted among 280 mothers using structured questionnaires. Data were collected on demographic information, knowledge about exclusive breastfeeding, attitudes towards breastfeeding, and breastfeeding practices. MS Excel and SPSS were used for cleaning and analysis, and descriptive statistics were employed to highlight frequencies and percentages to describe the determinants of exclusive breastfeeding.

Results

The study found that a significant proportion of mothers (83.2%) were knowledgeable about the meaning of exclusive breastfeeding, with 80.7% correctly identifying the recommended duration. Positive attitudes towards exclusive breastfeeding were prevalent, with 97.9% believing in its importance for child health. However, challenges such as perceived insufficient milk supply (39.0%) and lack of support (13.7%) were identified as barriers to sustaining exclusive breastfeeding practices. Despite these challenges, 85.7% of mothers reported initiating breastfeeding, with 54.3% practising exclusive breastfeeding for 4–6 months.

Conclusion & Recommendations

The study highlights positive attitudes towards exclusive breastfeeding among Zanzibar mothers, but challenges like inadequate support systems and milk supply concerns hinder optimal practices. Recommendations include health education, community support, breastfeeding-friendly policies, and research.

P86

Assessment of the effect and short-term maintenance of essential newborn interventions within 28 days of life in Morogoro Region

Federica Laurenti¹, Benatus Sambili¹, Lillian Lauwo¹, Augustine Kuwawenaruwa², Irene Mushi², Daniel Nkundu³, Hawa Ngasongwa³, Rajabu Mrutu⁴

¹SolidarMed, Tanzania; ²Ifakara Health Institute, Morogoro, Tanzania;

³Morogoro Regional Referral Hospital, Morogoro, Tanzania; ⁴St Francis Referral Hospital, Morogoro, Tanzania

Correspondence: Federica Laurenti (flaurenti@solidarmed.ch)

BMC Proceedings 2025, 19(29):P86

Background

SolidarMed, a Swiss Organization for Health in Africa, has been implementing a three-year project to increase the survival rate of newborns in Morogoro Regional Referral Hospital (MRRH), Kibaoni Health Centre (KHC), and Mahenge District Hospital (MDH) in partnership with the Government of Tanzania through the regional and hospital management teams and the Ifakara Health Institute (IHI).

Material and Methods

Methods: To investigate short-term maintenance of the impact of the interventions, our study employed a mixed-method approach. Phase one data collection was conducted between February and June 2023. A total of 340 newborns were admitted to the Neonatal Care Unit (NCU) with at least one of the following conditions: low birth weight (< 2.5 kg), birth asphyxia, neonatal sepsis or neonatal jaundice. Additionally, we conducted 70 in-depth interviews with caregivers. The data was analyzed using a thematic content analysis.

Results

It was found that 56% were newborns with low birth weight, 39% had birth asphyxia, and 9% had neonatal jaundice. Whereas 49% of caregivers practised KMC, 23% needed continuous positive airway pressure, 28% needed neonatal resuscitation, and 96% received antibiotic therapy against infection. About 6% of newborns were reported to have respiratory infections during household and facility follow-up, respectively. At the household level, adherence to KMC differs among

caregivers due to the availability of social support and the presence of close relatives, husbands and siblings who provided support. Moreover, low-birthweight babies are still related to negative connotated superstitions and beliefs

Conclusion & Recommendations

The majority received antibiotic prescriptions; however, to reduce the risks of infections and antimicrobial resistance, caregivers must adhere to the prescribed care of newborns. In addition, to ensure that adequate time for KMC is fulfilled, mothers require support, and the community should be sensitized.

P87

Impact of the COVID-19 Pandemic on Cancer Care for Children under Five in Northern Tanzania: A Cross-Sectional Study

Happiness Kajoka¹, Yotham Gwanika², Hannah Rice³, Madeline Metcalf⁴, Pamela Espinoza⁴, Henry Rice^{4,5}, Catherine Staton^{4,6}, Blandina Mmbaga^{4,7,1}, Ester Majaliwa^{2,1}, Cesia Cotache-Condor^{4,5}, Emily Smith^{4,6}

¹Kilimanjaro Christian Medical University College, Kilimanjaro, Tanzania;

²Pediatric Hematology and Oncology Services, Kilimanjaro Christian Medical Centre, Kilimanjaro, Tanzania; ³Duke Primary Care, Population Health, Duke University, Durham, NC, USA; ⁴Duke Global Health Institute, Duke University, Durham, NC, USA; ⁵Duke Center for Global Surgery and Health Equity, Duke University, Durham, NC, USA; ⁶Division of Emergency Medicine, Department of Surgery, Duke University Medical Center, Durham, NC, USA; ⁷Kilimanjaro Clinical Research Institute, Kilimanjaro Christian Medical Centre, Kilimanjaro, Tanzania

Correspondence: Happiness Kajoka (happinessduncan97@gmail.com) *BMC Proceedings 2025, 19(29):P87*

Background

The COVID-19 pandemic has strained healthcare systems, particularly impacting children requiring cancer care in low- and middle-income countries (LMICs). Nearly 400,000 children are diagnosed with cancer annually, with limited funding for LMICs. The pandemic exacerbated healthcare disparities, making young children especially vulnerable. This study assesses the pandemic's impact on cancer care access for children under five in Northern Tanzania.

Material and Methods

In this cross-sectional study, we assessed the demographic and clinical characteristics of 196 pediatric cancer patients under five years old between 2016 and 2022 using the Kilimanjaro Cancer Registry (KCR). Data were categorized into pre-COVID-19 (2016–2019) and COVID-19 (2020–2022) eras, with descriptive analyses of diagnostic, treatment, and demographic information. A secondary analysis on 67 patients examined the stage of diagnosis. Statistical analyses compared variables between periods, focusing on the pandemic's impact on cancer care.

Results

Admissions nearly doubled during the pandemic ($n=67$ versus 129). Comparing pre-COVID-19 to COVID-19 eras, demographic characteristics such as age, sex, and region remained consistent. However, treatment modalities showed significant differences. The use of surgery increased significantly during the pandemic (43.4%) compared to the pre-pandemic period (16.4%) ($p<0.01$). Chemotherapy and radiotherapy usage did not significantly change between the two periods. Most patients were diagnosed at a late stage (stage III or IV) across eras and no significant differences were found in their survival rates. These findings suggest that while treatment approaches changed, overall outcomes remained stable during the COVID-19 pandemic.

Conclusion & Recommendations

The study highlights while the COVID-19 pandemic led to increased surgical interventions for young cancer patients in Northern Tanzania, it did not significantly alter survival rates or the stage of diagnosis. This underscores the resilience of cancer care systems in adapting to global health crises while maintaining essential treatment outcomes.

P88

Engagement of young people and people with lived experience in mental health; context from Tanzania and Ghana

Innocent Yusufu¹, Samuel Adjorlolo², Mashavu Yussuf¹, Ravinder Kaur³, Natasha Comeau³, Sahil Chopra³, Amani Tinkasimile¹, Shraddha Bajaria¹, Innocent Mboya¹, Annika Reynold⁴, Sachin Shinde⁵, Adom Manu², Hailey Marleau³, Derrick Holdbrook², Esther Abandoh Sam², David Sando⁶, Fileuka Ngakogwa⁷, Mary Mwanyika Sando¹, Wafaie Fawzi⁵

¹Africa Academy for Public Health, Dar es Salaam, Tanzania; ²University of Ghana, Accra, Ghana; ³Grand Challenges Canada; ⁴Heidelberg Institute of Global Health, Germany; ⁵Harvard T.H. Chan School of Public Health, Boston, USA; ⁶Management and Development for Health, Dar es Salaam, Tanzania; ⁷Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Innocent Yusufu (iyusufu@aaph.or.tz)

BMC Proceedings 2025, 19(29):P88

Background

Mental health issues among young people account for 13% of the global burden of disease in this age group. Youth engagement is key in redesigning mental health services and success of relevant interventions. Being, an international initiative, advocates for rights-based, culturally appropriate care, empowering youth to lead their mental health journey within supportive communities. This project examined the roles, challenges, and impact of involving young people and individuals with lived experience in mental health initiatives.

Material and Methods

We used an interest and influence matrix to systematically identify key stakeholders to the young people's mental health ecosystem in Tanzania and Ghana. More than 100 participants were engaged through workshops, semi-structured interviews, focus group discussions and online surveys. Participants included young people, people with lived experiences, parents, mental health professionals, non-governmental organizations, funders, and policy makers. Data were analyzed using thematic analysis to identify patterns and themes related to engagement and participation.

Results

Findings reveal that there has been limited engagement of young people in the design of research, intervention and policy in relation to their mental health and wellbeing. Young people have mostly been engaged as objects and not as subjects in these initiatives. Stakeholders emphasized youth and individuals with lived experience can playing a critical role in advocacy, peer support, and the co-creation of mental health initiatives. However, barriers such as stigma on mental health, low awareness on mental health issues and drivers, lack of efficient safeguarding mechanisms, limited resources, and limited training opportunities hinder their full participation.

Conclusion & Recommendations

The project emphasizes culturally sensitive approaches and policies promoting sustainable engagement of young people and those with lived experiences. Recommendations include increased investment in mental health prevention, using schools for education and resilience, providing platforms for youth voices, and fostering stakeholder partnerships.

P89

Reducing Anemia and Complications in Pregnancy: The Success of Group Prenatal Care in Zanzibar

Nafisa Jiddawi, Morwhenna Jose
WAJAMAMA Foundation, Zanzibar

Correspondence: Nafisa Jiddawi (nafisa.jiddawi@wajamama.com)

BMC Proceedings 2025, 19(29):P89

Background

WAJAMAMA Foundation initiated Zanzibar's first Group Prenatal Care (GPC) model in 2022, which has since supported over 800 women. The program now operates in five government RCH clinics across Unguja Island. The GPC model enhances prenatal care attendance and compliance, offering comprehensive care, community-based interactive

learning, and supportive frameworks, which has led to a decrease in complications and an increased sense of empowerment for women attending the program.

Program Intervention/Methodology

This antenatal care model involves cohorts of 8–13 women with similar delivery dates receiving care in a group setting. Participants are taught to monitor and measure their own weight and blood pressure and engage in facilitated discussions about pregnancy, postpartum, and infant health. Clinicians perform routine antenatal checks, including anemia monitoring, fetal movement checks, and urine tests.

Results Finding

The GPC model significantly improved maternal health outcomes, reducing anemia prevalence by 36% and lowering preeclampsia rates. Participants experienced fewer pregnancy and birth complications and a declining stillbirth rate of 3.54 to 1000 births. The GPC model has shown promise in improving anemia levels, reducing complications such as preeclampsia, postpartum hemorrhage (PPH), and stillbirths, and increasing prenatal care attendance and compliance rates. However, addressing persistently high anemia levels among pregnant women in Zanzibar remains a critical priority.

Program Implication & Lesson Learned

Efforts should focus on enhancing knowledge and resources to improve hemoglobin levels during pregnancy, implementing targeted interventions for high-risk pregnancies, incorporating postpartum depression support, and strengthening healthcare providers' skills. Addressing these issues can improve maternal and neonatal health outcomes and promote the well-being of women and children in Zanzibar.

P90

Assessment of Adolescent-Friendly SRHR Services in Ulanga District Council using mystery clients

Pendo Masunga¹, Benatus Sambili¹, Mary Yagalla¹, Karolin Pfeiffer², Michael Hobbins², Esther Kyungu³

¹SolidarMed, Ifakara, Morogoro, Tanzania; ²SolidarMed, Switzerland;

³Tanzania Training Centre for International Health, Dodoma, Tanzania

Correspondence: Pendo Masunga (p.masunga@solidarmed.ch)

BMC Proceedings 2025, 19(29):P90

Background

Adolescents constitute a significant demographic globally and influence public health trends. Despite the adoption of the WHO Adolescent-Friendly Health Services (AFHS) model by governments, unmet needs for sexual and reproductive health and rights remain high.

Objective: This study aimed to evaluate the friendliness of adolescent sexual and reproductive health services in Ulanga District Council from the perspective of mystery clients.

Material and Methods

Qualitative assessment utilized the mystery client technique at 7 out of 20 primary health care facilities providing AFSRHS in Ulanga. Facilities were selected using stratified random sampling to ensure representation. Mystery clients (3 males and 3 females) visited each facility three times, presenting scenarios such as condom requests, STI information, and family planning services. Post-visit, semi-structured, in-depth interviews were conducted with each mystery client using bilingual guides. Thematic analysis of digitally recorded interviews and consultations was performed using NVivo 12.

Results

Of 21 visits, 19 resulted in successful service provision. Positive aspects included healthcare workers' attitudes, timeliness, availability of family planning commodities (especially male condoms), and free consultations. However, challenges included a lack of privacy and confidentiality, judgmental attitudes, gender norms affecting service provision, inadequate healthcare worker skills and educational materials, and inconsistent adolescent-specific service schedules. Female mystery clients reported more unfavourable incidents than males.

Conclusion & Recommendations

The mystery client methodology highlighted client-provider dynamics and identified barriers to accessing adolescent SRH services. While services were accessible, their quality varied and often did not meet WHO standards for AFHS. Continuous training, monitoring, and evaluation of are crucial, along with investments in human, information, infrastructure to improve service quality.

P91

Using social media to unlock unmet sexual reproductive health needs among adolescents and youth

Deogratius Rimoy¹, Lusekelo Njonge², Deozawadi Marandu², Joseph Massenga², Rita Noronha², Yeronimo Mlawa³, Alice Christensen², Gerald Kihwele⁴

¹Tanzania Communication and Development Center (TCDC); ²John Hopkins Program International Education in Gynecology and Obstetrics, Tanzania; ³United States Agency International Development, Tanzania;

⁴Ministry of Health, Dodoma, Tanzania

Correspondence: Deogratius Rimoy (drimoy@tcddct.org)

BMC Proceedings 2025, 19(29):P91

Background

Globally, adolescent birth rates remain high at 44 births per 1,000 girls aged 15–19 years. In Tanzania, the rate is 132 births per 1,000 adolescent girls. To combat teenage pregnancy, USAID Afya Yangu - Mama na Mtoto employs strategies to raise awareness about family planning (FP) benefits, including leveraging social media to engage youth in discussions about FP, addressing myths and misconceptions, and promoting peer support.

Program Intervention/Methodology

The project used nano and micro influencers for a 10-week social media campaign on family planning (FP) for adolescents and youth in Dar es Salaam, Mwanza, and Tabora. Using Instagram, Twitter, Facebook, and YouTube, influencers posted twice weekly, engaging followers with videos, pictures, and testimonials. They responded to follower questions and shared lists of adolescent-friendly health facilities. Engagement and sentiment were tracked biweekly via AI platforms.

Results Finding

The social media campaigns reached 6,283,051 adolescents and youth (2,810,636 in April–September 2022 and 3,473,051 in October 2022–September 2023) in Dar es Salaam, Mwanza, and Tabora. These efforts, alongside other interventions, increased FP service uptake from 168,511 in year one to 431,778 in year two. Instagram and Twitter had the highest reach and engagement, with Dar es Salaam leading in Instagram (698,400) and Twitter (1,002,000). Mwanza had a lower reach, with Instagram (624,500) being the highest. Tabora had the lowest reach, with Instagram (119,799) and Twitter (102,800). Instagram consistently outperformed other platforms across all regions.

Program Implication & Lesson Learned

Using multiple social media platforms effectively provided reliable FP information, instilled confidence, and increased service utilization among adolescents and youth. It also promoted contraception as a social norm. Continuing to use varied platforms can further reach diverse youth and support family planning and reproductive health issues.

P92

Infertility Patterns, Risks, and Fertility Treatment in Patients at Benjamin Mkapa Hospital: Analytical Cross-sectional Study

Anna Kasililika¹, Hindu Hussein¹, Henry Stephen¹, Secilia Ngweshemi², Alphonse ChandikAa¹

¹Benjamin Mkapa Hospital, Dodoma, Tanzania; ²University of Dodoma, Dodoma, Tanzania

Correspondence: Anna Kasililika (annarosemary04@gmail.com)

BMC Proceedings 2025, 19(29):92

Background

Infertility affects 1 in 6 couples globally, leading to profound negative impacts on quality of life, including verbal/physical abuse, social stigma, sexual dysfunction, divorce and risks of multiple partners. Despite numerous studies on infertility patterns, risk factors, and treatments, clarity is lacking on these aspects among patients at Benjamin Mkapa Hospital in Dodoma Region, Tanzania.

Material and Methods

This study aims to determine infertility patterns, risk factors, and prior fertility treatment utilization among patients at Benjamin Mkapa Hospital. The study, conducted at Benjamin Mkapa Hospital in Dodoma, involved 385 male and female infertility patients attending the Assisted Reproductive Clinic. Data collection utilized structured clinical proformas, capturing socio-demographics, risk factors, and prior fertility treatments through patient interviews. Data analysis, employing SPSS version 25, comprised descriptive and inferential statistics, with significance set at $p < 0.05$.

Results

Secondary infertility was predominant (59%). Multivariable logistic regression analysis identified significant risk factors: older age (38–43 years) (AOR 5.068, 95% CI 1.573–16.33.573.33, $P = 0.007$), marriage duration (>10 years) (AOR 0.406, 95% CI 0.189–0.873.189.873, $P = 0.021$), infrequent sexual intercourse (<3 times/week) (AOR 0.554, 95% CI 0.348–0.883.348.883, $P = 0.013$), and cesarean history in females (AOR 1.152, 95% CI 0.0418–0.553.0418.553, $P = 0.004$). Pre-existing treatments included Assisted Reproduction technologies (4.94%), herbal medications (42%), with most males lacking medical or surgical infertility interventions.

Conclusion & Recommendations

Secondary infertility emerges as the dominant pattern, linked to advanced age, prolonged marriage, infrequent intercourse, and cesarean history. The study reveals suboptimal male infertility management, extensive herbal medication use among females, and limited Assisted Reproduction Technologies (ART) accessibility. The study advocates for national-level implementation of ART services in public hospitals.

P93

Approaches to improve the uptake of postpartum family planning, a case study of Katavi, Kigoma, Rukwa and Songwe regions, Tanzania

Kasanga Mkambu¹, Simon Ng'oboko¹, Christian Ndomba¹, Benedict Nyiro¹, Benedicta Masanja¹, Bernadetha Kumalija², Elida Machungwa², Eva Mwakuyasa², Asha Izina², Eva Matiko¹, Bhavin Jani³, Selina Mathias³
¹Tanzania Health Promotion Support, Dar es Salaam, Tanzania; ²Regional Health Management Team, Tanzania; ³United States Agency International Development, Tanzania

Correspondence: Kasanga Mkambu (kkmkambu@thps.or.tz)

BMC Proceedings 2025, 19(29):P93

Background

Post-partum family planning (PPFP) is among the high-impact strategic interventions to accelerate family planning (FP) uptake. Despite this, PPFP coverage in Tanzania is below the envisioned FP 2030 national benchmark of 40% in many regions in the country. We describe interventions implemented to increase PPFP coverage in Katavi, Kigoma, Rukwa and Songwe regions.

Program Intervention/Methodology

USAID Uhuru wa Afya, a five-year project implemented in 253 health facilities since October 1, 2020, supported the revision of National PPFP training materials, trained 121 health care workers to provide comprehensive FP and PPFP health education and counselling from ANC, labour and postnatal period. We conducted supportive supervisions, on-the-job trainings and mentorship to health care workers and community health workers, and monitor data quality. We also gap-filled supplies and reporting tools. DHIS2 dataset was used to analyze PPFP coverage.

Results Finding

Comparing the three-year periods before (January 2018– December 2020) and during the intervention (January 2021– December 2023), the average proportion recently delivered mothers who received immediate (within 48 hours) and early (up to 42 days) PPFP increased from 3% (21,179/723,831) to 29% (222,181/760,407). During the implementation period, the majority of FP users were adults aged over 20 years (85%, 187,326/222,181), and most preferred methods are implants (70%, 156,033/222,181) and pills (19%, 42,201/222,181), while condoms (5%, 11,783/222,181) and IUCD (4%, 8,603) were less popular.

Program Implication & Lesson Learned

The combined capacity enhancement strategy, availability of the National PPFP training materials and proper reporting tools coupled with provision of health education about FP benefits in the community, at ANC, intrapartum and postpartum period are cost effective interventions to accelerate PPFP uptake and achieving the FP2030 targets.

P94

Healthcare Providers' Perceptions on using CPAP treatment to improve newborn survival in Tanzania

Jitihada Baraka

Ifakara Health Institute, Morogoro, Tanzania

Correspondence: Jitihada Baraka (jbaraka@ihi.or.tz)

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Background

The objective of the study is to document and evaluate observed improvements in neonates receiving Continuous Positive Airway Pressure (CPAP) therapy from both parental and healthcare provider perspectives. While CPAP is commonly assessed in clinical studies for medical outcomes, capturing the insights of parents who offer valuable observations on their neonate's well-being and critical condition improvements provides a comprehensive understanding of the therapy's effectiveness.

Material and Methods

In a study conducted with NEST360 across seven public tertiary hospitals in Tanzania, qualitative methods were employed to gather data through two focus group discussions (FGDs) and 20 in-depth interviews (IDIs). Participants were purposively sampled from these hospitals and provided informed consent. Semi-structured interview guides addressed topics such as Decision-Making and Involvement, Observing the Effects, Ethical and Family Considerations, Quality Improvement, and Patient Outcomes. All interviews were audio-recorded, transcribed, and analyzed using thematic analysis to identify key themes and insights.

Results

All respondents reported significant improvements following the introduction of CPAP therapy. Key observations included enhanced sleep quality, more stable breathing patterns, and increased alertness during wakeful periods. There was also a reduction in the frequency of respiratory distress episodes and an overall improvement in the neonates' behavior and comfort. Parents noted increased confidence in managing their babies' respiratory needs, a more positive outlook on their health, and reduced concerns about nasal injuries. Overall, CPAP therapy was frequently described as a lifesaving intervention for neonates.

Conclusion & Recommendations

To ensure high-quality care for small and sick newborns during health system shocks, detailed planning and adequate budgeting are essential. Key investments in reliable oxygen, power sources, disposable consumables, and spare parts for neonatal equipment are critical for reducing neonatal mortality and meeting the Sustainable Development Goals by 2030.

P95

Regular mentorship to enhance the coverage and quality of newborn care in Dar es Salaam, Mbeya, and Kilimanjaro region, Tanzania

Josephat Cyprian Mutakamilwa¹, Robert Tillya¹, Josephine Shabani¹, Jennie Jaribu¹, Nahya Salim^{2,1}

¹Ifakara Health Institute, Dodoma, Tanzania; ²Muhimbili University of Health and Allied Science, Dar es Salaam, Tanzania

Correspondence: Josephat Cyprian Mutakamilwa (jmutakamilwa@ihi.or.tz)

BMC Proceedings 2025, 19(29):P95

Background

Many African countries, including Tanzania, need to double or triple their progress rates to achieve the Sustainable Development Goals (SDG) 3.2 target of fewer than 12 neonatal deaths per 1,000 live births by 2030. NEST360, in collaboration with the Ministry of Health (MoH) Tanzania, has been conducting regular training and mentorship for clinical and biomedical staff at implementing facilities.

Program Intervention/Methodology

Mentors were chosen based on their involvement in equipment user training, neonatal care guidelines courses, and Generic Instructor Courses (GIC). The mentorship adhered to the National Operational Guide for Integrated Competence-Based Clinical Mentorship in Maternal, Newborn, Child, and Adolescent Health Services. Using the NEST360 implementation tracker (NEST IT), mentors identified gaps and conducted three-day sessions in labor and delivery wards, operating rooms, postnatal wards, and neonatal units. Regular follow-ups and data tracking were performed with NEST IT.

Results Finding

From June 2022 to June 2024, CPAP coverage for eligible babies increased by 33%. During this period, the number of babies without hypothermia upon admission improved by 26%, and the number without hypothermia during hospital stays improved by 14%. Kangaroo Mother Care (KMC) also saw a 32% improvement. However, phototherapy coverage decreased by 12%, despite some fluctuations in intervention rates. Performance variability among facilities was influenced by leadership commitment, accountability, and data usage. The variety of CPAP brands may have contributed to the increase in CPAP coverage, while the insufficient number of phototherapies contributed to the low coverage.

Program Implication & Lesson Learned

Clinical mentorship can potentially enhance the coverage and quality of newborn care interventions.

P96

Forecasting CPAP Demand for Neonatal Inpatient Care in Tanzanian Healthcare Facilities: A Machine Learning Algorithms Approach

Irabi Kassim, Robert Tillya, Jitihad Baraka, Jenni Jaribu, Josephine Shabani, Donat Shamba, Nahya Salim, Honorati Masanja

Ifakara Health Institute, Morogoro, Tanzania

Correspondence: Irabi Kassim (ikassim@ihi.or.tz)

BMC Proceedings 2025, 19(29):P96

Background

Effective continuous positive airway pressure (CPAP) device management is crucial in neonatal intensive care units (NICUs) to ensure optimal treatment outcomes for small and sick babies. This study leverages advanced machine learning techniques to forecast CPAP demand across multiple healthcare facilities in Tanzania, aiming to enhance resource allocation and improve healthcare delivery in resource-constrained settings.

Material and Methods

Data were collected from three regional referral, two tertiary, and two zonal hospitals from December 2020 to June 2024. Initially, 67,416

records were obtained; filtering for neonates with specific conditions reduced this to 10,633. Further preprocessing narrowed it down to 8,132 records. Python libraries (scikit-learn, Pandas, Matplotlib) were used for analysis. Gradient Boosting, Random Forest, and XGBoost models were developed and evaluated with 80% training and 20% testing data, using metrics such as MAE, MSE, RMSE, R^2 , EVS, and MAPE.

Results

The Gradient Boosting model demonstrated predictive solid performance with an R^2 of 0.9993324 and MAPE of 0.0106. The Random Forest model achieved outstanding accuracy, with an R^2 of 0.9999889 and MAPE of 0.0002. The XGBoost model delivered superior performance, achieving an R^2 of 0.9999999 and MAPE of 0.0000245, indicating near-perfect predictions. These models exhibit high potential for improving CPAP demand forecasting in neonatal care settings, highlighting the effectiveness of ensemble learning methods.

Conclusion & Recommendations

This study highlights machine learning's potential to forecast CPAP demand in Tanzanian neonatal care facilities, with XGBoost as the top performed model. These algorithms can improve resource allocation, operational planning, and patient outcomes in resource-limited settings.

P97

Using storytelling to address stigma in people living with HIV

Yvette Kruger¹, Shannon Pincus¹, Roland Van de Ven²

¹Matchboxology, Johannesburg, South Africa; ²Elizabeth Glaser Pediatric AIDS Foundation, Dar es Salaam, Tanzania

Correspondence: Yvette Kruger (yvette@matchboxology.com)

BMC Proceedings 2025, 19(29):P97

Background

The USAID Afya Yangu (My Health) Northern project, used human-centered design (HCD) as an approach to explore gaps in comprehensive client-centered service delivery. Storytelling through a simple children's book emerged as a way to build empathy while reducing stigma.

Program Intervention/Methodology

Immersion interviews were undertaken with 44 community members including people living with HIV as well as 15 healthcare providers (across rural and peri-urban sites). Immersion interview techniques guided conversations that probed at uncovering PLHIV and health care provider insights on health-related decision-making, as well as understanding perceptions, opinions, and ecosystem realities. Immersion interviewees and stakeholders involved in the health system attended two inclusive co-creation workshops to develop prototypes, using a viable, feasible and desirable lens to prioritize prototypes for implementation.

Results Finding

Through personification of a river named Tara, the illustrated story uses analogies to explain HIV, facilitating an opportunity for children and their caretakers to discuss HIV.

Pre-testing with stakeholders (85 adults) and the target audience (44 children) found the story of Tara to be effective in explaining HIV to young children. Anecdotal evidence suggests decreased feelings of stigma as a result of these interventions. The variability and creativity inherent to storytelling allows for flexibility in its application, with opportunities to apply this technique to address a diverse range of people with a range of health concerns and psycho-social factors.

Program Implication & Lesson Learned

Stories and storytelling is one option for promoting social and behavioral change in Tanzania; specifically, it has great potential as a tool for developing empathy for people living with HIV and disseminating health information.

P98

A Four Years Longitudinal Study of Childhood Vaccination Trends and Supply Chain Resilience in Tanzania amid COVID-19 Pandemic

Raphael Sangeda¹, Daniel James¹, Harrison Mariki², Mbenea Erick Mbwambo², Mwendwa E. Mwenesi³, Honesti Nyaki³, Florian Tinuga³, Daudi Peter Manyanga⁴

¹Department of Pharmaceutical Microbiology, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²Department of Research and Development, Afya Intelligence, Dar es Salaam, Tanzania; ³Immunization and Vaccine Development, Ministry of Health Tanzania, Dodoma, Tanzania; ⁴Department of Universal Health Coverage, Communicable & Non-Communicable Diseases, World Health Organization Inter-Country Support Team, Harare, Zimbabwe

Correspondence: Raphael Sangeda (sanged@gmail.com)

BMC Proceedings 2025, 19(29):P98

Background

The COVID-19 pandemic has significantly disrupted healthcare systems at all levels globally, notably affecting routine healthcare services such as childhood immunizations. This study delves into the impact of these disruptions on routine childhood vaccination programs in Tanzania.

Material and Methods

This study employed a quantitative approach using secondary administrative data from Tanzania's Health Ministry and other relevant organizations.

Results

The study recorded a total of 32,602,734 vaccination events across the regions from 2019 to 2022. Despite declining vaccination rates in 2020, there was a notable rebound in 2021, indicating the resilience of Tanzania's immunization program. The analysis also highlighted regional differences in varying vaccination rates when standardized per 1000 population. Seasonal fluctuations were observed in the monthly vaccination rates, with BCG showing the most stable trend. Predictive modeling of BCG indicated stable and increasing vaccination coverage through 2023.

Conclusion & Recommendations

The study highlights Tanzania's robust childhood immunization system, which overcame COVID-19 challenges, achieving strong vaccination rate recovery post-2020. We recommend localized strategies to enhance vaccination, focusing on public health infrastructure, data-driven methods, and community-specific interventions to mitigate disruptions during global health crises.

P99

Factors Contributing to Mother to Child HIV Transmission in Southern Regions Tanzania: Use of HIV Positive Audits Tool among Children

Karim Mizungumiti¹, Abdallah Simba Mfaume¹, Beatrice Christian¹, Marina Njelekela², Zahra Nensi², Jacqueline Kalimunda³

¹Management and Development for Health, Dar Es Salaam, Tanzania;

²Deloitte Consulting Limited, Dar Es Salaam, Tanzania; ³United States Agency International Development, Tanzania, Dar Es Salaam, Tanzania

Correspondence: Karim Mizungumiti (mizungumiti@mdh.or.tz)

BMC Proceedings 2025, 19(29):P99

Background

World Health Organization recommends HIV retesting at 18 months for exposed Infants (HEI) tested negative at six weeks of age to identify infected infants during breastfeeding period. The overall 18 months HIV positivity in Iringa, Lindi, Morogoro, Mtwara, Njombe and Ruvuma dropped from 100 (1.1%) 2022 to 60 (1.0%) 2023. Though infection trend dropped, the number of infected infants remains significantly higher necessitating an audit to learn the contributing factors.

Program Intervention/Methodology

The program prepared an internal HEI positive Audit tool that captures the risk factors that may predispose infants to MTCT including maternal incident infection, poor adherence, high viral load, home delivery

and mixed feeding. The regional program team used the tool in each quarter beginning 2022. The audit involves reviewing HEI card, maternal CTC2 card, PMTCT MC Cohort and information from CTC2 database. It also involved physical/virtual discussion with the health care providers and parents/caregiver of the infants.

Results Finding

Fifty-four HEI were audited out of the 60 infected infants. The overall positivity rate was 1%, high in Lindi (2%) and lowest in Iringa region. Most of the HIV positive HEIs were identified at the age of 2–12 months (39%) followed by those tested below 2 months and >12 - 18 months whom contributed 28% respectively. Poor ART Adherence (44%) and Incident HIV infection (22%) were the leading MTCT contributing factors followed by mixed feeding (15%) and high maternal HVL (11%). Mothers who opted out and delivered at home contributed 6% and 2% respectively.

Program Implication & Lesson Learned

The program learned via HEI positive audits that effective maternal HIV retesting during third trimester (32 - 36 gestational age), integrated facility and community adherence interventions, Enhanced Adherence Counseling to pregnant/breast-feeding women with low level viremia and feeding options counselling including exclusive breastfeeding is vital to the elimination of MTCT.

P100

Exploring the impact of the WISH2ACTION programme and DMI's SBC media campaign on family planning and reproductive health in Tanzania

Pieter Remes¹, Rosemary Kayanda¹, Dotto Kezakubi¹, Vianney Atugonza², Raymond Mhaluka¹, Doreen Makombe¹, Simon Nzilibili³, Tumaini Haonga³

¹Development Media International, Tanzania; ²Department of Family Social Science, College of Education and Human Development, University of Minneapolis; ³Health Promotion Section, Department of Preventive Services, Ministry of Health, Dodoma, Tanzania

Correspondence: Pieter Remes (pieter.remes@developmentmedia.net)

BMC Proceedings 2025, 19(29):P100

Background

WISH2ACTION was a 5-year programme funded by the UK Government (FCDO) and delivered by a consortium led by UMATI (IPPF partner) and its service delivery partner Marie Stopes-Tanzania and technical partners, namely Development Media International-Tanzania (DMI) and Options. The programme (which ended in 2022), aimed to ensure equitable access to family planning, prioritizing the most underserved women and girls, particularly youth under 20, people with disabilities and the very poor.

Material and Methods

To increase demand for reproductive health services, DMI used mass-media to disseminate MoH-approved social and behavior change messages: 54 radio spots aired +200K times during + 3 years through 21 radio partners (national and regional) in 10 regions; 26 TV spots aired on 7 channels. Messages covered birth-spacing, delaying first pregnancy, youth-access to SRH, social norms, male involvement, and myths/misconceptions. In 65 focus group discussions (FGDs), 1,287 participants (youth, men and women of reproductive age) gave feedback on the campaign.

Results

DHS trends from 2015-16 and 2022 show that contraceptive use of modern methods has stayed stable at 31%. A detailed look however shows regional differences and specific improvements: women tend towards long-term contraceptive methods (pills to injectables; injectables to implants) which offer more contraceptive protection. Modern contraceptive prevalence rates (mCPR) among youth aged 15–19 increased from 13.3% to 15.2% and teenage pregnancy decreased from 27% to 22%, with significant reductions in WISH2ACTION regions, and especially among rural teenagers. Among FGD participants, 75% heard WISH radio spots, 90% of men and 40% of women saw WISH TV spots.

Conclusion & Recommendations

WISH2ACTION's combination of service provision and demand creation (which focused on 10 regions but covered all Tanzania) has contributed to improvements in family planning uptake and reproductive health, especially among youth. DMI SBC outputs can amplify service uptake and continue to be used by MoH and organisations providing SRH services.

P101

A Comprehensive Review of the Healthcare System In Relation To Health Policy, Economics and Insurance

Stephen Ng'endo, Zubeir Adan, Miriam Musieka, Belinda Ogingo, Kelly Kibet, Christopher Odida, Faith Njoki
Moi University, Kenya

Correspondence: Stephen Ng'endo (stephengn22@gmail.com)
BMC Proceedings 2025, 19(29):P101

Background

Healthcare economics, policy and insurance is known globally to influence the availability, consumption, affordability and quality of healthcare services. Increase of the cost of living in the past few years has affected the affordability and accessibility of healthcare services in Kenya. This article entails a research whose objective was to assess the impact of the above situation in relation to health economics, policy and insurance.

Material and Methods

The research was conducted in Kenya, in a place called Soy, located in Soy subcounty, one of the six subcounty in Uasin Gishu county. Data was collected through in-depth interviews and focused group discussions from both common residents and healthcare workers working in Soy healthcare facility. For the residents, interviews were done per household, achieving a total of 216 respondents. Pie charts, tables and bar graphs were used to represent the data for interpretation.

Results

It was noted that on the onset of illness, around 23% of total population opted for self medication. Also the quality of services rendered was wanting especially regarding the availability of drugs. Major concern was the shortage of healthcare providers, which resulted to most patients waiting for long periods before acquiring any services. Additionally, only 22% of the respondents stated that the services were affordable, a situation accelerated by the scarcity of medical covers among the community residents.

Conclusion & Recommendations

The above findings clearly indicated that the effects were eminent. Dispensing of more drugs to the facility and employment of more health workers by the county government were some of the recommendations given.

P102

Uncovering Drivers of Out-of-Pocket Healthcare Spendings for the Insured: A National Survey Analysis

Angela Nanyaro¹, John Sanga²

¹Jubilee Health Insurance Company of Tanzania Limited, Tanzania;

²University of Dar es Salaam, Dar es Salaam, Tanzania

Correspondence: Angela Nanyaro (angienanyaro@gmail.com)
BMC Proceedings 2025, 19(29):P102

Background

The WHO estimates that 930 million people face severe (catastrophic) financial difficulties yearly, with 90 million impoverished due to out-of-pocket healthcare spending. The Government of Tanzania projects that 58% of its population will have health insurance by 2025, up from the current 15%, to reduce financial risks. However, the insured and exempted still incur out-of-pocket costs for healthcare services.

Material and Methods

This study examined the determinants of out-of-pocket spending among the insured, by focusing on individual and household characteristics. These are age, gender, marital status, education of the head of the household, location, and household wealth status. It employed a

deductive approach and a quantitative cross-sectional research design using secondary data from the fourth round of the Tanzania National Panel Survey of 2014-2015. The descriptive analysis comprised of cross-tabulation, while the inferential analysis included correlation and multiple regression analysis.

Results

The overall trends of the population show that insured female gender and children aged 18 years and below had more visit out-of-pocket compared to males and other age groups, respectively. Specific analysis of association showed that the individual's age, education of the head of the household and household wealth status proved to be the factors that have statistically significant impact on out-of-pocket spending. The relationship was positive in direction. This means older age, more education of the head of the household, and wealthier households, when insured, will spend more from their pocket.

Conclusion & Recommendations

Older age and higher education of household head pose catastrophic health expenditure risks. The Ministry of Health and other policy stakeholders should use Out-of-pocket spending among the insured as one of the key performance indicators to monitor health insurance, especially after the new bill of Universal Health Insurance is enacted.

P103

From Policy to Practice: A Hospital Management Team's View on Public Health Guideline Adaptation and Uptake in Tanzania

Godfrey Kacholi^{1,2}, Anosisye Kesale³, Henry Molle^{4,2}

¹Department of Health Systems Management, Mzumbe University;

²Centre of Excellence in Health Monitoring and Evaluation, Mzumbe

University; ³Department of Local Governance and Management Studies,

Mzumbe University; ⁴Mzumbe University Mbeya Campus College, Mbeya, Tanzania

Correspondence: Godfrey Kacholi (gkacholi@gmail.com)

BMC Proceedings 2025, 19(29):P103

Background

The World Health Organization (WHO) disseminates clinical and public health guidelines targeted at countries for adaptation and implementation within their respective resource and contextual frameworks. Tanzania grapples with challenges in translating these guidelines into practical application. Consequently, this study endeavors to comprehend the determinants influencing the adaptation and adoption of public health guidelines in Tanzania. The resultant findings are poised to enrich the quality assurance procedures for national health guidelines.

Material and Methods

The study assessed factors affecting the adaptation and uptake of public health guidelines in Tanzania. Researchers surveyed hospital management teams in 24 hospitals across Tanzania. A WHO tool translated to Swahili was used to assess guideline clarity, user-friendliness, and ease of adaptation at the national level. Data was collected through face-to-face interviews and analyzed to identify factors that facilitate or limit guideline uptake

Results

The adoption rate of the guidelines stood at 71.6%. Clarity of purpose (M=3.6, SD=0.7), coherence (M=3.4, SD=0.7), user-friendliness (M=3.5, SD=0.7), and availability (M=3.4, SD=0.7) were identified as key facilitators of guideline adaptation and adoption. Conversely, governance (M=2.6, SD=1.1) and adaptability (M=2.5, SD=1.0) were recognized as constraining elements. The high uptake of health guidelines was impeded by challenges such as the bulkiness and complexity of the guidelines, language barriers among healthcare workers, and the absence of a clear framework to guide their adaptation and implementation.

Conclusion & Recommendations

Despite high acceptance, Tanzanian health guidelines faced limitations due to complexity, language barriers, and lack of implementation framework. The study suggests a national framework to improve design, development, and monitoring for better adaptation and uptake

P104**By Direct financing of comprehensive council plans for health programs; Lessons learned from USAID Arya Yangu Northern project**

Christian Nkini, Jacquesdol Massawe, Asteria Anania, Jane Macha, Martin Mfikwa, Sajida Kimambo

Elizabeth Glaser Pediatric AIDS Foundation, Dar es Salaam, Tanzania

Correspondence: Christian Nkini (cnkini@pedaids.org)

BMC Proceedings 2025, **19(29)**:P104

Background

Funding mechanisms from donors to the government of Tanzania supported health programs have traditionally been through non-governmental organizations which implement on behalf of donors. Grants under Contract is the financial or non-financial assistance that provides support or stimulation to accomplish public purpose, grants are legal instruments. The USAID Afya Yangu Northern (AYN) implemented by the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) introduced GUC funding in 2021 through budgeting and financing of the district comprehensive council health plans (CCHP). We report on experiences of direct financing under GUCs.

Program Intervention/Methodology

The AYN developed a robust framework that ensured transparency, accountability, and efficiency on financial management between project and grantees. Prior issuance of an award, EGPAF conducted a pre-award assessment on institutional capacity, activity design, and needs of prospective grantees. The contractual agreement with each grantee was executed, stipulating the terms of funding, intended outcomes and monitoring mechanisms. Project activities to be financed were included in the CCHP and funding were disbursed based on agreed milestones. Technical and administrative monitoring and support were provided to ensure efficient utilization of resources on monthly bases.

Results Finding

Between 1 September 2021 and 30 September 2023, 52 agreements were signed under GUC with the President's office regional Administration and local government ministry, regional and council health management (R/CHMT) teams and referral hospitals across five regions of Arusha, Dodoma, Kilimanjaro, Manyara and Singida. Many of the agreements, 48 were with government entities and three were faith-based organizations. 76.9% of all agreements focused on data reporting and compliance with project agreement terms and conditions. By integrating GUC into council's plans, it helped to increase project ownership and client's access to HIV and TB services at health facility level. Among the challenges noted include misalignment of fiscal financial year between the government and project year.

Program Implication & Lesson Learned

Direct financing of project funds to government entities was effective as improved accountability of R/CHMTs to allocate resources were they are mostly needed, which resulted to identify a total number of 162,685 PLHIV(TX CURR) clients enrolled into care and treatment services. Future projects and other implementing partners should consider direct financing for sustainability.

P105**Patient characteristics and antidiabetic treatment patterns in out patient diabetic clinic at Temeke regional hospital in Dar-es-salaam Tanzania**

Verediana Nchembi¹, Rahimu Namputa¹, Elizabeth Peter¹, Omary Chillo^{2,1}

¹Muhimbili University Health and Allied Sciences, Dar es Salaam, Tanzania;

²Temeke Regional Hospital, Dar es Salaam, Tanzania

Correspondence: Verediana Nchembi (veredianajohn674@gmail.com)

BMC Proceedings 2025, **19(29)**:P105

Background

Diabetes mellitus is a prevalent non-communicable disease globally and in Tanzania, with a national prevalence of 10.3% as reported by the International Diabetes Federation in 2021. Effective diabetes management requires an understanding of patient characteristics and

treatment patterns, particularly in outpatient settings. This study aims to analyze these factors among patients attending the diabetic clinic at Temeke Regional Hospital in Dar es Salaam, Tanzania.

Material and Methods

A cross-sectional study was conducted involving 142 participants from the outpatient diabetic clinic at Temeke Regional Hospital. Data were collected through medical records and direct interviews, with participants selected via simple random sampling. Descriptive statistics were used to present the data, and associations between patient characteristics and treatment patterns were assessed using the chi-square test, with a p -value of <0.05 considered statistically significant.

Results

Among 142 participants, 94 (66.2%) were female, and the majority 122 (85.9%) were aged 40-60 years. 123 participants (86.6%) resided in Temeke district, with 82 (57.7%) paying for healthcare services out-of-pocket. 69 (48.6%) obese participants and 57 (40.1%) classified as overweight. Hypertension was present in 78 (54.9%) participants. Metformin monotherapy was the common treatment 83 (58.5%), followed by combination therapy 52 (36.6%). A significant association was found between payment method and treatment pattern, with 55% of insured patients receiving combination therapy ($p < 0.001$). Additionally, there was a significant association between BMI status and treatment pattern, with 58% of obese patients receiving Metformin monotherapy ($p < 0.001$).

Conclusion & Recommendations

This study reveals significant associations between obesity, insurance status, and specific antidiabetic treatment patterns. Obese patients were more likely to receive Metformin monotherapy, underscoring the need for personalized diabetes management strategies. Further research should investigate the underlying factors influencing these treatment patterns to enhance care delivery and patient outcomes.

P106**Post-Registered Intern Nurses' Perception on Internship Program in Tanzania**

Elice Kajuna¹, Mary Lyimo²

¹Shree Hindu Mandal Hospital, Dar es salaam, Tanzania; ²The Aga Khan University, Dar es salaam, Tanzania

Correspondence: Elice Kajuna (elicekajuna61@gmail.com)

BMC Proceedings 2025, **19(29)**:P106

Background

In Tanzania, the internship program is a mandatory step for post-registered intern nurses, initiated in November 2020. With a growing demand for healthcare professionals and an evolving healthcare landscape, the effectiveness of internships in preparing nurses for their roles is of paramount importance. This study explores the perceptions of post-registered intern nurses regarding internship programs in Tanzania.

Material and Methods

An exploratory study employing a qualitative approach was conducted. In-depth interviews were conducted with 8 post-registered intern nurses at Muhimbili National Hospital (Upanga and Mloganzila). Interviews were conducted in English and Swahili, based on participants' language preferences, lasting 30–45 minutes. Verbatim transcriptions and English translations were used for thematic analysis.

Results

The study involved 8 participants, including 5 females and 3 males, aged 30 to 44, with over six months of internship experience. Five key themes emerged from their perceptions: the program's nature, execution, satisfaction with placement, program advantages, and challenges faced.

Conclusion & Recommendations

The internship program offers valuable knowledge and skills that enhance the competence of intern nurses, effectively preparing them for professional roles. However, financial incentives may influence their responses. Future studies, particularly longitudinal ones,

are recommended to provide a clearer understanding of the knowledge and skills gained through the program.

P107

Diagnostic accuracy of triphasic abdominal MDCT in the detection of esophageal varices among patients attended at MNH

Suzana Lukoo¹, Balowa Musa¹, Ahmed Jusabani², Gerard Mpemba³, Lilian Salingwa¹

¹Muhimbili University of Health and Allied Science, Dar es Salaam, Tanzania; ²Aga Khan Hospital, Dar es Salaam, Tanzania; ³Muhimbili National Hospital, Dar es Salaam, Tanzania

Correspondence: Suzana Lukoo (drsuzan08@gmail.com)

BMC Proceedings 2025, 19(29):P107

Background

Oesophagogastrroduodenoscopy (OGD) is the gold standard for diagnosing and treating esophageal varices. However, in developing countries like Tanzania, OGD is not widely available. In contrast, triphasic abdominal multidetector computed tomography (MDCT) is more accessible and can serve as an alternative non-invasive diagnostic modality for detecting esophageal varices. Despite its availability, the accuracy of triphasic abdominal MDCT in diagnosing esophageal varices has not been thoroughly evaluated.

Material and Methods

A retrospective cross-sectional study of 200 UGIB patients at Muhimbili National Hospital (Jan 2021 - May 2023) who underwent both OGD and triphasic abdominal MDCT were conveniently selected and included in the study. Data were collected using a structured tool and analyzed with SPSS v26. The presence of esophageal varices was evaluated on triphasic abdominal MDCT, with OGD as the gold standard. Sensitivity, specificity, predictive values, and receiver operating characteristic analysis with a 95% confidence interval were calculated.

Results

The triphasic abdominal CT demonstrated an area under the curve (AUC) of 0.975 (95%CI: 0.95–1.95, $P=0.000$) with a sensitivity of 97.2% (95%CI:94.9%–99.5%), specificity of 97.8% (95%CI:95.8%–99.8%), positive likelihood ratio (PLR) of 44.1 (95%CI:32.77–62.94.77.94), negative likelihood ratio (NLR) of 0.029 (95%CI:0.0018–0.043.0018.043), positive predictive value (PPV) of 98.1% (95%CI:96.2%–100%), and negative predictive value (NPV) of 96.8% (95%CI:94.4%–99.2%). Extraluminal findings noted in triphasic abdominal MDCT included splenic collateral (51.5%), ascites (36%), Hepatocellular carcinoma (26(13.1%). and periportal fibrosis (32%).

Conclusion & Recommendations

Triphasic abdominal MDCT is a reliable and non invasive alternative modality for diagnosing and screening esophageal varices, especially in resource-limited settings. It also evaluates extra-luminal pathology, influencing patient management. Its high diagnostic accuracy makes it valuable in healthcare facilities with CT availability.

P108

Antibiotic Dispensing Practices among Community Retail Pharmacies and Registered Drugstores: Results from a Simulated Client Study in Lilongwe, Malawi

Adriano Lubanga^{1,2}, Ackim Bwanali^{1,3}, Frank Kaphesi¹

¹Clinical Research Education and Management Services, CREAMS, Lilongwe, Malawi; ²Kamuzu Central hospital, Lilongwe, Malawi; ³Queen Elizabeth Central Hospital, Blantyre, Malawi

Correspondence: Adriano Lubanga (lubangafocusadriano1@gmail.com)

BMC Proceedings 2025, 19(29):P108

Background

Antimicrobial resistance is a significant public health threat in Malawi with current antimicrobial consumption rate of 8.4 defined daily doses

per 1 000 inhabitants per day, and Drug resistance index of 76.1%. In Malawi, antibiotics are categorized as prescription-only medicines. Antibiotics dispensed without a prescription pose a public health threat for increased antimicrobial resistance, which is a concern. This study aimed at assessing non-prescription sale of antibiotics in Lilongwe, Malawi.

Material and Methods

We conducted a community based mystery client study to assess antimicrobial medicine dispensing practices among retail pharmaceutical outlets within the city of Lilongwe. Two trained medical doctors and a physiotherapist posed as clients who visited pharmacies and other community-based drug outlets and enacted 4 case scenarios that tested antimicrobial dispensing practices within community-based retail pharmacies and drug stores. To ensure ingenuity of our findings, the MC's paid for all the drugs recommended by the dispensing personnel during the visits

Results

The mystery clients (MC's) visited a total of 51 drug outlets within Lilongwe, comprising of 36 pharmacies and 15 drug stores. Only a third (35%) of the pharmaceutical outlets were attended by pharmacist at the time of the visits. Other cadres included pharmacy technicians (13.7%), nurses (25.5%), pharmacy assistants (21.6%), and others. None-prescription sale of antibiotics was a common practice with antibiotics having been dispensed by 88.8% (pharmacist), 71% (pharmacy technician), 63.3 (pharmacy assistants), 80% (nurses) and 100 of the non-trained assistants. Antibiotics were commonly sold at the first level of demand mainly from the WHO access and Watch category.

Conclusion & Recommendations

Non-prescription sale and dispensing of antibiotics is widespread in Malawi. Concerted public and professional interventions coupled with stronger regulatory enforcement are needed if we are to win the war against AMR in Malawi.

P109

Implementation of Medicines and Therapeutics Committee Guidelines in Primary Healthcare Facilities in Kinondoni Municipality

Pius Kiwango^{1,2}, Linda Paulo¹, Amani Anaeli¹

¹ Kilolo District Hospital, Iringa, Tanzania; ² Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Pius Kiwango (kiwangopius@gmail.com)

BMC Proceedings 2025, 19(29):P109

Background

Medicines and therapeutics committee in healthcare facility has a paramount role in ensuring safe and effective use of medicines. The main functions of this committee include deciding on the type, and quantity of medicines to be procured, and their rational use as per the available guidelines. We conducted this study to evaluate the implementation of medicines and therapeutics committee guidelines in primary health care facilities in Kinondoni Municipality

Material and Methods

We conducted a qualitative case study evaluation among health care workers in primary health care facilities. We collected qualitative data on medicine and therapeutics committee guidelines implementation by using in-depth interview and document review. We performed data analysis by content analysis using the hybrid approach, and we used Nvivo 12 software in data management and analysis

Results

We found that medicines and therapeutics committee guidelines were distributed in soft copies. However, dissemination was insufficient and more effort is required. Standard treatment guidelines were available, the 6th edition which is the latest but there was no knowledge on recent update of Access, Watch and Reserve (AWaRe) classification of antibiotics. There was little knowledge on facility formulary manual of which only one incomplete formulary manual was found among the visited facilities. We also found that main factors which affect the implementation were

inadequate human resource especially pharmaceutical personnel, training and financial challenges especially with the improved Community Health Fund.

Conclusion & Recommendations

Dissemination of Medicine and Therapeutic Committee guidelines in primary health care facilities is still poor and requires additional efforts. More trainings on medicines and therapeutics committee guidelines should be conducted and for better outcomes there is a need to strengthen human resource for health and financing mechanisms.

P110

The Impact of Community-Specific Approaches in Improving and Closing The Gap in Identification Among Youths Aged 15–24 Years In Songwe

Zephania Msunza, Angela Msomba, Nassoro Yahaya Mgassa, Jackson Mbogela, Reginald Gervas, Emmanuel Bahemana, Magnus Ndolichimpa Henry M. Jackson Foundation Mediacla Research International, Songwe, Tanzania

Correspondence: Zephania Msunza (zephapascal@gmail.com)

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Background

HIV testing services are critical to achieving the (UNAIDS) 95-95–95 targets. Tanzania HIV Impact Survey 2022-2023 revealed that Tanzania has made a huge improvement in 1st 95% by attaining 83.4%. While substantial progress has been made, HIV case finding among adolescents and young adults remains challenging. New, innovative approaches are required to reach HIV-positive youths as they face socio-economic, psychological, and cultural barriers that deprioritise health-seeking behaviours, including HIV testing.

Program Intervention/Methodology

HJFMRI-Tanzania implemented a community-specific approach to improve HIV services for 15–24-year-old men, focusing on “locations where they hang out”, such as bodaboda sites, street food vendors, garages, and farms. Trained peers at these sites promoted HIV testing and counsellors provided screening for those interested. Additionally, prevention services, including condoms, HIV self-testing kits, and risk reduction counselling, were offered to those who tested negative.

Results Finding

From January to March 2024, Songwe region used a community targeting approach to screen 593 youth, with 457 (77%) deemed eligible. Of these, 428 (94%) were tested for HIV, with eight positive cases linked to care and treatment. Those who tested negative received social behaviour communication and biomedical prevention services to reduce infection risk. The community-based sites where youth was reached included the Bodaboda site (94), Trunk drivers (16), Garage areas (24), Farmers (144), Vibanda Umiza (160) and Mama Lishe (155).

Program Implication & Lesson Learned

Adopting community-specific strategies to enhance testing services for prevention and treatment is crucial for achieving epidemic control among 15–24-year-olds.

P111

Utilizing Local Football Leagues to Promote and increase uptake of HIV Services among Adolescent Boys and Young Men (ABYM)

Debora Frank¹, Emmanuel Mwakingwe¹, Edda Mmasi¹, Nimwindael Mtitu¹, Hassan Mgenza¹, Denis Bikaru¹, Elia Nditila¹, Gideon Muganda¹, Elizabeth Herman¹, Dorica Boyee¹, Upendo Kategile²

¹Family Health International 360, Dar es Salaam, Tanzania; ²United State Agency International Development, Tanzania

Correspondence: Debora Frank (DMWenga@fhi360.org)

BMC Proceedings 2025, 19(29):P111

Background

EpiC project implements comprehensive HIV prevention, care and treatment services targeting key, vulnerable and priority populations in eleven regions. In 2024, the project scaled up target population to include out of school ABYM, reaching them with HIV messages to increase awareness and promote HIV Testing services. Due to their

limited health-seeking behaviors, the project leveraged on local football leagues to reach more ABYM with integrated HIV and FP services.

Program Intervention/Methodology

Project collaborated with Councils Health Management Teams, Ward executive and Sports officers, integrated service provision into football tournaments in Dodoma, Lindi, Mtwara and Njombe regions, providing an opportunity to deliver HIV services. Through public announcement, communities were informed of health services to be provided during the match. Before the game, peer educators (PEs) led 20 to 30-minute dialogues, discussing HIV risk behaviors, condom use, and ART services to gauge youth's understanding of HIV-related issues and their readiness to access services.

Results Finding

Integrating HIV services delivery during the final match of the tournaments engaged a wider audience and promoted awareness and uptake of HIV services in the community. A total of 600 people, including ABYM, AGYW, and adult men and women participated and reached with health information and services. Among them, 251 were tested including 153 (61%) ABYM and 98 (39%) other at-risk populations with 4 clients testing positive. 38 women accessed short-term family planning methods (injectables and pills), 332 HIV self-testing (HIVST) kits were given to increase HTS coverage, and 28,350 male condoms distributed.

Program Implication & Lesson Learned

Integrating HIV services into football events successfully reached a wide and diverse audience of young people including some of whom may not typically access health services. Combining sports and health services emphasizes the importance of both physical health and preventative care, which can lead to better health outcomes.

P112

Factors Influencing 12 Months Retention on HIV Care and Treatment Among PLHIV in Ruvuma Region, Tanzania

Dickson Hunja¹, Petro Simbeye², Aloyce Mabula¹, Nkingwa Mabelele², Sophia Majura², Jovin Jonathan¹, Abdallah Mfaume¹, Beatrice Christian¹, Josephat Kalipesa³, Marina Njelekela², Zahra Nensi², Jacqueline Kalimunda⁴, Neway Fida⁴

¹Management and Development for Health, Dar es Salaam, Tanzania;

²Deloitte Consulting Limited, Dar es Salaam, Tanzania; ³Ruvuma Regional Administrative Secretariat (RAS), Tanzania; ⁴United States Agency International Development, Dar Es Salaam, Tanzania

Correspondence: Dickson Hunja (hunjadickson@yahoo.com)

BMC Proceedings 2025, 19(29):P112

Background

Towards reaching HIV epidemic control by 2030, Tanzania has made significant progress in combating HIV/AIDS epidemic, particularly in improving access to treatment for People Living with HIV (PLHIV). However, failure to retain clients on ART has been a major bottleneck towards achieving UNAIDS 95-95–95 target. USAID Afya Yangu Southern with Ruvuma R/CHMTs conducted retrospective cohort study to determine the factors influencing 12-month retention among PLHIV in Ruvuma region.

Material and Methods

A cohort of 49,751 PLHIV from 112 program-supported facilities was retrospectively studied to determine the attrition events from March 2023 to April 2024 using secondary data from Tanzania's HIV-program national database. Three factors were analyzed; interruption in treatment, transfer out and opting out of treatment. The three factors were grouped to term PLHIV not retained in treatment. Deaths were excluded from the analysis. Binary logistic regression model was used to determine sociodemographic and treatment factors affecting the retention rate.

Results

Among cohort of 49,751 PLHIV, 93.1% were retained in treatment at 12 months follow-up. Half of 3,413 unretained PLHIV were transferred out, 40% interrupted treatment and 10% opted out. PLHIV 15–24 and 25–34 years were 4 times more likely not to be retained in treatment

as compared to older PLHIV (OR=4, p -value=0.000). PLHIV who ever lived with partner had 20%–60% more chance of being retained in treatment than their counterparts (OR=0.4–0.84.8, p -value=0.000), PLHIV who were new on treatment (OR=2–5, p -value=0.000) and dispensed fewer ARV tablets (OR=4–5, p -value=0.000) were more likely not to be retained than their counterparts.

Conclusion & Recommendations

Efforts towards attaining Undetectable=Untransmissible among PLHIV should be redirected towards less privileged subpopulations such as younger PLHIV, those who have single marital status, new PLHIV on treatment and with fewer days of ARV dispensing.

P113

Enhancing HIV case identification through strategic Risk Network Referral among Key and Vulnerable Populations in Tanzania

Zita Remy¹, Elizabeth Herman¹, Dorica Boyee¹, Vicent Daudi¹, Elia Ndutula¹, Wankuru Wambura¹, Nimwindaeli Mtitu¹, Baraka Mwaifunga², Upendo Kategile³

¹Family Health International (FHI360), Mtwara, Tanzania; ²Community Concerns of Orphans and Development Association, Tanzania; ³United States Agency International Development, Dar es Salaam, Tanzania

Correspondence: Zita Remy (zremy@fhi360.org)

BMC Proceedings 2025, 19(29):P113

Background

Despite the deployment of several HIV testing modalities to attain the UNAIDS goal of 95–95–95 by 2025, Tanzania lags in case identification, with the first 95% at 82.7%. PEPFAR and USAID-funded EpiC project is collaborating with the Ministry of Health in incorporating Risk Network Referral (RNR) with other HIV testing modalities for key and vulnerable populations (KVP). We described our experiences using RNR to improve case identification among KVP.

Program Intervention/Methodology

RNR implemented in Mtwara, from October 2022 to September 2023, giving people living with HIV (PLHIV) options to refer their social networks for HIV testing (HTS) and prevention services. Healthcare workers offer PLHIV additional, self-guided options to informally refer for HTS services their friends and acquaintances who have similar risk behaviors. We analyzed HIV case identification rate when RNR was used and compared with case-finding rate of other modalities during the same period and determined statistical significance using the Chi-squared test.

Results Finding

254 were identified as HIV positive from all testing approaches, of whom 137 (25 Female sex workers [FSW], 21 Adolescent girls and young women [AGYW], 54 adult women at-risk [ADWR], and 37 adult men at-risk [ADMR]) referred 567 social contacts. 93% (526/567) were reached and tested, with HIV case-finding rate of 12% (63/526) compared to 14% (75/539) from index testing, and 1% (101/8744) during mobile outreach, $p < 0.001$. Among contacts tested, 87 were FSW with case-finding rate of 11% (10/87), 46 AGYW with 7% (3/46) case finding, 232 ADWR with 13% (31/232), and 161 ADMR with 12% (19/161) case-finding rate.

Program Implication & Lesson Learned

RNR is an effective approach to identifying previously undetected cases. This approach complements index testing as it goes beyond sexual partners to maximize HIV testing coverage. Scaling up the modality to other regions is crucial to maximize case identification and bridge the gap toward the first 95% goal by 2025.

P114

Breaking Barriers: Achieving Effective Intimate Partner Violence (IPV) Screening through Index Testing Services

Frederick Maguhwa¹, Jane Tesha¹, Anna Temba¹, Nasibu Mwanamsangu¹, Moke Magoma¹, Ramadhani Mlange¹, Roland Van de Ven², Fredrick Haraka²

¹EngenderHealth, Singida, Tanzania; ²Elizabeth Glasser Pediatrics Aids Foundation, Tanzania

Correspondence: Frederick Maguhwa (fmaguhwa@engenderhealth.org)

BMC Proceedings 2025, 19(29):P114

Background

In Tanzania, intimate partner violence (IPV) remains a significant public health concern. Despite efforts to address this issue, barriers such as cultural norms, stigma, and limited access to resources persist, hindering effective screening and intervention efforts. USAID Afya Yangu Northern implements integrated approaches to combat intimate partner violence in context using a “Do no harm framework”. One approach used is conducting IPV screening in conjunction with HIV index testing services.

Material and Methods

Age and sex disaggregated client data from the project DHIS2 database from October 2022 to September 2023 were analysed (using MS Excel) for People Living with HIV (PLHIV) accepted index testing and elicited sexual partners age below 15 years old in 464 USAID Afya Yangu Northern project supported health facilities in Dodoma, Singida, Arusha, Manyara and Kilimanjaro regions. Data included survivors who received GBV/VAC minimum management packages.

Results

Out of a total of 52,273 individuals identified, 34,605 (66%) partners were screened for IPV. Detection rates revealed a concerning prevalence of IPV, with 1,097 (3%) of individuals screened disclosing experiences of intimate partner violence and all of them were managed to ensure that the index testing services were safe, ethical, and legal.

Conclusion & Recommendations

Results underscores the imperative of integrating IPV screening within index testing services. By proactively identifying and addressing IPV within existing healthcare structures, this approach minimizes the risk of pre and post violence to elicited partners and health care providers while maximizing the potential for early intervention and support.

P115

Implementation of Methadone Assisted Treatment (MAT) Clinic, Improving the health and well-being of people who use drugs in Tanga, Tanzania

Cyprian Mtani¹, Derick Mushumba¹, Wilfred Kafuku¹, Wellace Karata², Selemani Msangi³, Jennifer Kahangwa¹, Andrew Kigombola⁴, Victor Mponzi¹, Edwin Kilimba¹, Aisa Muya¹, Jane Kitale⁵, Nyagonde Nyagonde¹, Amref, Mara, Tanzania; ²Tanga Regional Referral Hospital, Tanga, Tanzania; ³Regional Health Management Team, Tanga, Tanzania; ⁴Centre for International Health, Education and Biosecurity, Tanzania; ⁵Centre of Disease Control and prevention, Tanzania

Correspondence: Cyprian Mtani (Cyprian.Mtani@amref.org)

BMC Proceedings 2025, 19(29):P115

Background

Drug abuse has been increasing in low and middle-income countries with Tanzania being among them. By 2018, Tanga had the largest numbers (452/100,000) of PWUD (5,190) and PWID (540). WHO evidenced the strong association between injecting drugs and new HIV infection. Establishment of MAT clinics offers medical and psychosocial support to injection drug users and effective initiatives to reduce HIV transmission and speed up the ending AIDS by 2030 agenda.

Program Intervention/Methodology

Amref Health Africa in collaboration with MOH under CDC/PEPFAR support implemented 5 years (2020–2023) Afya Kamilifu project in Tanga, Simiyu, and Zanzibar. In June 2020, project launched the MAT clinic in Tanga, offering psychosocial support, screening, and treatment for HIV, TB, STIs, and Hepatitis to PWUD/PWID. Civil society organizations (CSOs) actively identify clients through community outreaches and self-referral, provide specialized training and link to MAT clinic. Three years of results have been analyzed from existing reports and documentation.

Results Finding

Over three years, 850 clients (2.4% female, 97.7% male) ever enrolled in Methadone treatment. Of these, 48 (5.6%) are PLHIV, 31 (3.6%) were diagnosed with TB, 72 (8.5%) tested positive for Hepatitis Virus were linked to appropriate services and 20 clients met graduation requirements. The clients attending the clinic have been adhering to treatment (96%) and the 20 confirmed to stop substance use, improved

physical health, integrated with the family, and had psychosocial recovery.

Program Implication & Lesson Learned

MAT Clinic has proven highly beneficial due to continuous service uptake among drug users. However, having one clinic site limits the accessibility and retention rates. Wider coverage and income-generating activities are highly recommended.

P116

Reaching Youth and Men with HIV Testing Services through Local Sports Pavilions in Iringa Region. "Shabiki Salama Campaign"

Mohamed Mwenga¹, Godfrey Mwanakulya¹, Abubakar Rehani¹, Beatrice Christian¹, Chrisantus Ngongi², Ulumbi Elias¹

¹United States Agency International Development- Afya Yangu Southern, Dar es Salaam, Tanzania; ²Iringa Regional Secretariat, Iringa, Tanzania

Correspondence: Mohamed Mwenga (mmwenga@tmarc.or.tz)

BMC Proceedings 2025, 19(29):P116

Background

The USAID Afya Yangu Southern Program in the October-December 2023 period observed low HIV testing uptake among youths aged 15–24 and men over 25 years in the community, where only 655 youth and 153 men tested, and only two HIV-positive clients were identified. Perceived stigma, long distances to health facilities, and low knowledge of HIV Testing Services were identified as the impediments sighted them from focused group discussions.

Program Intervention/Methodology

The Program, in collaboration with the Regional and District Health Management Team (R/CHMTS), launched the community HIV testing campaign "Shabiki Salama (SAFE FANS)", an HIV testing and health promotion campaign in high-risk local sports pavilions targeting youth 15–24 and men >25 years. The program engaged 26 peer champions from the pavilions for demand creation and 15 healthcare providers for HIV testing services. The local radio station provided live coverage of health-seeking behavior using talk shows and health expert interviews.

Results Finding

A six-fold increase was observed in the number of youths tested HIV, from 655 in October-December 2023 to 3,832 in Jan-March 2024, whereby the Shabiki Salama Campaign contributed 27% (1,053) of overall youth tested in the region, with five HIV-positive clients identified. Moreover, men's testing increased eight-fold (from 153 to 1,264), with 8 positive clients identified.

Program Implication & Lesson Learned

Integrating community mobile HTS services and demand creation in Shabiki Salama campaign has proven effective in reaching youth and men with low health-seeking behaviors at their recreational sites. Therefore, USAID Afya Yangu Southern plans to scale up this initiative to other regions to improve the uptake of HIV testing services.

P117

Uptake and Continuation of Oral HIV Pre-exposure Prophylaxis among Key and Vulnerable Populations, Pwani Tanzania October 2021 to January 2024

Mwedi Mohamed¹, Ola Jahanpour¹, Japhet Daud¹, Appolinary Bukuku¹, Nyagonde Njagonde², Frederick Ndossi¹, Eva Matiko¹, Josephat Francis³, Ramadhani Gongo², Galal King'ori², Oscar Rwabiyago², Redempta Mbatia¹

¹Tanzania Health Promotion Support (THPS); ²United States Centers for Diseases Control and Prevention, Division of Global HIV and TB, Dar es Salaam, Tanzania; ³Regional and Council Health Management Teams (RCHMT), Pwani, Tanzania

Correspondence: Mwedi Mohamed (mmohamed@thps.or.tz)

BMC Proceedings 2025, 19(29):P117

Background

The Tanzania HIV Impact Survey 2022-2023 found a 4.4% HIV prevalence among individuals aged 15 years and older in Tanzania.

However, among key (female sex workers, men who have sex with men, and people who inject drugs) and vulnerable (adolescent girls and young women) populations (KVP), the prevalence is significantly higher at 25–36%. We assessed uptake and associated factors for oral Pre-exposure Prophylaxis (PrEP) continuation among KVP in Pwani, Tanzania.

Program Intervention/Methodology

We conducted a cross-sectional analysis of existing Ministry of Health HIV programmatic data for KVP screened for oral PrEP between 1st October 2021 and 31st January 2024 in Pwani Tanzania. PrEP uptake was defined as the proportion of eligible KVP who initiated PrEP, and continuation as documentation of refill visits up to 6 months consecutively. Using logistic regression, we evaluated the association of age, sex, and PrEP initiation setting (community Vs facility), with discontinuation of oral PrEP at 1 month

Results Finding

Of 8,064 KVP screened, 99.3% (8,007) were eligible, and 99.7% of them (7,983) were initiated oral PrEP. Of initiators, the median age was 29 years (IQR: 25–35 years), 24.5% were aged between 20–24 years, 82.5% were female, 55.1% were female sex workers, and 86% initiated oral PrEP in community. Continuation declined over time: 89.0% (6,474) were taking PrEP at month 1, 69.5% (5,548) at month 3, and 44.0% (3,512) at month 6. In adjusted analysis, being male (aOR: 0.662, $p < 0.008$) and initiating in facility (aOR: 0.068, $p < 0.001$) were associated with discontinuing PrEP at month 1.

Program Implication & Lesson Learned

High PrEP uptake was observed among eligible KVP. Low PrEP continuation among males underscoring the need to identify specific client barriers affecting this sub-population. Addressing specific client barriers for PrEP uptake and continuation is a promising approach to accelerate prevention HIV acquisition among KVP.

P118

Status Neutral Approach: Scaling up Pre-exposure Prophylaxis Services at Reproductive and Child Health Clinics in Shinyanga Region, Tanzania

Roda Leopord¹, Kiteleja Benjamin¹, Lusekelo Mwakalundwa¹, Amos Scott¹, Ola Jahanpour¹, Eva Matiko¹, Redempta Mbatia¹, Christopher Henjewe¹, Damian Laki¹, Peter Mlacha², Japhet Daud¹, Oscar Rwabiyago³

¹Tanzania Health Promotion Support; ²Regional and Council Health Management Team, Shinyanga; ³US Centers for Disease Control and Prevention, Division of Global HIV and TB, Dar es Salaam, Tanzania

Correspondence: Roda Leopord (leopord@thps.or.tz)

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Background

The status neutral approach (SNA) addresses barriers to HIV prevention services such as pre-exposure prophylaxis (PrEP) uptake. We introduced this approach in Shinyanga to increase PrEP uptake among eligible clients at reproductive and child health (RCH) clinics

Program Intervention/Methodology

In October 2023, we mentored 83 healthcare providers (HCPs) and 25 peer educators (PEs) on SNA principles using an internally developed education package focused on equal treatment for all clients, regardless of HIV status. Following this, we implemented SNA in 83 of 92 supported health facilities with RCH clinics in Shinyanga. This included integrating PrEP services across HIV testing modalities, such as RCH, optimized provider-initiated testing, index, and social network testing

Results Finding

Before the introduction of the SNA, the uptake of PrEP services at RCH was low. Between April 2023 and September 2023, only 16 HIV-negative clients from sero-discordant couples-initiated PrEP at five RCH clinics. Where by all clients underwent creatinine clearance testing, with normal results. Following scale up of the SNA to 83 RCH clinics, from October 2023 to March 2024, a total of 314 new sero-discordant couples-initiated PrEP. Of these, 206 (66%) were women, with 92 (45%) aged 15–24 years, and 108 (34%) were men, with 12 (11%) aged 15–24 years. Only 1 (0.3%) had an abnormal creatinine clearance result.

Program Implication & Lesson Learned

Leveraging mentorship and coaching, we plan to expand SNA to the nine remaining facilities with RCH services by June 2024.

P119

HIV positive case finding a first shot on target towards implementing the 95 95 95 UNAIDS targets

Gwamaka Mwaisanga, Dotto Kanyerere, Angelah Msomba, Emmanuel Bahemana
Henry Jackson Foundation Medical Research International, Mbeya, Tanzania

Correspondence: Gwamaka Mwaisanga (gmwaisanga@hjfmri.or.tz)
BMC Proceedings 2025, **19(29):P119**

Background

The UNAIDS has set ambitious 95-95-95 targets aiming at ending the HIV epidemic by 2030. Tanzania has met the second of the three UNAIDS targets ahead of 2025 and more likely to achieve the third target very soon, despite this progress many HIV positives are unaware of their HIV positive status. This study aimed at assessing HIV positive case findings made both within healthcare facilities and within the community.

Program Intervention/Methodology

A purposive retrospective study to identify newly HIV diagnosed clients between October 2020 and March 2024 was conducted. Individuals from the Southern highlands of Tanzania who received HIV testing services (HTS) and received their results and modality of case findings were documented. Descriptive analysis was used to present characteristics of clients and categorical data were analyzed using frequencies and percentages. Chi-square test was used to examine the differences in HIV positivity among clients tested in outreach and within healthcare facilities.

Results Finding

A total of 2205701 tests were performed from October 2020 to March 2024, 74293 (3.4%) new HIV positive cases were identified. Community and facility index testing contributed to 15668 (15.9%) and 12993 (8.6%) respectively while 629 (4.9%) new HIV cases were identified from TB clinics. Despite ANC1 and post ANC1 contributing to the largest number (884129) of HTS, had the least positivity rate 9361 (1%). Overall HIV positivity was significant High on Community HTS compared to Health facility HTS (6.4% Vs 2.75, $P=0.0001$).

Program Implication & Lesson Learned

Findings from this study show that Index testing was proven to be the best modality of HTS contributing to high positive case findings in the Southern highlands of Tanzania, calling upon more efforts to be invested in both community and healthcare facility index testing.

P120

Enhancing HIV Prevention through Community Engagement in Extending Condom Ordering and Distribution Beyond Health Facilities

Lusekelo Mwakalundwa^{1,2,3}, Ashura Mkande^{1,2}, Frida Godfrey^{1,2}, Redempt Mbatia¹, Melkiory Massae^{1,2}, Asanteel Kweka^{1,2}, Zebedayo Lucas¹, Sisty Moshi¹, Neema Makyao², Amos Nyirenda², Mary Ngowa², Aman maro², Frank Mbatia¹, Eva Matiko¹

¹Tanzania Health Promotion Support, Shinyanga, Tanzania; ²Amref Health Africa, Tanzania; ³Ministry of Health, Tanzania

Correspondence: Lusekelo Mwakalundwa (lmwakalundwa@thps.or.tz)
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Background

Condoms are highly effective in reducing the transmission of sexually transmitted diseases (STDs) and preventing unintended pregnancies. Until September 2022, there was a low distribution of condoms in 16 districts from four regions in Tanzania supported by the Global Fund. In the preceding year, only 1,078,293 condoms were distributed in this area. The low distribution was attributed low forecasting skills, and limited engagement of key community stakeholders.

Program Intervention/Methodology

Project organized community meetings to actively involve key community stakeholders in condom programming. The meetings aimed to raise awareness among the stakeholders, capacitate them on forecasting, ordering, reporting, and monitoring the supply chain to ensure the availability and accessibility of condoms at the community level. The meetings also aimed to strengthen the distribution system, such as enhancing the use of boda-boda (motorbikes) to reach the hard-to-reach hotspots and installing condom dispensers in the newly identified hotspots.

Results Finding

Between October 2022 and September 2023, a total of 180 community engagement meetings have been conducted at the community level in the 16 districts. The meetings were attended by councillors, influential individuals, bar and guest owners, local government leaders, motorbike riders' unions, and fishing communities. The meetings took place at different places including market places and places with pool tables. The engagement has resulted in the enhancement of the distribution of 17,023,630 condoms. Across the four regions, dispensers were the commonly used method of condom distribution, with an overall 79% (13,399,428) of all distributed condoms being through dispensers.

Program Implication & Lesson Learned

Involving key community stakeholders in condom programming enhances their understanding of condom ordering, demand, and reduces barriers related to the accessibility and availability of condoms. The Mlango II project will continue to employ this approach to enhance condom distribution and promote other HIV combination prevention interventions.

P121

Comparative Observation of HIV Testing Uptake among Adolescent Boys and Young Men in Kigoma, Tanzania, October-December 2023 and January-March 2024

Geoffrey Ndapisi¹, Julius Zelothe¹, Cornelius Boke¹, Ola Jahanpour¹, Appolinary Bukuku¹, Japhet Daud¹, Damian Gadiye¹, Frederick Ndossi¹, Hosea William², Bakari Salimu¹, Redempta Mbatia¹, Eva Matiko¹, Mushubira Balinda³, Henry Mwizanduru¹

¹Tanzania Health Promotion Support; ²Regional Health Management Team, Kigoma region, Tanzania; ³US Centers for Disease Control and Prevention (CDC) Tanzania, Division of Global HIV and TB, Dar es Salaam, Tanzania

Correspondence: Geoffrey Ndapisi (gndapisi@thps.or.tz)
BMC Proceedings 2025, **19(29):P121**

Background

Approximately half of Tanzania's adolescents living with HIV are unaware of their status. A recent survey shows HIV prevalence in Kigoma region at 1.7%. Program data from October to December 2023 revealed underrepresentation of adolescent boys and young men (ABYM) aged 15-24 years in HIV testing in the region, prompting a focus on enhancing testing for this group.

Program Intervention/Methodology

With regional/council health management teams, we identified and engaged peer educators (PEs) who conducted hotspot mapping, demand creation, and distributed HIV self-test kits as gateway tools for conventional testing, referrals, and linkage to treatment and prevention services. They also distributed information and education materials. Healthcare providers (HCPs) and PEs were trained for five days to facilitate ABYM-friendly services using the national key and vulnerable populations and pre-exposure prophylaxis packages. The PEs and HCPs conducted targeted outreach in ABYM hotspots.

Results Finding

From October to December 2023, a total of 481 ABYM aged 15-19 years were tested with 3 (0.6%) positive, and 1,880 ABYM aged 20-24 years were tested with 10 (0.5%) positive, which represented 8% of the total clients tested during this period. Following

the implementation of PE strategies and outreach campaigns during January to March 2024, testing increased; a total of 5,954 ABYM aged 15–19 years were tested with 4 (0.07%) positive, and 15,801 ABYM aged 20–24 years were tested with 16 (0.1%) positive, which represented 32% of clients tested during this period.

Program Implication & Lesson Learned

Implementation of tailored ABYM strategies led to increased testing coverage. However, there was a substantive decreased yield, which aligns with prevalence literature for this age group. Targeted social network strategies and index testing for ABYM might be better strategies to identify high-risk ABYM.

P122

An Integrated Electronic Sample Referral System (Esrs) For Improving HIV Viral Load Coverage across Southern Highlands Regions in Tanzania

Jofrey Ndongole, Emmanuel Bahemana, Magnus Ndolichimpa, Sally chalamila, Felix Manda, Nickolaus Mbilinyi, Reginald Gervas Henry M. Jackson Foundation Medical Research International, Tanzania

Correspondence: Jofrey Ndongole (jndondole@wrp.or.tz)

BMC Proceedings 2025, 19(29):P122

Background

The HIV Viral Load results used to be transported from the laboratory to health facilities using couriers; this approach caused delays in both obtaining results at the facilities and inputting them into the CTC2 database.

The Ministry of Health, in partnership with PEPFAR-supported implementing partners, has integrated a laboratory module into the CTC2 database. This allows direct transmission of lab results from the lab to the CTC2 database via ESRS.

Program Intervention/Methodology

The ESRS is designed to link the testing laboratory and Hub or spoke, once the sample is collected and tested the results will flow back to the respective facility electronically and improve sample management up to results back to the clients.

From September to October 2023, the ESRS was integrated into 25 facilities in Mbeya Region as a pilot; after successful implementation, ESRS was scaled up in the whole SHL.

Results Finding

From September to October 2023, 25 facilities were integrated at Mbeya Region as a pilot, whereby the HVL Coverage increased from 90.6% in June-August 2023 to 92.5% in these facilities. This was followed by scale-up in January-March 2024, to other regions whereby the number of facilities increased to 43 from Katavi, 135 Mbeya, 55 Songwe, and 48 Rukwa. The HVL Coverage was improved in Mbeya from 92.8% to 95.5%, in Rukwa from 94.4% to 95.3%, in Songwe from 90.4% to 92.1% and in Katavi from 87% to 89%.

Program Implication & Lesson Learned

Focusing on expanding ESRS Integration to additional facilities significantly enhances HVL Coverage by electronically transmitting results back to facilities, thereby reducing human errors and improving turnaround times for samples from collection to results in under five days.

P123

"Legal Illiteracy among People Who Use Drugs: The Impact in their daily life and in treatment adherence in Mbeya, Tanzania"

Janeth Mwamtobe¹, Jackson Mbogela², Ezekiel Mwifyusi¹, Khaled Juma¹

¹Serve Tanzania (SETA); ²Henry Jackson Foundation Medical Research International (HJFMRI-Tanzania)

Correspondence: Janeth Mwamtobe

BMC Proceedings 2025, 19(29):P123

Background

Legal literacy education to People Who Use Drugs (PWUD) is a vital information that will empower their ability to defend themselves and give confidence to share information at police station after being arrested or in court during case hearing. 29 PWUD reported to engage in theft, only 6 were able to appear during court sessions and 20 after bailed run away and hide for fearing court sessions

Case Report

Legal illiteracy among PWUDs has high impacts in their daily life and hinder treatment adherence. Some PWUD experience mob justice from the community and don't know where to report or be ready to provide evidence when the case has been taken into court due to threaten or mistreatment. This caused some of them fear to appear in treatment by fearing of being beaten or arrested and taken to police. In 2023, 29 PWUD in Mbeya reported to engage in minor offences of stealing from people. The findings came out 3 experienced mob justice and were killed, 7 run away from region due to fear being arrested by police, 6 taken to court and imprisoned, 13 hiding and fearing to appear in treatment of MAT, ART and other health services worried to be arrested by police and taken into prison. This hinder treatment adherence because 19 appeared into their hotpots after 4 months and refuse to come back for treatment.

Conclusion

PWUD need to be trained on legal issues on how they can defend themselves from mob justice, at police station or at courts. Have to be trained and empowered on community led crisis response team in their districts. IGA support to PWUD will reduce criminal.

P124

Experiences and Coping Strategies of Intimate Partner Violence among Men Living With HIV in Mbozi District, Tanzania

Jacob Kweli¹, Gasto Frumence², Pankras Luoga², Nassoro Yahaya¹, Emanuel Bahemana¹

¹HJF Medical Research International Inc, Songwe, Tanzania; ²Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Jacob Kweli (jkweli@hjfmri.or.tz)

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Background

Many studies have documented IPV as a public health problem but most of them focused on IPV against women despite the fact that IPV against men is now a popular phenomenon. A review of the existing literature has shown limited studies on IPV among men especially those living with Human Immunodeficiency Virus (HIV).

Material and Methods

A case study design using a qualitative approach was employed. In-depth interviews with 13 men living with HIV who attend Care and Treatment Clinics (CTC) in Mbozi District Council (DC), who have experienced IPV were involved in the study. The study participants were recruited through snowball sampling. A thematic analysis approach was used to analyze data.

Results

The study revealed several experiences of IPV among men living with HIV including denial of conjugal rights in marriage, disrespected and disregarded, female partners threatening to harm themselves, and partner threatening to go away leaving behind children. Several causes of IPV against men living with HIV were reported, namely HIV-related stigma, substance abuse, and female partners leaving some of the domestic chores to male partners. Seeking informal assistance from family members, temporary separation, engaging in extra-marital affairs, seeking support from religious leaders, and denial were the most common reported coping strategies for men living with HIV who experienced IPV.

Conclusion & Recommendations

This study has demonstrated that men living with HIV have experienced IPV in their relations and use denial, seek informal help from

family members and religious leaders, and extramarital relationships as coping strategies. Stakeholders should find a comprehensive strategy for addressing gender-specific IPV intervention including social and legal aid services.

P125

Structured group-based community model facilitates oral PrEP continuation among key and vulnerable populations in Dar es Salaam, Tanzania

Barbara Manzi, Dorica Boyee, Elizabeth Herman
Family Health International 360, Dar es Salaam, Tanzania
Correspondence: Barbara Manzi (bmanzi@fhi360.org)
BMC Proceedings 2025, 19(29):P125

Background

Globally, oral PrEP programs show challenges with continuation. In Dar es Salaam, EpiC, a community-based program funded by the PEP-FAR/USAID, in collaboration with the government of Tanzania supports PrEP use KVP, including adolescent girls and young women (AGYW), female sex workers (FSW), and MSM. Structured group-based community model (SGBCM) was introduced to support PrEP refill among KVP. We compared SGBCM outcomes to a non-structured group-based community model (NSGBCM).

Program Intervention/Methodology

In SGBCM, support groups of 5–7 clients are formed for mutual assistance in PrEP adherence. Monthly group refills are scheduled by the group lead and healthcare worker based on differentiated person-centered care, with reminders and close follow-ups. Partners implementing NSGBM lacked follow-ups, and reminders for refills/rescheduling. We conducted a retrospective analysis of refills within SGBCM and NSGBCM for clients initiated from October 2022 - June 2023 to understand patterns of PrEP continuation in the first, second-, and third-months post-PrEP initiation.

Results Finding

4,790 clients-initiated PrEP (3,933 under SGBCM, 857 under NSGBCM). Within SGBCM, 62.4% were FSWs, 23.7% MSM, and 13.4% AGYW. For NSGBCM, 54.0% FSWs, 21.5% MSM, and 24.5% AGYW ($p < 0.001$). Within SGBCM, 83% (3,255/3,933) refilled one-month post-initiation, 75% (2,937/3,933) second month, and 65% (2,553/3,933) third month. The NSGBCM, 28% (243/857) refilled one-month post-initiation, 13% (111/857) second month, and 9% (73/857) third month. Compared to NSGBCM, the odds of SGBCM returning for at least one refill were 12.1 times greater, 19.8 for both second and third refills ($p < 0.001$). This demonstrates strong evidence that refill rates are better within SGBCM compared to NSGBCM.

Program Implication & Lesson Learned

Differentiated service delivery involving SGBCM improves PrEP continuation and could be included as an effective strategy in community programs.

P126

Assessing TB-HIV data concordance and patient care quality in Katavi, Tanzania care and treatment centers

Nelson Goleha¹, Remle Scott², Emmanuel Bahemana¹, Victor Katemana⁴, Diana Nicholas³, Elizabeth Lee³, Sally Chalamila¹, Mark Breda³, Neha Shah³

¹Henry M. Jackson Foundation Medical Research International, Inc-Tanzania; ²Uniformed Services University of the Health Sciences, Bethesda, US; ³Walter Reed Army Institute of Research, Dar es Salaam, Tanzania; ⁴Department of International HIV Prevention and Treatment (IHPT); ⁵Walter Reed Army Institute of Research (WRAIR), DOD Tanzania

Correspondence: Nelson Goleha (ngoleha@hjmri.or.tz)

BMC Proceedings 2025, 19(29):P126

Background

Tanzania is among the WHO's 30 high-burden countries for TB and TB/HIV. Understanding how TB/HIV clinical care services are documented at the facility level is important for monitoring treatment delivery for people living with HIV (PLWH) and TB. Moreover, the quality of data collection and entry is essential when treating TB/HIV coinfection, and can impact TB prevalence estimates necessary to measure program funding.

Program Intervention/Methodology

We abstracted TB/HIV data from the electronic TB and leprosy (ETL) data system and the HIV clinical database (CTC2) for PLWH in the Katavi region from October 2022 to September 2023. Individuals were matched using their HIV identification number. For those unable to match or with missing TB information, we conducted chart abstractions to triangulate identification numbers among the ETL, TB register, and patient files to determine TB treatment and data completion.

Results Finding

In the CTC2, 83 reported TB. In the ETL, 186 reported TB-HIV. Of these 186, 83 (45%) matched and completed TB treatment data, and 47 (25%) matched but missing TB treatment data in the CTC2. The remaining 56 (30%) did not match, and were found in ETL but not CTC2. All those in CTC2 were found in ETL. Of those in the ETL, not in CTC2 ($n=56$), 45 were missing or had incorrect TB-identification numbers in the CTC2, and 11 files could not be verified because they were unavailable. Of those missing documentation ($n=47$), 41 were located and TB treatment was documented.

Program Implication & Lesson Learned

We identified important data entry challenges including the management of TB/HIV clinics and did real-time training with data clerks. Recommendations were made to continue to support capacity building with data clerks and HCP. Ensuring HIV providers are aware of TB status is essential for TB/HIV treatment provision.

P127

The evaluation of 'Wateja-Marafiki' intervention for PLHIV in police and prison facilities in the central and southern zones of Tanzania

Jimson Mgaya¹, Farida Myinga¹, David Mgonho¹, Hellen Sadiki¹, Daniel Manongi¹, Mayega Samson¹, Noela Nsanzugwanko¹, Eva Matiko¹, Redempta Mbatia¹, Yahya Hussein², Richard Mwankina³, Bhavin Jani⁴, Karugira Rweyemamu¹

¹Tanzania Health Promotion Support, Dar es Salaam, Tanzania; ²Police Medical Unit, Tanzania Police Force; ³Prisons Health and Nutrition Unit, Tanzania Prisons Services; ⁴United States Agency for International Development/Tanzania (USAID/TZ)

Correspondence: Jimson Mgaya (jmgaya@thps.or.tz)

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Background

Linkage and retention in treatment are critical for success of HIV treatment in people living with HIV (PLHIV). The program was using the Bukoba Combination Prevention Evaluation (BCPE) since 2019 but the challenge of linkage and early retention persisted. 'Wateja Marafiki' intervention, implemented from October 2021 to September 2023 in police and prison facilities in central and southern Tanzania, aims to enhance linkage and retention for newly diagnosed PLHIV.

Program Intervention/Methodology

'Wateja-Marafiki' is an adaptation of LCM in which the newly identified PLHIV are accompanied to the care and treatment clinic and paired with peer educators (PEs) to receive counselling, support and at least six-months follow-up on ART. A total of 30 PEs were enrolled and trained across 15 facilities in 9 regions. Data were collected from the 'Wateja-Marafiki' register, HIV testing services register and CTC2 database between October 2021 and September 2023 and summarized using absolute numbers and proportions.

Results Finding

A total of 1,667 individuals were identified HIV positive between October 2021 and September 2023 and 1,610 (97%) accepted antiretroviral therapy. Male and female had similar ART linkage of 96% and 97% respectively. Excluding inmates, a total of 1,326 ROCs were enrolled into "Wateja-Marafiki" intervention and attached to the PEs at a ratio of 44:1 for 6 months. On follow-up, 79.8% (1,058/1,326) of all individuals were receiving ART in their initial facilities. Those that were not attending their initial facilities were: transferred out 16% (210/1,326), died 4% (49/1,326), opted out of ART 0.5% (7/1,326) and interrupted treatment 0.2% (2/1,326).

Program Implication & Lesson Learned

Majority of the recipients of care were in treatment continuity at 6 months of ART. 'Wateja Marafiki' is one of the important interventions for linkage and retention among PLHIV. Periodic evaluation of the intervention is crucial for identifying modifiable factors that may affect both linkage and retention.

P128

Scaling up Voluntary Medical Male Circumcision services through adolescents friendly demand Creation interventions

Restituta Minde, Reginald Gervas, Castro Masanja, George Mwakaswaga, Emmanuel Mtui, Emmanuel Bahemana, Magnus Ndolichimpa, Sally Chalamila

Henry M. Jackson Foundation Medical Research International, Tanzania

Correspondence: Restituta Minde (restminde@gmail.com)

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Background

Male circumcision was found to reduce female-to-male sexual transmission of HIV. Since 2007, WHO and UNAIDS have recommended voluntary medical male circumcision (VMMC) as a key component of combination HIV prevention in countries with a high HIV prevalence and low levels of male circumcision. Reaching adolescents—especially those older than 15 years is crucial in maintaining high coverage rates and achieving the 2030 HIV incidence reduction targets.

Program Intervention/Methodology

From October 2019, HJFMRI-Tanzania conducted demand-creation campaigns targeting men 15 years and above as per Tanzania VMMC guidelines which included information on health benefits of VMMC to men and women. In Financial Year 2024, HJFMRI introduced adolescent-focused VMMC interventions which are more sustainable; they included employing age-appropriate peers, involving influential-leaders in advocating VMMC services in the community, engaging boda-boda drivers in referring clients for service to Mobile van and VMMC informed outreach services in hard to reach areas.

Results Finding

From October 2019 to March 2024, HJFMRI provided 665,235 VMMC services to males, 337,146 VMMC being offered to adolescents (15–19 years). There has been a steady increase in number of adolescents offered VMMC services over the years from 47,389 in FY20, 92,339 in FY21, 64,321 in FY22 and 71,837 in FY23. Notably, the first half of FY24 show 61,260 adolescents receiving VMMC services, indicating a significant surge compared to previous years. This upward trend underscores the effectiveness of adolescent-friendly demand creation interventions and highlights the importance of maintaining and expanding these strategies to continue increasing VMMC uptake among adolescents.

Program Implication & Lesson Learned

Though VMMC significantly reduces HIV risk, it is not a standalone-solution. Ongoing education is necessary to achieve the goal of reducing HIV incidence by 2030. A comprehensive approach guarantees that adolescents are adequately informed and encouraged to engage in VMMC programs, thus aiding to overall success of HIV prevention initiatives.

P129

Optimizing HIV Care in Southern Tanzania: Lessons from Successful SMART Linkage Strategies

Daudi Maigah¹, Mgendi Zacharia¹, Revocatus Kadoshi¹, Dorothy Matoyo¹, Linda Madeleka², Joan Lyaruu¹

¹Deloitte Consulting - USAID Kizazi Hodari Southern Zone Project, Dar es Salaam, Tanzania; ²United States Agency for International Development (USAID), Tanzania

Correspondence: Daudi Maigah (dmaigah@deloitte.co.tz)

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Background

Recently, many children and adolescents living with HIV (C/ALHIV) in Tanzania have benefited from the rapid scale-up of antiretroviral therapy (ART). However, retention in care and treatment remains a major concern due to fragmented healthcare systems. Recognizing this challenge, Deloitte, through the USAID Kizazi Hodari Southern (UKHS) Project, adopted the SMART linkage strategy that links C/ALHIV to care and treatment in one council while residing in another.

Program Intervention/Methodology

The UKHS Project adopted a retrospective cohort review approach to investigate the number of C/ALHIV retained in care and treatment services through SMART linkage from October 2022 to September 2023. The process involved 137 health facilities in five regions: Iringa, Njombe, Ruvuma, Mtwara, and Lindi. The methodology was selected because of its strength in disclosing and justifying beyond reasonable doubt the real contribution of the SMART linkage strategy to the retention of C/ALHIV in care and treatment services.

Results Finding

Findings indicate that SMART linkage significantly contributed to the retention of C/ALHIV in care and treatment services. In October 2022, 655 C/ALHIV receiving care in one council while residing in another were enrolled in the Orphan and Vulnerable Children (OVC) project through SMART linkage. Upon enrollment, 86.1% (564) were on treatment and 13.9% (91) were interrupted in treatment (IIT). After enrollment in the project, those IITs were retained in treatment (RTT). By September 2023, 94.2% (617) were retained in care, 0.3% (2) died, 0.8% (5) were IIT, and 4.7% (31) were transferred to facilities outside the project area.

Program Implication & Lesson Learned

Retention to care and treatment services for C/ALHIV has relatively improved through the SMART linkage strategy, an approach embedded within the OVC program. This signifies that to achieve the 95–95–95 goal, there is a need to mainstream the OVC program more specifically the SMART linkage strategy in clinical initiatives.

P130

Addressing Advanced HIV Disease (AHD) among Newly HIV Diagnosed Adults In Southern Highlands (SHL) Tanzania

Dorothy Mkondoo, Happy Hamry, Reginald Gervas, Alhaj Suphian, George Mwakaswaga, Emmanuel Mtui, Emmanuel Bahemana, Magnus Ndolichimpa, Sally Chalamila

Henry Jackson Foundation Medical Research International (HJFMRI), Tanzania

Correspondence: Dorothy Mkondoo (dmkondoo@hjfmri.or.tz)

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Background

Early detection of HIV infection is important steppingstone towards risk reduction for AIDS. AHD upon diagnosis or at entry into HIV care is common and significantly increases the risk of death from opportunistic infections. To identify PWHIV with low CD4 WHO through PEPFAR facilitates the implementation of access to CD4 testing and supports

rapid initiation of ART to prevent AHD related mortality. This analysis addresses AHD among newly diagnosed individuals.

Material and Methods

From October 2023 HJFMRI-Tanzania scaled up access to CD4 count testing to all newly HIV diagnosed individuals across the supported regions in SHL following the country guidelines. We examined pre-ART phase data collected from Katavi, Mbeya, Rukwa and Songwe from October 2023 to April 2024. We used medical records to obtain demographic data and laboratory results including HIV results, CD4 count, Crag. test results and other relevant clinical data. AHD was assessed using CD4 counts and Crag. test results.

Results

From October 2023 to April 2024 a total of 592,772 adults were tested for HIV across four regions and among them 11,206 (1.9%) were HIV positive of which 7123 (63.6%) were female. The uptake of CD4 test was significant where 8455 (75.5%) of the newly diagnosed were tested for CD4 and 2056 (24.3%) had the CD4 count below 200 indicating potential AHD. For those with CD4 count below 200 which is the criteria for Cryptococcal antigen (Crag.) test, 830(40.4%) accessed the test where 90 (10.8%) of them tested positive for Crag. putting them at risk for AIDS and death.

Conclusion & Recommendations

The important component ensuring individuals with AHD receive required care is to identify AHD, WHO clinical staging alone misses a substantial number of those with CD4 count below 200, expanding uptake of CD4 count testing to newly HIV diagnosed individuals is crucial in preventing late presentation and AHD related mortality.

P131

Integrating peer network analysis improved HIV case identification in Morogoro, Tanzania

Johannes Makwandi¹, Vicent Daud¹, Bernard Ogwang¹, Aziz Itaka¹, Gilbonce Mwakapinga¹, Cesar Msamba¹, Hamis Kiloya², Eliza Herman¹, Jonson John², Dorica Boyee¹, Chris Akolo³

¹Family Health International 360, Tanzania; ²Huruma Aids Concern and Care (HACOCA); ³Family Health International 360, USA

Correspondence: Johannes Makwandi (makwandik@yahoo.com)

BMC Proceedings 2025, 19(29):P131

Background

In Tanzania, HIV prevalence remains high among of FSW (26%) and MSM (25%). The USAID/PEPFAR-funded Meeting Targets and Maintaining Epidemic Control project adopted use of the enhanced peer outreach approach to reach key populations and offer HIV testing services to those who are typically considered more difficult to reach with traditional testing approaches. We present a data analysis and use approach within EPOA that improved identification of hard-to-reach populations.

Program Intervention/Methodology

Initially, EPOA faced challenges due to inadequate feedback mechanisms in coupon distribution and tracking strategies, limiting outreach effectiveness. To address this, a data-driven approach with social network analysis was implemented. Sixteen peer educators received training on EPOA approach. Data officers were trained in network analysis using Microsoft PowerBI. Individual peer network analysis integration occurred from April–June 2023. Case identification was compared before (Oct 2022–Mar 2023) and after (Apr–Sep 2023) PNA introduction, assessed statistical significance using Chi-squared test.

Results Finding

Before PNA, PE's distributed 909 coupons and identified 59 HIV positive cases (10% positivity rate, 59/590). Following introduction of PNA, 815 coupons were distributed, yielding 13% positivity rate, (73/565) ($p=0.119$). During use of PNA, 77% (435/565) of the clients reached had never tested or not tested for a year, compared to 51% (304/590) before PNA ($p<0.001$). Data interpretation and use by peer educators were critical for this targeted approach.

Program Implication & Lesson Learned

Integrating PNA with EPOA effectively extended HIV services to KPs previously underserved. EPOA's scalability makes it a valuable strategy for identifying HIV cases in hard to-reach populations.

P132

Efficiency of Dual Approach for Fidelity in Tuberculosis Screening at Care and Treatment Clinics

Dr Telesphory Mullah

Henry M. Jackson Foundational Medical Research International Inc, Tanzania

Correspondence: Dr Telesphory Mullah (tmullah@hjfmri.or.tz)

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Background

Tuberculosis (TB) is a significant comorbidity and leading cause of mortality among PLHIV, however, TB screening by HCP in ART clinics often lacks consistency and accuracy as per national guidelines due to lack of commitment, leading to missed cases and delayed interventions. In 2019, HIV coinfection among people with TB was 24%. In 2020, 41% of people with TB were not diagnosed and notified in Tanzania, contributing to excess mortality.

Program Intervention/Methodology

A mixed-methods approach was employed, combining quantitative data and qualitative insights. Quantitative data were collected through the review of medical records and an improvised exit checklist tool for TB. Qualitative data were aimed to understand their experiences and the effectiveness of the expert client model at the triage and exit desk checkpoint.

Results Finding

This approach led to early TB case detection that might have otherwise been missed, enabling prompt referral for diagnosis and treatment initiation.

HJFMRI observed 165 presumptive TB cases and identified 17 cases of HIV co-infection with TB from April to September 2019. Nevertheless, following the implementation of the dual approach, the program experienced a notable increase in TB suspicious index and TB case notification. For instance, from Apr 2022 to Sep22, TB presumptive (255) and 194 TBHIV cases were notified.

Mentored Expert clients on TB demonstrated a high level of fidelity in conducting TB screening among their peers.

Program Implication & Lesson Learned

The utilization of trained expert clients in conducting TB screening at entry and exit points in addition to the routine screening which HCP does show promising results in early TB notification. Their unique position as peers fostered trust and facilitated effective communication, resulting in higher compliance with screening procedures.

P133

HIV retesting among pregnant and breastfeeding women in the Southern Highlands zones, Tanzania

Reginald Gervas^{1,2}, Ivetha Mussiba^{1,2}, Chaita Chai^{1,2}, Rosemary Mrina^{1,3}, Emmanuel Bahemana^{1,2}, Magnus Ndolichimpa^{1,2}, Sally Chalamila^{1,2}

¹U.S. Military HIV Research Program, CIDR, Walter Reed Army Institute of Research, Silver Spring, MD, USA; ²HJF Medical Research International, Tanzania; ³The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc., Bethesda, MD, USA

Correspondence: Reginald Gervas (rgervas@hjfmri.or.tz)

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Background

Repeat HIV testing during pregnancy, labor and breastfeeding identifies women with incident infections, those living with HIV who are not aware of their status, and infants at risk of vertical transmission of HIV. Tanzania adopted and scaled up HIV retesting among Pregnant and Breastfeeding women in 2022. We present retesting data for women receiving maternity and child health services at healthcare facilities in four southern highlands (SHL) regions in Tanzania.

Program Intervention/Methodology

We reviewed routinely collected program data on maternal HIV retesting from 394 facilities supported by the HJFMRI program in Katavi, Mbeya, Songwe and Rukwa. We report numbers and proportions of women eligible for retesting following their first ANC visit; those returning for subsequent ANC visits; those retested and newly diagnosed with HIV following retesting at designated service delivery points namely, ANC and child welfare clinics.

Results Finding

Total of 193,561 women entering ANC who were eligible for testing were enrolled; 2,203 (1.14%) were newly diagnosed and linked to ART services. A total of 160,444 retests were subsequently done in the third trimester, labour/delivery and during breastfeeding; 244 were newly diagnosed HIV individuals and linked to ART services.

Program Implication & Lesson Learned

Maternal retesting has shown promising results in identifying women who become infected with HIV while pregnant and during breastfeeding. We suggest continued efforts in tracking women who miss retesting to enable every eligible woman to be HIV retested.

P134

Operation Triple Zero intervention improved viral load coverage and suppression among Children and Adolescents living with HIV in TPDF facilities

Vaileth Mlay^{1,2,3}, Reginald Gervas¹, Anastazia Masanja¹, Chuki Rajabu¹, Magnus Ndolichimpa¹, Sally Chalamila¹, Boniface Nguhani², Mohamed Mfaume², Diana Nicholas², Rosemary Mrina³, Patricia Agaba³
¹HJF Medical Research International (HJFMRI), Tanzania; ²Walter Reed Army Institute of Research (WRAIR)/Department of Defense (DoD), Tanzania; ³Department of International HIV Prevention and Treatment (IHPT), Bethesda, MD, USA

Correspondence: Vaileth Mlay (vmay@hjfmri.or.tz)

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Background

Continuity in treatment and HIV viral load suppression remains sub-optimal among Children and Adolescents living with HIV (CALHIV), with only 49% achieving suppression as of June 2019, while 61% of viral load coverage needs improvement. The intervention aimed to assess how Operation Triple Zero (OTZ) champions could enhance viral load coverage (VLC) and suppression (VLS) among CALHIV in program-supported health facilities in Tanzania.

Program Intervention/Methodology

Fifty-five OTZ champions were trained in providing friendly pediatric services in January 2023. They raised awareness among CALHIV and caregivers, both virtually and in person, emphasizing the importance of viral load testing, suppression, and treatment continuity with a focus on family-centered care. Additionally, a triple attachment model for enhanced adherence counseling (EAC) was implemented among CALHIV, caregivers, and OTZ champions to improve viral suppression in viremia clinics during Pediatric and OTZ clinics on Saturdays.

Results Finding

From June 2019 to December 2022, the program struggled with less than 95% viral load coverage (VLC) and viral load suppression (VLS) among CALHIV. However, following the deployment of trained OTZ champions, both VLC and VLS increased significantly. Since December 2023, they surpassed the 95% threshold, achieving 97% and 99%, respectively, by May 2024. The success underscores the pivotal role of OTZ champions in achieving these milestones, marking a substantial improvement in HIV care outcomes for CALHIV.

Program Implication & Lesson Learned

HJFMRI, through the utilization of trained OTZ champions who are also program beneficiaries, empowered caregivers and CALHIV to build their treatment literacy. This approach has enhanced viral load coverage, suppression, and disclosure support during Special Saturday clinics.

P135

Innovative delivery models for Effective Use of ECHO for Capacity Building on Rapid HIV Testing Services in Tanzania

Daud Peter¹, Lightness Mboya², Isack Lekule³, Leonard Subi¹, Stella Mpagama¹, Alexander William¹

¹Kibong'oto Infectious Diseases Hospital, Kilimanjaro, Tanzania;

²Management and Development for Health (MDH), Dar es Salaam,

Tanzania; ³National Tuberculosis and Leprosy Control Program (NTLP), Dodoma, Tanzania

Correspondence: Daud Peter (dmaigah@deloitte.co.tz)

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Background

Tanzania is scaling up the use of virtual Tele mentoring platform to train and mentor healthcare workers in HIV/TB screening, diagnosis, and treatment. Despite its benefits on cutting down training cost, timeliness and convenience in capacitating non-laboratory testers in HIV rapid testing, its participation has been sub-optimal. This analysis aims to evaluate effective pathways to convey information about ECHO, devices used to attend sessions, and bottlenecks for successful participation.

Material and Methods

A cross-sectional survey was conducted to 798 health care workers in 26 Regions of Tanzania mainland. We used online google forms with a link that was sent to individual email address and WhatsApp groups in June 2023. The enrolled participant were from 399 health facilities with tele mentoring ECHO equipment. The survey focused on four main dimensions: ECHO information and HIV-RT training sources, equipment used to attend ECHO sessions, barriers to participation and ways to improve ECHO

Results

Out of 798 HCWs who received the survey link, 509 (63.7%) responded. Among the respondents, 42% learned about ECHO through facility in-charges, 31% through program meetings, 16% through District program managers, and 11% others. The majority of HCWs 186 (89%) received training on HIV-RT through ECHO, and of those, 93% found ECHO to be convenient. The majority of HCWs (77%) used their mobile phones, 17% used video conferencing equipment installed at their facilities, and 6% used their personal laptops to attend ECHO sessions. Busy patient schedules (59%) and poor internet connectivity (22%) were the common barriers to attend ECHO sessions

Conclusion & Recommendations

The findings suggests that the implementation of Project ECHO should strategize on using the personal devices of the HCWs and flexibility in the session schedule for increasing participation

P136

Learning from escort referral approach in maximizing implementation of Testing for Prevention services at HIV testing points

Jane Temba^{1,2}

¹HJF Medical Research International (HJFMRI), Tanzania; ²Walter Reed Army Institute of Research (WRAIR)/Department of Defense (DoD), Tanzania

Correspondence: Jane Temba (jtemba@hjfmri.or.tz)

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Background

Approaching epidemic control, it is crucial to protect everyone from acquiring new HIV infection. All clients tested for HIV should be linked to appropriate services depending on their results, risks, and preferences. HTS is an important entry point for linkage of HIV +VE clients to ART for attaining viral suppression and HIV-VE clients to prevention services so they remain negative. This eventually reduces new HIV infections in the community.

Program Intervention/Methodology

Quantitative data review was done by reviewing HTS register to determine referral of the HIV-VE clients to prevention services including PrEP. HTS providers were capacitated to screen for HIV risks, provide referral and document in the comment section of the HTS register.

Results Finding

HTS for prevention enabled client tested for HIV to be linked to various HIV prevention services including PrEP services.

In the period of October to December 2023 136 HIV-VE clients were referred to PrEP services from testing points. Following on job mentorship on strengthening provision of HTS for prevention services and escort referral, program observed an improvement to 351 HIV-VE clients being provided with referral from HIV testing points to PrEP services in the period of Jan – March 2024. These clients were tested from various HIV testing modalities including optimized PITC, index testing, RCH testing and Social Network Strategy.

Program Implication & Lesson Learned

Capacitating HIV testers to be able to do HIV risk assessment and provide prevention services such as PrEP to eligible clients under one roof is crucial for successful linkage. Escort referral can facilitate successful linkage to prevention services from testing points where service delivery points are different.

P137

Peer-led Approach in Accelerating Uptake of PrEP Services among KVP group: A Case of Iringa Region-Tanzania

Irene D'zombe¹, Christian Parezzo¹, Benson Abraham¹, Beatrice Christian¹, Marina Njelekela², Zahra Nensi², Jackline Kalimunda³, Neway Fida³

¹Management and Development for Health, Iringa, Tanzania; ²Deloitte Consulting Limited; ³United States Agency International Development, Tanzania

Correspondence: Irene D'zombe (idzombe@mdh.or.tz)

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Background

Iringa under PEPFAR Tanzania, implements Pre-Exposure Prophylaxis (PrEP) services under USAID Afya Yangu Southern Program. 123 healthcare-providers and 10 data clerks (all five councils) were trained. The region holds promise for PrEP services due to high-risk women, long-distance truck drivers, timber and tea farms presence. Despite its potential, PrEP uptake stagnated in the first quarter of 2024 fiscal year, necessitating immediate intervention through peer-led to boost uptake among key populations.

Program Intervention/Methodology

With PEPFAR support in Q2FY24, the program conducted on-job mentorship to 41 Healthcare Providers across all trained facilities. Fifteen temporary peers (KVPs) already on PrEP were identified and mentored in PrEP demand creation within their community. The snowballing method utilized these trained peers to outreach other KVPs, inviting them for PrEP eligibility assessments at facilities. Services were made more accessible through flexible hours. Daily facility performance was monitored via WhatsApp groups, with weekly data reviews to address service delivery challenges.

Results Finding

We were able to improve Regional PrEP uptake from 396 to 1,543 PrEP new clients from Oct-Dec 2023 to Jan-March 2024 respectively.

Program Implication & Lesson Learned

The combination of KVP peer-led initiatives in PrEP demand creation, capacity building, and enhanced teamwork among HCPs at all facility entry points significantly boosted PrEP uptake among KVPs. The program intends to leverage this successful model in similar settings going forward.

P138

Progress of HIV index testing, self-testing, and pre-exposure prophylaxis scale-up in Tanzania from 2017 to 2023

Oscar Ernest Rwabiyo¹, Alick Austine Kayange², Zeye M. Nkomela³, Nyagonde Nyagonde¹, James McOlogi Juma³, Upendo Kategile⁴, Galal N. King'ori¹, Ona Machangu³, Kokuhumbya Kazaura¹, Joseph D. Nondi², Neway Fida⁴, Allen Katala¹, Vincent Wong⁵, Neema Mlolo⁶, Boniface Nguhuni², Nicolas Schaad¹, Neema Makyao⁷, Magnus Ndolichimpa⁸, Werner Maokola³, Ramadhani Gongo¹, Prosper Faustine Njau³, Jonathan Grund¹, Gissenge J. Lija⁹, Trista Bingham¹⁰, Peris Urasa¹¹, Jessica L. Greene¹², Magreth J. Kagashe¹³, Eniko E. Akom^{14,15}, Amy Medley¹⁰, Catherine Canute Joachim³, Mark Breda², Anath Rwebembera³, Mahesh Swaminathan¹, George S. Mgomella¹

¹United States Centers for Disease Control and Prevention, Division of Global HIV and TB, Dar es Salaam, Tanzania; ²United States Walter Reed Army Institute of Research/Department of Defense, Dar es Salaam, Tanzania; ³National AIDS, STIs and Hepatitis Control Programme, Ministry of Health, Dodoma, Tanzania; ⁴United States Agency for International Development, Dar es Salaam, Tanzania; ⁵United States Agency for International Development, Office of HIV/AIDS, Washington DC, USA; ⁶President's Office, Regional Administration and Local Government Tanzania, Dodoma, Tanzania; ⁷AMREF Health Africa, Dar es Salaam, Tanzania; ⁸HJF Medical Research International, Inc., Dar es Salaam, Tanzania; ⁹Management and Development for Health (MDH), Dar es Salaam, Tanzania; ¹⁰United States Centers for Disease Control and Prevention, Division of Global HIV and TB, Atlanta, Georgia, USA; ¹¹Health and Medical Foundation, Dar es Salaam, Tanzania; ¹²PEPFAR Coordination Office, Dar es Salaam, Tanzania; ¹³Tanzania Commission for AIDS, Dodoma, Tanzania; ¹⁴U.S. Military HIV Research Program, Walter Reed Army Institute of Research, Silver Spring, MD, USA; ¹⁵The Henry M. Jackson Foundation for the Advancement of Military Medicine, Bethesda, MD, USA.

Correspondence: Oscar Ernest Rwabiyo (oez4@cdc.gov)

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Background

Tanzania HIV Impact Survey (THIS) 2016-2017 showed that 39% of people living with HIV (PLHIV) were unaware of their status. In response, Tanzania enhanced its index testing (IT) program, permitted HIV self-testing (HIVST) to improve HIV case identification and introduced pre-exposure prophylaxis (PrEP) to prevent new HIV transmissions. We summarize policy changes that effected these programs and intervention progress between October 2017 and September 2023.

Program Intervention/Methodology

In 2018, Tanzania's IT policy was revised while HIVST and PrEP were launched as pilot programs. In 2019, the HIV and AIDS Act was amended to permit HIVST, which was followed by endorsement of an HIVST implementation framework for individuals aged ≥ 18 years at high-risk of HIV acquisition— primarily among sex workers and those with multiple sexual partners. In 2021, a national PrEP implementation framework for key and vulnerable populations aged ≥ 15 years was approved by the government of Tanzania.

Results Finding

From 2017 to 2023, a total of 4,436,963 index contacts were tested through IT, and 630,963 (14%) were newly diagnosed PLHIV accounting for 42% of total new HIV diagnoses. Also, the proportion of diagnoses through IT increased from 13% to 56%, and HIV-positivity yield increased from 7% to 16%. During the same period, 2,631,464 HIVST kits were distributed, and unassisted self-testing increased from 32% to 69% of all kits distributed per annum. PrEP was initiated by 283,859 eligible clients, 55% of whom were key populations, and the uptake increased exponentially from 8,074 in 2017 to 134,172 in 2023.

Program Implication & Lesson Learned

In six years, IT increased by over 4-fold, and HIVST and PrEP grew substantially. Tanzania continues to focus on robust site-level IT monitoring, policy updates to allow HIVST distribution in private setting and lower eligibility age to support PLHIV identification, as well as expanding PrEP accessibility to prevent HIV transmission.

P139**Enhanced Integration of family planning services to routine community-based HIV services for Key and Vulnerable Populations increases FP uptake, Dodoma**

Njiimia Mrema¹, Victoria Rowan¹, Vicent Mhada¹, Tumainiely Kweka¹, Elizabeth Herman¹, Dorica Boyee¹, Joseph Ngweshemi¹, Bernard Ogwang¹, Upendo Kategile²

¹EpiC Project, Family Health International 360; ²United States Agency International Development – Tanzania

Correspondence: Njiimia Mrema (nmrema@fhi360.org)

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Background

The PEPFAR/USAID-funded EpiC project collaborates with the Ministry of Health to integrate FP services within community-based HIV services for female sex workers (FSW) and out-of-school adolescent girls and young women (AGYW). Delivering integrated community outreach is practical and increases awareness, however, the setup can limit the provision of long-term methods. We aim to show that enhanced integrated FP outreach services have increased the uptake of short and long-term methods

Program Intervention/Methodology

During routine integrated services, demand is created through peer educators in hotspots, for example, brothels and local bars. Health Care Provider (HCP) delivers biomedical and FP services limited to short-term methods and refers to long and permanent methods. During enhanced outreaches, the project collaborates with Reproductive Coordinators (R/DRCHco), identifies specific service providers, hires rooms for 3 days, or uses a project van to provide short- and long-term methods safely and conveniently. Cervical cancer screening services are also integrated.

Results Finding

From October 2022 - March 2024, 17,018 women (7,409 FSW; 8,392 AGYW; 1,217 at-risk women) were provided with FP services. 6,874 were served during routine outreaches and 10,144 during enhanced. In a month, 625 women got FP methods during routine outreaches and 1,449 during enhanced outreaches. FSW provided with FP were 2.7 times more in a month when enhanced outreaches were conducted compared to other months (673/245), and 1.8 times more (638/357) for AGYW. Among FSW, the provision of implants was 3.3 times more (163/50) and 3.2 times more for injectables (133/42) in months with enhanced outreaches compared to other months.

Program Implication & Lesson Learned

Enhanced integrated outreaches provide awareness and opportunity to offer both short-term and long-term FP choices in the community setting. Availability of safe and convenient rooms, trained peers, FP-specific HCPs, and R/DRCHco involvement is crucial in improving FP uptake among FSW and AGYW.

P140**Underscoring Challenges in PrEP Use and Adherence among HIV High-Risk Groups- Insights from Focus Group Discussion in Njombe Region, Tanzania**

Enock Lugaila^{1,2}, Optatus Kileo^{1,2}, Samwel Mtweve^{3,2}, Godfrey Mwanakulya^{1,2}, Abubakar Rehani^{1,2}, Christian Paresso^{3,2}, Beatrice Christian^{3,2}, Bakari Bakari^{4,2}, Nyantito Machota^{4,2}, Denis Mzaga^{4,2}, Marina Njelekela^{4,2}, Zahra Nensi⁴, Jackline Kalimunda⁵, Neway Fida⁵

¹T-MARC Tanzania, Dar es Salaam, Tanzania; ²United States Agency International Development, Afya Yangu (My Health) Southern;

³Management and Development for Health, Dar es Salaam, Tanzania;

⁴Deloitte Consulting Limited, Dar Es Salaam, Tanzania; ⁵United States

Agency International Development Tanzania, Dar es Salaam, Tanzania

Correspondence: Enock Lugaila (elugaila@tmarc.or.tz)

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Background

The 2023 UNAIDS report highlights over 63% of 4,000 new HIV infections in Adolescent Girls and Young Women (AGYW) occur weekly

in sub-Saharan Africa. Tanzania endorsed Truvada as Pre-Exposure Prophylaxis (PrEP) in 2019 aiming to combat new HIV infections among high-risk populations. Despite growing demand for PrEP among high-risk groups, systematic review studies reveal challenges like stigma, dosing regimen complexities, and low-risk perception as hindering factors for PrEP drug adherence.

Program Intervention/Methodology

In May 2024, the USAID Afya Yangu, a PEPFAR/USAID funded project that offers comprehensive HIV and TB services conducted a focus group discussion with PrEP users in Njombe region to understand PrEP usage experiences and recommendations on improving PrEP adherence. Fourteen AGYW PrEP users informants were purposively enrolled by peer champions at facility catchment areas. Two focus group discussions were done. An open-ended interview guide was used. Data was audio recorded, transcribed, and translated into English, then thematically analyzed manually.

Results Finding

AGYW demonstrated sufficient knowledge of PrEP usage and commended its efficacy in preventing HIV. However, they highlighted reasons for non-adherence, including stigma from being misidentified as HIV-positive by peers, fatigue from pill consumption and proposed alternatives like 3-year Implanon or 3-month injectables for PrEP. They also recommended expanding PrEP services accessibility across all facilities in the region.

Program Implication & Lesson Learned

Increasing demand for and use of PrEP services is vital for HIV epidemic control interventions, although non-adherence remains a significant obstacle. This study underscores the importance of advocating for and implementing long-term PrEP regimens in Tanzania.

P141**SBC Integration in HIV Mobile Testing Services among Youths: Best Practice from USAID Afya Yangu Southern in Ruvuma, Tanzania**

Erica Shindano¹, Benson Tembo¹, Faraja Msengi¹, Owen Mhalila¹, Aloyce Mabula¹, Nkingwa Mabelele¹, Godfrey Mwanakulya¹, Abubakar Rehani¹, Christian Paresso¹, Josephat Kalipesa², Denis Mzaga¹, Beatrice Christian¹, Marina Njelekela¹, Zahra Nensi³, Neway Fida¹, Jacqueline Kalimunda¹

¹United States Agency International Development Afya Yangu Southern,

Dar es Salaam, Tanzania; ²Ruvuma Regional Secretariat, Songea, Tanzania;

³Deloitte Consulting Limited, Es Salaam, Tanzania

Correspondence: Erica Shindano (eshindano@tmarc.or.tz)

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Background

HIV Testing Services (HTS) among youths is a major challenge in Tanzania, according to Tanzania Demographic and Health Survey (TDHS) of 2017, only 30% of 15–19-year-olds were tested for HIV and received results. SBC integration to HTS and identification among youths is pivotal framework in addressing low HTS uptake among them. USAID Afya Yangu Southern Program have implemented SBC interventions for demand creation and mobile HTS to maximize its uptake.

Program Intervention/Methodology

From October 2023, the USAID Afya Yangu Southern program in collaboration with Ruvuma R/CHMTs integrated SBC youths' interventions (SITETEREKI approach) with HIV testing services which included mapping hangouts, conducted demand creation activities through youth peers, using community radio and deployed dedicated health care workers to conduct mobile HTS. Daily monitoring and data capturing were conducted for timely data entry in national and program data systems.

Results Finding

The number of youths aged 15–24 years tested for HIV through community mobile HTS increased by ten-fold from 408 during October–December 2023 to 3,988 during January–March 2024. As well as compared to all other HIV Testing modalities among this age group, the contribution of community mobile HTS increased from 4% to 18% during the same periods. New HIV cases identified increased by 22 folds from one client to 22 clients during the same comparative periods whereas its contribution to total new HIV cases identified among

this age group increased from 1% to 17% during the same comparative periods.

Program Implication & Lesson Learned

Demand creation interventions and community mobile HTS among youths are fruitful strategies to control the HIV epidemic among youths. More resources are to be directed in this modality as it has demonstrated an increased coverage of HTS and HIV case identification among youths.

P142

Integrated Hypertension Screening and Management in HIV Clinic: Addressing Co-morbidity for Better Patient Outcome Experience from USAID AFYA YANGU Southern

Rehema Msimbe¹, Beatrice Christian¹, George Emmanuel², Zahra Nensi², Marina Njelekela², Jacqueline Kalimunda³, Carolyn Mbelwa³, Josephat Kalipesa⁴

¹Management and Development for Health, Dar es Salaam, Tanzania;

²Deloitte Consulting Limited, Dar es Salaam, Tanzania; ³United States Agency International Development, Dar es Salaam, Tanzania; ⁴Ruvuma Regional Referral Hospital, Songea, Tanzania

Correspondence: Rehema Msimbe (rmsimbe@mdh.or.tz)

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Background

USAID Afya Yangu Southern Project supports ART service delivery in six regions in Southern Tanzania. With long-term antiretroviral therapy, RoC live longer and are prone to succumb to other chronic conditions. The risk of developing non-communicable diseases due to HIV virus-related inflammation, long-term use, ageing and drug-drug interactions increases the chances of co-morbidities. From October 23rd 12 pilot CTC sites initiated; and later scaled up to 212 facilities.

Program Intervention/Methodology

WHO defines Hypertension as when the pressure in your blood vessels is too high (140/90 mmHg or higher). Diagnosis of hypertension requires an average of 3 separate elevated Blood pressure $\geq 140/90$ mmHg readings taken when the RoC is comfortable in subsequent visits respectively. Trained national mentors and R/CHMTs scaled up to 212 sites and ensured routine screening using a standardized protocol. Above 15 years of attendees were measured using calibrated sphygmomanometers. NCD coordinators were engaged in providing ongoing mentorships

Results Finding

Confirmation was done after 3 consecutive elevated pressures $\geq 140/90$ mmHg and a medical review ruling out other underlying causes performed. From Oct 2023 - March 2024; 78,029 (57%) PLHIV >15 years received HTN screening at 212 Clinics. Four thousand nine hundred and nine (11%) had elevated pressure $\geq 140/90$ mmHg. Over thousand 1,113 (23%) were confirmed to be hypertensives. The program observed an increase in Hypertension screening from 17% in FY23Q4 to 57% in FY24Q3 and confirmation in the same period from 10% to 23%. Active referral for management was offered to all those confirmed hypertension cases.

Program Implication & Lesson Learned

The use of regionally trained mentors, available BP machines and close monitoring is essential to improve the diagnosis and confirmation of hypertension. Hypertension and HIV have serious interrelated complications; regular monitoring with lifestyle modification and adherence to prescribed drugs are key common strategies for improving outcomes of PLHIV with co-morbidities.

P143

Empathy as a core component for innovation in HIV treatment, care and stigma reduction

Yvette Kruger¹, Roland Van de Ven², Shannon Pincus¹

¹Matchboxology, Johannesburg, South Africa; ²Elizabeth Glaser Pediatric AIDS Foundation, Dar es Salaam, Tanzania

Correspondence: Yvette Kruger (yvette@matchboxology.com)

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Background

Empathy is at the core of being human, its value acknowledged in human interaction, psychology, social anthropology and some health sciences. But what if this human characteristic could lie at the center of HIV treatment and care modalities? Matchboxology, a Human-centered design (HCD) agency worked on incorporating deep empathy over the last three project years as a consortium partner in the USAID Afya Yangu (My Health) Northern project.

Program Intervention/Methodology

HCD methodology utilizes empathy as a key mechanism to generate innovative solutions. In Tanzania, this process incorporated a desk review, evidence gathering through immersive discussions with key stakeholders and a co-creation workshop. Following this empathy-driven design process, three innovations were developed, pre-tested and have undergone test implementation in six health facilities in Manyara and Dodoma. The impact of the solutions were measured in the control audience through group and individual qualitative immersive interviews.

Results Finding

All three innovations utilize empathy to mitigate HIV-stigma and improve treatment motivation, service delivery, ART adherence and psycho-social support for people living with HIV. User feedback posited the innovations as effective in enhancing holistic approaches to health, particularly for adolescents and young people. The mechanism of empathy also indicated success in improving the working experience of healthcare providers, enabling them to provide better services. Solutions that promote multi-relational empathy between stakeholders and the system, appear effective promoting positive social and behavioral change around treatment and care of HIV, especially greater medication adherence and psycho-social support.

Program Implication & Lesson Learned

Reflection on the powerful role that empathy can play in HIV treatment and care can lead to greater integration of empathy as a tool within clinical implementation planning as well as a consideration point to modify existing programmatic implementation to be more effective.

P144

Early Childhood Care and Development Centres; Potential Platforms for Improving Child Nutrition In Njombe Region

Innocent Sanga, Judith Kimambo, Alex Lugakingira, Jesse Joas, Nengilang'et Kivuyo, Brenda Mshiu

United States Agency International Development, Dar es Salaam, Tanzania

Correspondence: Innocent Sanga (isanga@lishemtambuka.com)

BMC Proceedings 2025, 19(29):P144

Background

In 2020 Tanzania produced guidelines that provide procedures to be followed in caring for infants and young children in day care centres. Nutrition and associated sectors have been well articulated in these guidelines and standards set to ensure all essential services are provided. Currently, many children are cared for in these centres and it is essential to ensure comprehensive integration of specific nutrition services in the centres for these children.

Case Report

Methodology: USAID Lishem (Nutrition) project in collaboration with social welfare office at region and council levels conducted mapping and assessment of 158 centres. The purpose of this assessment was to establish baseline information on provision of nutrition services in these centers. The exercise utilized a structured questionnaire that focused on: human resource skilled on nutrition, budgeting for nutrition, provision of food, multisectoral coordination for nutrition as well as child protection procedures. Observation was also employed to triangulate the quantitative data collected at each centre.

Results

158 Centers were identified in six councils, out of these only 11% were registered according to Tanzania government standards, 15% of the assessed centres provide food to children at least after every 2 hours

according to their age. On the other hand, out of 534 Health Care Providers only 47% were certified with Early Childhood Development education and only 44% health care providers had prior knowledge on nutrition.

Conclusion

The government of Tanzania desires these centres are managed according to the set standards integrating nutrition services. The centres are excellent points for integrating the provision of basic food and nutrition services to children below five years primarily because these children spend a substantial amount of time at the centres.

P145

Accelerating Health Services in East Africa Using Innovative Financing Approaches

Douglas Thornton

DAI Global LLC, Christian Social Services Commission (CSSC)

Correspondence: Douglas Thornton (dthornton@usaid.gov)

BMC Proceedings 2025, 19(29):P145

Background

Innovative financing and private sector participation is critical to the development and scale of healthcare services. In Tanzania, with support from USAID's Bureau for Global Health, qualified transaction advisors originated, analyzed and structured financing to address two principal market failures: (i) insufficient quality advisory services to support investment readiness and deal structuring for health service providers, and (ii) limited availability of financial products tailored to the health sector.

Program Intervention/Methodology

The support is being done through engaging Transaction Advisors (TAs) to enhance financing opportunities for HIV enterprises within the CSSC network. The TAs identify and screen prospective finance providers interested in underwriting transactions and develop health financing proposal templates that meet the necessary investment and underwriting criteria through prioritised financing requests for HIV enterprises requiring a minimum of \$5,000. And worked closely with local Tanzanian financial institutions to suggest appropriate risk mitigation tools in line with Financial Institutions' requirements.

Results Finding

To identify healthcare providers, USAID collaborated with the CSSC, a Tanzanian network of faith based organizations, which manages 42% of healthcare services of which 56% are rural based. Based on field visits to ten health facilities in early 2024, seven were selected for transaction advisory services, with over TZS 8 billion (\$3.1 million) of financing being sought. The primary uses of financing included working capital in the form of invoice discounting, construction and financing for CT-Scan and Digital X-Ray equipment. We worked with local Tanzanian commercial banks including CRDB Bank PLC, Maendeleo Bank Plc and Mkombozi Commercial Bank Limited.

Program Implication & Lesson Learned

USAID expects this activity to create employment opportunities and increase service delivery to 50,000 patients living with HIV in Tanzania. Consistent with PEPFAR's localization efforts, local business advisors are encouraged to help facilitate private finance and investment for healthcare MSMEs and promote healthcare investment as a tool of economic growth.

P146

Assessment of food safety and food hygiene practices among food vendors in ilala, Tanzania

Faustina Munisi

Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Faustina Munisi (munisifaustina12@gmail.com)

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Background

Food safety and hygiene are critical to prevent foodborne illnesses. Safe and nutritious food is good for health. Food vendors provide accessible, affordable food but causes health risks if safety and hygiene practices are poor. Foodborne diseases is public health issue, due to unsafe food handling and poor hygiene among street food vendors. This project investigates the food safety practices of vendors among at ilala, 3 sites were used.

Material and Methods

Observational crosssection study was done and convenient sample was used from the site selected

Observation: Direct observation of food handling, hygiene, and sanitary practices at vending sites.

Participants: 12 environmental health students assisted in data collection.

Questionnaires: Researcher-administered questionnaires covering sociodemographics, environmental hygiene, food handling, and hygiene practices.

Results

Key Findings:

Majority (90%) of food vendors demonstrated poor hygiene practices.

Common Issues Identified:

Sanitary Facilities: 50% of vendors lacked access to adequate sanitary facilities.

Dust Contamination: 80% of vending areas had open windows causing dust contamination.

Protective Gear: Only 90% of vendors used proper protective gear such as aprons and caps.

Ventilation: 50% of vendors experienced heat stress due to poor ventilation.

Changing Rooms: 50% of vendors did not have access to changing rooms.

Arrangement of Premises: 50% of food premises were poorly arranged, affecting hygiene.

Conclusion & Recommendations

Continued Research: Extend the study to include more places for a comprehensive understanding of food safety practices among food vendors across Tanzania.

Policy Implications: Collaborate with local health authorities to implement policies that mandate regular training and certification for food vendors.

Community Engagement:

Partnerships and Funding:

P147

Enhancing Adolescent Health: The Impact of Supplementation, Delivery Methods, and Overcoming Barriers

Kevin Kashamba¹, Innocent Yusufu¹, Ilana Cliffer², Mashavu Yussuf¹, Cecilia Anthony¹, Frank Mapendo¹, Yohana Laizer¹, Seif Abdulla³, Mary Masanja¹, Amani Tinkasimile¹, Ali Salim Ali³, Mary Sando¹, Wafaie Fawzi²

¹Africa Academy for Public Health, Dar es Salaam, Tanzania; ²Harvard T.

H CHAN School of Public Health; ³Zanzibar Association of people living with HIV PLUS

Correspondence: Kevin Kashamba (kkashamba@aaph.or.tz)

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Background

Over 1.1 million adolescents aged 10–19 years died worldwide in 2016, mostly from preventable or treatable causes and iron deficiency anemia is a primary cause of death and disability among adolescents. SSA region continues to have high levels of micronutrient deficiencies and anaemia in school-age adolescents, primarily due to food insecurity and low dietary diversity,

Material and Methods

An exploratory school based cross-sectional study conducted in 42 schools in a cluster randomized trial of daily IFA and weekly MMS, was conducted in March 2022 in Zanzibar and 3 FGD's each having 8

participants making it 24 adolescents aged 10–17 years and KII's with 7 teachers in the selected Schools in the urban and peri-urban districts of Wilaya ya Magharibi A and Wilaya ya Kati. Thematic analysis was used to analyze and identify all key themes.

Results

Participants considered academic improvements as the positive impact of supplementation, adolescents reported increased hemoglobin level during hospital visits, reduced hospital visits as health improvements from the supplementation program, schools were preferred setting for delivering of supplements, community involvement, and hospital setting. Inadequate knowledge, logistic challenge, myths and human resource challenge were considered as the barriers for the national supplementation programs

Conclusion & Recommendations

The Supplementation program was influenced by high anemia prevalence among adolescents in LMIC such as Tanzania, and the need to see the role of supplementation on anemia, school performance/attendance, adolescent development outcomes and micronutrient status addressing the basic health needs of adolescents is a key component of building resilient communities.

P148

Use of digital Quality improvement model to accelerate quality improvement in health facilities in Zanzibar

Asha Khamis

Ministry of Health Zanzibar, Health Quality Assurance Unit. PharmAccess Foundation, Tanzania, Safe-Care Program

Correspondence: Asha Khamis ash.mk66@gmail.com

BMC Proceedings 2025, 19(29):P148

Background

A digital quality improvement model is a set of standards or measures that encompasses various attributes and criteria to ensure that digitalized offers user expectations and performs reliably. Previously, the Ministry of Health Zanzibar used the paper-based quality assessment to rate the facility which consumed a lot of time. So, in collaboration with PharmAccess, the ministry adopted the safe-care standards to develop a Digital Quality Improvement Model for quality assessments.

Program Intervention/Methodology

The baseline assessment was conducted in 2020, Zanzibar followed by monitoring in the same year. In 2021 other facilities were enrolled in the assessment. After the assessment, the system provides a feedback report with the Quality Improvement Plan (QIP) to be used by providers as well as a tool (QPP) to monitor progress toward completion of each activity defined in the QIP.

Results Finding

A total of 262 facilities both private and public were assessed from 2020–2023. On baseline assessment, 223(85.1%) were awarded Level 1, 36(13.7%) Level 2, 3(1.1%) Level 3, and none for Level 4 or 5. Of 223 facilities that had level one in baseline, 101(45.3%) had follow-up assessments which show, that 37(36.7%) facilities remained level 1, 51(50.4%) moved to level 2, 12(11.9%) moved to level 3 and 1(1%) facility moved to level 4.

Program Implication & Lesson Learned

Health facilities can be transformed by the application of the Quality Improvement Model (QIM), which improves collaboration, communication, and data-driven decision-making. These models provide a scalable, adaptable, and efficient approach for achieving and maintaining high health quality standards.

P149

Integration of Health Information Systems; lessons learned and challenges in integrating District Hospital EMR and Matibabu Information System in Zanzibar

Jonia Bwakea^{1,2}, Ramadhani Abdul¹, Asma Mwita², Abdul-Rahman Taha², Baraka Mbwanji¹, Faiza Abbas¹, Peter Risha¹, Heri Marwa¹

¹PharmAccess, Zanzibar; ²Ministry of Health, Zanzibar

Correspondence: Jonia Bwakea (j.bwakea@pharmaccess.or.tz)

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Background

Fragmented electronic medical records pose challenges to the health system. This causes duplication of collected data, complicates information sharing and hinders data-driven decision-making. In addressing this, the MOH coordinated the integration of district hospital system and Matibabu Card Information System (MCIS) to facilitate data exchange through Zanzibar Health Interoperability Layer (ZHIL). This study aims to share lessons learned and challenges in integrating the District Hospital System (SHAMS -EMR) and MCIS in Zanzibar.

Program Intervention/Methodology

MCIS registers all Zanzibari by collecting their demographic information at households and are issued a Unique ID called Matibabu Card for use at health facilities. SHAMS-EMR collects patient medical records at the district hospitals. The two systems were integrated through the Interoperability layer. The activity involved developing use cases for data exchange, APIs development, customization of SHAMS-EMR to include search functionality and configuration of the ZHIL for smooth data exchange. The activity was done from August 2023 to April 2024.

Results Finding

Successful integration lowers clients' waiting time at the registration desk. Data exchange has led to the developing an analytics dashboard that allows timely data use and immediate data quality checks. MoHZ readiness and support contributed to success. The activity takes longer than expected due to limited expertise. Additional cost of consultation incurred especially configuration of Interoperability layer. There is no clear guideline on how system integration should be performed.

Program Implication & Lesson Learned

The initiative has helped in addressing the primary strategic goals of seamless health information exchange, which aims to enhance Zanzibar's healthcare services in terms of data accessibility, coordination, and continuum of care.

P150

Lesson Learnt from Using Computer-Aided TB Detection in Zanzibar

Rahma Omar¹, Zuweina Kondo², Mary Ngowa¹, Michael Machaku¹, Mohammed Dahoma³, Godwin Munuo¹, Ndekyia Urio¹

¹Amref Tanzania, Zanzibar; ²Health Plus, Zanzibar; ³Zanzibar Integrated HIV, Hepatitis, TB and Leprosy Program, Zanzibar

Correspondence: Rahma Omar (rahma.omar@amref.org)

BMC Proceedings 2025, 19(29):P150

Background

Tanzania is among 30 high tuberculosis (TB) burden countries. Despite efforts, about 36,000 people are missed. Systematic screening is one of strategy to ensure at risk population for TB are reached.

To facilitate systematic screening, Ministry of Health (MoH) Tanzania procured Mobile TB clinics (MTBC) to provide one-stop-shop TB services. MTBC have digital X-ray machine with artificial intelligence computer-aided TB detection (CAD). Amref in collaboration with MoH Zanzibar utilized MTBC.

Program Intervention/Methodology

Participants underwent symptomatic TB screening. Those presumed to have TB (excluding children under 2 years) received chest x-ray (CXR) investigations and sputum molecular evaluations. If the sputum results were inconclusive for TB, CXR was used in the algorithm to assist in clinical TB diagnosis. CXR images were read by CAD then radiologist. CAD thresholds with score of 40 and above was suggestive to have TB.

Results Finding

On September 2023, 2326 clients (971F:1355M) were symptomatic screened and 645 were presumptive for TB. Among those presumed, 132 CXR images were identified as suggestive of TB by CAD, of which 38 (28.8%) were concluded to have features of active TB disease by radiologist. Other features read as active TB were non-active TB disease such as old TB disease, bronchitis, pneumonia, and conditions like cardiomegaly. 1 image among 513 non-suggestive by CAD was concluded as active TB features by radiologist.

Program Implication & Lesson Learned

CAD has significant potential in systematic TB screening, as it can effectively identify candidates for molecular evaluation, hence

minimizing costs. The role of radiologists remains vital in settings without specific CAD calibration. Further operational studies are needed to explore the effectiveness of CAD in the Tanzanian setting

P151

Machine learning models to predict outcomes among adult traumatic brain injury patients at KCMC referral hospital, northern Tanzania

William Nkenguye^{1,2}, Edwin Shewiyo^{1,2}, Timothy Antipas^{1,2}, Alice Andongolile^{1,2}, Rosalia Njau^{1,2}, Paige O'Leary^{3,4}, Joao Vissoci^{3,4}, Catherine Staton^{3,4}, Balindina Mmbaga^{1,5,6}, Francis Sakita^{5,6}, Johnston George⁵, Innocent Mboya⁵

¹Kilimanjaro Clinical Research Institute, Kilimanjaro, Tanzania; ²Kilimanjaro Christian Medical University College, Kilimanjaro, Tanzania; ³Duke Department of Surgery, Duke University Medical Center, Durham, NC, USA; ⁴Duke Global Health Institute, Duke University, Durham, NC, USA; ⁵Kilimanjaro Christian Medical University College, Moshi, Tanzania; ⁶Kilimanjaro Christian Medical Center, Moshi, Tanzania

Correspondence: William Nkenguye (williamnkenguye@gmail.com)

BMC Proceedings 2025, 19(29):P151

Background

Traumatic Brain Injury (TBI) represents a significant global health challenge, particularly in low- and middle-income countries (LMICs) like Tanzania. Accurate prediction of TBI outcomes can enhance clinical decision-making and resource allocation, ultimately improving patient care and outcomes. Study aimed to develop machine learning models that will predict outcomes among adult TBI Patients in a referral zonal Hospital in northern Tanzania from 2013-2024

Material and Methods

All analysis were done using R software. The study utilised cohort data of 4,596 TBI patients from three trauma registries at KCMC. Data was split into 70% training and 30% testing. Ten machine learning (ML) models were developed and evaluated; Lasso Regression, Logistic Regression, Ridge Regression, Random Forest (RF), Decision Tree, C5.0, SVM, ANN, Bagging, and GBM. Model performance was assessed using AUC, accuracy, sensitivity, specificity, NPV and PPV metrics. Good and poor TBI outcomes were predicted.

Results

73.7% had good outcomes, 85.4% were male and 72.2% had TBI due to road traffic injury. The RF and C5.0 models exhibited the highest and same AUC values of 0.83 (95% CI 0.81 to 0.85). The RF was able to correctly predict 80% of patients with good outcome and 66% of patients with poor outcomes. Key predictors of TBI outcomes included age, gender, alcohol involvement, temperature, heart rate, blood pressure, oxygen saturation, and pupil reactivity.

Conclusion & Recommendations

Random Forest and C5.0 models demonstrated superior performance in predicting TBI outcomes. These models can be integrated into clinical decision support systems to enhance prognostication and tailor interventions more effectively for adult TBI patients. Future research should focus on integrating these models into clinical workflows validating them with multicenter data.

P152

All in one online health care service marketplace

Brian Deogratus
B-SERVICE, Dar es Salaam, Tanzania

Correspondence: Brian Deogratus (briandeogratus72@gmail.com)

BMC Proceedings 2025, 19(29):P152

Background

In today's fast-paced world, the demand for convenient & accessible health services continues to rise. B-SERVICES an online service

marketplace dedicated to health care aims to revolutionize the way clients access a wide range of health services, including medical equipment installation services. By providing a seamless platform for clients to request and schedule various health services through a mobile application, this marketplace offers numerous benefits to both clients and service providers.

Program Intervention/Methodology

Convenience and Accessibility:

- Clients can easily browse and request a variety of health care services from the comfort of their homes using a user-friendly mobile application.
- Access to a wide range of services, including medical equipment installation, home nursing care, telemedicine consultations, physical therapy, and more, in one centralized platform.

Results Finding

Clients can schedule appointments and services at their preferred time slots, reducing waiting times and streamlining the service delivery process.

- Service providers can optimize their schedules and efficiently manage their workload through the platform, leading to improved productivity.
- The marketplace ensures that all service providers undergo a rigorous screening process to guarantee high-quality services.
- Clients can view detailed profiles, ratings, and reviews of service providers to make informed decisions and build trust in the platform.

Clients can provide feedback and ratings after receiving services, helping to maintain service quality and accountability.

Program Implication & Lesson Learned

In conclusion, B-service offers a solution for clients seeking access to a variety of health Care services, including medical equipment installation. By leveraging technology to connect clients with trusted service providers, the platform enhances efficiency, quality, and transparency in the delivery of health services, improving the client's experience and satisfaction.

P153

Assessing the Implementation and Performance of Smartphone-based Fetal Ultrasound in Sierra Leone: A Mixed-Methods Approach

Abu Dim Din Sesay^{1,2,3}, Amie Lompri Koroma^{2,3,4}

¹ Ministry of Health and Sanitation, Sierra Leone; ²KIT Royal Tropical Institute, Netherlands; ³Delft Imaging, Netherlands; ⁴White Ribbon Alliance, Netherland

Correspondence: Abu Dim Din Sesay

BMC Proceedings 2025, 19(29):P153

Background

In Sierra Leone, many women lack early access to the WHO-recommended obstetric ultrasound. In 2020, BabyChecker, a smartphone-based ultrasound device with Artificial Intelligence (AI), was introduced to improve access, ease of use, and practicality of ultrasounds in Sierra Leone. The study aims to evaluate the sustainable implementation and adoption of BabyChecker in improving maternal healthcare in Sierra Leone.

Material and Methods

A mixed-methods approach was employed. Qualitative methods included interviews, focus groups, and observations of healthcare workers (HCWs) and clients (pregnant and lactating women) in

Tonkolili district, using the NASSS framework to identify associated factors. For the quantitative part, data from 2,315 BabyChecker fetal scans performed by 81 healthcare workers across seven health facilities in Tonkolili district from October 2020 to March 2023 were utilized. A mixed-effects logistic regression model was applied to identify factors influencing scan quality.

Results

Quantitative analysis revealed that 83.8% of fetal scans were of sufficient quality for remote analysis, with 59.3% of healthcare workers achieving the threshold of 80% sufficient quality scans. Factors such as the healthcare worker's cadre and the use of tutorial videos influenced scan quality. Qualitative findings confirmed the device's easy adoption, use, and acceptability by healthcare providers and community members. However, issues related to infrastructure, supply chain, guidelines, and funding need attention.

Conclusion & Recommendations

AI-driven smartphone-based ultrasound, especially when complemented by tutorial videos, offers promising potential for task-shifting and enhancing maternal-child healthcare in resource-limited settings. Overcoming barriers like power, connectivity, supplies, guidelines, and referral systems is crucial for sustainable improvements. Future efforts should integrate tutorials into all app versions and support task-shifting policies.

P154

Empowering Through Data: Enhancing Council Managers Digital Literacy for effective data review and decision making

Stella N Mujaya
Private

Correspondence: Stella N Mujaya (smujaya@gmail.com)
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Background

In Tanzania, working at the council level, the Data. FI project supported the establishment of weekly data review meetings with the goal of improving program performance. With sustainability thinking, during the 3rd year of implementation Data.FI transitioned leadership of these weekly data review meetings to 27 selected CHMT members. This assessment aims to share challenges experienced by these council managers post transition period.

Material and Methods

The project aims to follow up with the selected council managers 3–4 months' post-transition and conduct a short assessment to understand their experiences in taking leadership in data review without the presence of Data.FI project staff. Specifically the assessment will dive into the council managers experience to understand challenges faced pertaining to 1) leading and facilitating regular data review meetings at the council level as well as 2) using digital and QI tools in facilitating translation and use of data.

Results

Majority of the councils were able to maintain the momentum of meeting weekly without the project's support. Challenges experienced relate to information systems, technical expertise, unclear data, and the use of quality improvement tools. When segregated by gender, challenges related to HIS are experienced more by female managers (86%) than males. Furthermore, use of gender lens during analysis was assessed. Only 26% looked for gender-related patterns, trends, or disparities during data analysis, and only 11% reported highlighting gender-specific insights or disparities when using data visualization techniques.

Conclusion & Recommendations

Stakeholders should support strengthening council managers digital literacy to ensure they are in a better position to lead data review meetings and facilitate data-driven decision-making discussions. Digital literacy interventions should be gender sensitive ensuring women are not left behind. Last, gender lens should be taken into consideration during data review.

P155

Challenges on effective Utilization of the Digital Quality Platform for Quality Improvement among Private Health Providers in Zanzibar

Dua Mussa^{1,2}, Liberetha shija², Peter Risha²

¹Private Hospital Advisory Board, Ministry of Health Zanzibar; ²PharmAccess Foundation Tanzania, SafeCare Program, Zanzibar

Correspondence: Dua Mussa (suleimandua@gmail.com)
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Background

The Private Hospital Advisory Board (PHAB) is a legal Institution, established under the Zanzibar law number 4 of 1994. The main responsibility is to oversee the operation of private health facilities. Board have enrolled facilities in performance rating exercise and support owners and managers to address the identified quality gaps. We aim to identify challenges on effective utilization of the digital quality platform for quality improvement among private health providers.

Program Intervention/Methodology

From May 2022 to June 2024, about 260 owners and health providers from Private facilities have been sensitized on the patient centered care and then evaluated facilities performance using the Ministry of Health digital rating tool. Selected providers from each facility were trained on the use of digital quality platform to guide implementation of respective quality improvement plan. PHAB used management quality platform to monitor and benchmark performance, then used the data to allocate resources and plan for supportive supervision.

Results Finding

Of 141 onsite assessment carried out in the last two years, 102 private facilities were assessed. Of these facilities, only 25.4% (26/102) used provider quality improvement platform. The barriers faced by providers during monitoring included frequency staff turnover 54.9% (56/102), owners fail to support them in internet bundle 33.3% (34/102), 6.5% (7/102) the facilities was temporary closed, change location 2.9% (3/102) and change of facility ownership 1.9% (2/102).

Program Implication & Lesson Learned

Introduction of Digital Quality Improvement Platform has improved quality status of Private facilities through implementation of their quality plan and help them to show critical criteria to prioritize in the implementation. Various barriers identified at provider level illustrate are positive towards the platform, owner's active involvement is needed for effective utilization.

P156

Enhancing Health System Strengthening Through Digital Supportive Supervision: Experience from the Scaling Up Family Planning Programme in Mainland Tanzania

Delphine Mselle, Michael Tindo, Noel Chibanji, Moke Magoma, Deus Ngerangera, Ramadhani Mlange, Danielle Garfinkel
EngenderHealth, Arusha, Tanzania

Correspondence: Delphine Mselle (dmselle@engenderhealth.org)
BMC Proceedings 2025, 19(29):P156

Background

In 2016, the Ministry of Health (MoH) unveiled the "Digital Health Investment Road Map" emphasizing the need to strengthen health systems through supportive supervision. Collaboratively, the MoH and stakeholders developed the Afya Supportive Supervision System (Afya SS) to replace the traditional paper-based methods. The SuFP program implemented health system strengthening through digital supportive supervision-insights from the Afya SS training, mentorship, and coaching for R/CHMTs across 8 supported regions.

Program Intervention/Methodology

The programme employed a multi-faceted approach to accelerate the use of digital supportive supervision through the Afya SS among

Health Management Teams in Tanzania. This included organizing a series of training sessions across 8 regions in mainland Tanzania; combining in-person workshops and hands-on training, allowing participants to practice using the system through sampled facilities and a peer-to-peer support model. Program data were analyzed to assess the success of implementation and Afya SS system data from July 2023-March 2024.

Results Finding

R/CHMTs demonstrated the ability to plan and coordinate the supervision visits, and monitor supervision progress over time, using real-time data for decision-making and accountability. They have cascaded training skills to facility staff, resulting in timely monitoring, and reporting progress in responding to action plans. The analysis of the Afya SS data revealed that 8 project supported regions conducted 2,763 supervisions. This figure represents a significant proportion, equivalent to 58% of all supervisions conducted across Tanzania mainland's 21 regions ($N=4,762$ supervisions) during the same period.

Program Implication & Lesson Learned

Afya SS has emerged as a cornerstone in driving performance management excellence. Continuous investment in Afya SS is key towards excellent performance management and quality improvement of healthcare services.

P157

A machine-learning triage algorithm for elderly trauma patients at the Emergency Department in a tertiary facility, Northern Tanzania

Edwin Shewiyo¹, William Nkenguye¹, Baraka Moshi¹, Rosalia Njau¹, Timothy Peter¹, Alice Andongolile¹, Paige O'Leary², João Vitor Souza², João Ricardo Vissoci², Blandina Mmbaga³, Catherine Staton², Matthew Engelhard⁴, James Ngocho¹

¹Kilimanjaro Christian Medical University College, Moshi, Tanzania; ²Global Emergency Medicine Innovation and Implementation (GEMINI) Research Center, Duke Global Health Institute, Duke University, Durham, NC USA; ³Kilimanjaro Christian Research Institute, Moshi, Tanzania; ⁴Department of Biostatistics and Bioinformatics, Duke University School of Medicine, Durham, NC USA

Correspondence: Edwin Shewiyo (edwin.shewiyo@kcmcu.ac.tz)

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Background

The world population is aging, with more than 2 billion adults (>60 years) projected by 2050 and higher growths projected in LMICs where there are limited resources and the highest trauma burden. About half of elderly trauma are undetected at the ED. This study aimed to develop a machine learning algorithm to predict elderly trauma patients in-hospital mortality with the goal of aiding their triage at the ED.

Material and Methods

This was a hospital-based secondary analysis using the KCMC trauma registry data from 2018-2024. Python programming language was used in the analysis. Six models were developed and tested using a supervised approach: LASSO logistic regression, Support Vector Machines (SVC), Artificial Neural Network (MLP), Naive Bayes Algorithm, and Random Forest Decision Trees. Model performance was assessed using standard metrics. We plotted and compared the AUROC, the Precision-recall curve, and the calibration plot for the two best performing ML models.

Results

606 elderly patients in the KCMC Trauma registry from 2018 to 2024 were included in model building. Their mean age was 72 years (S.D: 9 years), (55%) were males, and (9.2%) of the patients died in-hospital following injury. The Support Vector Machines (AUROC: 0.78, 95%CI:0.75–0.81.75.81) and the Lasso Logistic Regression (AUROC:0.74, 95%CI: 0.68–0.79.68.79) were the best performing models. From the Lasso Logistic Regression: The Patients' Glasgow Coma Score (GCS), Age, Pulse Oxygen Saturation, Heart rate and Systolic blood pressure were the most important predictors driving the predictions of in-hospital mortality among the elderly trauma patients.

Conclusion & Recommendations

We constructed a sparse, interpretable and transparent machine-learning algorithm for triaging elderly trauma patients at the ED. Further re-training and external validation steps will follow to ensure good contextual performance on implementation. Our findings also highlights the need to optimize clinical care through protocols and specialized care in this population.

P158

Leveraging DHIS2 in the livestock sector for One Health Advancement

Sarah Kapanda, Wilfred Senyoni

Health Information System Program (HISP) Tanzania

Correspondence : Sarah Kapanda (skapanda@hisptanzania.org)

BMC Proceedings 2025, 19(29):P158

Background

Zoonotic diseases, which spread between animals and humans, pose major public health threats. Inadequate coordination between sectors hinders effective surveillance, prevention, and control. As emerging disease threats rise, an interconnected surveillance system becomes crucial. Integrating DHIS2 in the livestock sector aims to improve real-time data reporting and joint zoonotic surveillance. The One Health project seeks to unify stakeholders, enhancing global health security through collaborative data sharing and system improvements.

Program Intervention/Methodology

Addressing zoonoses involved extending DHIS2 into the livestock sector to improve surveillance and data management. Initial steps included analyzing system strengths, identifying areas for improvement, and engaging stakeholders. Integrating modules from the Global Alliance for Rabies Control (GARC) and EMA-i with DHIS2's open-source platform streamlines data sharing, improves coordination, and enables real-time reporting. This integration enhances the ability to detect and respond to zoonotic disease outbreaks promptly, fostering a more effective and unified approach to managing public health threats.

Results Finding

Introducing DHIS2 into the livestock sector has yielded significant outcomes, enhancing real-time data collection and reducing reliance on manual methods. DHIS2 adoption has improved data accuracy and expedited disease outbreak reporting. Integrating modules from the Global Alliance for Rabies Control and EMA-i has streamlined operations and minimized redundant systems. This initiative has enhanced stakeholder coordination and communication, laying a base for a unified surveillance system crucial for early detection and rapid response to zoonotic threats in both human and animal health sectors. These advancements signify a substantial leap forward in global health security through improved data management and collaborative efforts.

Program Implication & Lesson Learned

Implementing DHIS2 in the livestock sector underscores the need for a tailored, comprehensive surveillance system. Real-time data collection reduces reliance on manual processes and enhances early disease detection and response. Additionally, leveraging existing systems minimizes duplication of efforts and improves overall surveillance efficiency, ensuring a more effective disease monitoring framework.

P159

The Impact of the Using ANC TRACKER on Improving Antenatal Care Service Coverage in Zanzibar

Shaame Bakar¹, Rafii Ali², Radhia Daud², Faki Bakar¹

¹Health Management Information System Unit, Ministry of Health, Zanzibar; ²Integrated Reproductive Child Health Program, Ministry of Health, Zanzibar

Correspondence: Shaame Bakar (shaamem3@gmail.com)

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Background

The introduction of the ANC Tracker in Zanzibar aimed to address the limitations of the paper-based system, such as data inaccuracies, limited accessibility, and inefficiencies in data management. This digital tool, integrated within the DHIS2 platform, enhances the monitoring of antenatal care services and improves the management of pregnant women throughout their pregnancy. The study evaluates the impact of this system on increasing ANC service coverage and promoting early booking.

Program Intervention/Methodology

DHIS2 was configured to include the ANC tracker module in 2018, but its usage started in 2023. Healthcare providers and DHIS2 users were trained to use the system that included the ANC tracker. The ANC tracker was used in the primary and district-level health facilities to track pregnant mothers from registration to their entire pregnancy journey. Necessary information collected included registration, quick check, symptoms follow-up, physical examination, Lab test, and referral. ANC coverage and early booking were measured in percentage.

Results Finding

In 2023, ANC coverage in Zanzibar increases to 86% compared to 72% in 2022 when using paper-based. Early pregnancy bookings (before 12 weeks) improved to 17% in 2023 from 16% in 2022. Despite these gains, the completion rate for the recommended 8 ANC visits remained low at 2% overall in 2023.

Program Implication & Lesson Learned

The introduction of ANC Tracker has improved ANC service coverage by enhancing the accuracy and completeness of data through real-time entry and monitoring. With this, healthcare providers can effectively track pregnant women, facilitating the delivery of the recommended ANC visits and essential services.

P160

Digital Revolution: Accelerating Youth Mental Health in Tanzania

Catherine Kapilima^{1,2,3,4}, Deus Kapinga², Haikael Mandari³, Rahma Omary¹, Mkata Nyoni¹

¹Africa Healthtech Ltd, Dar es Salaam, Tanzania; ²T-MARC, Tanzania;

³YLABS, USA; ⁴United States Agency International Development, Tanzania

Correspondence: Catherine Kapilima (catherinekapilima07@gmail.com)

BMC Proceedings 2025, 19(29):P160

Background

Access to quality mental health services remains a challenge in Tanzania. Shortage of mental health professionals stigma and cultural barriers, inadequate awareness programs, and insufficient training underscores the urgent need to prioritize and invest in comprehensive mental health services to youth in Tanzania. Youth with mental health issues often face neglect, isolation, and mockery from family and the community, resorting to services only as a last resort.

Program Intervention/Methodology

Through the USAID Kijana Nahodha project, TANZMED conducted a multi-phase methodology. The team engaged 92 youth from Dar es Salaam and 13 mental health experts from Mirembe National Hospital through interviews to gather insights and feedback. This collaborative process involved synthesizing co-design concepts based on the input received. A rough prototype of the tool was shared with participants for additional feedback.

Iterative co-design process ensured the development of a tool tailored to the specific needs and preferences of Tanzanian youth

Results Finding

Of the 500 youth subscribed to the platform, 60% prefer the mental health tool for its accessibility and ease of use, allowing access to services via their phones. Over 1,568 youth have conducted self-assessments using the tool, appreciating its multilingual support (Swahili and English) and stigma-free environment.

Most users reported to enjoy logging moods and trying recommended activities, which promote self-awareness and proactive mental health management. Mental health experts commend the tool's flexibility and remote service capability, crucial for reaching underserved areas.

Currently, 5 experts from Mirembe National Hospital and 30 therapists provide virtual consultations through the tool.

Program Implication & Lesson Learned

Tanzmed learned leveraging AI technology, offers the flexibility for youth to access services from home hence attracts more users. Youth feel safe with digital interactions, but it is crucial to provide linkage to further services for those with critical mental health conditions, ensuring they can access nearby health facilities.

P161

Addressing Data Sharing Barriers in Zanzibar by Harnessing Stakeholders' Needs and Promoting Inclusion in the Development and Implementation of Guidelines

Abbas Wandella

D-Tree, Zanzibar

Correspondence: Abbas Wandella (awandella@d-tree.org)

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Background

Due to the growing use of digital technologies for data collection, sharing, and utilization, enhanced health data governance is urgently needed. Numerous challenges prevent data from being used effectively. One strategy is the development and implementation of data-sharing guidelines in Zanzibar. Effective data sharing is crucial, yet the absence of guidelines hinders this process. Our findings support that developing inclusive guidelines is essential for monitoring, planning, research, and decision-making.

Program Intervention/Methodology

An extensive review of existing health data governance frameworks and guidelines was conducted to identify best practices and common challenges. Quantitative data was collected through pre- and post-surveys and distributed to 92 health staff within Zanzibar's health system to gather insights on awareness about data access management and understanding of data access and sharing.

Results Finding

Before implementing the data access guidelines, 46% of respondents acknowledged the importance of data access management but lacked an understanding of its specifics. Meanwhile, 44% were familiar with necessary practices, and 9% had limited or no awareness of data access importance. After implementation, over 95% understood effective data access management practices. Concerning data access responsibilities, 90% demonstrated an understanding of roles and responsibilities, and 83% described how to request access.

Program Implication & Lesson Learned

The findings underscore the significance of implementing comprehensive data access guidelines within the Zanzibar health system. Before implementation, there was a lack of understanding among stakeholders. Post-implementation, significant improvement in practices was observed. This highlights the importance of inclusive guidelines in enhancing communication, learning, and sharing within the healthcare system.

P162

Determinants of spirometry among small scale miners in Tanzania

Kassim Msaji^{1,2}

¹ Kibong'oto Infectious Disease Hospital, Sanya Juu, Siha-Kilimanjaro, Tanzania; ² National Heart & Lung Institute, Imperial College London, Guy Scadding Building, Cale Street, London, UK

Correspondence: Kassim Msaji (kassimsalim206@gmail.com)

BMC Proceedings 2025, 19(29):P162

Background

Individuals working in small scale mining are exposed to hazardous free crystalline silica which gradually destroys their airways and alveoli. These people have high prevalence of tuberculosis and cigarette smoking. We aimed to describe the lung function of artisan miners using Spirometry and correlated with other exposures

Material and Methods

A cross sectional design at the Occupation Health Center - Kibong'oto, where individuals working in mining were consecutively enrolled for pulmonary assessment after excluding active TB. Spirometry was collected using the EasyOne[®] Spirometer (nidd, Switzerland) according to the American Thoracic Society and European Respiratory Society standards. The best value of FVC and the best value of FEV₁ were reported. Univariable and multivariable logistic regression models were used to estimate associations between potential risk factors and spirometry abnormalities.

Results

4127 attended at OHC for TB assessment and 688 confirmed TB negative tested for Spirometry. Male contributed 638 (93%) and the mean age (SD) was 41 ±10 years. The mean duration of dust exposure was 11±8 years. 481 (70%) had history of cough and 32 (5%) had hemoptysis, 276 (40%) had fever, night sweat 260 (38%), 377 (55%) had fatigue and loss of appetite 243 (36%). Cigarette smoking and previous TB disease was 117 (17%) and 91 (13%) respectively. Abnormal spirometry results were 264 (38%) obstructive impairment 88 (12.8%), restrictive lung impairment 4 (<1%) and mixed impairment 171 (24.9%).

Conclusion & Recommendations

Considerable number of small-scale miners have impaired lung function requiring medical attention.

P163

Enhancing Use of Digital health information at sub-national levels: Tanzania DoE Initiative

Merina Marcelino, Wilfred Senyoni, Mustafa Ngwila, Frida Mdembe
Health Information Service Provider, Tanzania

Correspondence: Merina Marcelino (merinamarcelino@hisptanzania.org)

BMC Proceedings 2025, 19(29):P163

Background

In Tanzania, national digital information systems like DHIS 2 HMIS aim to enhance data-driven decision-making in health sectors. However, sub-national levels such as districts and facilities face challenges such as lack of standardized analysis, poor understanding of indicators, missing population data, and limited analytical capacity. These issues hinder effective data use, necessitating improved data management and analytical skills for better health sector planning on these levels.

Program Intervention/Methodology

We have created analytical framework with 17 indicators of high interest among subnational users. Through existing Tanzania DHIS2 HMIS platform, we implemented DoE dashboard for the 17 indicators with contextualized visualizations to help user with roles at district and facility levels. We put in place other interventions to facilitate data driven decision making such as training users, mentorship and supervision programs

Results Finding

Contextualization of data analysis versus needs of district and facility users helps to address the underutilization of data available in digital platforms. User with limited analytical capacity currently require less effort of analysis and interpretation of data. We have harmonized accessibility and presentation of information with respect to its usefulness to users, resulting to more data ownership, enhancement of feedback mechanisms between districts and facilities, and hence enhancing the effectiveness of data-for decisions making. Furthermore, the expansion of analytical skills to previously limited users through targeted training programs underscores a pivotal shift towards improved competence of health information management.

Program Implication & Lesson Learned

The DoE initiative demonstrated that tailored data use and analysis tools e.g dashboard and consistent mentorship significantly improve data utilization. We have learnt data relevance and clarity fosters better engagement with digital systems, importance of continuous capacity building and context-specific data presentation in maximizing the benefits of health information systems.

P164

The digital future of TB treatment support: Enhancing Tanzania's TB surveillance system through integration with smart pillboxes

Baraka Onjare, Rachel Powers
KNCV TB Plus, Dar es Salaam, Tanzania

Correspondence: Baraka Onjare (baraka.onjare@kncvtbc.org)
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Background

Over the past decade, the use of smart pillbox digital adherence technologies (DATs) to support persons on TB treatment has grown worldwide. However, to reach full impact for individuals and health systems, DATs must be integrated into the national electronic surveillance systems supporting patient management. Currently-available third-party platforms have proven prohibitively expensive for governments to implement, and home-built solutions can be time and resource-intensive.

Program Intervention/Methodology

Building on digital adherence technology projects since 2018, the Tanzania NTLF has started a new chapter of leveraging smart pillboxes for TB treatment. Previously, using smart pillboxes required an external platform for all aspects of management. By developing a specialized API and integrating into national DHIS2 system in partnership with HISP Tanzania, direct linkage of adherence data from the boxes in the hands of the patients into the case-based records of ETL (Electronic TB& Leprosy Register) is now possible.

Results Finding

From a technical side, this integration enables HCW to view and manage all treatment adherence information in the existing ETL. It now includes automated adherence calendar visuals and filterable lists for follow-up, and also enables patient device registration, remote configuration of pillbox alarms/reminders, and streamlining of HCW actions around device distribution. From a patient-centered perspective, the improved implementation of smart pillboxes will further empower patients with a tool to support remote self-management of TB treatment. NTLF will roll-out this integration May-July 2024. The results, including HCW and patient feedback, will be shared in the poster/presentation.

Program Implication & Lesson Learned

The results of the ongoing implementation will be shared in the poster/presentation. This work builds on NTLF's ongoing partnership with KNCV TB Plus on the use of digital adherence technology. Presenters can also link to learnings/research results of ASCENT project (2019-2024) on implementation of smart pillboxes in Tanzania.

P165

Promoting child/maternal health through Tunza Afya Chat, a WhatsApp chatbot, to improve health knowledge and treatment-seeking of parents/caregivers

Pieter Remes¹, Rosemary Kayanda¹, Doreen Makombe¹, Raymond Mhaluka¹, Dotto Kezakubi¹, Victor Kisila², Tumaini Haonga²

¹Development Media International, Tanzania; ²Health Promotion Section, Dept. of Preventive Services, Ministry of Health

Correspondence: Pieter Remes (pieter.remes@developmentmedia.net)
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Background

Media use habits are changing, especially since the advent of more affordable smartphones. Among Tanzanian phone owners, 30% of urban women and 40% of urban men possess smartphones (TZDHS 2022); this segment grows annually by 10%. The Health Promotion Section (HPS) of the Ministry of Health and Development Media International-Tanzania jointly developed an interactive WhatsApp chatbot, Tunza Afya Chat, using audiovisuals, gamification, and storytelling, to promote health knowledge and treatment-seeking in key areas of maternal and child health among new parents/caregivers.

Material and Methods

This MoH-validated WhatsApp chatbot - a two-way digital media channel - is a new platform for social and behaviour change to reach parents/

caregivers with essential family health information. The chatbot offers guidance on danger signs in child and maternal health, nutrition, early childhood development via text, audio clips, graphics, and short films. After roll-out in December 2023 in 3 regions (Mwanza, Mbeya, Dodoma), 40 focus group discussions (FGDs) have been conducted with smartphone-owning mothers and fathers (a total of 393 participants) to assess the chatbot's reach, and acceptability, and impact.

Results

The chatbot now has 3,350 users (5/2024): 57% are women, 43% are men. 26% are aged 20–25 and 45% are aged 26–35. Users interact most with the nutrition content (49%), then child illness prevention/treatment (32%), and finally with 'My Child Is Sick' content (19%). FGD participants report gaining benefits through the chatbot, both knowledge and practices, such as illness danger signs, nutrition, with some reporting seeking treatment for an ill child after chatting. Participants trust the chatbot as it is validated by MoH and request additional content like family planning. Some report lack of internet credit as a challenge.

Conclusion & Recommendations

With growing access to smartphones, this MoH WhatsApp chatbot is an important, flexible additional tool to promote public health in Tanzania. WhatsApp's innovative features allow for audiovisual and gamified, interactive and appealing content, easy to access. Greater interactivity and integration with other digital health services are in development.

P166

Factor Affecting Data Use for decision-making in Zanzibar Primary Health Care, finding from Data Quality Assessment Review 2023

Khamis Ukasha, Shaame Bakar, Faki Bakar

Health Management Information System, Ministry of Health, Zanzibar

Correspondence: Khamis Ukasha (khamisukasha@gmail.com)

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Background

Despite the Ministry of Health's efforts to improve data use in Zanzibar's primary healthcare, issues with data accuracy and quality persist. Continuous monitoring is essential for sound decision-making. In 2023, a quality assessment identified factors hindering system and data use. This study explores health providers' report submission rates and timeliness, their ratings of data system usability, the effectiveness of data in policy-making, and challenges impacting data quality.

Program Intervention/Methodology

The quality assessment survey was conducted on healthcare providers in 2023. The tool includes an assessment of data accuracy, completeness, timeliness, consistency, and reliability. Using a mixed-methods approach, it combined quantitative Health Management Information System (HMIS) data analysis with qualitative interviews and focus groups. Key steps included data audits, validation checks, and cross-referencing patient records.

Results Finding

The findings indicate a decline in report submission rates from 95.6% in 2021 to 90% in 2023, and a decrease in reporting timeliness from 78.6% to 68.5%. Data usability improved, with 45% able to use systems in 2023, up from 32% in 2021, and 65% willing to use them daily. However, only 46% believed data effectively shaped healthcare policies. Key data challenges included missing data, inaccuracies, delays, inadequate staff training, poor infrastructure, and limited support.

Program Implication & Lesson Learned

The HMIS data has substantial potential to influence healthcare decisions positively, realizing this potential requires concerted efforts to improve data quality. By tackling the identified challenges, Zanzibar can strengthen its healthcare system, leading to correctly informed decision-making that is data-driven and better healthcare outcomes for its population.

P167

Reaching Marginalized Population with TB Health Education as a Means to Promote Gender Equity and Social Inclusion. Experience in Zanzibar

Rahma Omar¹, Zuweina Kondo², Godwin Munuo¹, Michael Machaku¹, Ndekya Urjo¹, Mohammed Dahoma³

¹Amref Tanzania, Zanzibar; ²Health Plus, Zanzibar; ³Zanzibar Integrated HIV, Hepatitis, TB and Leprosy Program

Correspondence: Rahma Omar (rahma.omar@amref.org)

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Background

Tanzania is one of the world's 30 highest tuberculosis (TB) burden countries. Despite the efforts, about 36,000 were still missing. This is due to several factors, including poor awareness of the disease. Reaching missing people requires interventions that address equity and social inclusion. Zanzibar has diverse population groups, including individuals with disabilities. Despite being significant, it is usually left behind in health promotion intervention. This increases the risk of diseases including TB.

Program Intervention/Methodology

Amref Tanzania under Afya Shirikishi (AS) Zanzibar in collaboration with Zanzibar Integrated HIV, Hepatitis, TB and Leprosy Program (ZIH-HTLP) implements TB preventive interventions to reach people with hearing impairment. A sign language interpreter was trained on TB and recorded, giving TB health education. The health education content included TB definition, cardinal symptoms, preventive measures, and infection control.

Results Finding

On March 2023; 126 students (53 girls and 73 boys) with hearing impairment from standard 2 to 7 were reached with face-to-face TB health education complemented with sign language interpretation. Pre-session evaluation identified no student could define TB correctly. Post-session, all students could mention at least one key takeaway of the disease: at least one TB symptom and measure to prevent the spread of the disease.

Program Implication & Lesson Learned

Ensuring equal access, equity, human right, gender-sensitive, and social inclusion TB response requires innovative approaches to reach marginalized people at risk of TB. Social and behavioral change materials and messages that can be used and are user-friendly to marginalized populations should be developed.

P168

In which functional areas do women voice their opinions during the decision-making process in Health Facility Management Teams in Tanzania?

Anosisye M. Kesale¹, Henry Molle¹, Chrispina Tarimo¹, Elizabeth Lulu², Brynne Gilmore³, Doreen Mucheru³, Eilish McAuliffe³

¹School of Public Administration and Management- Mzumbe University;

²Institute of Development studies - Mzumbe University; ³School

of Nursing Midwifery and Health Systems - University College Dublin – Ireland

Correspondence: Anosisye M. Kesale (anosisye09@gmail.com)

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Background

Women are underrepresented in healthcare leadership positions. Thus, countries are putting in place a variety of mechanisms that provide women with platforms to express their opinions and influence healthcare decisions. However, there is little evidence to show which aspects of decision-making women emphasize in Health Facility Management Teams (HFMTs). This research was conducted to determine the extent to which women participate in expressing their opinions during decision-making in HFMTs.

Material and Methods

A cross-sectional design was used to collect quantitative data from members of HFMTs at health centers from Njombe, Kilimanjaro, and Kagera. Purposive sampling was adopted to select all members of the HFMTs who were given a questionnaire via ODK to assess the extent to which women participate in expressing their opinions. The response rate was 136 participants. The data were descriptively analyzed using SPSS and bivariate analysis was performed to determine the factors associated with women's participation in expressing their opinions.

Results

Based on the findings, women's participation in voicing their opinions varies across functional aspects has been found to be low. The findings show that women in HFMTs play an active role in voicing their opinions on health commodity management (57%), health quality management (55%), and nutrition services management (53%). On the other hand, the findings show that women have little say in how to manage facility finances (52%), facility health workers (52%), and planning. The study also found that women's participation in decision-making has been associated with time members have spent in the HFMT and the regional members come from.

Conclusion & Recommendations

There is need of continuing to address women challenges in leadership through different mechanisms such as mentorship and coaching. Based on the results interventions focusing on building women capacity on administrative roles such as planning and budgeting, financial management and management of health workers should be prioritized.

P169

Workers Compensation Systems in Tanzania, Useful Insights Form a New Book on Occupational Medicine

Akwilina Kayumba¹, Abdisalaam Omar³, Robert Mhina², Alexander Tungu⁴, Israel Nyarubeli⁴, Bente Moen⁵

¹St. Joseph University in Tanzania; ²Muhimbili Orthopedic Institute, Dar es Salaam, Tanzania; ³Workers Compensation Fund (Tanzania); ⁴Muhimbili University of Health & Allied Sciences; ⁵University of Bergen, Norway

Correspondence: Akwilina Kayumba (akwilina.kayumba@gmail.com)

BMC Proceedings 2025, 19(29):P169

Background

Knowledge about workers compensation amongst majority of workers in Tanzania is still inadequate. In an effort to fill the knowledge gap researchers and scientist from Muhimbili University of Health & Allied Sciences and University of Bergen and other stakeholders embarked on a book project titled: Towards Sustainable Development, Workers Compensation For Occupational Diseases & Injuries in the Tanzanian Social Economic Development. We present a summarized inputs from chapter six of the book.

Program Intervention/Methodology

Included in the presentation are an introduction to workers compensation systems, fundamental concepts in workers compensation, disability assessment, compensation framework in Tanzania as well as compensation and rehabilitation services. Authors have conducted an extensive literature search including scientific articles in the specific area, local as well as international standards and guideline.

Results Finding

The authors have successfully provided a situational analysis of how workman compensation is processed and awarded in Tanzania. Contents from this chapter clearly offers answers to common questions such as; what is workmen compensation? Who are beneficiaries? What is the role and responsibility of the employer in workmen compensations? how can a beneficiary apply for compensation?, where should the application be logged?, what personal information is required to support the application? which guidelines should be followed? how the calculations for Disability are undertaken. Roles and responsibilities of various stakeholders are elaborated.

Program Implication & Lesson Learned

The knowledge acquired by reading this book and in particular chapter six is useful among employers, employees as well as clinicians from primary health care, district, regional, zonal levels

and national hospital who are directly involved in identifying workers with occupational diseases and injuries who are the beneficiaries of compensations.

P170

Smokeless Incinerator for Sanitary Pad Disposal

Augustino Njowoka

Mbeya University of Science and Technology, Mbeya, Tanzania

Correspondence: Augustino Njowoka (augustinonjowoka1@gmail.com)

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Background

Our project aims to develop a compact, portable, and smokeless incinerator. In response to the environmental and health hazards posed by improper sanitary pad disposal, by addressing the challenges of traditional disposal methods and promoting safe and hygienic waste management, we seek to protect public health, preserve the environment, and empower our African community.

Material and Methods

Utilizing stainless steel for durability and heat resistance, our compact incinerator employs an advanced combustion chamber and filtration method that are designed to ensure efficient and smokeless burning. A digital temperature control system maintains optimal burning conditions while minimizing fuel consumption. Automatic ash disposal simplifies operation, and insulation materials enhance safety. Prototype testing involves simulating real-world usage scenarios to validate performance and refine design for maximum efficacy and user-friendliness.

Results

The smokeless incinerator demonstrated exceptional performance during testing, efficiently disposing of sanitary pads without emitting harmful smoke or pollutants. User feedback highlighted the system's ease of operation and portability, making it suitable for diverse settings. Environmental impact assessments showed a significant reduction in waste pollution, contributing to improved sanitation and public health outcomes. These results underscore the efficacy and practicality of the smokeless incinerator for addressing the challenges of sanitary pad disposal in African communities.

Conclusion & Recommendations

The smokeless incinerator for sanitary pad disposal offers a sustainable solution to a pressing environmental and health issue. Its effectiveness in reducing pollution and promoting safe waste management practices warrants widespread adoption. Continued investment in research and community outreach is recommended to maximize its impact globally.

P171

Prepared or Panic? Assessing Fire Response Readiness through Awareness, Knowledge, Attitude, and Practice in Kinondoni, Tanzania

Shuphaa Opondo, Godfrey Kacholi

Mzumbe University,

Correspondence: Shuphaa Opondo (shuphaa.opondo21@gmail.com)

BMC Proceedings 2025, 19(29):P171

Background

Fires present a significant risk to communities, and the effectiveness of fire response efforts hinges on public preparedness. This research delves into the examination of fire safety in Kinondoni Municipality, Tanzania, focusing on residents' awareness, knowledge, attitudes, and fire response practices. A critical aspect of this study involves gaining an understanding of these factors to pinpoint any disparities between fire safety awareness and actual behaviors.

Material and Methods

A cross-sectional study was conducted in Kinondoni Municipality, involving Tandale and Makumbusho wards along with Kinondoni Fire Station in Dar es Salaam. A total of 309 respondents participated in the study, with data collection carried out using questionnaires

and interviews. Purposive and convenience sampling methods were employed. The quantitative data were analysed descriptively while qualitative data were subjected to thematic analysis.

Results

The study revealed that 58.1% of respondents lacked knowledge about fire emergency measures, while 64% had a positive attitude but did not engage in fire drills or have essential fire supplies. Furthermore, around 60% of residential areas presented challenges for firefighters in terms of accessibility due to their remote locations and inadequate settlement arrangements.

Conclusion & Recommendations

The study's findings highlight a lack of fire response knowledge among residents, indicating the need for a comprehensive public education effort. It is recommended that firefighters intensify their efforts to educate the general public on essential fire response skills and provide regular updates on fire response mechanisms.

P172

Integrating GBV/VAC Screening during Outreach Services to Increase GBV/VAC Identifications: Experience from SUFP program Tanzania Mainland and Zanzibar

Simon Mbele, Cosmas Kapinga, Deus Ngerangera, Nasibu Mwanamsangu, Anna Temba, Moke Magoma, Danielle Garfinkel, Kate O'Connell

EngenderHealth, Dar es Salaam, Tanzania

Correspondence: Simon Mbele (smbele@engenderhealth.org)

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Background

Gender-based violence (GBV) remains an extensive universal problem with significant physical, psychological, and social consequences. Integrating GBV/violence against children (VAC) screening in service delivery activities plays a pivotal role in identification and linkage of GBV/VAC survivors to appropriate points of support. This review examines the integration of GBV/VAC screening during family planning (FP) outreach activities in supported regions to identify survivors and link them to care.

Program Intervention/Methodology

The SuFP programme implemented by EngenderHealth, Pathfinder International, CCBRT and DKT provides a range of health services, including GBV/VAC. A cross-sectional analysis on programme's outreach data of Feb to Dec 2020 and Jan to March 2024 was done, to assess the impact of capacity building of healthcare providers on strengthening GBV/VAC screening to clients accessing FP services through outreaches, ensuring proper documentation and reporting and provided supply of GBV/VAC screening tools. The analysis was done through Excel.

Results Finding

Results show that out of 97,784 family planning clients served through outreach in Jan-March 2024, 79,194 (81%) were screened for GBV, which is an increase from 58,255 (18%) clients screened of all FP outreach clients served (315,794) in 2020. From Feb 2020 through March 2024, most GBV/VAC incidents reported were for, emotional violence (57%), followed by physical violence (30%) and sexual violence (13%).

Program Implication & Lesson Learned

This review underscores the importance of integrating GBV/VAC screening in various outreach service delivery modalities, being it facility based or community based, to identify potential GBV/VAC violence across different types of groups.

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