

MEETING ABSTRACTS

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P1.
Using web-based planning, budgeting, and financial management systems to improve planning for HIV services at the primary health care facilities

Desderi Wengaa¹, Gemini Mtei¹, James Mtatifikolo², Erick Kitani²
¹Abt Associates, Public Sector Systems Strengthening Plus (PS3+) project, United States Agency for International Development; ²President's Office, Regional Administration and Local Government (PORALG)

Correspondence: Desderi Wengaa, desderi_wengaa@ps3plus.org
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Background

Prior to 2017, planning, budgeting and financial management systems in Tanzania were only used up to the level of LGA headquarter. The systems were mainly stand-alone desk-top-based systems, making it time consuming for health workers to report and validate crucial HIV data and make decisions. There was also no visibility of HIV-related plans, budgets, and expenditures at health facilities, villages/mtaa and ward levels.

Program Intervention/Methodology

This abstract focuses on principles of local development and will share how the Government of Tanzania (GOT), with the support of USAID Public Sector Systems Strengthening (PS3+) project, and in collaboration with other development and implementing partners, extended an integrated suite of planning, budgeting, and financial management systems to PHC facilities to increase visibility of HIV and other programmes plans.

Results Finding

In 2017, the government took a deliberate decision to automate the process of planning, budgeting, and financial management using local experts. HIV-related service outputs were defined in the Plan-Rep system so funds spent could be linked to specific HIV service outputs. PlanRep also has space to include off-budget HIV interventions implemented by development and implementing partners. A complementary automated facility financial management system (FFARS) was enhanced to track HIV spending in all primary care facilities and village/mtaa levels. Currently, LGA planning processes have become more efficient by saving money and time to develop plans and budgets.

Program Implication & Lesson Learned

Automation of planning, budgeting and financial management processes, and their extension to lower-level facilities, has established an effective platform for planning, budgeting and expenditure management for HIV services. It has increased accountability and transparency of HIV plans to ensure that the right HIV services are delivered at the right time.

P2.
Role of Health Care Workers in Supporting Mother Mentors to address Retention of Mother-Baby Pairs in the Global Fund-Supported Regions, Tanzania

Agnes Kosia^{1,2,3}, Aaron Godwin¹, Antony Leonard^{1,2}, Cyprian Lunguya¹, Gertrude Mpangile¹, Levina Mwesiga¹, Sylvester Magobo¹, Josephine Balati¹, Stephen Mpoki¹, Neema Mkyao², Amos Nyirenda², Pelagia Muchuruza³

¹Christian Social Services Commission, Dar es Salaam, Tanzania; ²AMREF Health Africa, Dar es Salaam, Tanzania; ³Ministry of Health PMTCT Unit, Tanzania

Correspondence: Agnes Kosia, agneskosia@yahoo.com
BMC Proceedings 2024, **18(15):P2**

Background

In the Prevention of PMTCT, HCWs are responsible for providing health care to women and infants living with HIV/AIDS, and provision of information about PMTCT options based on the Tanzania health system. CSSC with Amref and MOH is implementing a three-year PMTCT Project under the support of Global Funds. The objective is to improve the uptake and impact of PMTCT services in rural areas and health facilities in eight regions.

Program Intervention/Methodology

Trained 265 HCWs, 55 regional and council health management teams with mother mentors in eight regions for ten days based on the national PMTCT mother mentor's curriculum in 2021. The HCWs were selected from the supported 265 PMTCT health facilities. Their roles were to supervise mother mentors and support the implementation of PMTCT activities in the targeted regions, and work side by side with mother mentors at the facility and community in the trucking of mother-baby pairs.

Results Finding

After two years of implementation, we have observed 702 mother mentors' retention in the 265 supported health facilities, about 494 PMTCT clients were tracked and returned to care through mother



mentors, and 446 clients were linked to Psychosocial and income-generating activities (PSAG). In addition, 265 psychosocial and PSAG comprising 940 members were formed 582 were PMTCT members. All these have also contributed to increased male involvement in PMTCT-supported health facilities from 45 to 81%, improved PMTCT clinical quality of care services, and an increase of PMTCT clients in the supported regions.

Program Implication & Lesson Learned

HCWs have a pivotal role to play in the provision of PMTCT services through the mother mentors' model toward the elimination of mother-to-child transmission is a concern. Their roles and responsibilities have a great impact on the retention of mother-baby care services in the PMTCT setting.

P3.

Evaluation of HIV Viral Load Surveillance System, national perspective in Tanzania from January to December 2022

Peter Torokaa^{1,2}, Loveness Urio², Ally Hussein^{1,2}, Ambwene Mwakalobo³, Godfrey Eriyo³, Agricola Joachim¹

¹School of Public Health and Social Sciences, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam, Tanzania; ³Ministry of Health-National AIDS Control Program, Tanzania

Correspondence: Peter Torokaa, peteratorokaa@gmail.com
BMC Proceedings 2024, 18(15):P3

Background

Of the estimated 38.0 million HIV-positive people worldwide in 2020, a total of 310,000 young people under the age of 18 contracted HIV for the first time. HIV viral load monitoring is the gold standard for identifying treatment failure; transport. We aimed to assess the usefulness and system attributes of the HIV viral load surveillance system in Tanzania and determine whether it meets its objectives.

Program Intervention/Methodology

From January to December 2022 we collected retrospective data from the Open Laboratory Data Repository for HIV viral load, the CTC2 database, and the laboratory data information system. Furthermore, we interviewed eight laboratories and CTC data clerks to determine their willingness of using the system. The system description, case definition, and eligibility criteria were obtained from the system guidelines. We used Updated Guidelines for Evaluating Public Health Surveillance Systems from CDC for evaluating system attributes.

Results Finding

The HIV viral load surveillance system is implemented by 90.6% (4314/4764) of facilities in the country. The overall data completeness was 97.4%. The sensitivity of the system was 84.4% with a PVP of 52% with data accuracy of 97%. Eight data clerks from the laboratory and CTC were interviewed 100% (8/8) said the system was simple. The system was simple and was flexible to adopt new surveillance systems like covid-19 vaccination system and EID system. The system was sensitive at 84.4%, Turnaround time from sample collection to results approval was at a median of 13 days.

Program Implication & Lesson Learned

The system's overall performance was acceptable and satisfactory with an average performance of 90%. We recommend the integration of the CTC2 database with Open Laboratory Data Repository to reduce transcription errors and the difference between the samples received and samples with valid results on HVL dashboard needs to be reviewed.

P4.

Reducing (Dbs) Sample Rejection: Lessons learnt from "Tatu Bomba & Real Time" Coaching Initiatives in Rukwa and Katavi Regions

Jofrey Ndongole, Henry Musila, Donald Bahegwa, Samson Timothy, Reginald Gervas
Henry M Jackson Foundation Medical Research International, Mbeya, Tanzania

Correspondence: Jofrey Ndongole, jndondole@wrp-t.org
BMC Proceedings 2024, 18(15):P4

Background

The Early Infant Diagnosis (EID) program aims at timely HIV diagnosis to all HIV-exposed infants; it is a key initiative in preventing HIV transmission from mother to infant. In HIV-exposed infants, HIV testing is done using dried blood spots (DBS). High DBS sample rejections have negatively impacted EID services, the leading cause being insufficient sample volume. In June 2020, 46% of all DBS were rejected due to this reason.

Program Intervention/Methodology

"Tatu Bomba Initiative & Real Time Coaching" was introduced to enable healthcare workers to improve DBS sample collection; Aimed to reduce sample rejection to less than 2%. After the provider collects DBS, a photo is shared in real-time with lab mentors in regions through a WhatsApp group; this allows recommendations to be shared while the mother and infant are still at the facility. In case of low-quality DBS, the provider collects another DBS sample before the infant leaves the clinic.

Results Finding

Since the initiation of the "Tatu Bomba Initiative & Real Time Coaching" in July 2020, there has been a steep decline in overall DBS sample rejection. From July to December 2020 a total of 5,025 DBS were collected, and 480 (19.3%) samples were rejected. In 2021 and 2022, 3,006 and 4,311 DBS samples were collected respectively with the rejected samples being 126(4.2%) and 107(2.4%). In the first half of 2023, 2,857 DBS samples were collected, only 11 (0.2%) samples were rejected. These Initiatives have decreased the rejection rate to less than 2% thus adhering to Quality Management System ISO:15189:2012.

Program Implication & Lesson Learned

Emphasis on sufficient blood volume through the "Tatu Bomba initiative" and real-time DBS quality check and mentorship provision through WhatsApp groups significantly reduced DBS sample rejection and improved EID coverage. Scaling up to other supported regions will add value in improving EID coverage among HIV-Exposed.

P5.

People presenting with Advanced HIV Disease are at high risk of dying: A mortality audit could help provide useful lessons

Caroly Mbelwa¹, Carol Holtzman², Beatrice Christian³, Albina George³, Moses Bateganya¹

¹United States Agency for International Development, Dar es Salaam, Tanzania; ²United States Agency for International Development, Washington DC, USA; ³Deloitte Consulting Limited, Dar es Salaam

Correspondence: Caroly Mbelwa, cmbelwa@usaid.gov
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Background

In October 2022, there were nearly 4,666 (0.3%) deaths among the 1.6 million people living with HIV (PLHIV) on antiretroviral therapy (ART) that PEPFAR was supporting. Understanding the causes of death is critical to Tanzania achieving the UNAIDS 95-95-95 goals.

Program Intervention/Methodology

A death audit was conducted at two health facilities in Lindi Region, one hospital (1,140 PLHIV) and a health center (725 PLHIV). Deaths occurring between October 1, 2022 to June 30, 2023 were assessed for likely causes of death. The virologic and immunological status, retention, and suspected or diagnosed opportunistic infections within the six months of death were reviewed to determine whether death was likely related to advanced HIV disease (AHD). Deaths were categorized as either HIV or non-HIV related.

Results Finding

Overall 41 PLHIV died with a median age of 48 years, 56% were female and 17 (41%) had been on ART < 6 months prior to death. Among deceased clients on ART > 6 months, median duration on ART was 7-years. 91% had VL < 1000 copies/mL. Of 41 deaths, 19 (46%) were likely AHD related. HIV-related deaths (HRD) were more likely to occur within 6 months of ART initiation (63%) compared to non-HRD (23%). The most common conditions associated with HRD were tuberculosis (37%) and cryptococcal meningitis (26%), while non-communicable diseases (32%) and malaria (23%) were the most associated with non-HRD.

Program Implication & Lesson Learned

Deaths related to AHD or HIV are likely due to late diagnosis and simple mortality audits are a useful way to characterize them. Strategies to improve early diagnosis are critical in decreasing mortality. Among PLHIV on long term ART, screening, and management of NCDs could reduce deaths.

P6.

Effect of dedicated viremia clinic on HIV viral load re-suppression: A case of Namanyere DDH, Nkasi DC in Rukwa Region

Zephania Msunza¹, Dr. Nassoro Yahaya Mgassa¹, Amos Nsheha¹, Angelina Kalimalwendo², Evalada Sanane³, Sally Chalamila¹

¹Henry M Jackson Foundation Medical Research International, Songwe, Tanzania; ²Clinician-Namanyere Designated District Hospital, Rukwa, Tanzania; ³Council Health Management Team, Nkasi District, Rukwa, Tanzania

Correspondence: Zephania Msunza, zephapascal@gmail.com

BMC Proceedings 2024, 18(15):P6

Background

HIV viral load monitoring is crucial in assessing patient and program treatment success. For clients with HVL Enhanced adherence counselling is recommended. In May 2022, viral load suppression among adults aged > 15 years was 87.3%, and among children aged < 15 years was 90%. The gap identified was the low quality of the comprehensive EAC cascade delivered which affects suppression rates in clinical settings and the impact of dedicated "viremia" clinics.

Program Intervention/Methodology

HJFMRI-T and Namanyere DDH institutionalized a viremia clinic on the last Friday of every month. 18 clients with High Viral Load, 13 adults and 5 pediatric, with a Mean average level of VL copies of 27,315 were enrolled in the clinics. The average time to the initiation of the EAC was 3.5 days. 18 clients attended recommended EAC sessions as per national guidelines to provide a better person-centred approach to assess and understand root causes adversely affecting medication adherence.

Results Finding

18 clients with High Viral Load were enrolled in Viremia clinics, 16 clients attended the recommended 3 EAC sessions per national guidelines but two clients were subjected to extended EAC to 4 sessions. Clinicians and nurses through a multidisciplinary approach conducted group discussion/counselling, followed by one-to-one discussion/counselling and peer attachment (with expert Clients and Mentor Mothers). The exercise was conducted for children during Saturday clinics and involved parents/caregivers during EAC sessions. After the VL second test to all clients, and through chart review all 18 clients (100%) attained viral suppression.

Program Implication & Lesson Learned

Comprehensive Viremia and Saturday clinics are avenues for addressing barriers/challenges and the provision of quality case management for unsuppressed clients. Scaling up the viremia clinics to other facilities is of paramount importance in improving viral suppression, reducing the chances of HIV transmission and achieving epidemic control by 2030.

P7.

Role of social welfare officers in improving ART adherence and retention to children living with HIV in Mlele DC

Nelson Goleha¹, Godfrey Mitande², Donald Bahagwa¹, Henry Musila¹, Reginald Gervas¹, Emmanuel Bahemana¹, Sarah Chiduo³, Diana Nicholaus³, Makune Makune³, Janet Mwambona³, Boniface Nguhuni³

¹Henry M Jackson Foundation Medical Research International, Mbeya, Tanzania; ²Girl Effect, Lindi, Tanzania; ³Department of Defense, Walter Reed Army Institute of Research, Dar es Salaam, Tanzania

Correspondence: Nelson Goleha, ngoleha@wrp.or.tz

BMC Proceedings 2024, 18(15):P7

Background

Moving towards HIV control, it is important to achieve viral suppression in all age groups especially children. Achieving viral suppression has continue to be elusive in some parts of Tanzania due to involvement of social factors outside health facilities that reduce their adherence and retention to care. Our aim was to show effectiveness of social welfare officers in improving adherence and retention of Children Living with HIV in Mlele DC.

Program Intervention/Methodology

In this qualitative study, Clients were chosen among those who had poor adherence and repeated interaction to treatment in 5 facilities in Mlele DC. Clients were then linked to social welfare officer who further identified social challenges faced by these children. Weekly home visits were conducted to address these challenges together with peer champion as a motivation to achieve viral suppression. These children aged between 9 and 14 were then followed up for six months of activity.

Results Finding

Ten clients among 26 children aged 10–14 who were not suppressed by September 2023 in Mlele DC, had suppressed their viral load by April 2023 after focused and individualized EAC sessions with social welfare support. There was an increase in viral suppression in this age group from 72.9% in September to 88.7% in April 2023. 8 clients with poor adherence had improved their adherence after activity and all had viral load below 1000 copies after viral load tests. Two children needed support from both the social welfare and police gender desk to ensure the children receive their rights to treatment.

Program Implication & Lesson Learned

Reaching viral suppression among children is highly connected to reduction on social issues in their families. The use of multidisciplinary approach to children will improve challenge identification and resolve the challenges at individual level. This approach is important in councils that lack support in OVC services like Mlele DC.

P8.

Impact of Pediatric mentors in improving Viral Suppression among children and adolescents living with HIV (CALHIV) in Mbarali District Council

Suphiani Alhaji

Henry M Jackson Foundation Medical Research International, Mbeya, Tanzania

Correspondence: Suphiani Alhaji, asuphiani@wrp.or.tz

BMC Proceedings 2024, 18(15):P8

Background

HVL testing is the recommended gold standard for monitoring HIV treatment success. While progress has been made towards attaining the third of the UNAIDS 95–95–95 target among CALHIV continue to have lower VLS. Our objective was to assess the impact of pediatric mentors on VLS among CALHIV in Mbarali district council (DC), in Tanzania, whose HIV viral load suppression (VLS) is only 84% by June 2021.

Program Intervention/Methodology

Pediatric mentors were deployed at 14 facilities, Who conducted onsite mentorship performing VL sample collection, improving attendance on Saturday clinics and teen clubs; supported implementation of psychosocial support; optimization of ARV regimens; initiation and completion of EAC for eligible CALHIV; provided capacity building to peer, train OTZ champions on delivering health talks. Additionally, weekly follow-ups of viral load monitoring data, and challenges, were collected and shared with the facility team via WhatsApp group. Monthly monitoring was done for 6 months.

Results Finding

After six subsequent months, three onsite mentorship sessions were held, all 14 sites were visited, 17 health care providers were reached for mentorship, 80 clients out of 90 CALHIV were traced and given Enhanced adherence counselling (EAC) sessions, and 100% of unsuppressed CALHIV were tested for HVL. As a result, the VLS among CALHIV under 15 years improved from 84 to 91%, while those between 10 and 14 years improved from 90 to 92%.

Program Implication & Lesson Learned

Onsite mentorship through pediatric mentor attachment has a great impact on building the capacity of HCWs to address CALHIV barriers to HIV care and therefore improve viral load coverage and suppression. Furthermore, real-time data has a great impact in enabling health care workers to make informed decisions for client management.

P9.

Contribution of Maternal Retesting Strategy in intensifying Early HIV Case Identification among Pregnant and Breastfeeding women in Mbarali District Council

Ivetha Mussiba

Henry M Jackson Foundation Medical Research International, Mbeya, Tanzania

Correspondence: Ivetha Mussiba, imussiba@wrp.ortz

BMC Proceedings 2024, 18(15):P9

Background

In Mbarali District, HIV/AIDS continues to pose a significant burden to the healthcare system where currently there are approximately 28,887 PLHIV, including 2,108 PBW receiving ART. Maternal retesting was introduced with a primary goal of enhancing early HIV-cases identification among PBW who initially tested negative or missed HIV testing during their first ANC visit thus facilitating early treatment initiation, improving health outcomes and ultimately reduce the HIV/AIDS burden.

Program Intervention/Methodology

The introduction of maternal retesting was conducted in December 2022 led by trained PMTCT-mentors and the DRCHCo across 40 PEPFAR-supported facilities. A sit-in-approach mentorship was utilized which entailed five rounds of HIV testing at different RCH service delivery points (ANC, Labor & Delivery, PNC, child vaccination clinic), orientation was conducted on the use of specific monitoring and evaluation tools (HTS register, MTUHA NO. 6, 7, 8, 12, 13) used to capture and collect data, facilitating effective reporting of the outcomes.

Results Finding

In May–October 2022, a total of 7109 pregnant women tested negative during their first ANC visit. These women were eligible for maternal retesting in January–June 2023, where 3726 women were retested in all RCH service delivery points, and 10 women were identified to be HIV-positive in the respective reporting period. The newly identified HIV-positive women were immediately initiated on ART.

Program Implication & Lesson Learned

The experience in Mbarali District where 10 PBW were linked-to-care after retesting emphasizes the importance of maternal retesting towards achieving better health outcomes for PBW. This success story serves as a compelling call for sustained collaboration between IPs, R/CHMT and healthcare providers for the success of this initiative.

P10.

Implementation fidelity of the cryptococcal meningitis triple therapy intervention in a resource-limited setting, results from Temeke Regional Hospital

Shoma Benjamin

Management and Development for Health, Dar es Salaam, Tanzania

Correspondence: Shoma Benjamin, sbenjamin0409@gmail.com

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Background

WHO recommends Triple Therapy for treating Cryptococcus Meningitis as an optimized therapy in resource-constrained settings. Temeke Hospital is among a few sites introduced in implementing the triple therapy interventions. However, no evaluation has been done to check for the fidelity of implementing the intervention according to the Diagnostic and Treatment Algorithm. This study evaluated the status of the intervention by assessing the implementation fidelity of the intervention at Temeke Hospital.

Material and Methods

The study utilized a case study design, incorporating both qualitative and quantitative research methods in a mixed methods approach. The participants were Health Care Workers (HCWs) directly engaged in the implementation of the Triple Therapy. Data collection involved Key Informant Interviews (KII), semi-structured questionnaires, and data extraction from Cryptococcal Meningitis patients' files. Descriptive statistics were used to summarise quantitative data, while thematic analysis was used for qualitative data analysis.

Results

The study found that compliance with the Diagnostic and Treatment Algorithm for Cryptococcal Meningitis was 33.3% based on responses from HCWs in the semi-structured questionnaire. Facilitators for compliance included the availability of diagnostic and treatment algorithms, workforce support, and access to essential medicines and laboratory tests. Barriers to compliance were identified from three perspectives: beneficiary factors, Health Care Worker factors, and Organization factors. The barriers included triple therapy drugs' adverse effects, financial constraints, health illiteracy about medications, time constraints in administering Amphotericin B, stock-outs of cryptococcal meningitis medication and supplies, staff shortage, lack of support, and insufficient budget.

Conclusion & Recommendations

The study revealed a low % compliance rate of 33.3% with the Diagnostic and Treatment Algorithm for Cryptococcal Meningitis among HCWs. Facilitators included access to diagnostic tools and support, while barriers encompassed drug-related adverse effects and resource limitations. Addressing these findings is vital for improving patient outcomes and intervention effectiveness.

P11.

Scaling up social network strategy to expand access to HIV testing services in Mwanza region

Joyce Thomas¹, Aafke Kinemo¹, Omari Msumi¹, Bernadeta Msongole¹, Macdonald Mahiti¹, Oresto Munishi¹, Cassia Wells², Julie Franks², Oscar Rwabiyago³, Jonathan Grund³, Emmanuel Mihayo⁴, Joseph Obedi¹, John Kahemele¹, Haruka Maruyama¹

¹ICAP at Columbia University, Mwanza, Tanzania; ²ICAP at Columbia University, New York, N USA; ³U.S Center for Disease Control and Prevention, Division of Global HIV and TB (DGHT), Dar es Salaam, Tanzania; ⁴National Aids Control Program, Dodoma, Tanzania

Correspondence: Joyce Thomas, jt3083@cumc.columbia.edu

BMC Proceedings 2024, 18(15):P11

Background

ICAP's FIKIA + project is a President's Emergency Plan for AIDS Relief (PEPFAR) project funded through CDC, with the aim of accelerating, expanding, and improving the quality of HIV prevention, care, and treatment to meet the UNAIDS 95–95–95 targets. The project implemented a series of strategic interventions to scale up the social network strategy (SNS) among peers targeting key and vulnerable populations (KVP) for HIV testing services (HTS) in Mwanza.

Program Intervention/Methodology

ICAP trained 218 health care workers (HCWs) and 202 KVP peers from 208 facilities on SNS. KVP peers were engaged in demand creation while HCWs were involved in provision of HTS services. ICAP worked with the regional and council health management teams to provide post training, mentorship and coaching to bridge the implementation gap and scale up SNS implementation. In-house tools were designed to support documentation and reporting of SNS, and weekly monitoring was done of sites providing SNS services.

Results Finding

From January 2022 to March 2023, ICAP scaled up SNS implementation from 3 (1.4%) facilities to 116 (55.8%) facilities and from 5 to 114 community sites. This increased access to HTS through SNS from 301 to 29,084 clients in community sites and from 445 to 8,363 clients in facility sites resulting in the identification of 1,214 HIV-positive clients identified in community with 4.2% yield and 391 new HIV-positive clients in facilities with 4.7% yield. Out of 37,447 clients tested, 32,189 clients were female and 5,258 were male. Data was collected from the SNS registers and was entered in ICAP DHIS2.

Program Implication & Lesson Learned

Social networking modality can be rapidly scaled and expanded, including in health facilities, offering an additional approach for reaching more people with HIV testing services.

P12.

The Use of Field Epidemiology Intermediate Graduates in Implementing HIV and AIDS Programs in Tanzania

Devotha Leonard^{1,2}, Nelson Malugu^{1,2}, Nsiande Lema², Lawrençia Mushi¹, Peter Mbago¹, Godfrey Kacholi¹, Mackfallen Anasel¹, Andrew Makoi³, Emmanuel Mtete³, Henry Mollel¹, Rosalia Arope⁴

¹Mzumbe University, Morogoro, Tanzania; ²Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam, Tanzania; ³U.S Centers for Disease Control and Prevention, Division of Global HIV and TB, Dar es Salaam, Tanzania; ⁴ Regional Health Management Team, Mtwara, Tanzania

Correspondence: Devotha Leonard, leonarddevotha@gmail.com

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Background

Skilled epidemiologists are in high demand and are needed to effectively respond to disease outbreaks. This cadre is required at every administrative level to detect, analyze, respond, and disseminate information for decision-making. The FETP Intermediate course began in 2016, 67 graduated as of 2022, At the enrollment 8 trainees were directly working with HIV programs. The survey was conducted to assess the contribution of FETP to HIV-related activities in Tanzania.

Program Intervention/Methodology

We conducted a survey of 66 graduates from July to September 2022 from cohorts 1 to 5 that were enrolled between 2016 and 2021. A structured questionnaire adopted from the International Training and Education Center for Health (I-TECH), was exported into an online form for data collection, data related to graduates' contributions to HIV epidemic control were collected and analyzed using MS Excel.

Results Finding

The response rate for this survey was 100%. The survey revealed that 30 (45.5%) of the FETP graduates performed HIV-related work. Twenty graduates are involved in HIV/AIDS surveillance system evaluation, ten graduates work in management of HIV programs and conducting HIV research. One supported initiation of a new intervention called Tatu Bomba, for monitoring the quality of the dried blood spot samples collected at Prevention of Mother-to-Child Transmission clinics. The intervention has remarkably reduced DBS sample rejection rates from 40 to 2%. Thirty graduates presented their field works, including 29 at local conferences and one at an international conference.

Program Implication & Lesson Learned

Field Epidemiology Intermediate graduates have been equipped with knowledge and skills in analysing HIV/AIDS program data, evaluating HIV /AIDS surveillance systems, and conducting research. The use of Field Epidemiology Intermediate graduates will help in improving the quality of HIV/AIDS data and services.

P13.

Knowledge, Attitudes and Practices of HIV self-testing among long-distance truck drivers in Northern Tanzania

Cornel Angolile¹, Innocent Massawe¹, Theophil Komba¹, Elinaike Mallya¹, Innocent Mboya^{1,2}

¹Kilimanjaro Christian Medical University College, Kilimanjaro, Tanzania;

²Lund University, Malmö, Sweden

Correspondence: Cornel Angolile, cornelmartinez98@gmail.com

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Background

Long-distance truck drivers (LDTD) are among the key vulnerable populations which requires special attention on HIV testing services. Introduction of HIV Self-testing (HIVST) in Tanzania is anticipated to

alleviate the HIV testing demands among LDTD. Assessment of knowledge, attitudes, and practices of HIVST among LDTD is crucial to determine their uptake. This study aimed to assess the level of knowledge, attitudes, and practices of HIVST among LDTD in northern Tanzania.

Material and Methods

This descriptive cross-sectional study was conducted in Northern Tanzania borders from July to August, 2022 among 297 LDTD. The interviewer-administered questionnaire assessed KAP in LDTD and OraQuick HIV self-testing kits were used for testing. Data was cleaned and analyzed using SPSS software version 20 where frequencies and percentages summarized categorical variables and median and interquartile range the numeric variables.

Results

Over half (54.2%) of the LDTD had ever heard about HIVST and 74.4% had high knowledge score. The majority (95%) had positive attitudes towards HIVST. Among participants, some (10.8%) reported having negative concerns about HIVST the most severe one being a lack of trust in HIVST kits (28.1%). Only 18.9% of participants ever had HIVST. 40.7% took an HIV Self-test despite 91.6% willingness to self-test.

Conclusion & Recommendations

Majority demonstrated good knowledge and positive attitudes toward HIVST. HIVST practices and uptake were quite low compared to other studies outside Tanzania. HIVST coverage should be increased through public awareness and by ensuring the availability of HIVST kits to the public and especially to the KVPs to facilitate HIV testing.

P14.

HIV Viral Load Data Management and Reporting Challenges in Geita Region, Tanzania

Homobinus Longino¹, Emmaculata Buchard¹, Wilbald Anthony¹, Frank Mapendo¹, Derick Mtangavu², George Emmanuel², Daniel Mpembeni², Mashavu Yussuf¹, Innocent Mboya¹, Mary Mwanyika Sando¹

¹Africa Academy for Public Health, Dar es Salaam, Tanzania; ²Management and Development for Health, Dar es Salaam, Tanzania

Correspondence: Homobinus Longino, hlongino@aaph.or.tz

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Background

HIV viral load (VL) data management is essential to monitor and ensure the accuracy, accessibility, and availability of data to inform healthcare providers to improve care and treatment services. The study focused on verifying HVL results in patient files (CTC2 cards) compared to those in the care and treatment (CTC2) database and identifying common documentation challenges in the Geita region, Tanzania.

Material and Methods

This was a facility-based cross-sectional study carried out in the Geita region covering all six councils targeting 10% of Clients active on antiretroviral therapy (ART) in 100 facilities. A quantitative survey was employed to verify VL results returned at health facilities and review the documentation process, in addition to identifying common challenges. Data were summarized using frequencies and percentages as well as narrations.

Results

Out of 5445 verified HVL results, the majority 4628 (85%) were documented in both the CTC2 cards and the CTC2 database. Also, 654 (12%) of all HVL results were available in the CTC2 database but not documented in CTC2 cards while 164 (3%) in the CTC2 Cards were not in the database. The main challenge across facilities after receiving results from the laboratory was delayed or lacking entry in the CTC2 card but directly in the CTC2 database, hence causing data inconsistencies between the two sources.

Conclusion & Recommendations

HIV VL data management and reporting remain a challenge as most facilities do not record all VL results in patient files (CTC2 cards) and CTC2 database. Facility-based Data Officers and Clinicians should ensure all HVL results are duly entered in the patient files and CTC2 database for better treatment services.

P15.**Routine Data Quality Assessment for Improved HIV/AIDS data use practices: Case of 15 health facilities in Geita region, Tanzania**

Emmaculata Burchard¹, Homobonius Longino¹, Derick Mtangavu², George Emanuel², Frank Mapendo¹, Willard Anthony¹, Mashavu Yussuf¹, Innocent Mboya¹, Mary Mwanyika Sando¹

¹Africa Academy for Public Health, Dar es Salaam, Tanzania; ²Management and Development for Health, Dar es Salaam, Tanzania

Correspondence: Emmaculata Burchard, eburchard@aaph.or.tz

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Background

Routine Data Quality Assessment (DQA) is necessary to ensure data integrity, relevance, and usability. We aimed to document the best HIV/AIDS data use practices at the primary health care facilities as a result of DQA in Geita Region, Tanzania.

Material and Methods

This cross-sectional mixed-methods study was carried out in 15 health facilities in Geita Region, Tanzania. HIV/AIDS national DQA tool was adopted for data collection from care and treatment clinics. The thematic analysis was used to analyze qualitative data on facility-based barriers to data use.

Results

During DQA visits, 15 of 23(65.2%) visited facilities had inadequate data use. The most common barriers to HIV/AIDS data use across all facilities were lack of knowledge and skills in the interpretation of results on key indicators and data visualization 7 (47%), unavailability of notice boards 5 (33%), and lack of commitment from providers 3(20%). Across all 15 facilities, data use through displaying the key indicators improved after capacity building through training on data summarization, interpretations and visualization, and material support (supply of notice boards) during four consecutive DQA visits.

Conclusion & Recommendations

Adequate knowledge of indicator definitions and data visualization skills have positive implications for routing HIV/AIDS data use among healthcare providers in Tanzania. The study demonstrated that aggregating and summarizing routine HIV/AIDS data, facilities can track key indicators, monitor progress and evaluate the effectiveness of interventions or strategies.

P16.**HIV-1 Resistance to Dolutegravir in a vertically-acquired HIV Patient in Tanzania: a case report**

Reginald Gervas¹, Ajay Parikh^{2,3}, Lilian Komba⁴, Kevin McKenzie^{4,5}, Matthew Romo^{2,3}, Shaban Almas¹, Pili Habib¹, Emmanuel Bahemana¹, Neha Shah^{2,3}, Trevor Crowell^{2,3}

¹Henry M Jackson Foundation Medical Research International, Inc., Mbeya, Tanzania; ²U.S. Military HIV Research Program, Walter Reed Army Institute of Research, Silver Spring, Maryland, United States; ³Henry M. Jackson Foundation for the Advancement of Military Medicine, Bethesda, Maryland, United States; ⁴Baylor College of Medicine Children's Foundation, Mbeya, Tanzania; ⁵Baylor International Pediatric AIDS Initiative (BIPAI) at Texas Children's Hospital, Houston, United States

Correspondence: Reginald Gervas, rgervas@wrp.or.tz

BMC Proceedings 2024, 18(15):P16

Background

WHO recommends the inclusion of an integrase strand transferase inhibitor (INSTI) in first-, second- and third-line antiretroviral therapy (ART) regimens for persons living with HIV due to their potency, tolerability, and high barrier to resistance. Dolutegravir (DTG)-containing regimens are now the first-line for treating adults with HIV in Tanzania since 2019. The prevalence of INSTI resistance mutations remains low; most common mutations associated with raltegravir (RAL) and elvitegravir (EVG).

Case Report

We report an 18-year-old Tanzanian female, who vertically acquired HIV. At the age of 1.3 years, she was started on ART. She has been since exposed to zidovudine, lamivudine, nevirapine, stavudine, tenofovir,

efavirenz and dolutegravir. In 2020 she was referred to care at our facility; Since then, she never achieved viral suppression.

In February 2022, HIV Drug Resistance (HIVDR) test was done. Due to the global supply shortage of INSTI-testing kits, the test was done after a year. In May 2022, while waiting for the initial HIVDR results, a second HIVDR was done which revealed resistance to NRTIs and NNRTIs with no resistance to any of the PIs. The initial HIVDR results were available in March 2023 and revealed the same picture as the second test plus high resistances to INSTIs. Following these genotyping results, she was transitioned to a PI-based regimen and followed up on adherence closely; six months post-switch, she was virally suppressed.

Conclusion

Our case report provides evidence of the importance of HIVDR testing among individuals with treatment failure in resource-limited settings. Highly treatment-experienced patients, especially those who have been given suboptimal ART, can develop highly complex resistance-associated mutation patterns, conferring cross-resistance to all widely available ART.

Declaration Statement

We, the undersigned authors on behalf of AFRICOS study group, hereby declare that we have obtained informed consent from the patient with the support from her parents for her participation in this research. Furthermore, we have secured consent for the publication of their clinical information and data in an open access journal. The patient has been informed about the nature and purpose of the research, the publication process, and the potential implications of such publication. All necessary steps have been taken to protect the patient's privacy and confidentiality.

P17.**Reduction in treatment interruptions among mother-baby pairs. A comparative analysis between Mother Champion supported and non-supported Health facilities in Tanzania**

Jacqueline Kitutu

Mothers2Mothers, Dar es Salaam, Tanzania

Correspondence: Jacqueline Kitutu, tonderai.sengai@m2m.org

BMC Proceedings 2024, 18(15):P17

Background

Since May 2021, mother2mothers (m2m) has been implementing a Peer Mentor Model program to improve PMTCT services in 10 health facilities in Morogoro region since. Mother Champions are women living with HIV, employed by m2m to serve as front line health workers in these health facilities. Mother Champions actively follow up clients who miss appointments and other critical services for mothers and HIV exposed Infants.

Material and Methods

A Comparative Analysis of PMTCT Performance was done to establish the value add of mother champions in improving PMTCT services. A total of 20 sites were selected (10 m2m supported and 10 non-m2m supported facilities). Data from Tanzania Health Information System (THMIS) for the period of October 2019 (before m2m) to September 2022 was used.

Results

In m2m supported facilities, the Interruption of treatment decreased from 12% in 2020 to 4% in 2022 in 12 months cohort while in the 24 months cohort, the decrease was from 15% in 2020 to 8% in 2022. In non-m2m supported facilities, the rate of treatment interruption in a 12 month follow cohort increased from 13% in 2020 and 2021 to 15% in 2022 while for 24 months followed up cohort, IIT decreased from 23% in 2020 to 19% in 2022. With at t (2301)= 1.94, P=0.05, the difference in performance between the two groups of facilities was significant.

Conclusion & Recommendations

A Peer Mentor (Mother Champion) in PMTCT helped reduce interruptions in treatment. Rolling out the Peer Mentor model across the country could help improve retention of mother-baby pairs and hence healthy outcomes for mother and child.

P18.**Use of person-centered approach to increase HIV testing services among adolescents and young adults aged 15–24 years in community settings**

Emma John¹, Rita Mutayoba¹, Ally David¹, Edwin Kilimba¹, Aisa Muya¹, Galal King'ori², Oscar Ernest Rwabiyago²

¹Amref Health Africa, Dar es Salaam, Tanzania; ²Centers for Disease Control and Prevention (CDC) Dar es Salaam, Tanzania

Correspondence: Emma John, emma.john@amref.org

BMC Proceedings 2024, 18(15):P18

Background

Studies show adolescents and young adults 15–24 years of age are more likely to engage in risky sexual behavior than older adults and have less frequent contact with the healthcare system, thus making HTS a challenge for this target population. Amref through Afya-Kamilifu project implemented innovative person-centered approach tailor HTS to the needs and preferences of adolescents and young adults for Mara, Simiyu, Tanga and Zanzibar in community settings.

Program Intervention/Methodology

Afya-Kamilifu project uses trained adolescent and young adult peers who are recruited in collaboration with local Government Authority to conduct demand creation and screening for HTS to fellow peers. Peers are paired with trained HCW in the delivery of youth friendly HTS using vehicle, hired rooms/office/home, tent, during weekends/night, tailored to the needs and preferences of clients. We analyzed routine aggregate project data from October 2021 to March 2023 to describe the implementation of this innovative approach.

Results Finding

Between October 2021–March 2023 the project conducted 14,828 HIV tests among adolescent and young adults in community settings; of those 1051 (7.1%) tested HIV-positive, and all (100%) were initiated on antiretroviral therapy.

Program Implication & Lesson Learned

Intersecting targeted HIV testing approaches with differentiated services delivery principles can increase HIV testing services that meet the needs of adolescent and young adults in Tanzania who are disproportionately impacted by HIV.

P19.**Scaling up Nutritional Support and Care to Promote Good Prognosis for Malnourished HIV + Children Enrolled in the OVC Program**

Ashiraf Mkumba¹, Rabia Khaji², Joyce Kayanda³, Venance Muzuka², Ritha Aldof⁴

¹Department of program management, Health and HIV, SHDEPHA + Morogoro, Tanzania; ²Department of program management, Service, Health, and Development for People living with HIV/AIDS (SHDEPHA +), Shinyanga, Tanzania; ³Department of program management, Service, Health, and Development for People living with HIV/AIDS (SHDEPHA +), Morogoro, Tanzania; ⁴Department of program management, Economic Strengthening, Service, Health, and Development for People living with HIV/AIDS (SHDEPHA +), Morogoro, Tanzania

Correspondence: Ashiraf Mkumba, ashiraf.mkumba@shdepha.org

BMC Proceedings 2024, 18(15):P19

Background

Malnutrition interferes the effectiveness of antiretroviral therapy (ART) hence leading to premature death in developing countries like, Tanzania. Burden of undernutrition globally is 45% among children with HIV. Therefore, integration of HIV services with nutrition programs is essential for optimal treatment outcomes. SHDEPHA + implements USAID-funded Kizazi-Hodari program by integrating nutrition interventions addresses a gap on effectiveness of implemented interventions with prognosis of malnourished children discharged from hospital for supportive treatment.

Program Intervention/Methodology

Under the Kizazi Hodari OVC program, 240 community volunteers (CCWs) were trained to conduct nutritional assessments, education, counseling, and use job aids following the NACS approach across Morogoro MC, Kilosa DC, and Mvomero DC. CCWs conducted household visits, performed anthropometric nutritional assessments using MUAC tape, and reported the findings via USSD data entry. Through simple analysis by excel, reported data from Beneficiaries Enrollment System were analyzed.

Results Finding

From October 2022 to June 2023, CCWs assessed the nutritional status by average of 1569 enrolled OVC beneficiaries in each quarter through system. Among them, 1494 (95.2%) were reported as not malnourished, 8 were moderately malnourished and 4 were reported and confirmed as severely malnourished across all quarters. Program intervened those malnourished beneficiaries to required services including nutritional education and counseling, and escorting them through referrals to high level of facilities for further treatment. Unsatisfactory prognosis was noticeable to those discharged for rehabilitative and supportive treatment at home as program grants on education rather than providing.

Program Implication & Lesson Learned

A highly collaborative efforts to engage CCWs through focused education and financial facilitation to cover direct observed treatment at household is needed for active implementation of NACS. Adequate allocation of budget in OVC programs to support severely malnourished children to facilitate availability of rehabilitative and supportive food items is recommended.

P20.**Psychiatric Disorders among Clients Receiving Opioid Agonist Therapy in Mbeya, Tanzania**

Adela Peter Luswetula

Henry M Jackson Foundation Medical Research International, Mbeya, Tanzania

Correspondence: Adela Peter Luswetula, aluswetula@wrp.or.tz

BMC Proceedings 2024, 18(15):P20

Background

While substance use is considered a psychiatric condition, other psychiatric comorbidities, such as depressive disorder, anxiety, and personality disorder, are common among opioid drug users. The presence of mental disorders has a negative impact on treatment outcomes. Clients who are diagnosed and started on appropriate treatment can have significant improvements psychologically and socially and achieve better treatment outcomes when on opioid agonist therapy (OAT).

Material and Methods

Clients of Mbeya zonal referral hospital OAT clinic were assessed for psychiatric disorders using four scales: the Generalized Anxiety Disorder Scale (GAD7), the Modified Psychosis Screening Questionnaire (PSQ5), the Patient Health Questionnaire (PHQ9), and the Standardized Assessment of Personality Abbreviated Scale (SAPAS). Clients were screened for substance abuse using Urine Drug Screening test. HIV testing was done following the national HIV testing algorithm. Demographic details for all clients were also captured.

Results

Approximately 95% of the participants were male, with mean age of 36. The prevalence of HIV was 15%. 37% had at least one psychiatric disorder. Most common psychiatric disorders were depressive disorders (51%), anxiety disorders (24%), personality disorders (22%), and psychotic disorders (3%). 53% of people living with HIV had at least one psychiatric disorder. Depression was common among PLHIV (50%). Multivariable analyses revealed that Participants who were unmarried had greater chance of having depression and anxiety disorders (p. 04). Longer AOT treatment duration decreases anxiety and personality disorders, while HIV-negative patients have lower likelihood of depression and personality disorders.

Conclusion & Recommendations

This study provides evidence for psychiatric disorders among OAT clients at MZRH, highly prevalent among PLHIV. Prevalence of any psychiatric disorder was (37%), 12 times higher than general population. Depression and anxiety are most common disorders. Marital status, time in AOT, and HIV infection appear to be associated with psychiatric.

P21.

Community Score Card as “Game Changing” advocacy strategy for increasing HIV and GBV prevention service utilization along transport corridor

Veronica Iyimo¹, Dr Hortensia Nuhu¹, Deogratus Rutatwa², Jovin Riziki¹

¹National Network of Women Living with HIV (NNW+), Tanzania;

²National Council of People living with HIV (NACOPHA), Dar es Salaam, Tanzania

Correspondence: Veronica Iyimo, veronikal@nacopha.or.tz

BMC Proceedings 2024, 18(15):P21

Background

New HIV infections among AGYW aged 15–24 years were double among young men. HIV prevalence rates in those transport corridors reach almost 12.6%

Transport corridor in Tanzania is one among the areas with very high prevalence of HIV infections, gender-based violence to AGYW. 2021 Political Declaration on HIV and AIDS, agreed to prioritize HIV prevention and reduce new HIV infections to fewer than 370,000 per year by 2025.

Program Intervention/Methodology

In January 2022, NNW+ conducted Community Score Card assessment to monitor utilization of sexual reproductive health and HIV service delivery for Women Living with HIV Adolescent Girls and Young Women, and Female Sex Workers in six health facilities within the main transport corridor in the six councils Pwani (2), Morogoro (2), and Dodoma (2) regions. Snowball methodology was used to identify service users, observation, and group discussion methodologies to generate findings. And the targeted group were aged from 14–45 years.

Results Finding

PrEP and PEP awareness and utilization was very low. FSW, AGYW and discordant couples were not using PrEP, LTFU cases were reported. Unwanted pregnancies, drop out of school and engage into harmful act was observed to AGYW. AGYW were more afraid of pregnancy than contracting HIV/AIDS. The use of P2 as a family planning option especially those in school. Cervical cancer screening services were inadequate especially reaching FSW, Women and WLHIV. Poor follow up to pregnant women Living with HIV. Stigma and discrimination made some WLHIV to use traditional birth attendants for delivery. Poor post-natal care due to GBV.

Program Implication & Lesson Learned

Use of real-time monitoring and tracking prevention service availability and utilization to address gaps. Ensure PBFW have access to PrEP. Promote trusted service platforms and robust outreach systems that are peer-led and clinical services. Address gender inequalities, and GBV. Continue working with Road agencies on HIV Prevention in the community.

P22.

Barriers Hindering Street Children and Adolescents from accessing HIV and SRH Services: A Case Study of DSM and Dodoma Regions

Simon Shilagwa, Elizabeth Msuya

Focus for the Future Generation, Dar es Salaam

Correspondence: Simon Shilagwa, 2fgtanzania@gmail.com

BMC Proceedings 2024, 18(15):P22

Background

Tanzania faces a significant HIV epidemic, with key populations such as street children and homeless youth disproportionately affected.

However, their access to HIV and SRH services is hindered by structural barriers. This study employs a mixed-methods approach to examine these barriers and provide data-driven insights to inform policy and interventions.

Material and Methods

A cross-sectional survey was conducted among a representative sample of street children and homeless youth in Dar es Salaam and Dodoma Regions. Data on demographics, HIV and SRH knowledge, healthcare-seeking behaviors, and barriers encountered were collected through key interviews and focus group discussions using the KOBO collect APP. Data analysis was performed using the KOBO collect APP and Microsoft Excel.

Results

Among 370 street-connected children (with 64% being boys and 36% being girls), the overall HIV prevalence was 33%. About 10% had ever had sex in their lives, and 5% are working as sex workers, in terms of HIV knowledge and SRH behaviors, 15% were aware of the transmission and knowledge about HIV and awareness of the risky behaviors. Furthermore, frequencies of alcohol and drug use were 20% and 6%, respectively. About 4% were not using condoms when doing sex and about 6% were practicing homosexuality. Preliminary findings indicated stigma and discrimination, age of consent, and poverty being the main barriers.

Conclusion & Recommendations

Strengthening HIV and SRH services to street children by fostering friendly health services through establishing and strengthening drop-in centers for street children, the age of consent for accessing HIV and SRH should be lowered from 16 to 12 years to increase the accommodation of street children who are below 16.

P23.

Integration of Social Network Strategy and economic empowerment to reach Female Sex Workers and sexual partners for HIV Prevention Intervention

Lusekelo Mwakalundwa¹, Zebedayo Lucas¹, Frank Mbata¹, Ashura Mkande¹, Melkiory Masae¹, Frida Godfrey¹, Asanteeli Kweka¹, Redempta Mbatia¹, Sisty Moshi¹, Neema Makyao², Amos Nyirenda², Marry Ngowa², Amani Maro²

¹Tanzania Health Promotion Support, Dar es Salaam, Tanzania; ²Amref Health Africa, Tanzania

Correspondence: Lusekelo Mwakalundwa, lmwakalundwa@thps.or.tz

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Background

Female sex workers (FSW) experience social discrimination due to existing health systems and laws, limiting them to access basic healthcare services. The use of Social Network Strategy (SNS) has facilitated reach, engagement, and motivation of FSW to access HIV testing. FSW may also lack a reliable source of income therefore, economic empowerment and comprehensive psycho-social support to this population may facilitate linkage to prevention intervention.

Program Intervention/Methodology

From April 2022, Tanzania Health Promotion Support (THPS) funded by the Global Fund through Amref formulated and supported four income generating activity (IGA) groups targeting FSW in Kiteto District, Manyara region. The Kaloleni Women Health Group, composing of five FSW, opened a hair dressing salon from December 2022. The group integrates SNS to their business to reach other FSW and their sexual partners every weekend for HIV combination prevention interventions.

Results Finding

From December 2022 to March 2023, the Kaloleni Women Health Group recruited 66 FSW and 36 sexual partners to social and behavior change communication sessions; 27 FSW and 16 sexual partners accessed HIV self-testing. Two(1) FSW and (1)sexual partner were diagnosed HIV positive and linked to care; 1 gender-based violence case was referred to the police; eight (8) sexually transmitted infections were linked to care; and nine (9) FSW were linked to pre-exposure prophylaxis (PrEP).

Program Implication & Lesson Learned

IGA and integrated SNS provide linkage and increased access to comprehensive HIV prevention and care services during demand creation sessions and social network. Furthermore, this strategy reach and provide preventive services to negative HIV clients.

P24.**Enhancement of Social and Behavior Change Communication to Sustain the Use of PrEP among FSW in Rombo District Kilimanjaro region**

Frank Mathew^{1,2}, Lusekelo Mwakalundwa¹, Zebedayo Lucas¹, Ashura Mkande¹, Melkiory Masae¹, Frida Godfrey¹, Asanteeli Kweka¹, Redempta Mbatia^{1,2}, Neema Makyao², Amani Maro², Amos Nyirenda²

¹Tanzania Health Promotion Support, Dar es Salaam, Tanzania; ²Amref Health Africa, Tanzania

Correspondence: Frank Mathew, fmhatta@thps.or.tz

BMC Proceedings 2024, 18(15):P24

Background

Enhancement of the social behaviour change communication (SBCC) sessions to Pre-exposure Prophylaxis (PrEP) users can contribute significantly on the adherence of the services among female sexual workers (FSW). FSWs in Rombo are generally aware of PrEP, although their understanding of PrEP methods and benefits is often low. Prior to the intervention, FSWs in Rombo District had a poor understanding and adherence to PrEP.

Program Intervention/Methodology

From April 2022, Tanzania Health Promotion Support (THPS) funded by the Global Fund through Amref Health Africa started to promote PrEP uptake among FSW in Rombo by SBCC sessions through trained peer educators who were former FSW. During the SBCC sessions, each FSW reached was provided with education on PrEP uptake and adherence. This included information on the benefit of PrEP when taken consistently, potential key challenges were addressed, and improve follow-up and consistency.

Results Finding

A total of 409 FSWs were reached with SBCC from July to December 2022. Of which 117 were referred for screening eligibility, 105 were screened and 88 were eligible for PrEP. The eligible clients were linked and started on PrEP. As of March 2023, among FSW initiated 80.6% ($n = 71$) are still using and adhering to PrEP Services.

Program Implication & Lesson Learned

Enhancement of the SBCC sessions to PrEP users can contribute significantly on the adherence of the services among FSW. SBCC on PrEP uptake should be enhanced and made part and parcel of the intervention provided to FSW as one of the combination preventions methods.

P25.**Magnitude of advanced HIV disease and treatment outcomes among enrolled people living with HIV (PLHIV) receiving treatment in Tabora region**

Faida Mbuya¹, Ramadhani Shemtandulo¹, Vincent Ngelageza², Beatrice Praise¹, Asia Almas¹, Baraka Mgririwa¹, Honoratha Rutatinisibwa³, George Msalale³, Amani Shao¹, David Sando¹, Jaiving Kazitanga⁴

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

²Management and Development for Health, Shinyanga, Tanzania;

³Regional Health Management Team, Regional Secretariat, Tabora, Tanzania;

⁴U.S Centers for Disease Control and Prevention (CDC), Dare es Salaam, Tanzania

Correspondence: Faida Mbuya, femil@mdh.or.tz

BMC Proceedings 2024, 18(15):P25

Background

The introduction of HIV testing and immediate initiation of ART has led to a decrease in morbidity and mortality across the globe. Despite the advancement of HIV management, clients still present with advanced HIV disease (AHD) at first diagnosis. In Tanzania, the proportion who present with AHD ranges between 35–60%. Little is documented on

the magnitude of AHD in Tabora region, we aimed to determine this among newly enrolled PLHIV.

Program Intervention/Methodology

A retrospective review of client data newly enrolled at 154 HFIs supported by MDH from January to December 2022 in the Tabora region was conducted. Demographic and clinical information including World Health Organization (WHO) staging, CD4 count at enrolment, Tuberculosis (TB), and Cryptococcal status were extracted from the CTC2 database. Descriptive analysis was performed using STATA version 13.1; numbers and proportions of clients with AHD and their treatment outcomes were calculated.

Results Finding

A total of 10,825 clients were enrolled in HIV treatment. Of these 5,600 (60%) were females, with a median age of 35 years (IQR: 29–45). out of 2,470 (22.8%) clients presented with AHD; 2,041 (18.8%) had WHO stage 3/4, and 429(4.0%) had a CD4 count below 200 cells/ μ L. Of those with AHD, 250 (10%) had confirmed TB while 75 (3.1%) had a cryptococcal infection. A total of 109/2,470 (4.4%) of clients with AHD died during the reporting period, of them, 21 (19.3%) and 6 (2.4%) had TB and cryptococcal infection, respectively, while 442 (17.0%) had ART treatment interruption.

Program Implication & Lesson Learned

AHD presentation at diagnosis is common and has negative client outcomes. Multisectoral efforts are needed to sensitize the community for early identification and treatment to improve client-level outcomes.

P26.**Integrating HIVST during index testing services resulted in reaching more elicited sexual partners and high case detection rates in Arusha**

Raphael Ruseke¹, Rajab Yassin¹, Satto Dandu¹, Seleman Seja¹, Irene Nkya¹, Agness John²

¹Service, Health, and Development for People living with HIV/AIDS

(SHDEPHA +), Tanzania; ²Family Health International 360, Tanzania

Correspondence: Raphael Ruseke, raphael.ruseke@shdepha.org

BMC Proceedings 2024, 18(15):P26

Background

Testing sexual contacts of HIV+ index clients has been slow among key vulnerable populations (KVP) because of fear of disclosure to partners. HIV self-test (HIVST) can be used to privately screen one's HIV status, the experience of how it works in the context of index testing services is limited. With USAID funding, we implement community index testing services in Arusha and aim to share outcomes of integrating HIVST within.

Program Intervention/Methodology

Twelve HealthCare workers were trained on Index testing and HIVST use, informed clients who were ready to invite their contacts but hesitated to disclose their status, screened them for Intimate partner violence and provided them with HIVST kits. A Convictional test was done within 14 days as per client's preference. Outcome was recorded in related registers. Individual records for October 2022-March 2023 were analyzed to determine the number and proportions of clients elicited, tested and outcomes, through HIVST use or conventional testing only.

Results Finding

171 index clients accepted index service and elicited 710 index contacts (393 male, 317 female) which translates to a 1:4 elicitation ratio. HIVST kits were provided to 67% (476/710) of elicited contacts. In total, 625 contacts were reached and 96% of reached were HIV tested (599/625); 410 used HIVST first and 189 through conventional rapid test. Case finding rate among contacts that used HIVST was 27% (111/410) when confirmed, whereas among those who used conventional testing only, case finding rate was 20% (37/189). 99% of the positive clients were linked to care and initiated on ART (146/148).

Program Implication & Lesson Learned

Integrating HIVST with index testing improved reach of elicited sexual partners and increased the case-finding rate. Projects should consider integrating HIVST as an approach to facilitate reaching elicited contacts without necessarily requiring prior disclosure by positive partner.

P27.**Adolescent Girls and Young Women in Mining and Road Construction Sites are at Substantial Risk of HIV Infection, Ruvuma, Tanzania**

Jacqueline Ruhundwa¹, Debora Frank¹, Dorica Boyee¹, Agness John¹, Grace Daniel¹, Bernard Ogwang¹, Joseph Ng'weshemi¹, Upendo Kategile²
¹Famil Health International 360, Meeting Targets and Epidemic Control (EpiC), Tanzania; ²United States Agency for International Development, Tanzania

Correspondence: Jacqueline Ruhundwa, jruhundwa@fhi360.org
 BMC Proceedings 2024, 18(15):P27

Background

HIV interventions along mining and construction sites have traditionally targeted sex workers, and other migrant workers involved AGYW to a lesser extent. However, routine service testing data among AGYW in Amani-Makolo, Litumbandyosi and Mkumbi wards in Mbanga District under the EpiC project shows that AGYW in mining and construction sites are equally exposed to risk of acquiring HIV infection with case finding rates of up to 4% (17/469).

Case Report

The USAID-funded EpiC project engages peers to identify AGYW hangouts where AGYW can be reached with a comprehensive package of behavioral and biomedical services. Peer Educators use vulnerability risk assessment tools to screen AGYW risk behaviors. Out of school AGYW aged 15–24 years are enrolled in SBC education, where they discuss health-related topics including risk behaviors, available HIV prevention and treatment and family planning services. 300 records of AGYW vulnerability risk assessments conducted between February and September 2022 were randomly sampled from the three wards to determine the most common HIV risk behaviors.

54% AGYW had sex before the age of 15 years. 84% reported having 2 or more sexual partners in the last 12 months, 91% practiced transactional sex and 91% do not know HIV status of their sexual contacts. 74% reported having never or wouldn't know when they last used condoms. 82% of the AGYW reported having experienced sexual violence 2 or more times in their lifetime.

Conclusion

AGYWs in high-risk areas can equally benefit from HIV prevention services such as PrEP, condom provision, and HIV testing to achieve epidemic control. Prevention outcomes can be optimized by targeting male partners and sexual contacts of AGYW with such prevention services to minimize HIV/AIDS transmission in these high-risk wards.

P28.**Efficiency investigation of Dual approach for Fidelity in Tuberculosis Screening at Care and Treatment Clinics**

Dr Telesphory Mullah¹, Anastazia Masanja¹, Mpoki Kajigiri¹, Diana Nicholaus²

¹Henry M Jackson Foundation Medical Research International (HJFMRI), Tanzania; ²Walter Reed Army Institute of Research (WRAIR)/Department of Defense, Tanzania

Correspondence: Dr Telesphory Mullah, tmullah@wrp.or.tz
 BMC Proceedings 2024, 18(15):P28

Background

Tuberculosis (TB) is a significant comorbidity and leading cause of mortality among PLHIV. However, TB screening by Healthcare providers at CTC often lacks consistency and accuracy as per national guidelines due to lack of fidelity, leading to missed cases and delayed interventions. In 2020, 41% of people with TB were not diagnosed and notified in Tanzania, and the potential benefits and drawbacks of dual method within CTC contexts remains limited.

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 both TB Presumptive register, CTC2 cards, checklist tool and CTC2 Database.

Qualitative data were gathered through discussion with expert clients aiming to understand their experiences, and the effectiveness of the expert client model at the triage and exit desk check point.

Expert clients received on job orientation on TB screening and linkage at the triage and exit point.

Results Finding

This approach led to the early detection of TB cases that might have otherwise been missed, enabling prompt referral for diagnosis and treatment initiation.

After pilot of dual approach implementation between October 2022 and March 2023, the program observed a significant rise in TB presumptive cases (413) and 108 TB-HIV cases were reported. In contrast, there were 165 TB presumptive cases and 17 TB-HIV cases from April to September 2019.

Expert clients, equipped with basic TB-HIV knowledge, exhibited heightened fidelity in screening their peers at triage and exit desk compared to routine healthcare provider screening done at consultation room.

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 done by HCP showed promising results in terms of fidelity and early diagnosis.

Their position as peers fosters trust and facilitates effective communication, resulting in compliance with screening procedures.

P29.**Peer Navigators Support Led to Increased Linkage to Care and Treatment Continuity among Key and Vulnerable Populations in Kilimanjaro, Tanzania**

Baraka Maliaki, Benson Minja, Julieth Maina, Dafrosa Itemba, Nikas Nziku, Bernard Ogwang, Maria Sanze, Jesse Chanzo, Hassan Mushi, Grace Nkya, Agness John, Dorica Boyee, Joseph Ng'weshemi, Upendo Kategile
 Family Health International 360-EpiC, Tanzania

Correspondence: Baraka Maliaki, brkmaliaki94@gmail.com
 BMC Proceedings 2024, 18(15):P29

Background

Despite increased uptake of community-based HIV testing services (HTS), linkage to and treatment continuity among key and vulnerable populations (KVP) remain sub-optimal. The PEPFAR- and USAID-funded EpiC project introduced the use of peer navigators (PNs) to address linkage and treatment continuity gaps among newly diagnosed KVP in Kilimanjaro, Tanzania.

Program Intervention/Methodology

EpiC identified PNs from HIV-positive KVP members, to provide support to overcome barriers to linkage and adherence. Thirty PNs were trained and attached to 34/47 facilities (72%) from October 2020 to support community-based HTS. HCWs ensured all consenting HIV-positive clients were linked to PNs, who created rapport, fill addresses, escorted clients to CTC, and followed up on adherence and VL monitoring. We analyzed data between Implementation Year 1 (Feb 2020–Sept 2020), Year 2 (Oct2020–Sept2021), and Year 3 (Oct2021–Sept2022).

Results Finding

Among 720 newly diagnosed with HIV in Year 1, 81.9% (590/720) were linked to care without PNs. In Year 2 after engaging PNs, 98.8% of HIV + KVP, (2162/2189) were linked to care and initiated ART. As of December 2022, 47.9% (283/590) of KVP linked to care and initiated ART in Year 1 were retained on ART. In Years 2 and 3 when PN were engaged, among the KVPs initiated on ART, 67.4% (860/1275) and 78.8% (699/887) were retained on ART as of December 2022.

Program Implication & Lesson Learned

The results suggest that PNs increased linkage to ART and ensured continuity of treatment among KVP clients on ART. Programs should consider adopting this model to improve their ART linkage and treatment continuity.

P30.**Introducing comprehensive HIV services in the faith based non-PEPFAR supported dispensaries to reach the unreached to end HIV**

Godfrey Kway, Peter Maduki, Josephine Balati, Gasper Materu, David Isaya, Mpoki Stephen, Fredrick Mgaya, Winfrida Mshindo, Goodluck Mwakitoshia, Peter Nagunwa

Christian Social Services Commission, Dar es Salaam, Tanzania

Correspondence: Godfrey Kway, godykway@gmail.com

BMC Proceedings 2024, 18(15):P30

Background

An estimated 1.7 million people are living with HIV in Tanzania. With nearly 1.5 million receiving ART, Tanzania is on track to meet the 95–95–95 targets. However, Interruption In Treatment (IIT) is not reducing uniformly in sub populations. For example, IIT is high among young adults 19–39 and among populations in rural and hard to reach areas. About 50% of FBO dispensaries in rural area are not providing HIV services.

Program Intervention/Methodology

The USAID Pamoja Tuwekeze Afya (PATA) Activity supported 31 tier 3&4 and non-partner-supported Faith based dispensaries in Iringa, Njombe and Morogoro to establish comprehensive HIV services. These lower-level facilities were supported to reach poor PLHV in rural populations who cannot afford the time or funds to travel to PEPFAR high-volume sites and who otherwise might be lost to follow-up. The support varied from capacity building of HCWs, refurbishment and data infrastructure needs and intergration of HIV in general services.

Results Finding

In 18 months, the project capacitated 68 HCWs, engaged 106 faith leaders, 572 small Christian communities and 19 community volunteers to reach to the last mile and increase the uptake of HIV, TB and MCH services. As a result, 461 newly diagnosed HIV clients were identified in 31 CSSC dispensaries and 753 clients transferred in from high tire facilities who would previously travel to more than 30 km for HIV services. 98% of the PLHV in the supported dispensaries in Njombe were virally suppressed following improved retention to care and 51 clients returned to care in the 31 supported dispensaries.

Program Implication & Lesson Learned

FBO dispensaries are located where people live and work. Provision of comprehensive HVI&TB services in improve access to the rural and marginalized communities. Provision of these services has improved facility utilization of general services that have stimulated additional revenues for the dispensaries that enables financial sustainability of the facilities.

P31.**AP3 Implementation: Role of HRH Support in the Improvement of Pediatric HIV Case Identification in Southern Regions of Tanzania**

Karim Mizungumiti¹, Beatrice Christian¹, Marina Njelekela², Zahra Nensi², Selina Mathias³, Neway Fida³

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

²Deloitte Consulting Limited, Dar Es Salaam, Tanzania; ³USAID Tanzania, Dar Es Salaam, Tanzania

Correspondence: Karim Mizungumiti, kmizungumiti@mdh.or.tz

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Background

The global pediatric (0–14 years) HIV treatment coverage is significantly low (54%) compared to adults (74%) by 2020. Tanzania is one of the four PEPFAR focus countries harbouring half of the new paediatric HIV infection as per UNAIDS report for 2019. There is limited Human Resource for Health (HRH) focusing on reaching children for HIV index testing during or after working hours including weekends.

Program Intervention/Methodology

USAID Afya Yangu Southern program engaged fifty HCPs dedicated for pediatric index testing in June 2022 and received orientation on the implementation of ethical and safe index testing for children < 19 years.

The providers were then deployed to 50 tier 1 facilities across program-supported regions and allocated with daily index elicitation and testing with a target of 4 children a day. Facility-level daily performance monitoring on WhatsApp groups and weekly data review meetings were done to address encountered bottlenecks.

Results Finding

The number of children elicited improved by 50% from 1,519 (June 2022) to 2,275 (September 2022). The pediatric index testing rate improved from 84% (June 2022) to 90% (September 2022). Pediatric case identification improved from 30 (April-June 2022) to 50 HIV-positive children (July – September 2022). The yield remains the same at 1% across the implementation months.

Program Implication & Lesson Learned

Pediatric HIV case identification needs special committed HRH support. The HRH have to be capacitated on knowledge, skills & supported financially for effective implementation. Daily performance monitoring via WhatsApp groups and frequent mentorship is key to reaching the unmet pediatric identification gap.

P32.**Maximizing HIV Testing Services and HIV Case Identifications among Youth in Iringa Region through a peer-led approach**

Mohamed Mwenga^{1,2,3,4}, Ulumbi Elias¹, Abubakar Rehani¹, Godfrey Mwanakulya¹

¹T-MARC Tanzania, Dar es Salaam, Tanzania; ²USAID Tanzania, Dar es Salaam, Tanzania; ³Management and Development for Health, Dar es Salaam, Tanzania; ⁴Deloitte Consulting Limited, Dar Es Salaam, Tanzania

Correspondence: Mohamed Mwenga, mmwenga@tmarc.or.tz

BMC Proceedings 2024, 18(15):P32

Background

The USAID Afya Yangu Southern program provides high-quality integrated HIV/TB prevention, care, and treatment services that enhance health outcomes. During the first two quarters of fiscal year 2022, the program reached 1,853 youth (15–24) with HIV testing, equivalent to 4% of the total clients 51,717 offered HIV testing services in the Iringa region. Limited adolescent youth-friendly services corners and existing gender and social norms contributed to this low reach.

Program Intervention/Methodology

Data were compared between the four quarters (Q1-Q4 FY22) using the internal program database (PRODMIS) exploring youth-accessed HIV testing services (HTS) and PrEP services. During Q3-Q4FY22, the program trained 56 youth peers on HTS demand creation through the national Social Behavior Change (SBC) youth platform SITE-TEREKI. Peers conducted targeted community-based demand creation through Inter-Personal Communication (IPC) sessions and linkages of youth to facilities through invitation coupons and supported the creation of adolescent and youth-friendly services corners in 7 priority facilities.

Results Finding

An observed 29% increase in the number of youths who received HIV testing services from 1,853 in Q1-Q2FY22 to 2,392 in Q3-Q4FY22. Also, HIV-positive cases identified increased from 54 to 71 between Q1-Q2FY22 and Q3-Q4FY22 respectively. There was an improvement in HIV self-testing kits distribution from 19 to 368 and PrEP provision among HIV-negative eligible youth increased from 40 to 168 in the same period. This result was contributed by introducing a peer-led approach of pairing trained peers and HCWs for HTS& PrEP services, using interpersonal communication (IPC) sessions, the rollout of adolescent and youth-friendly services and youth radio programs.

Program Implication & Lesson Learned

Generally, a peer-led approach using youth peer champions improves HIV Testing services for youth in communities and health facilities as proved in program performance, scaling up more youth-friendly services and training healthcare workers and youth peer champions will provide easy linkages for youth to access HTS services in health facilities.

P33.**Accelerating Pre-exposure Prophylaxis Uptake among Sero-Discordant Couples through Partner Notification Services: A Case of Lindi Region**

Mwarami Selemani¹, George Sikalengo¹, Christian Paresso¹, Beatrice Christian¹, Zahra Nensi², Marina Njelekela², Selina Mathias³, Neway Fida³
¹Management and Development for Health, Dar es Salaam, Tanzania; ²Deloitte Consulting Limited, Dar Es Salaam, Tanzania; ³USAID Tanzania, Dar es Salaam, Tanzania

Correspondence: Mwarami Selemani, mselemani@mdh.or.tz

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Background

Pre-exposure Prophylaxis (PrEP) is the use of antiretroviral medication to prevent people from acquiring HIV. Scientific evidence shows that when taken consistently and correctly, PrEP can reduce the chances of HIV infection by up to 99%. WHO recommends that in countries where HIV transmission occurs among Sero-Discordant Couples (SDCs); daily oral PrEP may be considered as an additional intervention for the uninfected partner. In Lindi PrEP services started in January 2022.

Program Intervention/Methodology

In April 2022, 41 trained Health Care Providers (HCPs) termed as index testers volunteers were deployed to conduct HIV index testing and partner notification services in 33 priority health facilities in the region. On-job training and mentorships on HIV partner notification and PrEP services were conducted to them. They then offered partner notification services to index clients for elicitation. The elicited sexual partners were tested, those tested HIV negative were counseled and once consented were then referred for PrEP services.

Results Finding

Before integrating PrEP with partner notification services in March 2022, a total of 37 SDCs were initiated on PrEP by March 2022. After the integration of the PrEP services with partner notification service, the program continued to monitor the performance through program data base system on monthly and quarterly base. The results showed that, the PrEP initiation among Sero Discordant Couples were accelerating from 37 by March 2022 to 71 in April-June 2022, 73 in July-Sept 2022, 80 Oct-Dec 2022 and 96 in Jan-March 2023. Cumulatively, a total of 320 SDC were given PrEP services from April 2022—March 2023.

Program Implication & Lesson Learned

Through this integration the region attained its goal of reaching and preventing more sero discordant couples from acquiring new HIV infections. Integrating partner notification services with PrEP services and capacity building of Health care provider on the two interventions are a keys strategies in accelerating PrEP services among SDCs.

P34.**Assessment of cervical cancer 'screen and treat' approach among HIV positive women in the Southern Highland Zone of Tanzania**

Gwamaka Mwaisanga¹, Restituta Minde¹, Shaban Hamada¹, Gloria David², Paschal Kiliba¹, Janeth Likiliwike², Abel Mwinuka¹, Jimson Mgaya¹, Emmanuel Bahemana¹

¹Henry Jackson Foundation Medical Research International, Mbeya, Tanzania; ²National Institute for Medical Research, Mbeya, Tanzania

Correspondence: Gwamaka Mwaisanga, gmwaisanga@wrp.or.tz

BMC Proceedings 2024, 18(15):P34

Background

In 2020, about 342,000 women died from cervical cancer worldwide; 90% occurred in low and middle-income countries with HIV-positive women being at a six times higher risk. There is limited evidence of the screen-and-treat approach in reducing cervical cancer incidence and mortality among HIV-positive women in Tanzania. This analysis aimed at assessing the 'screen-and-treat' approach among HIV-positive women in the Southern Highland Zone of Tanzania (SHL).

Program Intervention/Methodology

This retrospective study was conducted at PEPFAR-supported facilities in four regions of the SHL where cervical cancer screening is done by visual inspection of the cervix after application of 4% acetic acid (VIA) and treatment by Cryotherapy and loop electrosurgical excision procedure (LEEP) from 2018 to 2022. Secondary data collected from cervical cancer screening program (CECAP) registers were analyzed using descriptive statistics methods. All HIV-positive women screened for cervical cancer were included in the analysis.

Results Finding

The number of HIV-positive women found to have cervical lesion(s) and treated increased rapidly each year from 55 (80%) in 2018 to 547 (94%) in 2022 with respect to the increase in number of women screened, 3174 in 2018 to 45,976 in 2022 mainly due to abundance of resources in cervical cancer screen and treat approach from PEPFAR from 2018. Five years cumulatively, 2284 (1.6%) HIV-positive women were found to have cervical lesion(s) using VIA, among those with lesion(s), 2038 (89.2%) received treatment on site; most patients 1,977 (97%) were treated using cryotherapy.

Program Implication & Lesson Learned

This study reveals that the increased access to cervical cancer screening and treatment from 2018 to 2022 resulting from the expansion and increase of screening and treatment resources from PEPFAR to the Southern Highlands Zone of Tanzania has resulted into the increase in number of cervical cancer-positive women seeking treatment.

P35.**Evaluating Community Scorecard in Promoting COVID-19 Vaccination in Tanzania: Experience from Community Partnerships for Respectful Care (CPRC) Global Vax Project**

Rabia Khaji¹, Emmy Ochieng¹, Gwalugano Katolika¹, Rahma Lubuva¹, Enock Komaji¹, Jenipher Steven¹, Junior Julius¹, Mageni Malulu²

¹Service, Health, and Development for People living with HIV/AIDS (SHDEPHA+), Shinyanga, Tanzania; ²Americares, Mwanza, Tanzania

Correspondence: Rabia Khaji, rabia.abeid@shdepha.org

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Background

"The COVID-19 pandemic presented unprecedented challenges worldwide, including in Tanzania, necessitating effective vaccination strategies. Community engagement plays a crucial role in building trust, addressing vaccine hesitancy, and ensuring vaccine uptake. The Community Scorecard (CSC) approach enhances participation, accountability, and ownership across sectors. Applying CSC to COVID-19 vaccination empowers communities to address concerns, perceptions, and barriers. This study explores the efficacy of CSC in promoting COVID-19 vaccination in Tanzania."

Program Intervention/Methodology

"Between 2022-2023, SHDEPHA+ engaged six facilitators to conduct CSC in 63 villages with low COVID-19 vaccine uptake through the Global Vax project in Mwanza. Five focus groups, consisting of men, women, youth, leaders, and providers, were conducted with 12 participants per group. The CSC tool guide captured people's experiences and expectations regarding the vaccine. The data was analyzed and presented in an accessible manner, enabling participants and stakeholders to create collective actions addressing vaccine hesitancy, misinformation, and accessibility barriers."

Results Finding

"The collected data revealed that 71% ($n = 2684$) of participants were unvaccinated due to low awareness, fear, myths, misinformation, and limited access to vaccination facilities. During CSC meetings, 62% ($n = 1663$) of participants were vaccinated. Collaboratively, an action plan was developed with the council health management team (CHMT) and community members, leading to strengthened preventive COVID-19 awareness, engagement of religious leaders, and community outreach initiatives. Quarterly reviews were conducted, resulting in an increased vaccine uptake from 355,442 (September 2022) to 686,480

(June 2023), thereby reducing vaccine hesitancy and increasing vaccination coverage by 48%."

Program Implication & Lesson Learned

"The Community Scorecard (CSC) effectively engages communities, mitigates concerns, and strengthens COVID-19 vaccination campaigns. By leveraging community expertise, CSC fosters resilience and inclusivity. Further research and evaluation are necessary to fully understand the impact and scalability of the CSC approach in health promotion interventions."

P36.

Experiences of Gender Based Violence and using Gender Transformative Approached to Optimize Men's Access to HIV services in Tanzania

Jane Tesha^{1,2}, Frederick MAGUHWI^{1,2}, Anna Temba¹

¹Engenderhealth, Dar es Salaam, Tanzania; ²Elizabeth Glaser Paediatric AIDS Foundation, Dar es Salaam, Tanzania

Correspondence: Jane Tesha, jtesha@engenderhealth.org

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Background

Gender inequality in accessing health services is a global concern. In Tanzania, gender norms perpetuate barriers that prevent men from accessing HIV services. We examined the relationship between gender transformative approaches and access to HIV services among men in five regions in Tanzania where the USAID Afya Yangu Northern was implemented.

Program Intervention/Methodology

Analyzed aggregate data from October 21 – September 22 across 61 health facilities. Integrated gender transformative approaches such as Couples Connect sessions, Social Analysis and Action, and Men as Partners were used to address GBV. Male-friendly corners, convenient service hours, and appointment systems were used to address access barriers. Men were reached through community engagement, collaboration between the program team and local authorities. De-identified routine data were abstracted from the National HIV database and descriptively analysed using Microsoft Excel.

Results Finding

Of the 29,964 men reached with different gender transformative approaches, 69% underwent HIV testing, with 2% testing positive. Nearly all (99%) of the 600 who tested positive enrolling in treatment and care. Overall, 11,986 (40%) of men were screened for Gender based Violence, and 7% had experienced GBV (Survivors). Of the survivors 839 (54%) successfully linked to Post-GBV care services. The number of men accessing HIV services increased from zero during the January-March 2022 to 1,184 in April-June 2022, and to 5,790 in July-September 2022.

Program Implication & Lesson Learned

Transformative gender approaches contributed to increasing HIV service uptake among men in five regions of USAID Afya Yangu Northern. Further systematic behavioral studies with longitudinal follow up are needed to assess the impact of transformative approaches on the decisions men make about engaging in and continuing care.

P37.

Gender Power and SRH Service Uptake: Lessons from GYHR Analysis in Tabora Region

Raphael Maligo¹, Anna Temba², Musa Shilangale², Thesesia Kilawe², Johniere Smith¹, Sarah Pentlow¹, Danielle Garfinkel³, Danielle Bishop¹

¹Nutrition International, Tanzania; ²EngenderHealth, Dar es Salaam, Tanzania; ³EngenderHealth, Washington DC, USA

Correspondence: Raphael Maligo, rmaligo@nutritioninr.org

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Background

Gendered norms, traditions and power in decision-making shape normative perceptions and practices that determine health and

nutrition service utilization. We report on the results from the Gender Youth and Human Rights (GYHR) study conducted in Tabora region in January 2023 to deeply understand the context-specific gender and power dynamics shaping adolescents' utilization of SRH and nutrition services.

Material and Methods

A mixed qualitative cross-sectional participatory study employing a holistic gender transformative approach grounded in the social-ecological model in 4 purposefully sampled districts (Urambo, Sikonge, Uyui and Tabora MC). 383 participants were interviewed, 177 females (46%) and 206 males (54%) - key informant interviews 46, 319, focus group discussions 319 and in-depth interviews 18. Field observation notes were used to complement other methods. Recorded interviews were transcribed and doubly translated, and together with field notes analyzed into desired themes using thematic analysis.

Results

Gender blocks/dimensions Key findings

Norms: Religious beliefs influencing prevalent norms and values permitting early marriages.

SRH services perceived a feminine business.

Men/boys use prevalent traditional and religious beliefs to prevent female partners from using FP methods.

Division of labour: Adolescent girls prepared to be good wives and mothers which reinforces early marriages.

Men perceived as family heads; tasked with home finance management and making significant decisions.

Decision-making: Girls lack decision-making rights on gender and reproductive health. Boys have final say on condom use during sex.

Control and access to resources: Only boys with land ownership rights.

Conclusion & Recommendations

Negative gender and power dynamics exist in the study population and shape the diversity of power between adolescent girls and boys, including access to available SRH services and ought to be considered when designing adolescent SRH interventions.

P38.

Adolescents' Intersectional Identities and Their Effect on SRH

Service Uptake: Lessons from GYHR Analysis in Tabora Region

Raphael Maligo¹, Musa Shilangale², Anna Temba², Theresia Kilawe², Moke Magoma², Ramadhani Mlange², Danielle Garfinkel³, Johniere Smith¹, Sarah Pentlow¹, Danielle Bishop¹

¹Nutrition International, Tanzania; ²EngenderHealth Tanzania, Dar es Salaam, Tanzania; ³EngenderHealth, Washington DC, USA

Correspondence: Raphael Maligo, rmaligo@nutritioninr.org

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Background

Approximately 43% of adolescent girls 15–19 years in Tabora region have begun childbearing. We report on the results from a Gender Youth and Human Rights (GYHR) study by BRIGHT, a 7-year GAC-funded BRIGHT project that seeks to build agency and empower adolescents aged 10–19 to exercise their SRH and nutrition rights.

Material and Methods

A mixed methods cross-sectional qualitative study with adolescent youths in Tabora region in January 2023 across 4 purposefully sampled councils ((Urambo, Sikonge, Uyui and Tabora MC) to explore ways in which gender dynamics and intersecting identities shape adolescents' decision to utilize SRH and nutrition services. Prior ethical clearance from NIMR was sought and granted.

Results

In-school in uniform vs others: "...we are not allowed to visit health facilities without wearing our school uniform. Even when you are a Form four student and aged 19 years or more, nurses will treat you as a student and as a child. You can never dare to ask for services such as family planning or condoms." [FGD, Adolescent in School, Urambo].

The lower the age, the more some service providers were reluctant to serve and help adolescents.

Adolescents living with disabilities and those without: Adolescents with disabilities report more challenges accessing SRH and nutrition services than those without.

Conclusion & Recommendations

Adolescents' intersectional identities influence their likelihood of receiving available SRH and nutrition services and ought to be considered in ASRH programming to ensure equitable access.

P39.

Improved Patient-Centered Adolescent Access to Healthcare through Afya-Tek

Fatma Mahmoud¹, Suleiman Kimatta¹, Sosthenes Ketende¹, Johanitha James¹, Monica John¹, Oscar Lugumamu¹, Christina Gabunda¹, Angel Dillip¹, Jafary Liana¹, Neema Kafwimi²

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

Correspondence: Fatma Mahmoud, fmahmoud@apotheker.co.tz

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Background

Afya-Tek is a digital health intervention that digitally links community members with Community Health Workers (CHWs), health facilities & Accredited Drug Dispensing Outlets (ADDOs) to improve decision-making processes, quality of care along the continuum of care, ensure prompt access to care and reduce inefficiency in the referral system in Kibaha region. The program aims to improve adolescent reproductive health and well-being, by providing safe reproductive health pathways and information.

Material and Methods

In collaboration with the government, the Afya-Tek digital solution was introduced to improve adolescent reproductive health. The program digitally linked 500 primary health actors CHWs, ADDOs, and health facility personnel in Kibaha. By using a people-centered approach tailored to cater to adolescents, with a priority on providing friendly visits, screenings and counseling conducted by CHWs, ADDOs and Health Facility workers. The referrals are attended in a private manner ensuring their willingness to seek care in a safe, timely manner.

Results

Afya-Tek registered 25,518 adolescents, 13,745 girls and 11,773 boys. Adolescents have been screened resulting in 76% referrals to Health Facilities and 53% linkages to ADDOs. 98 adolescents are ANC clients. 35% referrals at the health facility and 30% of those linked to ADDOs were successfully attended.

Conclusion & Recommendations

The results show an improved health care delivery coordination where adolescents are able to access prompt, good quality, and patient-centered care that ensures safety and privacy of their information. However, the program needs to actively engage adolescents to reduce the number of pregnancies and scale to other areas.

P40.

Effectiveness of male partner engagement on increasing uptake of cervical cancer screening among women in Bahi council, Dodoma region

Atugonza Laurent^{1,2,3}, Leonard Katalambula²

¹Amani Girls Home Organization, Dodoma, Tanzania; ²University of Dodoma, Dodoma, Tanzania; ³RMNCH Department, Ministry of Health, Dodoma, Tanzania

Correspondence: Atugonza Laurent, alaurent@amanigirlshome.or.tz

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Background

In many African ethnicities, men are the key decision makers and drivers for all matters in the family. Cervical cancer is the most killing cancer in Tanzania although screening and treatment of precancerous

lesions is an effective method to reduce cases and deaths, few women are however reported to be screened. As in other reproductive health issues, male involvement may have significant influence on cervical cancer screening uptake among women.

Material and Methods

A cluster randomized control trial was conducted involving three groups of women participants. One group received no treatment, another group was given health education about cervical cancer and invited for screening while the third group, in addition to health education and invitation; was given a brochure and a letter addressed to their male partners asking them to support their women to undertake screening. Data was collected at baseline and end-line and screening uptake was compared between the groups after intervention.

Results

At baseline, 12.7% of women had screened for cervical cancer. After the intervention, proportion of women screened for cervical cancer raised from 14.3% to 16% for the control group, 11.7% to 50% for women given Education only and from 12.2% to 74.4% for women whose male partners were engaged. Women who were given education (only) were 4.6 times more likely to return for screening compared to the control group while women whose male partners were engaged were 13.2 times more likely to return for screening compared to the control group. Male engagement was more times effective in increasing screening uptake.

Conclusion & Recommendations

Interventions such as education should be tailored to both male and females so that men can push and support their female partners to uptake the screening services. On top, we learn that male involvement is a promising approach in improving families' reproductive health outcomes.

P41.

Addressing Social Norms to Increase Uptake of Childhood Immunization in Tanzania

Paul Masanja^{1,2,3}

¹The Bill and Melinda Gates Foundation, Washington Dc, USA;

²Immunization and Vaccines Development (IVD), Dodoma, Tanzania;

³Damax Solutions, Tanzania

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Background

Tanzania has sustained a high immunization coverage over the past years. However, not all eligible children are reached with full recommended doses. Addressing immunization drop-outs in Maswa district, despite high coverage, was vital. This study aimed to bridge gaps by targeting demand-side drivers through a gender-transformative intervention using a human-centered design. The project comprehensively assessed barriers, co-designed, tested, refined, and evaluated the intervention, highlighting the significance of inclusive immunization strategies.

Program Intervention/Methodology

The research spanned 12 months and employed a structured five-step HCD approach. This began with community-driven discovery to comprehend the root causes of low immunization demand and high drop-out rates. Based on these insights, a prototype intervention was collaboratively designed with the community. This prototype underwent iterative testing, refinement, and evaluation. The intervention focused on engaging male caregivers, who were supported to adopt positive behaviors addressing barriers such as competing priorities, male-unfriendly services, transportation challenges, and societal perceptions.

Results Finding

The intervention yielded promising results. Clinic attendance increased by 57%, and 47% more children received vaccinations in the targeted wards. Qualitative data revealed positive shifts in male caregivers' attitudes and behaviors. Journey maps, stories, and model families effectively facilitated behavior change. The project showcased the importance of gender-inclusive strategies

in immunization efforts, emphasizing the need to address gender norms for both demand and supply-side interventions. This approach ensures comprehensive coverage by engaging male caregivers as decision-makers and promoting service access, contributing to successful immunization programs.

Program Implication & Lesson Learned

This study calls upon gender-inclusive and transformative interventions to enhance immunization uptake. While gender inequitable norms contribute to low demand, it is essential to design services targeting both male and female caregivers. There is an impactful change when community collaboration, gender inclusivity, and innovative design converge to tackle healthcare challenges.

P42.

The Power of Community Engagement: Transforming Attitudes towards COVID-19 Vaccination through a Community Scorecard Meeting

Emmy Ochieng, Rabia Khaji, Junior Julius, Jenipher Steven, Elijah Mwambije
Service, Health, and Development for People living with HIV/AIDS (SHDEPHA+), Mwanza, Tanzania

Correspondence: Emmy Ochieng, emmy.mercy@shdepha.org
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Background

The Community Scorecard (CSC) is a valuable tool for empowering communities to assess public service quality and collaboratively improve it. In response to vaccine hesitancy and misinformation surrounding COVID-19, SHDEPHA+ organized a CSC meeting. The aim was to identify challenges related to COVID-19 vaccination and develop locally driven solutions. This meeting brought together community members, health workers, and stakeholders to address vaccine hesitancy and promote vaccine acceptance.

Case Report

Veronica Misana Misango, an evangelist residing in Mwamajila, a rural village in Kwimba District, Mwanza, Tanzania, was initially skeptical about COVID-19 vaccines. Like many Tanzanians, she had heard rumors that the vaccine could cause harm or infertility. However, during the CSC meeting, health workers provided accurate information and patiently addressed her concerns. Their explanations reassured Veronica, leading her to make an informed decision to get vaccinated on the spot. Inspired by Veronica's example, her husband also decided to get vaccinated shortly after.

Veronica's choice had a profound impact on her community. Fellow church members, who had previously been hesitant about the vaccine, were impressed by her courage and began reconsidering their own attitudes. The ripple effect of her decision paved the way for increased vaccine acceptance within her community.

Conclusion

Veronica's experience exemplifies the transformative power of community engagement and education in shaping attitudes and behaviors towards public health. By addressing vaccine hesitancy through the CSC meeting, local stakeholders empowered individuals like Veronica to make informed decisions, ultimately fostering a positive shift in vaccine acceptance within their communities.

Declaration of Informed Consent

The authors hereby declare that informed consent was obtained from all participants involved in this study. Each participant was fully informed about the nature, purpose, and potential impacts of the paper. They were assured of their right to withdraw at any time without any consequences. Furthermore, participants consented to the publication of their information in this open access journal, recognizing that their data may be accessible to the public. The authors ensure that all ethical guidelines have been followed in conducting this research, and the confidentiality of participants is maintained as per agreed terms.

P43.

Use of Teen Clubs was associated with improved visit adherence and Viral Load Suppression among Teenagers Living with HIV

Frederick Maguhwa^{1,2}, Jane Tesha^{1,2}, Anna Temba¹, Fredrick Fredrick Haraka²

¹Engenderhealth, Mtwara, Tanzania; ²Elizabeth Glaser Paediatric AIDS Foundation, Dar es Salaam, Tanzania

Correspondence: Frederick Maguhwa, fmaguhwa@engenderhealth.org
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Background

Teenagers living with HIV (TLHIV) face multiple challenges, including violence against children, and unintended pregnancy. These affect their adherence to antiretroviral therapy and make it harder for them to achieve optimal health outcomes. Introducing client-centered adherence counseling sessions tailored to address treatment adherence challenges. They met monthly for adherence counselling integrating with GBV screening. We report on the experience of using this intervention on appointment keeping and viral suppression among adolescents.

Program Intervention/Methodology

A cross-sectional analysis of data during the period of October 2021 – September 2022 to understand the effect of the teen approach on adherence to clinic visits and viral load suppression by comparing sites with and without teen clubs. Appointment keeping was defined as a TLHIV who had attended scheduled medication refill visits. Viral suppression was considered as a viral load test result < 1000 copies/ml. Routine de-identified data from the national HIV database and DHIS were analyzed using Microsoft Excel.

Results Finding

Overall, 10,114 TLHIV attended ART clinics during the study period. Of these, 8,387 (83%) were in teen clubs. All 10,114 teens had viral load tests done. Overall 95% (7,968/8,387) of those attending Teen clubs were viral suppressed compared to 90% (1,554/1,727) in those who did not attend teen clubs. Adherence to scheduled clinic appointments was also higher in those who attended teen clubs, compared to those who did not attend teen clubs (95% versus 90%).

Program Implication & Lesson Learned

The use of the teen clubs was associated with improved adherence to scheduled clinic visits and higher viral load suppression. Client-centered interventions tailored to specific groups should be introduced and scaled up for better patient outcomes.

P44.

Revamping HIV Viral Load Testing in Tanzania

Mushubira Balinda¹, Lilian Shija¹, Optatus Malewo¹, Frank A Killa¹, Cherif Cisse², Jacqueline Kalimunda², Makune J Makune³, Peter Mkama⁴, Rodrigues Ngailo⁴, Peter Mwakaje⁴, Regnald Julius⁴, Peter Torokaa⁵, Moses Madeje⁶, Rayton Kiwelu⁶, Said Seleman⁷, Richard Burretta⁷, Anyelwisye Kabuje⁸, Issa Hango⁹, Albertho Chengula¹⁰, Nabila Hemed¹⁰, Edward Julius¹¹, Enock Kessy¹², Godfrey Eriyo¹², Godfrey Odinga¹², Ambwene Mwakalobo¹²

¹US Centers for Disease Control and Prevention, Division of Global HIV and TB, Dar es Salaam, Tanzania; ²United States Agency for International Development, Tanzania; ³U.S. Department of Defense, Tanzania;

⁴Diagnostic Services, Ministry of Health, Tanzania; ⁵President's Office, Regional Administration and Local Government, Tanzania; ⁶Tanzania Health Promotion Support, Dar es Salaam, Tanzania; ⁷Management and Development for Health, Dar es Salaam, Tanzania; ⁸Henry Jackson Foundation Medical Research International, Tanzania; ⁹Global Health Supply Chain –PSM; ¹⁰Global Health Supply Chain Technical Assistance (GHSC-TA-TZ), Tanzania; ¹¹Medical Store Department, Tanzania Ministry of Health; ¹²National AIDS Control Program (NACP), Dodoma, Tanzania

Correspondence: Mushubira Balinda, mvq3@cdc.gov

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Background

HIV viral load (HVL) testing is the gold standard for HIV treatment monitoring in people living with HIV (PLHIV) on antiretroviral treatment (ART). Viral load test coverage was suboptimal from 2019–2021 in Tanzania. Reasons for unstable HVL coverage included delayed and incomplete order delivery, frequent equipment downtime, delayed distribution of HVL reagents to laboratories, long HVL results turnaround time (TAT), and quality issues leading to sample rejection and delayed care.

Program Intervention/Methodology

In 2021, Tanzania Ministry of Health collaborated with the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), in-country stakeholders and implementing partners to strengthen HVL testing. Issues addressed included installing new, and operationalizing under-utilized high-throughput platforms, addressing up-stream procurement bottlenecks, improving data-driven supply chain and quantification processes. Interventions included enhanced supply chain management (SCM) through dedicated partner support, operational shifts for 24 h testing, weekly SCM indicators reporting, improved reagent distribution, focused redistributions and strengthened sample referral system.

Results Finding

The interventions included successfully expanding Supply Chain data visibility, appropriately bundling reagents and consumables, optimizing HVL sample collection, transportation, and testing, and strengthening HVL testing safety and quality. These interventions led to rapid improvement of HVL coverage from 87% in FY20 to 93% by the second quarter of FY23. Availability of weekly routine testing, and commodities data allowed prompt follow-on actions to avoid testing interruptions and long results TAT; and contributed to 100% elimination of HVL reagent expiries and stockouts in FY2022.

Program Implication & Lesson Learned

Tanzania has successfully enhanced HVL testing, but opportunities remain to build upon the current successes. These successes demonstrate Tanzania's progress towards building a robust and sustainable laboratory capacity to attain the third component of the UNAIDS goal (attaining VL suppression in PLHIV on ART by 2030).

P45.

Rapid transition to Pediatric Dolutegravir among eligible under-five clients living with HIV: Lessons learnt from Mwanza, Tanzania

Ayoub Msalilwa¹, Bernadeta Msongole¹, Joseph Obedi¹, Oresto Munishi¹, Naseeb Shemndolwa¹, Edward Machage^{1,2}, Jonathan Grund^{1,2}, James Kamuga^{1,3}, Julie Franks^{1,4}, Macdonald Mahiti¹, John Kahemele¹, Haruka Maruyama¹

¹ICAP at Columbia University, Tanzania; ²U.S Centers for Disease Control and Prevention (CDC), Division of Global HIV and TB, Tanzania; ³National AIDS Control Program, Tanzania; ⁴ICAP at Columbia University, New York, NY, USA

Correspondence: Ayoub Msalilwa, am5839@cumc.columbia.edu

BMC Proceedings 2024, 18(15):P45

Background

In January 2022, FIKIA + project identified an alarming 82% lack of viral-load suppression among 1,184 children under the age of five living with HIV (U5LHIV) in Mwanza. To ensure viral suppression to eligible U5LHIV, a rapid transition to recommended pediatric dolutegravir 10 mg dispersible tablet (pDTG) endorsed by World Health Organization in 2018 was necessary. This abstract highlights measures taken to address U5LHIV pDTG optimization when it became available in Tanzania.

Program Intervention/Methodology

In April 2022, ICAP descriptively analyzed eligible U5LHIV who were still on suboptimal anti-retro viral therapeutic (ART) regimens. pDTG assessment and stock distribution to all councils was done. Additionally, ICAP trained 273 healthcare workers (HCWs) from 139 supported health facilities, supported, physical tracking, and call-back campaigns.

pDTG transitions started in late June 2022 at pediatric weekend clinics. Simultaneously, callbacks and community ART transition were deployed for all care recipients who could not attend facility care and treatment clinics (CTC) visits.

Results Finding

Introduced initiatives yielded a significant 16% pDTG optimization among 165 U5LHIV in the first week. Rates surged to 37% in week 4 and reached 80% in week 8. By week 9, pDTG optimization hit 94% as the remaining eligible U5LHIV transitioned via the community ART refill approach. The involvement of the Regional and Council Health Management team (RCHMT) in data cleaning and accurate documentation ensured a complete 100% optimization by mid-September 2022. Of all U5LHIV in Mwanza, 900 (76%) transitioned during pediatric weekend clinics, while 24% (284) optimized through the community ART refill model, achieving pDTG transition within three months.

Program Implication & Lesson Learned

Enhancing rapid pDTG transition to eligible U5LHIV in the Mwanza region involved essential strategies such as HCWs capacity-building, call-back campaigns, and community-ART refill models. Furthermore, engaging RCHMTs played pivotal role in ensuring seamless transition process.

The anticipated suppression effect after transition is expected to manifest within the next six months.

P46.

The Application of Multiple Approaches to Support PrEP initiation in Ruvuma region, Tanzania

Erica Shindano¹, Petro Simbeye², Aloyce Mabula³, Godfrey Mwanakulya¹, Owen Gerson³, Sophia Komba¹, Sophia Majura², Beatrice Christian³, Selina Mathias⁴, Neway Fida⁴, Nkingwa Mabelele²

¹T-MARC Tanzania; ²Deloitte Consulting Limited, Dar es Salaam, Tanzania;

³Management Development for Health, Dar es Salaam, Tanzania; ⁴USAID, Tanzania

Correspondence: Erica Shindano, eshindano@marc.or.tz

BMC Proceedings 2024, 18(15):P46

Background

The USAID Afya yangu Southern program (2021–2026) aims at supporting the government of Tanzania to deliver high quality integrated HIV and Tuberculosis services prevention care and treatment services, Pre-Exposure Prophylaxis (PrEP) initiation is among the supported initiatives implemented by the program as an approach of prevention against HIV especially to KVP. Upon completion of FY22 the program reported 563 PrEP New cases and failed to reach its annual set target.

Program Intervention/Methodology

These low results were due to inadequate number of health facilities that offer PrEP, Lack of refresher training and low demand for PrEP. Observing these challenges, program increased the number of facilities that administered PrEP from 25 to 40 facilities, Conducted a five days training to HCW, Intensified PrEP demand creation where peer champions from SITETEREKI youth platform disseminated education on PrEP through IPC and health talks, technical assistance and daily reporting of PrEP data at regional and council level.

Results Finding

After a year of implementing these new approaches, there have been a significant increase in the number of PrEP initiated whereas Q4 FY23 is progressing to its end a total of 2038 PrEP new cases have been initiated with Mbinga DC leading with a total of 577 cases and the least performing council was Madaba DC with 108 cases.

Program Implication & Lesson Learned

Extra efforts are highly needed to improve PrEP initiation, as seen in the results that tripled after the program re strategized the approaches used. Hence it is advised to implement service delivery respectively to demand creation so as to reach strategic audience.

P47.**Quality improvement in TB screening among people living with HIV who attend HIV treatment centers in Mwanza, Tanzania**

Maria Ndonde¹, Venance Richard¹, Naseeb Shemndolwa¹, Joseph Obedi¹, Robert Kisanga¹, Oresto Munishi¹, Macdonald Mahiti¹, John Kahemele¹, Julie Franks², Jaiving Kazitanga³, Sylvester Kwilasa⁴, Bernadeta Msongole¹
¹ICAP at Columbia University, Tanzania; ²ICAP at Columbia University, New York, NY, USA; ³U.S. Center for Disease Control and Prevention, Division of Global HIV and TB, Tanzania; ⁴National AIDS Control Program, Dodoma, Tanzania

Correspondence: Maria Ndonde, mn3096@cumc.columbia.edu
BMC Proceedings 2024, 18(15):P47

Background

TB contributes to a third of all HIV-related deaths globally. About 5–10% of people infected with TB will get symptoms and develop TB disease. The World Health Organization recommends people living with HIV (PLHIV) be screened for TB at every encounter with health services. However, TB disease suspicion index among PLHIV in Mwanza ICAP-supported facilities was low evidenced by data from October–December 2021 where suspicion index was 0.3%.

Program Intervention/Methodology

From January 2022–March 2023 ICAP supported health care workers (HCWs) to analyze performance on TB disease suspicion index and establish HCW-led QI projects in 61 high-volume facilities, identified TB/HIV focal-persons in 208-supported facilities, mentored HCWs on use of TB screening questionnaires and trained 73 expert clients to conduct TB screening at triage, navigation of TB presumptive to clinicians, laboratories, assist in management of good sputum sample and follow-up of results. Data triangulation was also conducted to mitigate reporting inconsistencies.

Results Finding

Index of clinical suspicion for TB increased from 0.3% (312/113,918) in FY22Q1 to 4.2% (5268/126,777) in FY23Q2 where 126,777 PLHIV were screened for TB from all 208 supported facilities by end of FY23Q2 and 5,268 PLHIV were found to have at least one symptom of TB and were referred for further testing and care & treatment.

Program Implication & Lesson Learned

Introducing QI projects and using trained expert clients to conduct preliminary TB screening enabled HCWs to increase suspicion index for TB. In addition, data triangulations, identifying TB/HIV focal persons and capacity building for HCWs is also important to ensure fidelity of screenings and effective follow-up.

P48.**Using Satellite Clinics to distribute antiretroviral drugs to reduce Treatment Interruption among Hard-to-Reach Clients: An Experience from Kilosa District Hospital**

Jovin Jonathan^{1,2}, Dominica Lyamuya^{1,2}
¹USAID Afya Yangu Southern Program, Tanzania; ²Management and Development for Health, Dar es Salaam, Tanzania

Correspondence: Jovin Jonathan, jjonathan@mdh.ortz
BMC Proceedings 2024, 18(15):P48

Background

Successful antiretroviral therapy (ART) requires life-long, patient-centered service delivery in which the health system offers convenience and choices in the context of changing life circumstances. Kilosa Hospital reported 690 clients with treatment interruptions out of 469(68%) who were on outreach services. USAID Afya Yangu Southern program in collaboration with R/CHMT and Kilosa DH activated ART pick up clinics "ART satellite clinics" at non-ART facilities to facilitate ART refills.

Program Intervention/Methodology

Team mapped all clients on ART and those who had interrupted treatment, those who interrupted ART were tracked who were consented receive subsequent refills at conveniently selected satellite clinics. The

offer of refill at satellite clinics was extended to other clients upon consent. Satellite services were provided on a monthly basis at individual appointments and at satellite clinics jointly agreed upon with clients. CTC2 cards were filled onsite but data entry into the CTC2 database was done at mother facility.

Results Finding

By June 2023, 9 satellite clinics had been established and were serving 586 clients, 24% of the total clients on ART, three times those served at the single satellite before the expansion. Among those served at the satellites, 345(68%) were female. Retaining clients on treatment has increased from 96.6% in March 2022 to 99.6% by June 2023. Appointment adherence among clients receiving ART at satellites was slightly higher at 99% compared to a 97% district average.

Program Implication & Lesson Learned

ART satellite clinics were associated with reduced treatment interruption. As a Differentiated Service Delivery (DSD) model they reduce challenges in accessing ART services and promote retention on treatment and appointment adherence. Our finding warrants further exploration of this model to support treatment programs. should be evaluated further.

P49.**Uncovering the Implementation of HIV pre-exposure prophylaxis Program for Adolescent Girls and Young Women in Msalala DC, Shinyanga Region**

Gladness Gaudence
 Service, Health, and Development for People living with HIV/AIDS (SHDEPHA+), Tanzania

Correspondence: Gladness Gaudence, gladness.gaudence@shdepha.org
BMC Proceedings 2024, 18(15):P49

Background

Despite efforts to scale up HIV pre-exposure prophylaxis (PrEP) awareness to adolescent girls and young women (AGYW), uptake has been lower than expected. A qualitative survey was conducted assessing current knowledge, perception and attitudes on pre-exposure prophylaxis (PrEP) uptake to adolescent girls and young women in Msalala DC, Shinyanga region.

Material and Methods

A qualitative study was conducted among 32 individuals includes health care providers, peer educators and AGYW age (15–24) in active service. Health care providers medical practices, PrEP experience and attitudes regarding PrEP were assessed by self-rated PrEP knowledges. Also an interview was conducted to 28 AGYW on PrEP use to achieve saturation of key themes participant selection was stratified into two groups at each site: AGYW accepted PrEP and adhered well and those AGYW accepted PrEP but had difficult adhering.

Results

Greater than half of health care providers reported being knowledgeable about PrEP and majority 92% supported PrEP uptake to AGYW. however health providers reported only 9% of AGYW receive comprehensive biomedical services were offered PrEP despite being at risks, creatinine test conducted associated with witchcraft and freemason beliefs which hinder PrEP uptake. AGYW reported fear of side effect, resemblance of Prep to antiretroviral drugs was encountered 95% as a major barrier to PrEP uptake. Lack of information among communities/parents and stigma associated with assumptions of promiscuity which takes 75%."Parent believe the use of PrEP accelerate prostitution behaviors among AGYW".

Conclusion & Recommendations

Stigma and disclosure were major concerns for AGYW initiating PrEP, to ensure the acceptability and adherence of PrEP uptake among AGYW, efforts should focus on reducing stigma, fostering social support for PrEP use, and framing PrEP campaigns positively to raise community awareness.

P50.**Strengthening demand creation in cervical cancer screening through health education program. A cost-effective approach in Mpimbwe DC**

Nelson Goleha¹, Godfrey Mitande², Henry Musila¹, Reginald Gervas¹, Emmanuel Bahemana¹, Sarah Chiduo³, Boniface Nguhuni³, Makune Makune³, Diana Nicholas³, Janeth Mwambona³

¹Henry M Jackson Foundation Medical Research International, Mbeya, Tanzania; ²Girl Effect, Lindi, Tanzania; ³Water Reed Army Institute of Research/Department of Defence, Dar es Salaam, Tanzania.

Correspondence: Nelson Goleha, ngoleha@wrp.or.tz

BMC Proceedings 2024, 18(15):P50

Background

Cervical Cancer is among the leading cause of death among women in the world. Women Living with HIV are six times more likely to develop cancer compared to women without HIV. Cervical cancer can be prevented by screening and treatment of pre-cancerous lesions (secondary prevention). We describe effectiveness of cost-effective demand creation of cervical cancer screening through health education to improving health seeking behavior among Women Living with HIV.

Program Intervention/Methodology

Using visual aids found at the clinic, women attending care and treatment are told advantages of cervical cancer screening. Clients were grouped in small groups divided by age and were stimulated to discuss their fears with healthcare providers, treatment advocates and mentor mothers with session provided in group and individual level. Each client schedules her own visit for screening services without being pressured. We interviewed clients on knowledge gained after each visit and observe their need for cervical cancer screening.

Results Finding

71 clients were screened in September 2022, 84 in October 2022, 56 in November 2022, 177 in December 2022, 118 in January 2023 and 120 in February 2023 without community outreach. During the same period, 121 clients visited facility for only cervical cancer screening during the same period. 40 clients received cervical cancer screening after discussion with fellow women who attended health education at the facility. 52 clients visited the facility for cervical cancer screening after receiving health education during community ART outreaches. Increase in men attending health education on cervical cancer screening was observed to increase over the period.

Program Implication & Lesson Learned

Strengthening demand creation and health seeking behaviors among clients is important in increasing program ownership. Providing focused health education that adhere to each individual need will improve health seeking behaviors and lower cost of clients' tracing and campaigns used by Ministry of Health in reaching clients for cervical cancer screening.

P51.**Effect of decentralized access to anti-retroviral therapy on interruption in treatment; Experience from pastoral communities in Manyara-Tanzania**

Alphaxard Lwitakubi¹, Dr Ramadhani Maingu², Dr Chrispine Kimario³, Dr Frederick Haraka³, Dr Sajida Kimambo³

¹Elizabeth Glaser Pediatrics AIDS Foundation, Manyara Tanzania; ²Kiteto District Council, Manyara, Tanzania; ³Elizabeth Glaser Pediatric AIDS Foundation, Dar es salaam, Tanzania

Correspondence: Alphaxard Lwitakubi, alwitakubi@pedaids.org

BMC Proceedings 2024, 18(15):P51

Background

Interruption in anti-retroviral therapy (ART) in people living with HIV (PLHIV) poses a significant risk of HIV transmission, disease progression, and death. During the October–December 2021 Quarter, 14,086 PLHIV received treatment, 604 (4.2%) had interrupted treatment and 81% of these were from three districts (Kiteto, Simanjiro and Babati) that are predominantly occupied by nomadic pastoral communities.

We decentralized ART refill using satellite, and assessed its effect on interruption.

Program Intervention/Methodology

PLHIV interrupting ART were mapped against the clinics they attend, Satellite clinics were introduced in January 2022 and supplied with ART for PLHIV in the surrounding areas. PLHIV with advanced HIV disease continued to receive ART from the mother sites. The satellite clinic shared data on ART refills with the mother clinic every time a refill was completed, and these data were uploaded to the national electronic HIV care and treatment database. Descriptive analysis was conducted using STATA statistical software.

Results Finding

Overall, the Manyara region had 74 clinics providing HIV drug refill services prior to the introduction of satellite clinics. By the end of the January-March 2023 quarter, 39 satellite clinics had been introduced to provide ART refills. Of those, 28 (72%) were in Kiteto, Simanjiro, and Babati rural districts. In the same quarter, a total of 15,286 PLHIV were on treatment, and 5.7% of these refilled their medication through satellite clinics. The majority (632) were female. Treatment interruption was reduced by 82% percent from the period before the use of satellite clinics. Overall retention increased from 96.4% to 98.9%

Program Implication & Lesson Learned

The use of satellite clinics was associated with a reduced interruption in treatment among PLHIV on ART residing 10 km or more from their mother clinics in Manyara. This differentiated service delivery model for PLHIV is critical for the provision of client-centered services.

P52.**Enhancing Laboratory Reagents Availability: Experiences with HIV Viral Load Testing in Tanzania**

Rayton Kiwelu^{1,2}, Christopher Henjewe¹, Yefeta Emmanuel¹, Evord Kimaria¹, Moses Madeje¹, Fredrick Mrema¹, Redempta Mbatia¹, Eva Matiko¹, Esther Shija²

¹Tanzania Health Promotion Support (THPS), Dar es Salaam, Tanzania;

²Ministry of Health, Tanzania

Correspondence: Rayton Kiwelu, rkiwelu@thps.or.tz

BMC Proceedings 2024, 18(15):P52

Background

The availability of reagents is critical for ensuring efficient and uninterrupted laboratory operations, aligning with the Tanzania Ministry of Health (MOH) fifth Health Sector Strategic Plan (HSSP V). This abstract provides a comprehensive overview of strategies employed to enhance reagent availability for conventional testing of HIV viral load (HVL) at laboratories across Tanzania.

Program Intervention/Methodology

THPS adopted three strategies to eliminate reagent availability issues: using data through Logistics-Analytics-Tool (LAT), engaging stakeholders, and JSS. LAT captures daily/weekly/monthly reports received from conventional testing laboratories and monitors SCM indicators including reagent shelf-lives, stock-status, sample-testing performance. THPS coordinated national/regional level stakeholders through weekly meetings where data-review identifies laboratories with surplus/reagents with short shelf-life and coordinate re-distribution. Quarterly JSS with MOH, MSD and IPs were conducted, to enhance commodity-management-practices, addressing gaps in ordering, storage and transportation.

Results Finding

With the implementation of these interventions, availability of HVL reagents improved from 88% in March 2022 to 100% in April, 2023.

Program Implication & Lesson Learned

Implementing electronic logistics data monitoring, JSS, and stakeholder engagement interventions eliminate reagent shortages in HVL testing laboratories and can facilitate reagent inventory management. This ultimately ensures uninterrupted and efficient laboratory services across the country.

P53.**The role of DBS tracking form in improving < 2 months Early Infant Diagnosis among HIV-Exposed infants in Kyela DC**

Angelah Msomba

Henry M Jackson Foundation Medical Research International, Tanzania

Correspondence: Angelah Msomba, angelahmsomba@gmail.com*BMC Proceedings 2024, 18(15):P53***Background**

Early Infant Diagnosis is testing of HIV- exposed infants born within 2 months, for HIV-positive infants not on treatment peak mortality occurs between 2–3 months hence testing infants early is vital. HJFMRI supports PMTCT services in Kyela DC. By June-Sept 2022 EID coverage was 77.5%, barriers to EID mostly being irregular clinic visits of pregnant women. DBS tracking form was introduced to improve close follow-up and consequently EID coverage.

Program Intervention/Methodology

DBS tracking forms was prepared, each day Mama-Mwambata was responsible for documenting the expected date of delivery and allocated in the labor ward to counsel and update the DBS tracking register for the close follow-up to remind women of < 2 months DBS sample collection. The form was introduced in 28 facilities, 191 women were recorded, monthly monitoring was done for 1 year, HEI Cards, MC Cohort, DBS tracking register and the CTC2 database were used as data source.

Results Finding

After a close follow-up for 1 year, 191 pregnant women that were documented in DBS tracking registers and followed by health care providers and mama mwambata in 28 facilities samples were collected within recommended time < 2 months. EID coverage remarkably improved in Kyela DC from 77.3% in July- Sept 2021 to 130.5% by Oct-Dec 2022, EID positivity rate remained < 1% across all quarters.

Program Implication & Lesson Learned

Appropriate use of the DBS tracking also has a positive impact on EID coverage. Close follow-up of HIV + mothers using DBS tracking form and with the help of Mama-Mwambata is essential to achieve the elimination of Mother to Child transmissions by 2030.

P54.**CD4/CD8 ratio normalization among people living with HIV in the era of Integrase Strand Transfer Inhibitors (INSTI) in East Africa**

Reginald Gervas^{1,2}, Ajay Parikh^{1,3}, Nicole Dear^{1,3}, John Njegite^{1,2}, Restituta Minde^{1,2}, Dorothy Mkondoo^{1,2}, Happy Hamry^{1,2}, Gloria David^{1,4}, Gwamaka Mwaisanga^{1,2}, Emmanuel Bahemana^{1,2}, Hannah Kibuuka⁵, Jonah Maswai^{1,6}, Susannah Colt^{1,3}, Matthew Romo^{1,3}, Sean Cavanaugh¹, Trevor Crowell^{1,3}, Neha Shah¹, Julie Ake¹, on behalf of the AFRICOS Study Group on behalf of the AFRICOS Study Group³

¹U.S. Military HIV Research Program, Walter Reed Army Institute of Research, Silver Spring, MD, USA; ²HJF Medical Research International, Mbeya, Tanzania; ³Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc., Bethesda, MD, USA; ⁴National Institute for Medical Research-Mbeya Medical Research Centre; ⁵Makerere University Walter Reed Project, Kampala, Uganda; ⁶U.S. Army Medical Research Directorate – Africa, Kericho, Kenya

Correspondence: Reginald Gervas, rgervas@wrp.or.tz*BMC Proceedings 2024, 18(15):P54***Background**

Early initiation of combination antiretroviral therapy (ART) reduces mortality and the incidence of AIDS among people living with HIV (PLWH). PLWH with low CD4-T cell counts and a low CD4/CD8-T cell ratio have increased immune activation and are at higher risk for developing complications. This analysis aims at determining the clinical predictors of CD4/CD8 ratio normalization in the era of integrated inhibitors.

Material and Methods

The African Cohort Study (AFRICOS) follows PLWH in Uganda, Tanzania, Nigeria and Kenya, Where performed, CD4 and CD8 are measured biannually. We compared CD4/CD8 normalization, defined as

a CD4/CD8 ratio > 1, for TLD vs non-TLD regimens among PLWH on ART > 6 months who at any point switched to TLD. Logistic regression, clustered by participant to account for repeated measures, was used to estimate odds ratios between ART regimen and CD4/CD8 normalization, adjusting for site, sex, and age.

Results

As of 1 March 2023, 3,356 PLWH were enrolled, of whom 2,129 (63.4%) had ever switched to or been started on TLD. Of these, 1,448 PLWH had available CD4 and CD8 data and were included in further analyses. A total of 12,779 visits were included and participants contributed a median of 5 (IQR: 3–8) visits each. PLWH on TLD had greater odds of a CD4/CD8 ratio > 1 compared to PLWH who were not on TLD (OR: 1.42, 95% CI: 1.28–1.58). After adjustment for program site, sex and age, this association remained significant (aOR: 1.91, 95% CI: 1.72–2.12).

Conclusion & Recommendations

This analysis demonstrates that the rollout of integrase inhibitors in sub-Saharan African settings has resulted in a greater number of individuals achieving CD4/CD8 ratio normalization, relative to historical values. This observation is important for immune dysfunction. We therefore advocate PLWH initiate INSTI-based ART therapy as soon as possible.

P55.**Establishing Surveillance of Recent HIV-1 Infections: Initial Experience from Dar es Salaam, Tanzania**

Severa Shayo^{1,2,3}, Frank Msafiri¹, Goodluck Lyatuu¹, Emmanuel Philipo¹, Tatu Nnimbo¹, Ali Kaduma¹, George Mtatina¹, Werner Maokola², Emmanuel Mihayo², Optatus Malewo³, Jennifer Imaa³, Coline Mahende³, George Mgomella³, Sarah Porter³

¹Management and Development for Health, Dar es Salaam, Tanzania;²Ministry of Health, Dodoma, Tanzania; ³U.S. Centers of Disease Control and Prevention, Dar Es Salaam, Tanzania**Correspondence:** Severa Shayo, ssshayo@mdh.or.tz*BMC Proceedings 2024, 18(15):P55***Background**

Surveillance of new HIV infections is critical to global efforts to end the HIV epidemic. Tanzania has recently established a surveillance system within routine HIV testing services (HTS) to detect recent HIV infections. We describe the integration of the surveillance into routine HTS to inform programmatic and epidemiological response to the epidemic.

Program Intervention/Methodology

Surveillance was introduced in 30 high-volume health facilities. Healthcare providers (HCPs) across facility HTS delivery point and data officers (DO) were trained on protocol and data entry into surveillance data system. Understanding of the protocol was assessed using standardized post-training test. Facilities were then activated to offering participation in recent HIV infection surveillance among newly diagnosed with HIV aged ≥ 15 years. Asanté[®] HIV-1 Rapid recency[®] was used to distinguish recent (within 12 months) from long-term (> 12 months) HIV infection.

Results Finding

A total of 231 HCPs (3–5 per facility) and 60 DO (2 per facility) were trained on the HIV-1 recency testing protocol and trainees passed the post-training test. Between July 2022 to January 2023, 3,094 individuals were newly diagnosed with HIV from 30 activated facilities, of which 2878 (93%) were offered and accepted HIV-1 recency testing. There were, however, delays (of 7 + days) in entering recency results in the surveillance data system for 791 (27%) of the persons tested. Additionally, 84 (36%) of the trained staff were relocated resulting in some HTS delivery points to stop offering recency testing.

Program Implication & Lesson Learned

Integrating surveillance of recent HIV-1 infection into routine HTS was well accepted by both HCP and clients. Timely data entry and staff retention were common challenges. Lessons observed in the current implementation phase will be useful as the surveillance is scaled up to more health facilities in Dar es Salaam.

P56.**The Pivotal Role of Health Care Workers in Strengthening Client Centered TB Care in Kilimanjaro Region**Rahel Sheiza¹, Ibrahim Kangamila², Hendry Samky¹¹The Benjamin William Mkapa Foundation, Dar es Salaam, Tanzania;²USAID, Tanzania**Correspondence:** Rahel Sheiza, rsheiza@mkapafoundation.or.tz*BMC Proceedings 2024, 18(15):P56***Background**

Tuberculosis and drug-resistant TB continue to be significant causes of illness and mortality, with 1,700 estimated MDR-TB clients among the 32,000 TB-related deaths in Tanzania in 2019 (World Health Organization). Kilimanjaro Region residents faced challenges accessing appropriate MDR-TB treatment, often having to travel over 60 km to a specialized hospital as well as shortage of skilled healthcare workers capable of initiating MDR-TB treatment, resulting in low case notifications.

Program Intervention/Methodology

Recognizing the deficiencies in TB service delivery and the scarcity of experts, particularly in MDR-TB, a thorough performance and productivity assessment was undertaken by USAID Afya Endelevu Activity to evaluate how the shortage of skilled staff impacted the quality of TB services. The results emphasized the critical need to recruit and deploy a Zonal MDR-TB Officer to play vital role in providing technical support and enhancing the capacity of HCWs to optimize the delivery of TB services at healthcare facilities.

Results Finding

Following the deployment of the Zonal MDR-TB Officer, seven MDR-TB patients were successfully initiated on treatment, receiving comprehensive care within "Decentralized Facilities." The region's quarterly report for January—March 2022 indicated a steady rise in TB notifications, with the number of MDR-TB cases increasing from 8 in 2020 to 18 in 2022. The positive trend is expected to continue, potentially reaching 30 notifications by the end of the year.

Program Implication & Lesson Learned

Strengthening the capacity of primary health care facilities in addressing TB case findings, diagnosis and treatment, provides timely management of MDR-TB cases as well as accessibility to quality services for MDR-TB clients.

P57.**Resilient Health Systems in HIV Case Detection: Hidden Potential on HRH Investment and Targeted HIV Case Detection through Index Testing**Hendry Samky¹, Miriam Kombe², Rose Kaaya¹, Rahel Sheiza¹¹The Benjamin William Mkapa Foundation, Dar es Salaam, Tanzania;²USAID, Tanzania**Correspondence:** Hendry Samky*BMC Proceedings 2024, 18(15):P57***Background**

HIV testing is a crucial first step to accessing HIV services and achieving the UNAIDS testing target by 2030. Njombe region leads in HIV prevalence rate of 11.4% (THIS 2016) making it the highest HIV burden region. Approaches such as index testing help to reach individuals at higher risk of acquiring HIV however, without sufficient health workforce it can be extremely challenging to reach HIV risk groups through index testing.

Program Intervention/Methodology

In contributing towards optimization of HIV testing in Tanzania, USAID Afya Endelevu Activity implemented by the Benjamin William Mkapa Foundation is part of the wider mission to support the Government of Tanzania in addressing Human Resources for Health (HRH) gaps in service delivery through sustainable approaches at the national, regional and local government levels. From 2020, the program has deployed 1062 HCWs in 24 Regions of Tanzania mainland and Zanzibar in 716 health facilities including Makambako RC Dispensary.

Results Finding

At Makambako RC Dispensary, a deployment of clinical officer attributed to identification of 358 new positive cases through index testing

in 2020 followed by 96 and 53 new positive index in 2021 and 2022 respectively. Moreover, the facility registered new positive clients from all HTS modalities of 358, 253 and 251 in 2020, 2021 and 2022 respectively which contributed to the rise of clients on ART from 1,200 in 2020 to 2,050 in September 2022.

Program Implication & Lesson Learned

To improve HIV case detection, it is important to consider integration across HIV programs at all levels of the health system. The starting point should be identifying health needs, resource gaps and system constraints that will facilitate reaching high risk HIV clients at optimal level to enhance HIV services.

P58.**Use of real-time logistics data to prevent expiries and stock-out of HVL/EID commodities**Moses Madeje¹, Yefeta Emmanuel², Christopher Henjewe¹, Rayton Kiwelu¹, Fredrick Mrema¹, Redempta Mbatia¹, Eva Matiko¹, Esther Shija²¹Tanzania Health Promotion Support, Dar es Salaam, Tanzania; ²Ministry of Health, Tanzania**Correspondence:** Moses Madeje*BMC Proceedings 2024, 18(15):P58***Background**

Sub-optimal visibility, quality and availability of real-time logistics data has led to recurrent expiries of health commodities over years, including HIV viral load (HVL) and early infant diagnosis (EID) testing commodities in Tanzania. Tanzania Health Promotion Support (THPS) implemented the National Health Laboratory Services Strengthening (NHLS) Project to promote the use of real-time logistics data to address this challenge.

Program Intervention/Methodology

NHLS Project introduced several interventions between 2021 and 2022. Digitized Logistics Analytic Tools (LAT) to track HVL/EID commodities SCM monitoring indicators; training and supportive supervision to commodity managers on indicators and tools; daily logistics reporting operationalized; daily, weekly and monthly monitoring of reports to ensure data quality; HVL/EID technical working group, involving national level stakeholders strengthened to plan distribution of received testing commodities to avoid stock imbalances; and quarterly data review to inform sample referrals and kits redistribution.

Results Finding

As of project year 4, there was no reported expiries of HVL/EID commodities in the whole year (2022) and no reported HVL commodities stockout from March 2022 to May, 2023. Real-time logistics data from all 23 HVL/EID testing laboratories is available and accurate in the SCM LAT. Results turn around time (TATs) has significantly improved from 17 days in April 2022 to 9 days in May 2023 and maintained within and below the recommended time of 14 days.

Program Implication & Lesson Learned

Development and implementation of digitalized laboratory commodities inventory management is effective in improving real-time logistics data quality and visibility across health care system and delivery. This prevents expiries and unexpected stockouts of commodities, ensuring uninterrupted laboratory services and improved results' TAT, leading to improved client care and treatment services.

P59.**Enhancing paediatric HIV viral load coverage and suppression: Findings and lessons learned from Rukwa, Tanzania**Victor Simon^{1,2}, Reginald Gervas^{1,2}, Veronica Mwanjika^{1,2}, Danstan Ligasiwa^{1,2}, Abasi Haji^{1,2}, Nickolaus Mbilinyi^{1,2}, Nassoro Yahaya^{1,2}, Emmanuel Bahemana^{1,2}, Magnus Ndolichimpa^{1,2}, Sally Chalamila^{1,2}¹Henry M. Jackson Foundation, Medical Research International, Rukwa, Tanzania; ²International HIV Prevention and Treatment, in support of the US. Military HIV Research Program (MHRP), Tanzania**Correspondence:** Victor Simon, vsimon@wrp.or.tz*BMC Proceedings 2024, 18(15):P59*

Background

Rukwa region has 1,464 children and adolescents living with HIV (C/ALHIV) on treatment by June 2023. The region struggles achieving the recommended 95% HIV viral load coverage and suppression for Paediatrics as per UNAIDS and PEPFAR benchmarks. Despite regular mentorship, low viral load coverage persists due to inadequate follow-up by healthcare providers, knowledge gaps in testing algorithms, sample collection challenges for infants, and treatment interruptions from psychosocial and socioeconomic barriers.

Program Intervention/Methodology

In June 2023, the Rukwa program technical team in collaboration with regional and council health management teams (R/CHMTs) addressed the challenges using home visits and the Triple Attachment Approach. This model connected unsuppressed paediatric clients with a treatment advocate, facility guardian, and dedicated family member. Home visits are conducted to monitor treatment interruptions and missed sample collection; alongside, offering Enhanced Adherence Counseling (EAC) sessions by community-based HIV service providers, in partnership with orphan and vulnerable children (OVC) support.

Results Finding

Among eligible paediatric clients, 173 viral load samples were collected, 135 from home-visited C/ALHIV. Out of these, 21 (12.1%) CALHIVs had high viral copies and began EAC sessions, 12 of these sessions were initiated during home visits. HVL coverage increased from 95% (1,213) in January 2023 to 98% (1,296) in June 2023, surpassing the 95% target. HVL suppression improved from 93% (1,208) in January 2023 to 96% (1,279) in June 2023, exceeding the target. Additionally, 37 C/ALHIV with psychosocial and socioeconomic challenges were successfully linked to orphan and vulnerable children services, and 5 children were traced back to care.

Program Implication & Lesson Learned

The intervention (Home visits and Trip Attachment Approach) successfully addressed the challenges in Pediatric HIV care and treatment, leading to improvements in HVL coverage, suppression, treatment continuity, and linkage to OVC services. The achieved results exceeded initial targets, and we plan to implement with fidelity, the strategies in other regions.

P60.

Addressing Missed Opportunities: Usage of Clients' Identifier Cards on HIV Viral Load Sample Collection at St. Kizito Hospital, Morogoro

Paul Mayeka^{1,2,3}

¹Management and Development for Health, Tanzania; ²Deloitte Consulting Limited, Tanzania; ³USAID, Tanzania

Correspondence: Paul Mayeka, pmayeka@mdh.ortz

BMC Proceedings 2024, 18(15):P60

Background

Viral Load (VL) continues to be a major means of monitoring people living with HIV (PLHIV) on ART. By Q2FY22, VL coverage for Morogoro region was 60%, far from the set target of 95%. VL coverage is affected by a number of factors including missed opportunities and unavailability of proper system for monitoring clients during their visits in CTC workflow.

Program Intervention/Methodology

USAID Afya Yangu Southern program in collaboration with facility staff, managed to create a system for monitoring clients who are eligible for VL testing using two-color coded cards, red and green for eligible and not-eligible clients respectively. The provider assigned to work at CTC reception to identify all eligible clients for VL sample collection attended on that day. The cards help the attending HCP to identify all eligible clients for sample collection and send them to sample collection points.

Results Finding

The system of using card led to an improved VL coverage from 92% in March 2022 to 98% in April 2023. Also, the system created awareness thereby allowing each client to know their eligibility status, if is eligible for sample collection or not before she or he leaves CTC. The system helps to monitor all clients eligible for HVL were taken their sample during clinic visit.

Program Implication & Lesson Learned

This method of identifying clients who are eligible for VL testing by use of color-coded cards, improved VL coverage. USAID Afya Yangu Southern program will scale up use of color-coded cards strategy to reach more sites in Morogoro region and other supported regions to reduce missed opportunities for HVL testing.

P61.

Status neutral approach: Successes in HIV Treatment and Prevention among adolescents in Shinyanga, Tanzania

William Paul¹, Japhet Daud¹, Ola Farid¹, Eva Matiko¹, Redempta Mbatia¹, Amos Scott¹, Benjamini Kiteleja¹, Roda Leopord¹, Fidelis Temba¹, Peter Shilogile¹, Jackson Kubuke¹, Jaston Sanga¹, Delphinus Christopher¹, Emmanuel Kalongo¹, Prosper Badokufa¹, Charles Mlonganile², Peter Mllacha², Betrina Shayo², Galal King'ori³, Nyagonde Nyagonde³, George Mgomella³

¹Tanzania Health Promotion Support (THPS), Dar es Salaam, Tanzania;

²Regional Health Management Team, Shinyanga, Tanzania; ³US Centers for Disease Control and Prevention, Global HIV and TB Division, Tanzania

Correspondence: William Paul, wpaul@thps.ortz

BMC Proceedings 2024, 18(15):P61

Background

In Tanzania, UNAIDS 2022 highlighted that there are high rates of new HIV infections among youth aged 15–24 years, especially among girls who counts about 80% of all new infections with a 1.7% Prevalence. Expanding HIV testing coverage and case identification, particularly among adolescent girls and young women (AGYW) and adolescent boys and young men (ABYM), presents a significant challenge.

Program Intervention/Methodology

In January 2023, Tanzania Health Promotion Support (THPS) in collaboration with health management teams initiated the scale-up of the status-neutral approach to enhance HTS coverage and case identification for AGYW/ABYM at risk of HIV. The AGYW/ABYM were captured through Index testing, Social network strategy, Optimized provider-initiated testing and counselling and Specialized services for AGYW. The plan was piloted in Kishapu district by recruiting peer educators to create demand for HTS, including linkage to antiretroviral therapy or Pre-exposure prophylaxis.

Results Finding

Between January–March 2023 we reached 14,913 AGYW and 1,577 ABYM with HTS. About 2,601 HIVST kits were distributed, 1034 (2.3% yield) and 1,567 (0.5% yield) for AGYW and ABYM respectively. About 467 AGYW and 27 for ABYM were initiated in PrEP services. Through index testing; 697 AGYW were elicited, 662 tested, 97 cases identified with 100% ART linkage, 249 ABYM were elicited, 241 tested and 21 cases identified and 100% initiated ART. Using SNS, we tested 388 AGYW (4.4%) and 132 ABYM (2.2% yield). Overall 239 new cases were identified (205 for AGYW and 34 ABYM) and 100% started ART.

Program Implication & Lesson Learned

Scaling up the status neutral (whole person regardless of HIV Status) approach was successful in reaching AGYW and ABYM with HIV Treatment and Prevention services. This could be an effective in reaching other underrepresented populations.

P62.

Social Network Strategy increases HIV Testing uptake in Shinyanga, Tanzania

Roda Leopord¹, William Paul¹, Kiteleja Benjamin¹, Amos Scott¹, Ola Farid¹, Eva Matiko¹, Redempta Mbatia¹, Christopher Henjeweje¹, Damian Laki¹, Peter Mlacha², Nyagonde Nyagonde³, Oscar Rwabiyago³, Japhet Daud¹

¹Tanzania Health Promotion Support (THPS), Dar es Salaam, Tanzania;

²Regional Health Management Team, Shinyanga, Tanzania; ³US Centers for Disease Control and Prevention, Division of Global HIV and TB,

Tanzania

Correspondence: Roda Leopord, rleopord@thps.ortz

BMC Proceedings 2024, 18(15):P62

Background

In Tanzania 1.7 million people are living with HIV, 17% of PLHIV are unaware of their HIV status. HIV testing coverage and case identification remains a major challenge towards reaching HIV Epidemic Control. THPS introduced SNS in Shinyanga Region starting in April 2022. The aim was to increase testing coverage, case identification, and linkage to treatment among at-risk social contacts of individuals engaged in HIV prevention and treatment services.

Program Intervention/Methodology

THPS conducted sensitization meetings, engaging RHMT's, before implementation. Using the national package, THPS field officers, health care providers and peer educators received mentorship and coaching to support scaling up the SNS cascade by integrating it across testing points of care in the region. We ensured sites had all necessary SNS registers and coupons. Also, we provided site-specific support through Walezi report follow up on the data reported daily from health care providers on the modality through the assigned facility.

Results Finding

Between April 2022 and April 2023, Social Network Strategy enabled Tanzania Health Promotion Support in Shinyanga Region to reach and test 4,460 individuals, diagnosing 196 individuals with HIV (4%) all of whom were linked to ART initiation. This is the 3rd modality among 3 with a contribution of 2% of total cases identified for the period of this analysis.

Program Implication & Lesson Learned

Social Network Strategy is an effective modality for reaching at-risk social contacts for HIV testing and case identification. Tanzania Health Promotion Support continues to scale up the modality in support of the efforts to achieve HIV epidemic control in Tanzania.

P63.

Using Male Peer champions to increase HIVST uptake among 15–24 males. A case of Bukoba District, Kagera Region

Betty Agustino¹, Stephen Kazimiri¹, Leonard Mpooyola²

¹Management and Development for Health, Kagera, Tanzania; ²Council Health Management Team, Kagera and Bukoba, Tanzania

Correspondence: Betty Agustino, baugustino@mdh.or.tz

BMC Proceedings 2024, 18(15):P63

Background

HIV testing rates among men continue to fall behind those of women, leaving a proportion of men unaware of their HIV status. In Tanzania, just 52.2% of men aged 15 and above are aware of their condition. To tackle this challenge, HIV self-testing emerged as promising approach for reaching out men undergo HTS. Objective was to elucidate the utilization of male peer champions as strategy enhancing HTS uptake among men.

Program Intervention/Methodology

Using male peer champions to reach 15–24 men for HIV self-test distribution is an effective strategy used to increase testing uptake. Peer outreach involves engaging individuals from the same age group who have similar characteristics or experiences as the target population. These peers can establish trust and rapport, effectively communication and help overcome barriers to testing. Peer recruited in collaboration with local leaders from the target population who are influential, knowledgeable about HIV and willing to engage with their peers.

Results Finding

From April to June 2022, a total of 23 HIVST were distributed among 15–24 while in July–September 2022 a total of 24 HIVST were distributed, and in October–December 2022 a total of 32 HIVST were distributed to the same age band. However, the uptake was significantly low in the previous quarter. After implementing the Male Peer Champions approach in January–March 2023, the HIVST uptake in this age band significantly increased to 226 compared to previous quarters.

Program Implication & Lesson Learned

The use male peer champions to reach men 15 to 24 years of age through HIVST, has proved to reach more men for HIV testing services. Strengthening this modality, and training more male peers will

be effective in accessing HIV testing services among men and hence cover the testing gap.

P64.

Rapid HIV Care response for improved ART adherence during Marburg virus outbreak in Kagera

Aaron Nkini¹, Shafii Mgenzi¹, Leonard Mpooyola², Frank Msafiri¹, Amani Shao¹, Theodora Mbunda¹

¹Management and Development for Health, Kagera, Tanzania; ²Council Health Management Team, Kagera and Bukoba, Tanzania

Correspondence: Aaron Nkini, ankini@mdh.or.tz

BMC Proceedings 2024, 18(15):P64

Background

World Health Organization recommend to adopt an all-hazards approach in their health care service delivery during public health emergencies. In Kagera March 2023 led to closure of health care facilities affecting continuity of care among PLHIV. To ensure continuity of care, a rapid HIV care response team was formed in collaboration with RCHMTs. We report the findings of the implementation of the initiative for provision of care during outbreak.

Program Intervention/Methodology

Rapid response team was formed in March 2023 and identified new health facilities as refill centers, HCW were capacitated for on transit PLHIV, created WhatsApp and posters for raising public awareness service provision at new sites. Home-based care teams were established to track and deliver ART treatment packages at homes. The rapid response teams used WhatsApp group to share information and keep daily track of clients who attended ART refill centres and home-based ART services.

Results Finding

A total of 140 clients had clinic appointments, 113 at Maruku health centre and 27 at Ntoma dispensary. Of these, Maruku HC (97%) and Ntoma disp (92%) refilled ART the newly established community refill sites respectively. A total of 24 PLHIV who missed appointments before and after closure of facilities were traced back, along with a total of 7 unscheduled visit clients from closed facilities attended at new health facility (Bulinda dispensary) as on transit PLHIV.

Program Implication & Lesson Learned

The use of rapid response teams ensured the continuity of care among PLHIV during MVD outbreak in Kagera. We recommend similar approaches in similar context in future.

P65.

Improving PrEP service continuation among Key and Priority Population through appointment reminders in Dar-es-salaam region, Tanzania

Evelyne Lutainulwa^{1,2,3}, Vohai Chonde^{1,2}, Charles Festo^{1,2}, Ramadhan Hosein^{1,2}, Mitya Kenani^{1,2}, Goodluck Lyatuu^{1,2}, Nyagonde Nyagonde², Ayoub Kibao³

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

²Centers for Disease Control, Dar es Salaam, Tanzania; ³Regional Council Health Management Team, Dar es Salaam, Tanzania

Correspondence: Evelyne Lutainulwa, elutainulwa@mdh.or.tz

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Background

HIV epidemic control can be achieved by initiation and continuation of pre-exposure prophylaxis (PrEP) uses among the key and priority populations. PrEP is an antiretroviral drug used to prevent HIV free population at substantial risk from acquiring HIV infection.

The number of individuals, that returned for PrEP refills decreased from 4,845 (July–September 2022) to 3,603 in October–December 2022 (56%) of the total PrEP_New and refills from the previous quarter.

Program Intervention/Methodology

In January– March 2023, retrospective follow-up of eligible clients for PrEP refill from Nov-2021 to Dec 2022 was done. Using improvised tracking register for tracking, appointment reminders and monitoring

clients for refills. A total of 2,132 clients were identified as eligible for refills of which 1,543(72.3%) were called back. Physical follow up was conducted to 1090(51%) clients with unsuccessful phone call outcomes. Outcomes of the exercise were documented in an excel file and analyzed using STATA software.

Results Finding

The number of individuals, excluding those newly enrolled, that returned for a follow-up PrEP refills or re-initiation in the period of January-March 2023 increased from 3,603 equivalent to 56% (Oct-Dec 2022) to 4,591, equivalent to 85% of the total PrEP new and refills reported in the previous quarter (October-December 2022) as a result of tracking and on-going appointment reminders.

Program Implication & Lesson Learned

PrEP clients tracking and appointment monitoring is crucial for PrEP services continuation among key and priority population PrEP users. A PrEP database is paramount for routine monitoring of clients visits and appointment reminders as an effective strategy for PrEP retention.

P66.

Using Human Centered Design to develop locally led community based solutions for addressing uptake of HIV services in Dodoma, Tanzania

Yvette Kruger¹, Peter Bujari², John Kashindye³, Roland van de Ven⁴

¹Matchboxology, South Africa; ²Health Promotion Tanzania, Tanzania;

³Elizabeth Glaser Pediatric AIDS Foundation, Dodoma, Tanzania;

⁴Elizabeth Glaser Pediatric AIDS Foundation, Dar es salaam, Tanzania

Correspondence: Yvette Kruger, yvette@matchboxology.com

BMC Proceedings 2024, 18(15):P66

Background

The USAID Afya Yangu Northern project in Tanzania supports comprehensive client-centered service delivery, ensuring that gaps to HIV epidemic control are identified, and tailored solutions are designed to meet client needs. The project applies a Human-centered design (HCD) as an integrated approach, pairing the community and clinical implementation work; the approach prioritizes context specific localized solutions to increase uptake of HIV services.

Program Intervention/Methodology

The HCD methodology focused on challenges faced by youth living with HIV in Dodoma region. Beginning with evidence gathering through a desktop review, these outcomes informed an immersion phase. Immersions are guided conversations that allow a diverse group to share insights into decision making and behavior. Perceptions, opinions, beliefs and ecosystem realities are gathered through this in-depth interview techniques. A co-creation session followed to develop insights into solutions. Prototypes are developed, rapidly tested and adapted.

Results Finding

Seventy immersions were analyzed and informed a co-creation workshop. Participants included adolescent girls and young women, adolescent boys and young men, adolescents living with HIV, community and religious leaders, healthcare providers, guardians, school teachers and technical experts. Solution focused ideas were cultivated through the workshop into prototypes, which are interventions specifically focused on the challenge. Prototypes were developed to address stigma, increase health-seeking behavior, provide psycho-social support, and address lack of empathy. These were rapidly tested over six weeks and adapted into: feelings poster for HCPs, comic book for adolescents, transition to adulthood booklet and a storytelling game.

Program Implication & Lesson Learned

Prototypes developed have produced stories of impact that indicate that solutions addressing feelings of belonging and inclusivity could support health-seeking behaviors. This locally led approach increases agency on the part of the individuals, communities and HCPs, as well as addresses stigma towards youth living with HIV.

P67.

Addressing barriers to HIV treatment and prevention services among key and vulnerable populations in Kigoma, Tanzania

Geofrey Ndapisi^{1,2}, Julius Zelothe^{1,2}, Cornelius Boko^{1,2}, Ola Jahanpour^{1,2}, Appolinary Bukuku^{1,2}, Japhet Daud^{1,2}, Damian Laki^{1,2}, Frederick Ndossi^{1,2}, Christopher Henjewe^{1,2}, Eva Matiko^{1,2}, Redempta Mbatia^{1,2}, Hosea William³, Nyagonde Nyagonde²

¹Tanzania Health Promotion Support, Dar es Salaam, Tanzania; ²US Centers for Disease Control and Prevention (CDC Tanzania)-Division of Global HIV and TB, Tanzania; ³Regional Health Management Team, Kigoma Region, Tanzania

Correspondence: Geofrey Ndapisi, gndapisi@thps.or.tz

BMC Proceedings 2024, 18(15):P67

Background

Globally, Key and Vulnerable Populations (KVP) share common challenges but face distinct and context-specific obstacles, requiring tailored approaches to address their needs. In Tanzania, KVP's HIV prevalence surpasses the general population (14–29% vs. 4.6%). In October 2021, Tanzania Health Promotion Support launched comprehensive HIV prevention services targeted for KVP in Kigoma region, scaling up KVP-friendly services in HIV testing, Pre Exposure Prophylaxis (PrEP), condom distribution, and counseling through peer-led intervention.

Program Intervention/Methodology

THPS collaborated with various stakeholders in the Kigoma region to successfully recruit and train KVP peers from specific sub-groups (Female Sex Workers, People Who Inject Drugs, and Adolescent Girls and Young Women) in all councils. Additionally, healthcare providers received training on KVP-friendly service delivery using the national package. The trained peers and healthcare providers identified and mapped KVP hotspots to provide comprehensive services. The integration of KVP-friendly services at facilities attracted KVPs, encouraging them to seek and utilize healthcare services.

Results Finding

Between October 2021 and May 2023, THPS in Kigoma successfully enrolled 3,750 clients as new PrEP users, of those initiating PrEP, 2,505 were KVP representing 67% of total initiated PrEP clients. Additionally, 2,174 PrEP clients returned for refills from January 2023 to May 2023. Notably, during the scale-up of KVP-friendly services, from October 2021 to March 2023, 11,775 KVPs were reached and 6,724 tested for HIV (57%). Of those tested, 703 (10%) were newly diagnosed HIV-positive and 99% successfully linked to treatment.

Program Implication & Lesson Learned

The scale-up of KVP friendly services coupled with the use of peer-led models serve a critical function in connecting and engaging KVPs to increase access to combination HIV prevention services.

P68.

Member Perceptive Feedback on the Functionality of the Association of Medical Laboratory Scientists of Lesotho (AMLSSL): A Baseline Survey, 2021

Portia Sekoati^{1,2,3}, Mahlape Shale^{4,2}, Mamello Motlomelo^{5,2}, Nkhala Makhetha^{6,2}, Malilemo Tsikoane^{7,2}, Lisema Phafane⁸, Tseko Sebofi²

¹National Reference Laboratory, South Africa; ²Association of Medical Laboratory Scientists of Lesotho, South Africa; ³Ministry of Health

Lesotho, South Africa; ⁴Heart to Heart International, Kansas, USA; ⁵Maseru Occupational Centre, Lesotho, South Africa; ⁶Clinton Health Access Initiative, Lesotho, South Africa; ⁷Central University of Technology, Bloemfontein, South Africa; ⁸African Society for Laboratory Medicine, Lesotho, South Africa

Correspondence: Portia Sekoati, portiasekoati@icloud.com

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Background

The Association of Medical Laboratory Scientists of Lesotho (AMLSL) is a professional organization established in 1993 to address the challenges faced by medical laboratory professionals and to promote the idiom "unity is strength." In 2021, concerns were raised about the organisation's functionality and declining membership interest, prompting the executive committee to conduct a baseline membership perception survey.

Material and Methods

A mixed-method approach was utilised, combining both qualitative and quantitative data collection techniques. A survey questionnaire was developed using Google Docs then distributed among 202 members through a WhatsApp group application. The questionnaire included both closed and open-ended questions that were completed online. Data was analysed using descriptive and content analysis.

Results

Out of 202 members, only 45(22%) responded to the survey. A total of 26(58.1%) of respondents were aware of the organisation's objectives. Only 14% expressed satisfaction with organisation's operations, with 30(67.4%) being neutral and 8(18%) completely dissatisfied. 14(30.2%) were likely to recommend membership to peers, 34(76%) planned to renew their membership the following year. Most respondents (56%) were recruited as Medical Laboratory Science students and 44% were recruited during their professional service. Expectations included visibility and protection of the organisation 23(52%), employment advocacy 15(33%), and profession promotion through media 4(9%).

Conclusion & Recommendations

Majority of respondents were aware of the organisation's goals but there is a need for a defined roadmap to address the survey's recommendations, enhance membership satisfaction within a specified timeframe. Monitoring progress and seeking ongoing member feedback can ensure the association is responsive and relevant to members.

P69.

Assessment and Comparison of Medical Curriculum Training on Cardiovascular Diseases for Medical Students across the World

Laura Nyiha^{1,2,3}, Artemis Markopoulos⁴, Gilgamish Maloul⁴, Parag Patel⁵, Hassan Ahmed⁶, Jeilan Mohamed⁷

¹Kenyatta University, Nairobi, Kenya; ²PREHEALTH, Nairobi, Kenya; ³African Health Stories, Nairobi, Kenya; ⁴Rush medical college, Chicago, Illinois, USA; ⁵Lutheran General Hospital, Park Ridge Illinois, USA; ⁶Isiolo county referral hospital, Isiolo, Kenya; ⁷Aga-Khan University Hospital, Nairobi, Kenya

Correspondence: Laura Nyiha, lauralynnyiha@gmail.com

BMC Proceedings 2024, 18(15):P69

Background

Cardiovascular disease (CVD) is one of the leading causes of death internationally. Despite this, medical schools inconsistently incorporate curriculum involving disease management and the preparation for acute cardiac events. The level of preparation, quality of training and exposure to real cases plays a key role in how these future physicians contribute to management of these events.

Material and Methods

A cross sectional study that included online administered questionnaires distributed to medical students in different parts of the world. There were 88 respondents. The survey assessed students' curriculum exposure to managing cardiovascular disease including reading and interpreting electrocardiograms (ECG), basic life support, and knowing and recognizing symptoms, risk factors and complications of myocardial infarctions (MI). Students' confidence in these areas was also assessed.

Results

Of the respondents training within Africa, 90.1% reported a majority of the topics, including how to perform an ECG and identifying risk factors of MIs were taught in 1–2 lectures. 85.2% of respondents training outside Africa reported allocation of an average of four lectures for

most of the topics. Of the trainees in Africa, 52.5% felt confident performing ECGs, identifying risk factors, symptoms and complications of MIs compared to 92.5% of respondents outside Africa. 19.7% of trainees within Africa reported their training to be sufficient compared to 51.9% of those outside Africa. 23.9% did not receive additional resources for further reading.

Conclusion & Recommendations

Trainees outside Africa received more extensive training and felt more prepared to assess and manage cardiovascular diseases. The confidence and sufficiency of training especially within Africa was significantly low. Recommendations include analysis, standardization and harmonization of the curriculum. There is need to have trainees involved in the curating of the curriculum.

P70.

Safe Surgery and Anesthesia in Africa: Evaluating Use of WHO Checklist among Surgical Teams for Enhanced Patient Outcomes

Daniel Ehis Aigbonoga¹, Mahmoud Bassiony², Anna Chiara Corriero³, Sandile Xolani Mkhwanazi⁴, Michael Azeze Negussie⁵, Daniel Stephen Masunga⁶, Norris Edem Azumah⁷, Oroshay Kaiwan^{8,9}, Natalie Pawlak¹⁰, Yashendra Sethi^{11,9}, Dr. Mohamed Ibrahim Shoker², Prof. Timothy Craig Hardcastle¹²

¹College of Medicine, University of Ibadan, Nigeria; ²Faculty of Medicine, Alexandria University, Egypt; ³Anglia Ruskin University School of Medicine, England, United Kingdom; ⁴University of KwaZulu-Natal, Nelson R. Mandela School of Medicine, South Africa; ⁵School of Medicine, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia. ⁶Faculty of Medicine, Kilimanjaro Christian Medical University College (KCMUCo), Kilimanjaro, Tanzania; ⁷Korle Bu Teaching Hospital (KBTH), Accra-Ghana; ⁸Northeast Ohio Medical University, College of Medicine, OH, USA; ⁹PearResearch, India; ¹⁰Tufts University School of Medicine Boston, Massachusetts, USA; ¹¹Government Doon Medical College, Dehradun, Uttarakhand, India; ¹²School of Clinical Medicine at the University of KwaZulu-Natal, South Africa

Correspondence: Daniel Ehis Aigbonoga, aigbonogadaniel@gmail.com

BMC Proceedings 2024, 18(15):P70

Background

Safe surgery and anesthesia remains a challenge, particularly in low-middle income countries, including African nations. Lack of anesthetic and surgical safety causes significant burdens on the healthcare system, leading to complications and deaths. To address these issues, the WHO introduced the Surgical Safety Checklist (SSC) in 2009. This study aims to investigate the knowledge, attitude, and availability of the SSC to members of the surgical team in the African continent.

Material and Methods

A cross sectional study design was used to sample the members of the surgical teams across university hospitals in six (6) countries across African regions using a convenient sampling technique. The association between the dependent variables and independent variables were tested using a p-value of 0.05 as the significance level.

Results

Totally 227 responses were collected and analyzed, 55% were male. 70% of participants were professionals in the surgical teams and students accounted for 30%. Overall, 74% of the participants were aware of the WHO SSC with Anesthetists and Surgeons having the highest awareness, medical and nursing students reporting the least awareness. Of the respondents 93% had good knowledge, 88% had a positive attitude towards the WHO SSC. Of those who primarily use the WHO SSC, 82% said it was readily available. Awareness, Knowledge, Attitude and Availability of the WHO SSC were all associated with the university hospital of the respondents.

Conclusion & Recommendations

The study showed that knowledge of the WHO SSC was associated with training level, professional role and being in university hospitals. Hence teachings on the surgical checklist should be integrated into the medical curriculum of clinical students and there should be implementation of the Checklist into all hospitals in Africa.

P71.**Impact of Public Meeting Hotspots on Tuberculosis Case Notification in Tanzania: Experience from USAID Afya Shirikishi-SHDEPHA +**

Rabia Abeid Khaji¹, Venance Muzuka¹, Michael Machaku², John Msaki³
¹Service, Health, and Development for People Living Positively with HIV/AIDS (SHDEPHA +), Shinyanga, Tanzania; ²Amref Health Africa, Dar es Salaam, Tanzania; ³National Tuberculosis and Leprosy program (NTLP), Tanzania

Correspondence: Rabia Abeid Khaji, rabiabeid@gmail.com

BMC Proceedings 2024, 18(15):P71

Background

Despite the commendable efforts of Tanzania's National Tuberculosis and Leprosy Program (NTLP), Tanzania remains classified as a high TB burden country, with an incidence rate of 208/100,000 and 25,800 deaths in 2021. However, there has been a 32% reduction in incidence rate and a 55% decrease in deaths compared to the 2015 baseline. Conducting TB case identification during public meetings has proven effective in reaching individuals for TB care.

Program Intervention/Methodology

From October 2021 to September 2022, SHDEPHA + implemented a Community-based TB project branded as Afya Shirikishi in Mwanza and Geita regions, Tanzania. The project targeted public meetings as hotspots to deliver TB care services. Communities scheduled to have village/ward meetings were visited by community health workers (CHWs) after being informed by the village/ward leaders to offer TB services, including TB awareness, TB screening, sputum collection, treatment follow-up, and contact tracing, supported by CHWs and village/ward leaders.

Results Finding

The findings revealed a significant increase in TB case notifications following public meetings. A total of 5,715 individuals received TB education, with 5,120 screened for TB. Among them, 2,376 were suspected to have TB, and 2,271 provided sputum samples for testing. Out of 2,270 people tested, 211 were confirmed to have TB and started treatment. This trend was observed in diverse communities, underscoring the nationwide impact of public meetings on TB transmission. Crowded gatherings, close proximity, limited ventilation, movement of people from different areas, and challenges in implementing infection control and contact tracing in large crowds were contributing factors.

Program Implication & Lesson Learned

Urgent interventions and enhanced surveillance are needed during and after public meetings in Tanzania. Raising TB awareness, promoting infection control, and strengthening healthcare in event-prone areas are crucial. Understanding the link between public meetings and TB cases helps tackle transmission challenges and apply lessons in similar regions.

P72.**Assessing trends and determinants of revisits among patients accessing public health services in Zanzibar**

Abdul-latif Haji¹, Shraddha Bajaria², Ramadhani Abdul², Mwinyi Mselem¹, Ali S. Ali¹, Abdullah S. Ali¹, Charlotte Dieteren³, Heri Marwa², Peter Risha²
¹Ministry of Health, Zanzibar; ²PharmAccess, Dar es Salaam, Tanzania; ³PharmAccess, Amsterdam, Netherland

Correspondence: Abdul-latif Haji, abdulatif75@gmail.com

BMC Proceedings 2024, 18(15):P72

Background

In Zanzibar, health care is funded by the government with support from development partners. Inadequate funding allocation and poor adherence to the referral system burden the overly stretched health system. Diagnostic capacity is reported to be low in Primary Health Care. Consequently, patients seek missed services at other facilities, leading to multiple visits and increasing costs. This study determines the magnitude, time to re-visit, and socio-demographic factors associated with re-visits.

Material and Methods

This study included individuals that had at least one visit to Primary Health Care Units (PHCUs) in six districts of Zanzibar between January 2021 and June 2022. Frequency and proportion were used to calculate the magnitude and time of facility re-visits, and logistic regressions were performed to examine factors associated with facility re-visits.

Results

Of the 554,264 enrolled clients, 45,380 (8.2%) visited a health facility during the study period, of which more than a quarter (28.6%) had multiple visits. The majority (87%) re-visited the same facility, while the rest visited multiple different facilities. Children under-five, females, and individuals with a higher socio-economic status were more likely to have multiple visits. The median time in days to re-visit same and different facilities was 65 and 55, respectively. Elderly and non-residents re-visited health facilities within a shorter time. Undiagnosed conditions were common at lower levels of PHCUs, while NCDs were commonly diagnosed at higher-level facilities (PHCU+).

Conclusion & Recommendations

The findings suggest a need to build the capacity of facilities to enhance diagnostic capabilities, such as glucometers and blood pressure machines. This will help reduce avoidable multiple visits and the number of undiagnosed clients. By doing so, early detection and appropriate management of NCDs can be improved.

P73.**A Quality Improvement Initiative on Hand Hygiene Compliance in the Neonatal Unit at Muhimbili National Hospital, Upanga**

Rebert Moshiro¹, Jane Lyimo¹, Zena Malewa¹, Selina Lipipa¹, Judith Cosmas¹, Nay Molle¹, Nancy Rumazi¹, Neema Nalitolola¹, Niyonizigiye Anicet¹, Odillo Byabato¹, Samson Ndile¹, Festo Kayandabila², David Martine¹, Saria Hassan³, Brittany Murray³

¹Muhimbili National Hospital, Dar es Salaam, Tanzania; ²ABBOTT Fund, Dar es Salaam, Tanzania; ³Emory University, Atlanta, GA, USA

Correspondence: Rebert Moshiro, moshiror@gmail.com

BMC Proceedings 2024, 18(15):P73

Background

Hospital-acquired infections contribute significantly to neonatal deaths. Previously isolated organisms at the neonatal unit, Muhimbili National Hospital (MNH) included gram-negative bacilli resistant to multiple drugs. Hand hygiene is among inexpensive interventions that reduce the spread of bacteria from one patient to another and is a cornerstone for preventing hospital-acquired infections. We aimed to quantify hand hygiene practices in the neonatal unit at MNH and to develop interventions to increase compliance.

Program Intervention/Methodology

All healthcare providers were included in the assessment. Baseline surveillance was conducted by observing providers' (HCP) hand hygiene compliance using WHO guidelines and hand hygiene observation form. Thereafter, the following interventions were implemented 1) improve hand-hygiene facilities 2) training of HCP and 3) hand hygiene surveillance and post-training feedback. Analyses were conducted and hand hygiene compliance was calculated from the total hand hygiene opportunities as the denominator and hand hygiene actions (hand washing and/or hand sanitizer) as the numerator.

Results Finding

A total of 73 HCP were observed during the baseline surveillance. Overall, 563 hand hygiene opportunities were observed, with 264 complying to 5-moments of hand hygiene giving a hand hygiene compliance of 47%. After the intervention, 38 healthcare providers who completed the training were observed. 271 hand hygiene opportunities were observed with 161 complying to 5-moments of hand hygiene giving a hand hygiene compliance of 59%. When providers were asked to reflect on hand hygiene compliance in the unit, 83% agreed that they were more aware of their hand hygiene actions after the training.

Program Implication & Lesson Learned

An observed improvement of 12% after the intervention is an encouraging step towards improving hand hygiene compliance. On-going efforts to increase awareness and knowledge on hand hygiene should be a priority to further improve and sustain compliance.

P74.

A Quality Improvement Initiative to Train Pediatric Healthcare Workers on Early Identification of Critically Ill Children at Muhimbili National Hospital

Aika Shoo¹, Nazahed Richard¹, Chuchu Kassim¹, Namala Mkopi¹, Evance Godfrey¹, Rachel Kajuna¹, Anesia Mmasy¹, Livin Mumburi¹, Faraja Chiwanga¹, Samson Ndile¹, Festo Kayandabila², Saria Hassan³, Brittany Murray³

¹Muhimbili National Hospital, Dar es Salaam, Tanzania; ²ABBOTT Fund, Dar es Salaam, Tanzania; ³Emory University, Atlanta, GA, USA

Correspondence: Aika Shoo, icalauraabia@gmail.com

BMC Proceedings 2024, 18(15):P74

Background

Identifying children who are clinically deteriorating is essential to early intervention and utilization of available resources to improve outcomes. Quality Improvement (QI) team observed a significant number of children admitted to Pediatric Intensive Care Unit with conditions which could be managed in the wards. The project aimed to equip general Pediatric ward healthcare workers with knowledge and skills to detect children who are clinically deteriorating and intervene.

Program Intervention/Methodology

Three-day training conducted for Pediatric healthcare workers from general wards which comprised of lectures and hands-on skills sessions on Pediatric early warning signs, assessment of airway, breathing and circulation, cardiopulmonary resuscitation and proper patient handover. Knowledge assessment conducted through pre- and post-training tests. REDCap data tracking system was developed, and SPSS version 25 was used for analysis and evaluation.

Results Finding

A total of 70 out of 121 healthcare workers from Pediatric general wards were trained as the first phase. Average scores on the knowledge assessment increased from 44.9% pre-test to 66.1% post-test ($p < 0.01$). Average confidence with recognition and management of critically ill children across ten domains increased from 33.1% feeling "very confident" to 89.1% feeling "very confident" ($p < 0.01$) and 11.6% feeling "not confident" to 0.3% feeling "not confident" ($p < 0.01$). Qualitative comments indicated overall positive feedback on the training.

Program Implication & Lesson Learned

This project outlines the first steps of an educational and QI initiative to equip healthcare workers in identifying and triaging critically ill children, hence improving clinical outcome. The next steps will be to assess the retention of knowledge, the need for refresher training and impact on patient care.

P75.

Examining the relationship between Nutritional status and Nutritional Literacy among the secondary schools adolescents in Ulanga District

Witness John, Albino Kalolo

St. Francis University College of Health and Allied Sciences, Morogoro, Tanzania

Correspondence: Witness John, witnessjohn777@gmail.com

BMC Proceedings 2024, 18(15):P75

Background

Adolescents are vulnerable to acquiring nutritional disorders due to various factors such as poor access to nutrition related information and inadequate food choices. Nutritional literacy influences food

choices and eating habits and has significant impact on nutritional status. The study examined the relationship between nutritional literacy and nutritional status among secondary schools adolescents in rural Tanzania since the knowledge gap is so high in rural settings of sub-Saharan African countries.

Material and Methods

This analytical cross-sectional study was conducted in July 2022 among 410 adolescents selected randomly from five secondary schools in Ulanga district, located in south west of the Morogoro region.

Information on Socio-demographic characteristics, nutritional literacy and nutritional status were obtained through self-administered questionnaire.

The anthropometric measurements including weight and height were measured using a stadiometer and beam balance respectively and were used to calculate the Body Mass Index. The collected data was analyzed descriptively and by using chi-square test.

Results

In this study, 51.9% of the participants were females. Of all adolescents, a simple majority (57.6%) had high level of nutritional literacy. Among those with low level of literacy 28.6% were from boarding schools and 71.8% from day schools. It was further found that participants who participate in nutritional related education had a better nutritional status than their counterparts.

In addition, residence status (rural vs semi-rural) influenced nutritional literacy ($p = 0.001$). With regards to nutritional status, total of 23.2% of the adolescents had malnutrition.

In the study, we found no significant statistical relationship between nutritional literacy and nutritional status ($X = 0.404$ $p = 0.55$).

Conclusion & Recommendations

This study indicates a suboptimal nutritional literacy among school adolescents and a dual burden of over and under nutrition. Interventions to promote nutritional literacy are critically needed. Future studies should aim at uncovering the ecological determinants of nutritional status.

P76.

A Quality Improvement Project to Improve Clinical Outcomes of Patients Admitted in High Dependency Units at Muhimbili National Hospital

Tatu Said¹, Odillo Byabato¹, Niyonizigiye Anicet¹, Samson Ndile¹, Festo Kayandabila², Saria Hassan³, Brittany Murray³

¹Muhimbili National Hospital, Dar es Salaam, Tanzania; ²ABBOTT Fund, Dar es Salaam, Tanzania; ³Emory University, Atlanta, GA, USA

Correspondence: Tatu Said, tatusaid70@gmail.com

BMC Proceedings 2024, 18(15):P76

Background

Muhimbili National Hospital (MNH) has a total of 26-HDUs with 167 beds. Eight of these are located in Internal Medicine department. Pre-assessment of clinical care in these HDUs revealed a number of challenges including inadequate resuscitating equipment and limited critical care competences. Furthermore, a baseline assessment revealed the mortality rate of 40%. Hence, MNH through EMPHASIS QI mentorship program, embarked in a QI project to address challenges.

Program Intervention/Methodology

Two HDUs participated in the QI program: HDU3 (female) and HDU5 (male). Both wards have the same bed capacity and admit similar types of patients.

Retrospective chart review from October–November 2021 was first undertaken to document baseline mortality, recovery, and hospital length of stay. A pre-assessment of staff knowledge and situation analysis of available equipment and medication was also documented. Results were reviewed and a targeted QI initiative developed to improve recovery rates in each HDU.

Results Finding

Retrospective chart review revealed an average length-of-stay (ALOS) 12-days, mortality rate-40% and recovery rate-35%.

Pre-assessment of staff revealed none had received critical care training, inadequate functioning monitors, and unavailable emergency drugs.

A QI-initiative was designed to address identified gaps in equipment, medication, and knowledge and skills.

SOPs for HDU processes were developed. Trainings were held to address critical care, VSDT, CBPR and change management; 91.87% (147/160) HCWs completed the training. Passing scores achieved by 90% (132/147) HCWs, average test score increased from 54% pre-training to 71% post-training.

After intervention, ALOS came down to 4-Days, mortality rate-26% and recovery rate-65%.

Program Implication & Lesson Learned

HDUs with knowledgeable staff, basic equipment, and conducive working environment ultimately improves patients care and outcome, hence a step-down unit for ICU patients. This QI program is an example of improving care delivery in a limited resource setting which has implications for roll out.

P77.

Assessment of knowledge and associated factors on students clinical practice supervision among Registered Nurses at St. Joseph's mission Hospital Peramiho

Mosses Evaristo

St. Joseph's Mission Hospital Peramiho

Correspondence: Mosses Evaristo, mosesevaristo@gmail.com

BMC Proceedings 2024, 18(15):P77

Background

Clinical supervision is a formal process of professional learning support, which enables the individual practitioner to develop their knowledge and competence. There have been marked efforts and studies on students clinical practice supervision, but clinical nurse's still lacks knowledge and facilitation skills on students' supervision. The study assessed knowledge, facilitation skills and environmental factors on student's clinical practices supervision among Registered Nurses at St. Joseph's Mission Hospital.

Material and Methods

Descriptive cross section study design with a quantitative approach using self-administered questionnaire was used to assess knowledge, facilitation skills and environmental factors on student's clinical practices supervision. Purposive sampling was used for selection of 91 registered nurses. Inclusion criteria was all registered nurses who were available at St. Joseph's Mission Hospital Peramiho in Ruvuma region during data collection who are involved in student clinical supervision. Data analysis was done by using Statistical Package for Social Sciences version 26.

Results

A Total of 91 registered nurses participated. Majority were female 55 (60.4%). Age ranged from 23 to 27 years. Assistant nursing officer were 74 (81.3%), nursing officer were 17(18.7%). Among them 3 (3.3%) had teaching methodology, the remaining 87(96.7%) lacks teaching methodology. The overall findings revealed 37.8% of clinical nurses had knowledge while 56.85% lacks knowledge on utilization of curriculum and tools. Regarding facilitation skills, 49.57% of participants had facilitation skills while 45.49% lacks facilitation skills. Regarding environmental factors, motivation (70.3%), number of clinical instructors (51.6%), and duration of clinical rotation (51.6%), were factors affecting clinical practice supervision.

Conclusion & Recommendations

Lack of knowledge on utilization of curriculum and tools, teaching skills, motivation, number of clinical instructors and duration of clinical rotation were factors affecting students' clinical practice supervision. I suggest, ongoing pre-orientation of curriculum, tools and teaching methodology, motivation to all clinical nurses and increasing duration of clinical rotation.

P78.

Roles of community health workers in advancing health security & resilient health systems: emerging lessons from the COVID 19 pandemic, Tanzania

Neema Makyao^{1,2,3}, Amani Maro¹, Meshack Chinyuli³, Marther Mariki², Lupyana Kahemela¹, Malisela Kawogo¹, Hashim Sasya¹, Mary Ngowa¹, Lilian Ishengoma¹, Frida Ngalesoni¹, Aisa Muya¹, Amos Nyirenda¹

¹Amref Health Africa, Dar es Salaam; ²Prime Ministers Office, Local Government Authority (PORALG), Tanzania; ³Ministry of Health, Tanzania

Correspondence: Neema Makyao, neema.kirei@gmail.com

BMC Proceedings 2024, 18(15):P78

Background

In Tanzania, Covid-19 vaccine was rolled out on 27th July, 2021 with prioritization to frontline workers, persons above 50 and those with chronic illnesses. Later, it was extended to eligible persons above 18 years. Despite the fact that Tanzania response to the pandemic was slow, it managed to reach WHO target -September 2022. To increase uptake of the vaccine, Amref through the GF implemented community mobilization, distribution through Community Health Providers.

Program Intervention/Methodology

The project was implemented in ten identified high risk COVID regions from November 2021 to June 2022. Community Health Care Workers who were already working for HIV and TB were recruited, paired with community leaders and health facility vaccine supervisors. We aimed at addressing C19 vaccine uptake gaps through addressing community norms and misinformation on C19 vaccine. The team conducted outreach to villages, streets and in market. The team were performance based remunerations which motivated the team to work.

Results Finding

Up to June 2022 a total of 2,644,885 individuals were fully vaccinated through the contribution of this team from 10 regions. These efforts have contributed to Tanzania in achieving 71.66% full vaccination for J&J, Moderna, Pftzer making it a total of 21,823,737 fully vaccinated up to up to October 2022. Regions like Kilimanjaro, Ruvuma and Dodoma were able to reach more than 100% of the set targets. CHWs vaccination acceptance gave confidence to communities. We have successfully oriented 6,901 CHWs out of 7000 i.e. 98.6% and 1,932 supervisors out of 2081 i.e. 92.8%.

Program Implication & Lesson Learned

During the response, CHW provided health education & promotion focused on awareness-raising and the promotion of "new normal" behaviors; CHWs also played critical roles in assisting contact tracing. They play role in advancing health security and resilient health system. They are critical for sustainable health system through community engagement and leadership.

P79.

Understanding AMR Profile: Urinary tract infection Surveillance through Community Health Centers Patient Referral at Temeke regional hospital

Anthony Charles^{1,2}, Newad Johan¹, Pius Maembe¹, Venance Mlowe¹

¹Temeke Regional Referral Hospital, Dar es Salaam, Tanzania;

²Management and Development for Health, Dar es Salaam, Tanzania

Correspondence: Anthony Charles, charlestonny1998@gmail.com

BMC Proceedings 2024, 18(15):P79

Background

Antimicrobial resistance (AMR) poses a global health threat, particularly in low-resource settings. Community health centers play a pivotal role in primary healthcare delivery, making them a potential cornerstone for AMR surveillance. This study aimed to explore the feasibility and effectiveness of utilizing a patient referral approach at CHCs for AMR surveillance in the context of urinary tract infection (UTI), as well as the implications of the findings on treatment guidelines.

Program Intervention/Methodology

Data were collected from patient sample referral in clinical laboratory information at TRRHL from april 2023, samples referred were microbiologically analysed following good clinical laboratory practice, the results analysed using WHONET software in line with the National and Action Plans for AMR.

Results Finding

In the study, 119 patients with suspected urinary tract infection (UTI) were assessed, and 73 were confirmed to have bacterial UTI through positive urine cultures. The prevalent uropathogens identified were *Escherichia coli* (23.5%), *Klebsiella pneumoniae* (7%), and *Staphylococcus aureus* (21%). Worryingly, 78.5% of *E. coli* isolates displayed resistance to commonly prescribed first-line antibiotics, such as ampicillin and trimethoprim-sulfamethoxazole. In contrast, nitrofurantoin and ciprofloxacin exhibited relatively lower resistance rates at 11.4% and 19.5%, respectively. Based on these findings, treatment guidelines were revised to emphasize the use of antibiotics, aiming to curb the further development of antimicrobial resistance (AMR).

Program Implication & Lesson Learned

Implementing AMR surveillance at CHCs via patient referral yielded valuable UTI pathogen data. CHCs' accessibility and community reach proved effective for surveillance. High antibiotic resistance rates highlighted the need for community antibiotic stewardship. Engaging CHC staff bolstered evidence-based treatment decisions, strengthening healthcare systems.

P80.

Antibody responses to SARS-CoV-2 more than six months after natural infection and vaccination among Tanzanian COVID-19 recovered patients

Lwitiho Sudi¹, Issakwisa Mwakyula², Bernard Mbwele³, Pauline Sylvester³, Stephen Msangi¹, Regino Mgaya¹, Willyhelmina Olomi¹, Cecilia Ngatunga³, Thomas F. Marandu³, Mkunde Chachage^{1,3}

¹Mbeya Medical Research Centre-National Institute for Medical Research, Mbeya, Tanzania; ²Mbeya Zonal Referral Hospital, Mbeya Tanzania;

³University of Dar es Salaam, Mbeya College of Health and Allied Sciences, Mbeya, Tanzania

Correspondence: Lwitiho Sudi, lsudi@nimr-mmrc.org

BMC Proceedings 2024, 18(15):P80

Background

Antibody responses generated post exposure to SARS-CoV-2 (the virus causing COVID-19) play a critical role in protecting against severe COVID-19 upon re-infection. Yet, no data on the levels of antibodies during and post-COVID-19 are available in Tanzania. This study aimed to assess the epidemiological characteristics and anti-SARS-CoV-2 antibody responses of individuals from Mbeya, Tanzania who had recovered from different forms of COVID-19.

Material and Methods

Adult individuals exposed to SARS-CoV-2 infection only and those exposed to infection and vaccination (post-infection) with Janssen or Pfizer-BioNTech were recruited from September 2021 to February 2022. ELISA method was used to detect IgG against SARS-CoV-2.

Results

A total of 98 individuals diagnosed with either non-severe ($n = 81$) or severe ($n = 17$) COVID-19 at Mbeya Zonal Referral Hospital were enrolled in this study 183 and 97 median days respectively. Majority (69.4%) of participants were unvaccinated. Prevalence of anti-SARS-CoV-2 IgG among people who had recovered from non-severe and severe COVID-19 was 83.3% and 88.2% respectively and had comparable antibody levels (Median OD: 5.8 vs 7.8, $p = 0.2357$). Interestingly, all of the vaccinated individuals had detectable and higher levels of anti-SARS-CoV-2 IgG antibodies more than 6-months post-infection and vaccination compared to the unvaccinated group (Median OD: 7.6 vs 4.5, $p = 0.0007$).

Conclusion & Recommendations

While non-severe and severe COVID-19 recoverees elicited comparable anti-SARS-CoV-2 IgG antibodies, we found increased levels of antibodies in vaccinated recovered individuals more than six months

post-infection; highlighting the benefit of vaccination in improving the robustness of humoral responses in recovered people.

P81.

Attribution of defaulted solid waste Management System on Persistence Of Mosquito vectors at Rahaleo Shehia in Unguja, Zanzibar

Feisal H. Ali¹, Elison E. Kemibala²

¹Department of preventive and Health promotion services Ministry of Health, Zanzibar; ²Ministry of Health, Community Development, Gender, Elderly and Children, Muheza College of Health and Allied Sciences, Muheza Tanzania

Correspondence: Feisal H. Ali

BMC Proceedings 2024, 18(15):P81

Background

Mosquito borne diseases are among the top listed causatives of morbidity and mortality in third world countries which are contributed by poor standard of environmental sanitation. Over the past few years, the prevalence of Mosquito borne diseases and the presence of Mosquito Vectors have been reported to persist in Zanzibar. The impact of poor solid waste management system on persistence of mosquito vectors has never been systematically assessed in Zanzibar.

Material and Methods

A cross-sectional entomological survey was conducted in Rahaleo shehia within Urban district of Zanzibar to assess the attribution of defaulted solid waste management system on persistence of mosquito vectors. Twenty households, five waste collection points and five "final" disposal points were assessed. Simple random sampling technique was used to select the representative areas. Data were recorded using special designed forms and summarized in Excel program (version 2007). The study results were statistically analyzed using T-test program (significance level 0.05).

Results

A total of 600 containers were assessed of which 56.2% found positive for immature mosquito stages. Numbers of positive containers around households were 93, waste collection points were 83 and "final" disposal points were 161. The total number of 1,023 of larvae and pupae were collected, of which *Culicine* and *Anopheline* were 95.5% and 4.5% respectively. Out of 977 *Culicine* collected, 84.1% were *Aedes spp* and 15.9% were *Culex spp*. All *Anopheline* mosquitoes collected were *Anopheles gambiae s.l.*

Conclusion & Recommendations

The findings indicate that solid waste management system in Zanzibar provides favorable conditions for mosquito vectors. Furthermore, results indicate that Malaria vectors have adapted behaviors for breeding in small containers. To attain effective Mosquito vectors control; improved collection, transportation and proper disposal of solid waste is of paramount importance.

P82.

Trends in Case Detection Rate for Leprosy and Factors Associated with Disability among Registered Patients in Zanzibar, 2018 to 2021

Ali Said^{1,2}, Ally Hussein^{1,2}, Hussein Mwanga³

¹Tanzania Field Epidemiology and Laboratory Training Program (TFELTP);

²Department of Epidemiology and Biostatistics, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania;

³Department of Environmental and Occupational Health, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Ali Said, elhebib31@gmail.com

BMC Proceedings 2024, 18(15):P82

Background

Leprosy is still the disease of the public health concern. Globally, 2 to 3 million people are thought to be affected by leprosy's disease-related disabilities. Regarding leprosy status in Zanzibar, limited information is available. Determining changes in detection rates and disability risk factors is significant. We aimed to determine trends in case detection

rate for leprosy and risk factors for disability among registered patients in Zanzibar, 2018 to 2021.

Material and Methods

The study included all leprosy patients who received treatment in Zanzibar's 11 districts between 2018 and 2021. An analytical cross-sectional study design was used. Prevalence and new case detection rate (NCDR) was calculated. Multivariable modified Poisson regression analyses were used to identify factors associated with leprosy disability. Crude and adjusted prevalence ratios (APR) and their respective 95% confidence intervals (CI) were reported. P-values ≤ 0.05 was considered significant.

Results

Out of the 490 leprosy cases reported between 2018 and 2021, 95.7% were new patients, and 71.2% were multi-bacillary. The disease was found to be more common in male (60.4%). The average prevalence was 7.43/100,000 population while the average NCDR was 7.13/100,000 from 2018 to 2021. There was significant decrease in disability grades from diagnosis to the end of treatment over a 4 year period ($P < 0.001$). Leprosy patients who developed disability were more likely to be male (APR = 1.55; 95% CI: 1.18–2.04), older (APR = 5.01; 95% CI: 1.91–13.17), infected with multi-bacillary (APR = 6.99; 95% CI: 3.16–15.44) and HIV negative (APR = 1.51; 95% CI: 1.11–2.06).

Conclusion & Recommendations

This study found that leprosy disability grades at diagnosis compared to end of treatment declined. Point prevalence and NCDR did not change significantly. Disability was associated with male sex, advanced age, multi-bacillary, and HIV-negative patients. To prevent disability and transmissions, health education, early detection and multidrug therapy should be prioritized.

P83.

RCH outreach and TB services integration, a promising approach to childhood TB case finding in Ubungu, Dar es salaam, Tanzania

Esther Mukasa¹, Rose olotu¹, Godwin Munuo¹, Michael Mboya¹, Michael Machaku¹, Frida Ngalesoni¹, Stella Kasone¹, Aisa Muya¹, Florence Temu¹, Victoria Msokwa², Catherine Saguti², Allan Tarimo³, Peter Willbroad⁴
¹Amref Health Africa, Dar es Salaam, Tanzania; ²Ubungu Municipal Council, Dar es Salaam, Tanzania; ³National TB and Leprosy Program, Ministry of Health, Dodoma, Tanzania; ⁴USAID, Tanzania

Correspondence: Esther Mukasa, esther.mukasa@amref.org

BMC Proceedings 2024, 18(15):P83

Background

According 2022 WHO TB Global Report, it is estimated that, 15–20% of TB cases notified annually are likely to be children. The Annual target for childhood TB among children below 15 years is 15% of all TB cases. Childhood TB in Tanzania was 16% against 15% target in 2021, it was 13.7% in Dar es salaam region and 12.6% in Ubungu (ETL, 2021). This means, childhood TB cases are still missed.

Program Intervention/Methodology

USAID Afya Shirikishi project Amref implements Community TB screening in collaboration with the NTLF for increasing TB case detection targeting high risk populations like under 5yrs children. It has engaged 158 CHWs. The integration of RCH outreach and community TB services was from October 2022 to March 2023 in Ubungu, Dar es salaam.

Once a month, CHW conducted TB screening to under 5 years children attending RCH outreach clinic, presumptive TB children were referred to Mbezi HC for subsequent management.

P84.

A rare case report of Tuberculosis Endometritis in a private hospital Dar es salaam, Tanzania

Willbroad Kyejo, Munawar Kaguta, Miriam Mgonja, Samina Somji
 Aga Khan University, Dar es salaam, Tanzania

Correspondence: Willbroad Kyejo, willieskyejo@gmail.com

BMC Proceedings 2024, 18(15):P84

Background

Tuberculosis is a life-threatening chronic granulomatous inflammatory disease caused by Mycobacterium tuberculosis, primarily affecting lungs. Despite being discovered over a century ago, it remains a global problem. Tuberculosis-endometritis, first described in 1847, is a pathological diagnosis that has been shadowed by pelvic tuberculosis. Patients often present with menstrual irregularity and infertility. This case report from Aga Khan Hospital in Dar-es-Salaam, Tanzania, highlights the approach to diagnosis and treatment of Tuberculosis-endometritis.

Case Report

A 37-year-old woman with persistent pervaginal discharge for two years, requiring daily pads, has been treated with antibiotics and anti-fungal medications without improvement. She has no history of lower abdominal pain, postcoital bleeding, fever, loss of weight, or night sweats. She has delivered two times through cesarean section and has no history of other gynecological procedures. The patient was examined for endometritis and had a normal contour, pfannenstiell scar, and a non-smoker. A pap smear was not performed due to vaginal bleeding, but a pap smear from one year ago revealed inflammation. A transvaginal ultrasound showed an anteverted uterus with an abnormal endometrial echo pattern. The patient was diagnosed with endometrial tuberculosis and was scheduled for diagnostic hysterectomy. The patient was treated with isoniazid, rifampicin, ethambutol, and pyrazinamide for two months, followed by a four-month continuation. The bleeding stopped in the fourth week of treatment, and the patient is now doing well and disease-free.

Conclusion

Genital Tuberculosis is a rare condition in developing countries, but it should be considered as a differential diagnosis for women with persistent vaginal discharge, bleeding, and infertility. Patients with positive Ziehl-Neelsen stain and menstrual abnormalities should undergo aggressive evaluation, such as diagnostic hysterectomy, depending on availability in facilities.

Ethics approval

Our institution does not require ethical approval for reporting individual cases or case series.

Informed consent

Written informed consent was obtained from the patient for their anonymity information to be published in this article.

P85.

Does integrating TB screening at optimized provider-initiated testing and counseling site improve diagnosis among OPD attendees in Manyara?

Mandala Adam¹, Elizabeth Pius², Celestina Losaru³, Rose Slaa⁴, Amani Nyeguye⁵, Stanslaus Silas⁶, Silvia William⁷, Catherine Pallangyo⁸, Alphaxard Lwitakubi⁹, Damas Kayera¹

¹Manyara Regional Secretariat, Manyara, Tanzania; ²Kiteto District Council, Manyara, Tanzania; ³Simanjiro District Council, Manyara, Tanzania; ⁴Hanag District Council, Manyara, Tanzania; ⁵Mbulu District Council, Manyara, Tanzania; ⁶Mbulu Town Council, Manyara, Tanzania; ⁷Babati District Council, Manyara, Tanzania; ⁸Babati Town Council, Manyara, Tanzania; ⁹Elizabeth Glaser Pediatric AIDS Foundation, Manyara, Tanzania

Correspondence: Mandala Adam, betonymandala@gmail.com

BMC Proceedings 2024, 18(15):P85

Background

This study evaluates the impact of integrating TB screening at the oPITC site, room, or desk on TB screening and diagnosis among OPD attendees in the Manyara region. The integration aims to address challenges such as human resource shortages, incorrect recording of cases, and limited screening hours. The community health volunteers supported by the HIV program were involved in improving TB screening at health facilities using the oPITC desk.

Program Intervention/Methodology

The USAID-Afya Yangu project supported the intervention, which included healthcare facilities that provided oPITC services. CHVs were trained on accurate TB screening using the oPITC toolkit and TB

presumptive register prior to the intervention. Weekly TB screening results were tracked beginning in January 2023, when the intervention started. At the regional level, the findings were compiled, presented, and reported to councils. Data entry was done using DHIS2 ETL, and quarterly evaluations evaluated facility and council performance in comparison to goals.

Results Finding

During the 6-month intervention, 100,123 participants out of 193,024 were screened for TB, resulting in 8,809 presumptive cases and 894 confirmed cases. Among the confirmed cases, 888 people started receiving treatment for TB, accounting for 50% of all TB cases reported and started receiving treatment in the region (Manyara) for the reported period of January to June 2023. The highest attendance rates, screening rates, suspected TB cases, and confirmed cases were found in the Mbulu DC and Simanjoro councils.

Program Implication & Lesson Learned

Findings from the Manyara region suggest that integrating TB screening into the supported health programs already in place at the health facilities can help close the gap between the number of people with TB who are missing and those who are present at the health facilities.

P86.

Antibody Responses to Sars-Cov-2 among Health Care Workers of a Tertiary Hospital in North-Eastern, Tanzania

Pendo Ibrahim^{1,2}, Felix Antony¹, Happyness Mshana³, Kevin Rwegoshora⁴, Hadija Semvua^{1,3}, Jaffu Chilongola^{1,3}

¹Kilimanjaro Christian Medical University College, Kilimanjaro, Tanzania;

²Muhimbili University of Health and Allied Sciences-Ocean Road Cancer Institute-University of California San-Francisco Cancer Collaboration, Dar es Salaam, Tanzania; ³Kilimanjaro Clinical Research Institute, Kilimanjaro, Tanzania; ⁴Kilimanjaro Christian Medical Centre, Kilimanjaro, Tanzania

Correspondence: Pendo Ibrahim, pendoibrahim1@gmail.com

BMC Proceedings 2024, 18(15):P86

Background

Health Care Workers (HCWs) have a higher occupational risk of contracting COVID-19 disease than the general population and a greater chance of transmitting the disease to vulnerable patients under their care. Given their scarcity, it is essential that HCWs be seroprotected and their exposure to COVID-19 minimized. In order to assess the extent of this virus exposure and the presence of COVID-19 immunity within this population, antibody surveillance is needed.

Material and Methods

This is a cross-sectional study carried out at Kilimanjaro Christian Medical Centre (KCMC) in Tanzania. Data were obtained from each consenting participant using an adapted validated questionnaire, and a total of 2 ml of blood was collected for SARS-CoV-2 IgG screening. The quantity of SARS-CoV-2 IgG antibodies was determined using an indirect ELISA test. RedCap software was used to enter and manage data. Statistical analysis was done by STATA software version 15. A *p*-value of < 0.05 was considered statistically significant.

Results

Among 273 HCWS, only 37.9% reported having received the COVID-19 vaccine. Except for one person, all of the participants had SARS-CoV-2 IgG antibody concentrations that were positive, with 64.5% of them having strong seropositivity. Female gender, allied health professionals, active smoking, COVID-19 patient exposure, COVID-19 vaccination receptivity, and adherence to recommended hand hygiene were found to be significant predictors of variation in the median SARS-CoV-2 antibody concentration. The use of personal protective equipment, history of previously testing PCR positive for COVID-19, and age were found to have no significant variation in median antibody concentration among participants.

Conclusion & Recommendations

There is a high seroprevalence of SARS-CoV-2 antibodies among healthcare workers in our setting. This suggests that HCWs had significant exposure to the virus despite only a minority of them being

vaccinated. Prevention measures should be undertaken in local communities to reduce the burden of infectious diseases in hospitals.

P87.

Tuberculosis diagnosis using African giant pouched rats among future positive: Does bacillary load matter?

Joseph Soka¹, Drupad Tried², Christophe Cox¹

¹Anti-Persoonsmijnen Ontmijnende Product Ontwikkeling (APOPO)-Sokoine University of Agriculture, Morogoro, Tanzania;

²Department of Chemistry, School of Natural Science, University of Manchester, United Kingdom

Correspondence: Joseph Soka, joseph.soka@apopo.org

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Background

During the period of June to August 2022, African giant pouched rats (*Cricetomys ansorgei*) trained by Anti-Persoonsmijnen Ontmijnende Product Ontwikkeling (APOPO) have shown their capability to detect tuberculosis (TB) through scent, specifically from sputum. The indication of rats as TB detectors based on mycobacterium bacillary load has not been previously documented.

Material and Methods

From June to August 2022, sputum samples were collected purposeful at outpatient clinics in Dar es Salaam. The participants included those who tested positive for sputum-smear (smear group) and asymptomatic control subjects. Samples underwent testing using five trained rats, Xpert MTB/RIF, and culture. The analysis focused on: 1) The rats' ability to detect TB based on mycobacterium bacillary load, and 2) A comparison of the sensitivity of the rats and Xpert MTB/RIF using Mc Nemar's test.

Results

Of 57 participants who were enrolled, 17 were confirmed positive for TB by sputum-smear and culture. The sensitivity of TB detection was found to be 71% for the indication by trained rats and 65% for Xpert MTB/RIF. Among the five rats used, on average, 4.3 rats correctly indicated TB for participants with Acid Fast Bacilli +2 or +3 on sputum-smear, while only 2 rats did so for participants with +1 or scanty indication. Additionally, the average sensitivity of an individual rat was 68% compared to 28% for the two groups, respectively.

Conclusion & Recommendations

The higher the number of bacillary load the smaller the number of rats used. Rats performed equally well compared to Xpert MTB/RIF. However, further assessment is necessary to determine the effectiveness of using rats for active TB case detection, particularly in low- and middle-income countries with limited resources.

P88.

Trust and Willingness towards COVID 19 Vaccine Uptakes In Achieving National Goal- A Case Of Njombe-Tanzania

Catherine Bunga¹, Chacha Mwita², Joe Kindole², Islavi Mapunda², Dr. Sarah Kweyamba¹, Jacqueline Mponzi¹

¹Amref Health Africa, Dar es Salaam, Tanzania; ²Community Concerns of Orphans and Development Association, Njombe, Tanzania

Correspondence: Catherine Bunga, catherine.bunga@amref.org

BMC Proceedings 2024, 18(15):P88

Background

A successful approach to vaccine education and consent involves effective communication by trusted health sources. Community health workers (CHWs) and influential individuals play a vital role in understanding people's perceptions, beliefs, and barriers to vaccination. CHWs and Influential people during COVID-19 vaccination campaigns and door-to-door activities brought a significant positive impact by identifying and addressing barriers to access vaccination has helped in building trust and increase vaccine acceptance.

Program Intervention/Methodology

A successful vaccination model was implemented to rapidly achieve vaccination targets combining door-to-door and campaign approaches over 7 days in Njombe. Vaccination teams comprised of CHWs and influential leaders were deployed to promote COVID-19 vaccination and address barriers. They visited specific communities, providing vaccine information, addressing concerns, and encouraging vaccination. Simultaneously, awareness campaigns, community events, and outreach activities were conducted to reach a broader population. Influential members played a crucial role in supporting and endorsing vaccination efforts and building trust.

Results Finding

The implementation of the project in Njombe resulted in a significant increase in COVID-19 vaccine uptake, bringing the region closer to its vaccination targets. Prior to the project, the region had a low vaccination rate, with only 74.23% of individuals reached. By utilizing Community Health Workers (CHWs) and influential individuals, the VAN Project successfully reached an additional 104,479 individuals, surpassing the initial target by 110%. This effort contributed to a 36% increase in vaccination coverage within the targeted local government authorities. Overall, the project played a crucial role in improving vaccine accessibility and achieving higher vaccination rates in Njombe.

Program Implication & Lesson Learned

High vaccination uptake relies on trust in vaccine safety and efficacy, which is fostered by the active involvement of Community Health Workers (CHWs) and influential individuals. Their strong connections to the community, ability to speak the local language, and established rapport have significantly boosted COVID-19 vaccine acceptance.

P89.**Prevalence of Pulmonary Tuberculosis among patients With Diabetes Mellitus attending Diabetic Clinics in Kagera Region, Tanzania**

Frank Malugu^{1*}, Jonathan Katemi¹, Michael Kasmiri¹, Anna Kiravu¹, Martin Mujuni²

¹Management and Development for Health (MDH), Kagera, Tanzania;

²Regional Health Management Team, Kagera, Tanzania

Correspondence: Frank Malugu, fmalugu@mdh.or.tz

BMC Proceedings 2024, 18(15):P89

Background

Background: The risk of acquiring Tuberculosis (TB) among Diabetes Mellitus (DM) patients is three (3) times higher than in the general population. Patients having DM disease not only have a high risk of getting TB disease but also result in poor treatment outcomes.

Objective: The study aimed To examine the prevalence of Tuberculosis among patients with diabetes Mellitus in the Kagera region.

Material and Methods

Cross-sectional study design with quantitative data analysis among patients attending diabetic clinics in Kagera region from Feb-March 2023, probability sampling using a multi-stage sampling technique was used in selection of study participants. Sample size was 530 patients. Data were collected by a structured questionnaire. Data analysis was done using the Statistical Package for Social Science (SPSS). Logistic regression was used to determine strength and direction of association and control for confounders whereby a p -value of < 0.05 was considered statistically significant.

Results

Study findings revealed that the prevalence of Tuberculosis among patients with Diabetes Mellitus was 13.8%. Bacteriologically confirmed cases were 33.9% while 66.1% were clinically diagnosed. In multivariable analysis, (AOR=0.30, 95% CI=0.15–0.60; $p=0.001$) sex, (AOR=0.31, 95% CI=0.13–0.76; $p=0.011$) education level, (AOR=22.94, 95% CI=2.73–192.63; $p=0.004$) facility level, (AOR=2.82, 95% CI=1.5–109.27; $p=0.02$) facility ownership, (AOR=0.03, 95% CI=0–0.76; $p=0.033$) smoking history, and (AOR=7.19, 95% CI=1.45–35.64; $p=0.016$) HIV status were

significantly associated with increased development of tuberculosis disease.

Conclusion & Recommendations

The study findings revealed a high prevalence of TB among DM patients in the region, indicating a substantial burden of TB-DM comorbidity. Henceforth, public health officials should educate the public on the high co-occurrence of tuberculosis and diabetes mellitus and encourage individuals with diabetes to take measures to prevent tuberculosis.

P90.**Using COVID 19 Funds to Integrate COVID 19 Interventions into Routine Immunization to Increase MR1 & MR2 coverage in Katavi**

Yasinta Bahati¹, Sarah Kweyamba¹, Rita Mutayoba¹, Robinson Nnaji², Rehemah Nangali¹, Michael Kindole¹, Stephano Kahindi³

¹Amref Health Africa, Mwanza, Tanzania; ²African CDC, Tanzania; ³Regional

Administrative Secretary, Katavi, Tanzania

Correspondence: Yasinta Bahati, yasinta.bahati@amref.org

BMC Proceedings 2024, 18(15):P90

Background

The COVID-19 pandemic has upended health systems globally, affecting health services, disrupting routine immunization services, with resultant outbreaks of vaccine-preventable diseases. In Tanzania the case has not been different and can be attributed to verticality in the delivery of COVID-19 vaccination and cancellation of outreach services for Routine Immunization (RI). An outbreak of measles occurred in Katavi region of Tanzania we supported the conduct an integrated reactive campaign.

Program Intervention/Methodology

We held a joint review meeting and agreed to leverage COVID-19 funding for the Katavi Region. We carried out a 10-days integrated campaign involving 29 health facilities, and 29 vaccination team for the fixed-mobile outreach sessions. The team comprised of 3 members, 2 vaccinators 1 for COVID-19 and the other for measles with one recorder for both. Community door-to-door demand creation was used to reach the targeted 40,186 under-five for measles and adults 1058 18+ years for COVID-19.

Results Finding

During this integrated outreach campaign, the Region managed to vaccinate 46,944 (119.7%) and 1,360 (136%) doses of MR1 and MR2 and COVID-19 vaccination 500 (50%) and 56 (10.6%) doses administered in Mpimbwe and Mlele DCs respectively.

Program Implication & Lesson Learned

The integrated approach has proved to be effective to accelerate the uptake of both Routine immunization services and COVID-19 Vaccination at the community level. With this approach, a regional vaccination performance for both interventions drastically improved.

P91.**Improving TB Case Finding: Integrated TB and HIV Risk Screening at OPD in Police and Prisons Facilities, Tanzania**

Samson Mayega¹, Karugira Rweyemamu¹, Joseph Chintowa¹, Dorothy Msalilwa¹, Redempta Mbatia¹, Yahaya Hussein², Sylvester Shija³, Jacqueline Kalimunda⁴, Bhavin Jani⁴

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

Correspondence: Samson Mayega, msamson@thps.or.tz

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Background

Globally, tuberculosis (TB) is among the leading causes of mortality. World Health Organization (WHO) aims at reducing 90% of TB incidences by 2035. Health facility outpatient departments (OPD) offer ideal settings for TB symptoms screening. USAID Police and Prisons Activity under Tanzania Health Promotion Support, intensified TB screening in 61 Police and Prisons facilities through integration of TB and HIV screening using the national HIV risk screening tool.

Program Intervention/Methodology

The National AIDS Control Program introduced an HIV risk screening tool (HRST) in 2018, that capture WHO-recommended four-symptom screen (W4SS) for TB in outpatient settings. However, some patients who screened positive for TB through HRST did not undergo TB diagnostics due to a lack of follow-up. To improve TB identification, Police and Prisons facilities integrated TB and HIV screening. Patient eligible for HIV testing with W4SS underwent TB diagnostic cascade alongside HIV testing, streamlining the process with one healthcare provider.

Results Finding

Between April and September 2022, the number of clients screened for TB increased by 40% (34,523), identified TB presumptive cases increased by 56% (341), and diagnosed TB cases increased by 74% (116) compared to the previous six-month period. All TB presumptive cases underwent diagnostic evaluation and were started on TB treatment if eligible.

Program Implication & Lesson Learned

Integrating TB screening with HIV risk assessment can improve TB case finding and ultimately TB notification from the OPD leveraging human resources, space and time.

P92.

Closing TB UHC gap: CHWs Role in TB contact investigation; Experience from Amref USAID Afya Shirikishi TB project

Godwin Munuo¹, Michael Machaku¹, Esther Lisasi¹, Emanuel Nkiligi², Paschal Wilbrod³

¹Amref health Africa, Dar es Salaam, Tanzania; ²Ministry of Health, Tanzania; ³United States Agency for International Development, Tanzania

Correspondence: Godwin Munuo, godwin.munuo@amref.org

BMC Proceedings 2024, 18(15):P92

Background

Tanzania is among the 30 high TB burden countries globally (WHO, Global TB report 2020) and misses 48,2099 (36%) TB cases annually from the WHO estimated 133,000 cases with treatment coverage standing at 64% and treatment success rate at 90 percent.

Program Intervention/Methodology

Amref USAID Afya Shirikishi in collaboration with the National TB and leprosy through regional/council health management teams has engaged 735 community health workers (CHWs) to perform index TB patients contact investigation (CI). The project collected CI data from October 2021 to September 2022 in 9 regions which were entered in TB register. CHWs are given the index patients contacts from the facility for follow up, screen and collect samples for investigation and those found with TB are initiated treatment.

Results Finding

During the implementation period 16,822 TB index patients were followed up by CHWs for contact tracing and investigations and 44,908 close contacts were found in the households. Among them 42,855 (95%) individuals were screened for TB symptoms and 14,962(35%) were identified as presumptive for TB. A total of 1,450(10%) contacts were diagnosed with TB and all of them were initiated on TB treatment. This diagnosed Contacts cases are contributed by efforts of CHWs work in as part of community activities. In comparison to FY1 few 5,435 TB index cases were followed up resulting into 1,141 TB notified cases.

Program Implication & Lesson Learned

Involvement of community health workers is crucial in identifying index patients contacts for tuberculosis finding missing cases. National tuberculosis program should encourage the use of CHWs in TB contact investigation to reduce the TB UHC gap.

P93.

Recent HIV Infection Incidences among Newly Identified Clients in Njombe: The case of USAID Afya Yangu Southern Program—Tanzania

Bakari Bakari¹, Christian Paresso², Denis Mzaga¹, Beatrice Christian², Marina Njelekela¹

¹Deloitte Consulting Limited, Tanzania; ²Management and Development for Health, Tanzania

Correspondence: Bakari Bakari, bbakari@deloitte.co.tz

BMC Proceedings 2024, 18(15):P93

Background

Njombe region is the most affected in the country with 11.4% prevalence. Literature on recent HIV infection suggests that identification of recent HIV infection is important for public health since it helps detect people during a period of increased transmissibility thus guiding intervention efforts, making better use of scarce resources and allows tracking of trends in new infections at the population level for timely evaluation of prevention initiatives.

Case Report

The USAID Afya Yangu Southern Program (UAYS) is implementing HIV Rapid Test for Recent Infection (RTRI) in five high volume facilities in five councils in Njombe region. From January-March 2023, the program collected RTRI data for clients identified at facility level testing points for index, TB/HIV, and ANC using District Health Information System Ver2 (DHIS2) Recency Module. During the period, UAYS provided tests for HTS_TST_POS (recent infection with documented results) to 226 and HTS_RECENT (newly diagnosed HIV-positive clients) to 217 in the five supported sites. RTRI results during the period were: 44 (26%) RTRI recent infections, and 127 (74%) RTRI long-term infections. Further analysis of RTRI by Age and Gender indicated new infection prevalent among clients aged 15–19 years (40%), followed by those aged 20–24 and 25–29 years at 35% and 28% respectively. Of those tested female contributed 31% of new infections while male contributed 15%.

Conclusion

Through this analysis the program identified age groups and gender with a significantly higher proportion of recent infection. The data-driven HIV recent infection surveillance helped the program better understand and target primary prevention efforts to adolescent and youth aged 15–29, particularly females who are the major victims.

P94.

Prevalence and associated risk factors of intestinal parasitic infestations among children aged 3–12 years in Nzega Town Council-Tabora, May 2023

Protase Byamungu, Deogratius Bintabara, Ezekiel Mwakitinya, Francis Francis

Department of Community Medicine, University of Dodoma, Dodoma, Tanzania

Correspondence: Protase Byamungu, protasebaracka@gmail.com

BMC Proceedings 2024, 18(15):P94

Background

Despite being one of the Neglected tropical diseases (NTDs), intestinal parasitic infestations contribute to great morbidity in children in developing countries. Currently, information is scarce regarding intestinal parasitic infestations in Tabora region, this study was designed to fill this gap.

Material and Methods

A cross-sectional study design was employed, and households with children aged 3 to 12 years were conveniently sampled from specific wards (Nzega Mashariki, Nzega Magharibi, and Itilo) within Nzega Town Council. The total number of participants interviewed was 5888, but only 4001 completed the survey and provided stool samples. The formol ether concentration technique was used for analyzing stool samples. Data collected was analyzed and results obtained.

Results

Among caregivers, 33.6% were aged 34–40, with primary level education (59.8%), and had three children (29.8%). Among children, 31.6% were aged 4–6 years, 52% were males and attended primary school (54.1%). Fecal–oral was a commonly known transmission method (64.4%) and abdominal pain was a frequently mentioned sign (71.7%). Preventive measures known included handwashing (71.1%) and use of albendazole (56.8%). Laboratory results showed a 2.3% prevalence with *Giardia* as a common parasite (21.7%). Caretakers' age ($p=0.03$) and the number of transmission ways known ($p=0.01$) had significant statistical associations with the prevalence.

Conclusion & Recommendations

Findings indicate a relatively low prevalence of intestinal parasitic infestations in Nzega Town council. While this is positive news, it highlights the need for continued efforts to maintain and improve the health conditions in the area through targeted interventions and health education initiatives.

P95.

Examining Probable Causes of Death among People Living with HIV in Tabora Region Using Verbal Autopsy

Salim Ibwe¹, Rafael Shayo², Rebecca Mtiko², Josephat Magawa³, Faida Emily³, Baraka Mgoriwa³, Wilbald Anthony², Frank Mapendo², Mashavu Yussuf², Mary Mwanyika Sando²

¹Africa Academy for Public Health, Tanzania; ²Africa Academy for Public Health, Dar es Salaam, Tanzania; ³Management and Development for Health, Tanzania

Correspondence: Salim Ibwe, sibwe@aaph.ortz

BMC Proceedings 2024, 18(15):P95

Background

The Tabora region with 5.1% HIV prevalence witnessed a significant number of deaths among people living with HIV (PLHIV) between October 2022 and March 2023 hence the need to investigate the probable death causes for improving care and treatment services (CTC). The study examined probable death causes among PLHIV using verbal autopsy (VA) in the Tabora region.

Material and Methods

This cross-sectional study employed a review of medical records and interviews with PLHIV treatment supporters using an ODK tool with preloaded data extracted from the CTC2 database. Each death was assigned to two coders for coding, with concordant and discordant VAs determined based on coder agreement. For discordant VA, clinicians met for reconciliations. Standardised algorithms using WHO rules and guidelines for mortality coding and ICD-10 guidelines were applied to analyze the VA data and classify the probable death causes.

Results

The leading probable cause of 181 deaths among PLHIV examined using VAs was "other natural causes" (51.3%), while 42.2% were attributed to HIV-related diseases, specifically tuberculosis (16.6%) and Cryptococcal Meningitis (11.1%). Factors like delayed diagnosis, restricted healthcare access, ART non-compliance, and socio-economic barriers influenced the occurrence of these outcomes.

Conclusion & Recommendations

The majority of all PLHIV deaths were attributed to other natural causes and HIV-related diseases. Ensuring early diagnosis, prompt initiation of antiretroviral therapy (ART), and comprehensive healthcare services are vital for PLHIV's survival.

P96.

Achieving Universal Access to TB Care and Services through Provider-Initiated TB Screening in Songwe and Rukwa Regions, Tanzania

Otmar Massawa¹, Christian Ndomba¹, Julius Njunwensi¹, Simon Ng'hoboko¹, Neema Chillo¹, Kasanga Mkambu¹, Dr. Benedicta Masanja¹, Ola Farid¹, Eva Matiko¹, Irene Kavishe², Dismas Buhili³, Augustino Simon⁴, Bhavin Jani⁵

¹Tanzania Health Promotion Support, Tanzania; ²Baylor College of Medicine Children's Foundation, Tanzania; ³Regional Administrative Secretary Office, Rukwa, Tanzania; ⁴Regional Administrative Secretary Office, Songwe, Tanzania; ⁵United States Agency for International Development (USAID)/Tanzania

Correspondence: Otmar Massawa, omassawa@thps.ortz

BMC Proceedings 2024, 18(15):P96

Background

Suboptimal tuberculosis (TB) case detection is among the challenges affecting TB program in Tanzania. This is caused by various factors including inadequate TB screening at health facility entry points. Quality improvement in TB detection through maximizing provider-initiated TB screening (PITS) provides a solution to the challenge.

Program Intervention/Methodology

In 2020, USAID funded THPS to improve TB services in Rukwa and Songwe through Uhuru project which facilitated mentorships to service providers on PITS. To gauge the project effect, TB cases for two regions for the period from October 2018 to September 2022 from the National Database were analyzed and association tested. Chi-square was computed using observed and expected frequencies and p-value obtained from electronic p-value calculator. The hypothesis examined differences in TB notifications before and after USAID Uhuru support.

Results Finding

Two years before Uhuru Project (2018–2020), Songwe and Rukwa notified 3,209 TB patients [289 children] while during two years of Uhuru project implementation (2020–2022), Songwe and Rukwa regions notified 4,415 TB patients [38% increase] (862 children [198% increase]). There was a statistically significant increment in TB notifications ($p < 0.05$ for all ages and $p < 0.05$ for children). In both regions, outpatient departments (OPDs) contributed more notifications (3,846 [50%]).

Program Implication & Lesson Learned

Prioritizing quality PITS services especially at out-patient departments is critical in identifying presumptive TB cases for diagnostic work-up to increase TB detection.

P97.

Leverage the Existence of routine program activities in Responding to an emergency outbreak of Diseases: Murburg Case Study Kagera Region Tanzania

Efraem Kivuyo, Dr Sara Kweyamba, Yasinta Bahati

Amref Health Africa, Dar es Salaam

Correspondence: Efraem Kivuyo, ekivuyo1982@gmail.com

BMC Proceedings 2024, 18(15):P97

Background

The global health crisis caused by the COVID-19 pandemic, combined with the threat of Viral Hemorrhagic Fever, Ebola, and MVD outbreaks, created significant disruptions in healthcare systems, particularly in third-world countries. The simultaneous occurrence of these crises caused disrupted the ongoing COVID-19 vaccination program. However, an integrated approach combining the COVID-19 vaccination program and response activities for the Marburg virus disease (MVD) effectively mitigated the situation in the Kagera region.

Program Intervention/Methodology

The Region Health Management Team and the project team collaborated on critical program analysis to identify potential areas for integration. Screening, prevention at the Port of Entry, and improved infection prevention control practices were targeted. Vaccine delivery centers were established at 22 POEs, and the RHMT utilized COVID-19 supervision resources to oversee MVD response. The training was provided to 120 healthcare workers, rapid IPC assessments were conducted in 126 health facilities, and 784 healthcare workers were oriented on IPC.

Results Finding

Since the declaration of MVD, COVID-19 vaccination was successfully integrated into newly established CVCs in 22 POEs where a total of 38,268 got vaccinated; and 46,772 got vaccinated at health facilities. Health education awareness played a vital role where a total of 1,478 people through community awareness and sensitization on the Marburg alert and prevention. The integration process played a vital role in mitigating the outbreak and, no new suspects or cases of MVD were identified at all levels of screening.

Program Implication & Lesson Learned

Leveraging routine program activities and collaborative efforts played a crucial role in preventing and mitigating outbreaks. The integration of the COVID-19 vaccine program and capacity building of health workers proved essential in containing the MVD outbreak. This integration approach effectively utilizes existing resources for quick response to disease outbreaks.

P98.**Contribution of Project Extension for Community Healthcare Outcomes in reducing the treatment cost for Multidrug Resistant Tuberculosis Patients in Tanzania**

Daud Peter¹, Shabani Mziray¹, Donatus Tsere¹, Isack Lekule², Bruce Struminger³

¹Kibong'oto Infectious Diseases Hospital, Kilimanjaro, Tanzania; ²National Tuberculosis and Leprosy Control Program, Ministry of Health, Tanzania;

³The ECHO Institute, University of New Mexico Health Sciences Centre, New Mexico, United States of America

Correspondence: Daud Peter, daudpeter@gmail.com

BMC Proceedings 2024, 18(15):P98

Background

Project ECHO (Extension for Community Healthcare Outcomes) is a virtual community of practice that provides a platform for Multi Drug Resistant Tuberculosis (MDR-TB) case management. We describe contribution of Project ECHO in reducing costs of managing MDR-TB patients in Tanzania.

Program Intervention/Methodology

Comparison of costs incurred for managing MDR-TB patients was done to observe the difference between two interventions (Project echo ECHO vs Physical visits to treatment initiating centres) from 2018 to 2021. Review of cost for internet bundle and time effort compensation for Project ECHO expert team at hub was conducted. Likewise, review of costs allocated for transportation, living and communication expenses were conducted for experts that would have travelled to provide on-site mentorship to primary healthcare providers.

Results Finding

Project ECHO Virtual Community of Practice cost \$5000 for initiating MDR-TB treatments for 47 patients. Without use of the project ECHO approach it would have costed an average of \$ 117,500 to initiate MDR-TB treatment. We convened 8 ECHO meetings to review MDR-TB patients at a cost of \$40,000, this was 4 times less than physical meeting that would have costed \$200,000.

Program Implication & Lesson Learned

Use of Project ECHO telementoring significantly contributed to a reduction in the cost of providing treatment services for MDR-TB. It has proved a sustainable and cost-effective model in a resource

constrained setting. We recommend adaptation and scale-up of the ECHO model to support management of other diseases of public concern.

P99.**Tanzania National Action Plan on Antimicrobial Resistance – the contribution by HPSS project**

Jeremiah Seni¹, Karin Wiedenmayer^{2,3}, Fiona Chilunda⁴, Ally-Kebby Abdallah⁴

¹Catholic University of Health and Allied Sciences, Bugando, Mwanza, Tanzania; ²Swiss Tropical and Public Health Institute, Allschwil, Switzerland; ³University of Basel, Basel, Switzerland; ⁴Health Promotion and System Strengthening project, Dodoma, Tanzania

Correspondence: Jeremiah Seni, senijj80@gmail.com

BMC Proceedings 2024, 18(15):P99

Background

The National Action Plan on Antimicrobial Resistance (NAP-AMR) ended in 2022. The national Multisectoral Coordinating Committee (MCC) coordinates implementation activities. Stakeholders provided an end-line evaluation for their respective activities, critical to show lessons learnt, challenges encountered and areas of improvement to feed into the new NAP-AMR (2023–2028). HPSS is a key partner in the implementation of the NAP-AMR. The aim of this report is to showcase HPSS contributions.

Program Intervention/Methodology

The technical report was compiled based on a review of HPSS activities documented in internal reports, publications and with interviews covering the project period of 2011 to 2022. Activities were grouped based on strategic objectives of the NAP-AMR: awareness, surveillance and research, sanitation and infection control, use of antimicrobials.

Results Finding

Activities included programs on AMR awareness in collaboration with the Rollback AMR Initiative and Tanzania Pharmaceutical Students Organisations. HPSS published various AMR advocacy documents and tools. Research included tracking rational use of medicines between 2012 and 2021. Operational research led to peer-reviewed scientific publications. Collaboration with 'Maji kwa Afya ya Jamii' (MKAJI) project in Water Hygiene and Sanitation lead to improved performance in hand hygiene. Participation in the review of the National Standard Treatment Guidelines and National Essential Medicines List with the Ministry of Health supported updating aspects of antimicrobial use. HPSS organised the first AMR conference in 2017.

Program Implication & Lesson Learned

The HPSS project significantly contributed to four strategic objectives of the first NAP-AMR. Importantly, with the first AMR conference it provided momentum and a platform for sharing among scientists and stakeholders. HPSS is committed to continue collaboration with the government and stakeholders to implement the new NAP-AMR.

P100.**Effect of Human Immunodeficiency Virus Infection on Tuberculosis Treatment Outcomes among TB Patients in Western and Southern Highlands Zones, Tanzania**

Grace Muyela¹, Otmar Massawa¹, Neema Chillo¹, Jane Mvungi¹, Kasanga Mkambu¹, Benedicta Masanja¹, Redempta Mbatia¹, Ola Farid¹, Annette Almeida¹, Jeremiah Molle², Enock Mwatya², Dismas Buhili², Augustino Simon², Peter Neema³, Bhavin Jani⁴, Selina Mathias⁴

¹Tanzania Health Promotion Support (THPS), Dar es Salaam, Tanzania; ²Regional Health Management Team (RHMT), Tanzania; ³National Tuberculosis and Leprosy Programme (NTLP), Tanzania; ⁴United States Agency for International Development, Tanzania

Correspondence: Grace Muyela, gmuyela@thps.or.tz

BMC Proceedings 2024, 18(15):P100

Background

Tuberculosis (TB) and Human Immunodeficiency Virus (HIV) pose a major global challenge to public health. TB is among the common opportunistic infections with high mortality in HIV infected patients (WHO Global TB Report 2022). We describe the effect of HIV infection on TB treatment outcomes in Katavi, Kigoma, Rukwa and Songwe regions.

Material and Methods

We reviewed TB patients notified from January 2021 to December 2021 whose treatment outcome was followed a year later. Data from the National Electronic Tuberculosis and Leprosy database (DHIS2-ETL) was disaggregated by age, sex, HIV status and treatment outcome. Analysis was carried out using Microsoft Excel and Chi-square tests of significance to examine the effect of HIV infection on TB treatment outcome.

Results

A total of 4,688 TB patients were reviewed, about (18%) were HIV co-infected. Treatment success was 94.2% while death rate was 4.8%. Treatment success rates were different between HIV negative (94.7%) and HIV co-infected (92.2%); $p < 0.05$. Death rate was 1.5 times higher in HIV co-infected (7.5%) than in HIV negative (4.2%); $p < 0.05$. About 56% of death in TB/HIV patients occurred during the first three months of ART initiation. Lost to follow-up in TB/HIV patients was twofold (0.4%) lower than in HIV negative (1.0%); no treatment failure in TB/HIV patients while 0.1% treatment failure occurred to HIV negative.

Conclusion & Recommendations

HIV infection is a risk factor for death in TB patients. The high death rate from this analysis calls for closer care, follow up and support in TB/HIV patients to improve on favorable treatment outcome.

P101.

Patient's Characteristics Preceding TB Deaths Audit Report in Southern Highlands Zone, Tanzania

Kasanga Mkambu^{1,2,3}, Benedicta Masanja¹, Dismas Buhill², Bhavin Jani³, Redempta Mbatia¹, Augustino Simon², Neema Chillo¹, Otmar Massawa¹, Jane Mvungi¹, Simon Ng'oboko¹

¹Tanzania Health Promotion Support (THPS), Dar es Salaam, Tanzania;

²Regional Health Management Team (RHMT) in Rukwa and Songwe,

Tanzania; ³United States Agency for International Development, Tanzania

Correspondence: Kasanga Mkambu, kmkambu@thps.or.tz

BMC Proceedings 2024, 18(15):P101

Background

Tuberculosis (TB) is among the curable bacterial infectious diseases provided that patients are diagnosed promptly and treated correctly. Despite this realism, thousands of patients die of TB disease in Tanzania every year. We analyzed demographic and clinical characteristics of patients who died from TB disease for the period of October 2022 to January 2023, to inform actions to be taken in the efforts to zero death related to TB.

Program Intervention/Methodology

A retrospective, facility-based descriptive TB deaths audit was conducted at Mwambani and Vwawa Hospital (Songwe region), Sumbawanga Regional Hospital and Dr. Atman Hospital (Rukwa region). The Audit involved review of patients' files and interview of health care workers. Data of interest were captured in an electronic form designated in Microsoft Excel version 2019.

Results Finding

In total, 31 TB deaths were registered including one infant. Adults aged between 40 and 60 years were 20 (65%), male were 17 (55%), new pulmonary TB cases were 25 (81%). Among these deaths, 19 (61%) were diagnosed through chest X-Ray, 12 (39%) had HIV infection and 10 (83%) were on ART. A total of 15 (48%) weighed less than 50 kg, and 15 (48%) deaths occurred within 14 days whereas 8 (26%) occurred within 7 days of anti-TB treatment.

Program Implication & Lesson Learned

The review was made using TB cards which had limited information and therefore most information requested to be added (e.g. cause of death, etc.) cannot be mentioned. Prospective studies are suggested to explore causes of death among TB patients, exploring clinical and social determinants.

P102.

Community health workers (CHWs) as game changer in improving tuberculosis case notification: Experience from Pwani Region in Tanzania

Georgiah Kasori¹, Michael Machaku¹, Godwin Munuo¹, Wilbard Athour²

¹Amref Health Africa, Dar es Salaam, Tanzania; ²United States Agency for International Development, Tanzania

Correspondence: Georgiah Kasori

BMC Proceedings 2024, 18(15):P102

Background

Tanzania is among the 30 countries in the World with high TB burden with an estimation of 132,000 TB cases in 2021 (WHO TB Report 2021). In the past 15 years, Tanzania in collaboration with development partners have invested efforts to increase case notification to reach 30% target as community contribution.

Program Intervention/Methodology

During July -December 2021, CHWs were engaged to conduct active TB case finding (ACF) and index contact tracing including TB screening and linkage to facilities. CHWs worked hard to educate, sensitize and vigilantly screened clients for TB. Not only that but door to door campaigns were conducted, Screened and sample collection were done. Those who could not afford to go for Xrays, CHWs reported them to Ward Executive Officer for waiver.

Results Finding

Furthermore, CHWs facilitated sensitization to the community for TB diagnostic mobile van conducted at Chalinze, Kibaha DC, Kisarawe and Bagamoyo where Confirmed TB cases were initiated treatment. Also Contact Tracing and defaulter tracing were done by CHWs. Results were done using national standard registers. Data extracted from ETL were disaggregated by quarterly in order to compare performance with previous periods. Majority of clients were referred by CHWs. Data from ETL for the past six quarters (2021–2022) shows four quarters with 30–31% community contribution while in quarter four 2022 and quarter one 2023 cases jumped to 71% and 51% respectively.

Program Implication & Lesson Learned

Community health workers are of paramount importance in TB case finding in communities affected when combined with diagnostic TB mobile van outreach. CHWs are potential to our programs and should be included in council health plans for sustainability.

P103.

The use of a Door to Door Vaccine delivery resulted in an improved uptake of the COVID-19 vaccine—Zanzibar

Amina Sufiani

Amref health Africa, Tanzania

Correspondence: Amina Sufiani, aminammaka2018@gmail.com

BMC Proceedings 2024, 18(15):P103

Background

The COVID-19 pandemic has raised concerns among communities, especially in third-world countries, where access to prevention measures is limited. The COVID-19 vaccine was introduced in Tanzania, including Zanzibar, in July 2021. Vaccine uptake in Zanzibar,

was initially slow due to negative perceptions safety and methods employed to increase uptake. Since October 2022, the MasterCard Foundation, through the SLL Project, has been collaborating with the Ministry of Health to enhance vaccine uptake.

Program Intervention/Methodology

Amref decided to use the door-to-door strategy in partnership with District Health Management teams to reach every unvaccinated population in their homes. Three individuals made up the vaccination team: a CHV, a data recorder, and a vaccinator. Prior public announcements were done, activity plans for particular Shahia were shared with the Shekha. The vaccination team then went from house to house to reach every unvaccinated person, including the sick, housewives, and individuals who were reluctant to vaccination.

Results Finding

Door to door approach was implemented in all four Zanzibar districts supported by the SLL project, where the baseline survey revealed that the average vaccination coverage prior to implementation was around 30%. With this approach, the uptake of the COVID-19 vaccine increased in all four districts as Central district from 38 to 126% by May 2023, Magharibi B from 35 to 68%, Wete from 32 to 78% and Mkoani from 30 to 77%.—Source MOH may 2023 performance.

Program Implication & Lesson Learned

In order to increase Covid-19 vaccination coverage in Zanzibar, Door to Door approach is essential. The majority of community members who remained healthy or did not have a sick relative did not comprehend the importance of getting immunized. To reach majority, it was necessary to deliver vaccines door to door.

P104.

Coping strategies among long-term survivors of cervical cancer at Ocean Road Cancer Institute in Dar es Salaam, Tanzania

Emanueli Msengi^{1,2}

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

Correspondence: Emanueli Msengi, emanuelimsengi1@gmail.com

BMC Proceedings 2024, 18(15):P104

Background

Cervical cancer is the fourth most common cancer affecting women worldwide. A diagnosis of cervical cancer is a stressful event affecting all aspects of a patient's life including psychological, physical, and socio-economic aspects. To reduce the impact, adaptive coping strategies are needed. Therefore, it is important to explore coping strategies used by cervical cancer patients.

Material and Methods

A descriptive cross-sectional study design with an explorative qualitative approach was employed to explore coping strategies used by cervical cancer patients. Cervical cancer patients were selected using a purposeful sampling technique guided by the saturation principle. In-depth interviews with twelve cervical cancer patients was carried out, and the interviews were audio-recorded and transcribed verbatim. The data was then analyzed using a thematic analysis approach as described by Braun and Clarke.

Results

Five themes emerged with eleven categories. The first theme was religious coping with one category; practicing or exercising faith in God. The second theme was emotion focused with seven categories; acceptance, positive reappraisal, normalizing the situation, use of avoidance, use of distraction, self-soothing, and escapism. The third theme was meaning-making with one category; cognitive reframing. The fourth theme was social support with one category; seeking external support. The fifth theme was problem-focused with one category; professional support.

Conclusion & Recommendations

Cervical cancer patients used various coping strategies to adapt living with the disease. Most of the coping strategies used were adaptive, some were maladaptive including self-distraction, use of alcohol. Continued assessment of coping strategies used by women with cervical cancer is necessary to identify maladaptive coping and provide relevant interventions.

P105.

Prevalence and risk factors of hypertension among adults in Tanga region in January, 2023: A cross-sectional community based survey

Sephord Saul Ntibabara^{1,2}, Peter Torokaa², Godbless Mfuru², David Osima², Evelyn Ngoli², Jonhas Masatu², Fungo Samson Masalu², Faraja Ng'ida², George Atmos Massawe², Agnes Fridomu Njau², Mariam Mbwana Ramadhani², James Allan², Nemes M Josaphat², Thobias Bollen², Khadija Shamte², Mariam Monah², Rukia Mohamed Mashauri², Helman Nyigo², Fatma Moh'd Juma², Jasper Kimambo², Ally Hussein², Loveness Urrio²

¹Department of Epidemiology and Biostatistics, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²Tanzania Field of Epidemiology and Laboratory Training Program, Ministry of Health, Tanzania

Correspondence: Sephord Saul Ntibabara, sephordsaul@gmail.com
BMC Proceedings 2024, 18(15):P105

Background

Cardiovascular diseases are the leading cause of death in Tanzania, accounting for 12% of all annual deaths. Hypertension, a major risk factor for CVDs, has rapidly increased to 30–35% in recent surveys. The disease's pattern has changed, with high prevalence in urban and rural populations. This study aimed to determine hypertension prevalence and risk factors, which are crucial for effective control measures and reducing the burden of non-communicable diseases (NCDs).

Program Intervention/Methodology

A community-based cross-sectional survey was conducted in Tanga City, Muheza, and Mkinga districts of Tanga region. A standardized STEPS questionnaire was used to gather demographic information, lifestyle factors, hypertension history, and medication use patterns. A descriptive analysis was conducted to obtain frequencies and proportions. A modified poisson regression analysis was performed to assess the relationship between independent variables and hypertension. Crude and adjusted prevalence ratios were presented with 95% confidence intervals, and a significant level of $p \leq 0.05$ was used.

Results Finding

Of the 1818 participants recruited for the survey, 38% (95% CI: 35.5–40.0%) had hypertension. Urban areas had higher prevalence of hypertension than rural areas (Adjusted Prevalence Ratio [APR]: 1.06, 95% CI: 1.02–1.11). The study showed that 66.5% of hypertensive individuals were unaware of their blood pressure status. Among known hypertensive patients, 80.5% were not taking daily medication. Being male (APR: 1.06, 95% CI: 1.02–1.10), being older (70 years) (APR: 1.41; 95% CI: 1.31–1.51), and being obese (APR: 1.20; 95% CI: 1.15–1.25) were independently associated risk factors for hypertension. Exercise was associated with a lower prevalence of hypertension (APR: 0.96, 95% CI: 0.93–0.99).

Program Implication & Lesson Learned

The survey shows a high prevalence of hypertension, with over half of patients unaware of their condition. Regular screenings and health education are crucial for preventing hypertension, especially in rural settings. Physical activity is recommended for its protective effects.

P106.

Peak Expiratory Flow Rate and Anthropometric Determinants in School Children from Dar es Salaam, Tanzania

Willbroad Kyejo, Mariam Noorani, Nancy Matillya, Gloria Gachocha, Hajaj Salum, Neelam Ismail

Aga Khan University, Dar es Salaam, Tanzania

Correspondence: Willbroad Kyejo, wiliesskyejo@gmail.com

BMC Proceedings 2024, 18(15):P106

Background

Peak Expiratory Flow Rate (PEFR), holds significance in diagnosing lung dysfunction and treatment prognosis. However, evaluation is entails challenges such as patient cooperation and individual variations. Gender differences, weight, ethnicity, and age influence airway behavior. This study addresses a critical gap by developing a Peak Expiratory Flow Rate prediction formula specifically tailored to Tanzanian school-age children.

Objective: To assess correlation between PEFr and anthropometric measurements in school children Tanzanian.

Material and Methods

This single-center cross-sectional study, based on asthma screening camp data from a private school in Dar es Salaam, Tanzania, focused on variables like age, height, weight, BMI, and Peak Expiratory Flow Rate. Independent t-tests compared flow rate means across ethnicities and genders. Correlation coefficients (r) explored relationships between Peak Expiratory Flow Rate and anthropometric measurements. Linear regression analysis yielded a prediction equation. SPSS version 25.0 was used for statistical analysis with a significance level of 5%.

Results

The study enrolled 260 participants, with an average age of 9.5 years. Male representation was 51.2%, and 65% were of Asian ethnicity. Mean Peak Expiratory Flow Rate stood at 238.32 L/min (SD 48.50). PEFr exhibited no significant differences among ethnic groups ($p=0.051$) or genders ($p=0.96$). Height showed the highest correlation ($r=0.745$), while BMI displayed the weakest ($r=0.366$). Height had the strongest correlation for females ($r=0.787$), and BMI had the weakest for boys ($r=0.203$). The derived prediction equation: **PEFR = 293.04 (Student's Height in meters) - 157.362.**

Conclusion & Recommendations

The study establishes a strong link between Peak Expiratory Flow Rate and anthropometric traits in Dar es Salaam's school children. It offers predictive equation for situations with limited peak flow meter access. Future research should validate its applicability across Tanzanian contexts and explore other factors impacting lung function in children.

P107.

A comparison of concurrent chemoradiotherapy and radiotherapy alone in the management of muscle-invasive bladder cancer:

A retrospective cohort study

Mathias Banzi¹, Nazima Dharsee^{1,2}, Katherine Van Loon³, Ali Khaki^{4,5}, Andrew Miller⁶, Emmanuel Lugina^{1,2}

¹Muhimbili University of Health and Allied Sciences, Dar es Salaam,

Tanzania; ²Ocean Road Cancer Institute, Dar es Salaam, Tanzania;

³University of California, San Francisco; ⁴Stanford University, Stanford, CA;

⁵Stanford Hospital and Cancer Center, Stanford, CA; ⁶Illawarra Cancer Care Centre

Correspondence: Mathias Banzi, banzimob1980@gmail.com

BMC Proceedings 2024, 18(15):P107

Background

Trimodality is the standard bladder preservation therapy (BPT) for patients with muscle-invasive bladder cancer (MIBC). In Tanzania, most MIBC patients are treated with BPT without prior maximum transurethral resection of bladder tumor (TURBT), and some even without chemotherapy during radiation. There is a paucity of data regarding the overall survival (OS) of MIBC treated with BPT in a setting where prior maximum TURBT is not routinely done.

Material and Methods

From January 2017 to December 2021, 107 non-metastatic MIBC patients treated by radiotherapy with or without chemotherapy at Ocean Road Cancer Institute were included in a retrospective hospital-based cohort study. Patient's and tumor characteristics were compared using chi-squared and Student's t-tests. Survival curves were drawn by using the Kaplan-Meier method and compared by log-rank test in the univariate analysis and the Cox regression model in the multivariate analysis.

Results

Among 107 MIBC patients, 19 (18%) underwent TURBT. For patients without prior maximum TURBT, the median OS was 11 months in both arms, CCRT, or radiotherapy alone (P -value = 0.76). The median OS of patients who were treated with TURBT and then CCRT or radiotherapy alone was 35 months, while CCRT or radiotherapy alone without prior TURBT was 11 months (P -value = 0.027). The median OS of patients who were treated with radiotherapy alone, CCRT, TURBT followed by Radiotherapy, and TURBT followed by CCRT were 10, 19, 21, and 24 months respectively (P -value = 0.04).

Conclusion & Recommendations

The addition of chemotherapy during radiation in MIBC patients who had not undergone TURBT had no survival advantages compared to radiation alone. Chemotherapy administration during radiation to MIBC patients should be given to patients who underwent maximum TURBT to whom improvement in oncological outcome has been observed.

P108.

Clinicopathological Characteristics, Treatment modalities and 2 Year overall Survival in Adult Soft Tissue Sarcoma at Ocean Road Cancer Institute

Aisha Ramadhan

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

Correspondence: Aisha Ramadhan, aishahashim60@gmail.com

BMC Proceedings 2024, 18(15):P108

Background

Soft tissue sarcomas (STS) constitute a heterogeneous group of rare malignancies (1%) that vary extensively by anatomic location, histology and biologic behavior. Its rarity and various presentations makes it peculiar and a most challenging diagnosis in oncology. The purpose of this study was to establish a baseline of clinicopathological features of soft tissue sarcomas that can impact treatment approaches and patient outcomes.

Material and Methods

A retrospective cohort study was conducted at the ORCI in Dar es Salaam, Tanzania. Patients with histologically confirmed soft tissue sarcoma from January 2017 through December 2020 were included in the study population. The endpoint was 2 year Overall survival (OS).

Results

A total of 88 cases were analyzed. There was a slight male predominance (54.6%) and the mean age (SD) of the patients was 41.7 (17.6) years. Greater than 65% presented with an advance stage (68%, TNM stage 3, $p=0.045$). The commonest site of presentation was the lower extremity (36.4%) followed by the upper extremity (18.2%) with liposarcoma being the common histology (23.9%). The 2 year OS was 59% and the true predictors of OS were the ECOG status (ECOG2 HR 2.3, $p=0.017$ ECOG3 HR 3.4, $p=0.029$), tumor size > 5 cm (HR 2.7, $p=0.047$) and tumor stage (locally advanced HR 4.5, $p=0.045$, metastatic HR 5.4, $p=0.021$).

Conclusion & Recommendations

STS presents with a widest range of histologies in different parts of the body. Patients presents with tumors more than 5 cm resulting to a worst survival. Every health worker should have a high index of suspicion to STS. There's a continuing critical need for advances in therapeutic options for this difficult-to treat disease.

P109.

Determinants of anxiety and depressive symptoms among adolescents aged 10–19 years in six sub-Saharan African countries, India and China

Shraddha Bajaria¹, Innocent Yusufu¹, Addis Eyeberu², Yadeta Dessie³, Nega Assefa², Amani Tinkasimile¹, Frank Mapendo¹, Mashavu Yussuf¹, Mary Joan Masanja¹, Innocent Mboya¹, Sachin Shinde⁴, Lina Nurhussein⁴, David Sando⁵, Japhet Killewo⁶, Mary Mwanyika Sando¹, Wafaie Fawzi^{4,7,8}

¹Africa Academy for Public Health, Dar es Salaam, Tanzania; ²School

of Nursing and Midwifery, College of Health and Medical sciences,

Haramaya University, Ethiopia; ³School of Public Health, College of Health

and Medical sciences, Haramaya University, Ethiopia. ⁴Department

of Global Health and Population, Harvard T.H. Chan School of Public

Health, Boston, Massachusetts, USA; ⁵Management and Development

for Health, Tanzania; ⁶Muhimbili University of Health and Allied Sciences,

Tanzania; ⁷Department of Epidemiology, Harvard T.H. Chan School

of Public Health, Boston, Massachusetts, USA; ⁸Department of Nutrition, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA

Correspondence: Shradha Bajaria, abdulatif75@gmail.com

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Background

The prevalence of anxiety and depression among adolescents in low- and middle-income countries (LMICs) in 2021 was 5.5% and 3.1% respectively. Low educational achievement, poor physical health, increased risk-taking behaviors and suicidal ideation or attempt are among the adverse consequences of mental health disorders. This study assessed the prevalence of anxiety and depressive symptoms and associated factors among adolescents (10–19 years) in six sub-Saharan African (SSA) countries, India and China.

Material and Methods

We used cross-sectional survey data for 9849 adolescents from the ARISE Network in Tanzania, Ethiopia, Ghana, Burkina Faso, Nigeria, Uganda, India and China. The Patient Health Questionnaire with four items (PHQ-4) assessed the prevalence of anxiety, depressive symptoms and their co-occurrence. The log-linear regression models estimated the adjusted relative risk for the determinants of anxiety and depressive symptoms.

Results

The mean age (standard deviation) was 14 (2.7) years, 57% were aged 10–14 years, 52.1% were females. The prevalence of anxiety and depressive symptoms was 11.3% and 9.9%, respectively, and was higher in China (26.3% and 17.0%), Ghana (17.6% and 19.6%), Nigeria (13.2% and 13.7%) and Uganda (12.8% and 13.1%). Higher risk of anxiety, depressive symptoms and co-occurrence was among older adolescents, females, with secondary/higher education level, engaged in any work, visited primary healthcare clinic or pharmacy, with history of alcohol use, and seriously injured multiple (≥ 2) times. Lower risk was among adolescents with ≥ 5 days of physical activity.

Conclusion & Recommendations

Anxiety and depressive symptoms are common among adolescents in LMICs and are associated with socio-demographic and behavioral characteristics. This calls for adolescent-targeted mental health interventions and policies.

P110.

Prevalence and Factors Associated with Neuropsychiatric Manifestations among patients admitted for Traumatic Brain Injury at Referral Hospitals in Dodoma Tanzania

Suluma Aslan, Azan Nyundo

University of Dodoma, Dodoma, Tanzania

Correspondence: Suluma Aslan, suluma.aslan@gmail.com

BMC Proceedings 2024, 18(15):P110

Background

Traumatic Brain Injury (TBI) is any injury to the brain resulting from an external force leading to complications. TBI affects 27–69 million yearly, with high incidence in Africa and LMICs attributed to motor traffic accidents. Post TBI neuropsychiatric disorders includes; depression, prevalence of over 50%, apathy up to 72%, PTSD 26%, anxiety 9%, manic symptoms 5 to 9%, and psychosis 3 to 8%.

Material and Methods

A prospective longitudinal study conducted at referral hospitals in Dodoma, Tanzania. 109 patients with moderate to severe TBI by GCS were recruited. At baseline; demographics, TBI and injury characteristics were acquired. At one month; assessment for neuropsychiatric manifestations was done using screening tools; PHQ-9, GAD-7, YMRS, AES, PANNS, PCL-5 and MoCA.

Descriptive statistics were used; continuous data were reported as Mean (SD) /Median (IQR), and categorical data; proportions and frequencies. Univariate and multivariable logistic regression determined predictors of post TBI neuropsychiatric manifestations < 0.05 .

Results

109 people, majority (95.41%) were male, mean age 30.46 ± 10.41 , substance use history (42.2%). Motor traffic accident was the main cause of TBI (76.15%). One month prevalence of neuropsychiatric manifestations was 85.23%. One month prevalence of cognitive impairment (61.47%), apathy (57.8%), mania (19.27%), depression (19.27%) and PTSD (11.24%). Confusion was associated with any neuropsychiatric manifestation ($p=0.0047$). Severity of TBI ($p=0.0300$), non-penetrative injury ($p=0.0421$) and blunt injuries ($p=0.0406$) were associated with cognitive impairment.

Penetrative injuries ($p=0.0375$) and confusion ($p=0.0015$), were associated with apathy, blunt injuries were less likely ($p=0.0182$) to cause apathy. Mania was associated with substance use ($p=0.0230$).

Conclusion & Recommendations

Neuropsychiatric manifestation post TBI are prevalent especially in early stage. Identification and treatment of these disorders in early stages is important for proper management to reduce impairment and improve quality of life.

P111.

Predictors and Outcome of Post-Stroke Depression among Patients Admitted For First Stroke at Referral Hospitals In Dodoma, Tanzania

Sadiki Mandari^{1,2}, Azan Nyundo³

¹University of Dodoma, college of health science, Dodoma, Tanzania;

²Mirembe National Mental Health Hospital, Dodoma, Tanzania; ³College of health science, University of Dodoma, Tanzania

Correspondence: Sadiki Mandari, mandarisadiki18@gmail.com

BMC Proceedings 2024, 18(15):P111

Background

The majority of stroke sufferers reside in developing nations, and it is one of the most prevalent disabilities among adults. Post-stroke depression (PSD) is the most prevalent neuropsychiatry manifestations after stroke that is linked to worsening of symptoms, recurrence of stroke and even increased rate of disability and death; nonetheless, little is reported about magnitude, predictors and outcome of post-stroke depression.

Material and Methods

Adults aged 18-years and above with a first episode of stroke confirmed by CT/MRI brain presenting within 14 days after the incidence who meet the inclusion criteria. A study will be conducted at referral hospitals in the Dodoma region, central Tanzania. Baseline clinical characteristics was documented on admission; PSD was assessed at one and three months. Predictors of PSD will be analyzed using logistic regression.

Results

A total of 274 patients were included with a mean age of 61.76 ± 14.45 . The prevalence of PSD was 27.89% and 13.33% at one and three months respectively. PSD with significant improvement was 23.03% at three months. Data showed that age, education level, stroke severity, seizures, apathy, and cognitive impairment were the predictors for PSD. While PSD was associated with age (AOR: 1.137, 1.075, 1.203, $p < 0.0001$), no formal education (AOR: 13.162, 1.307, 132.519, $p = 0.0287$), seizures (AOR: 3.379, 1.040, 10.982, $p = 0.0429$), and apathy (AOR: 10.360, 3.622, 29.634, $p < 0.0001$, $p = 0.4007$). Significant improvement of PSD was associated with fluoxetine use (AOR: 10.154, 3.078, 33.494, $p < 0.0001$), with 95% CI.

Conclusion & Recommendations

PSD is among the commonest neuropsychiatric manifestations. PSD results in impaired functional recovery, greater disability, decreased quality of life, higher mortality risk, and lower treatment compliance. The quality of life and lifespan of stroke survivors will increase with early diagnosis and treatment.

P112.**Dietary Diversity and Nutritional Status among Adolescents in Tanga, Tanzania**

Mariam Ngaula¹, Sakina Mustafa², Amani Tinkasimile¹, Mashavu Yussuf¹, Frank Mapendo¹, Wilbald Anthony¹, Cecilia Anthony¹, Mary Joan Masanja¹, Azan Nyundo³, Abbas Ismail⁴, Augustine Marero⁵, Abdallah Hussein⁶, Charles Mkombe², Stephen Mwandambo², Agness Mchome², Esther Moka², Ally Kasembo², Julieth Bitabo², Salome Materu², Maurus Ndunguru², Kisaka Kachua², Innocent Yusufu¹, David Sando⁷, Mary Mwanyika Sando¹, Wafai Fawzi^{8,9,10}

¹Africa Academy for Public Health, Dar es Salaam, Tanzania; ²Tanga City Council, Tanga, Tanzania; ³Department of Psychiatry and Mental Health, School of Medicine The University of Dodoma Dodoma Tanzania; ⁴College of Natural and Mathematical Sciences, University of Dodoma, Dodoma, Tanzania. ⁵College of Informatics and Virtual Education, University of Dodoma, Dodoma, Tanzania. ⁶Department of Statistics, University of Dodoma, P.O. Box 338, Dodoma, Tanzania; ⁷Management and Development for Health, Tanzania; ⁸Department of Global Health and Population, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA; ⁹Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA; ¹⁰Department of Nutrition, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA

Correspondence: Mariam Ngaula, mngaula@aaph.ortz
BMC Proceedings 2024, 18(15):P112

Background

In sub-Saharan Africa (SSA), where 23% of the population are adolescents aged 10–19 years, over half attend school with malnutrition and micronutrient deficiencies, such as anemia, primarily due to food insecurity and limited food diversity. Despite the burden, evidence from literature on dietary diversity and nutritional status among adolescents in Tanzania remains scarce. This study aimed to examine dietary diversity and nutritional status among adolescents in Tanga, Tanzania.

Material and Methods

This was a cross-sectional study among 20 randomly selected wards in Tanga City. The survey included 1,037 in-school and 237 out-of-school adolescents. STATA 16 was used for analysis to determine BMI, height-for-age, and minimum dietary diversity (measured as consumption of at least 5 out of 10 food groups) per the FAO guidelines. Hemocue photometer was used to assess anemia in the field.

Results

Overall, about 8.8% of adolescents were underweight, 8.8% were overweight, 16.7% were stunted and 27% were anemic. Results were seen to vary between in-school and out of school adolescents. Prevalence of underweight and overweight was observed to be higher among in-school adolescents compared to their out of school counterparts [underweight 9.4% Vs 6.3%; overweight 10.1% Vs 2.7%]. Prevalence of stunting and anemia was observed to be higher among out of school adolescents compared to those in-school [stunting 31.7% Vs 13.2%; anemia 42.3% Vs 24.1%]. More than three quarters (79.2%, 76.8%) of both in and out-of-school adolescents had inadequate dietary diversity.

Conclusion & Recommendations

Adolescents in Tanga region face the triple burden of malnutrition. The government in collaboration with stakeholders should prioritize initiation of school-feeding programs and school gardening activities to promote healthy eating habits and increasing knowledge on nutrition among adolescents.

P113.**Role of Pulmonary Rehabilitation on the Health-Related Quality of Life in People affected with Post TB Lung Diseases in Tanzania**

Kassim Msaji^{1,2,3,4}

¹Kibongoto Infectious Disease Hospital, Siha-Kilimanjaro, Tanzania; ²Mirerani Health Centre, Simanjiro, Tanzania; ³MKUTA, TB/HIV patient organization Dar es salaam, Tanzania; ⁴LHL international, Tanzania

Correspondence: Kassim Msaji, kassimsalim206@gmail.com

BMC Proceedings 2024, 18(15):P113

Program Intervention/Methodology

Post TB lung disease (PTLD) is a growing health problem accounting for over 40% in Tanzania and elsewhere. We aimed to investigate the effect of Pulmonary-rehabilitation (PR) on the health-Related Quality of Life (HRQoL) in individuals with PTLD using St George Respiratory Questionnaire. On methodological approach Individuals received PR package for 24 weeks. Community based workers delivered the PR at least 4 times a week, each session took 60-90 min in a community ground.

Results Finding

Through integrated active case finding of TB or PTLD, the Civil Society Organization (MKUTA)-linked 452 to Health facility and 102 were self linkage to the facility for PTLD and PTB screening. 554 of individual of presumptive PTLD/PTB were screened, 419 were eligible for Pulmonary rehabilitation and 135 (24%) excluded temporarily due to recurrent PTB, 298 received PR as home-base care due to distant factor remained with 121 individual received PR at community based through trained Civil society organization. 121 were assessed following pulmonary rehabilitation SGRQ score decreased with time indicating improvement of People's Quality of life.

Program Implication & Lesson Learned

Pulmonary rehabilitation intervention improve quality of life of individual of Post Tb Lung Disease as measured by St George Respiratory questionnaire score.

The integration of PTLD in TB case finding through civil society organization will increase TB notification by more than 24%

P114.**Lived experience, challenges and the needs of people diagnosed with cardiovascular diseases at Jakaya Kikwete Cardiac Institute (JKCI)**

Joshua Duma^{1,2,3}, Dickson Mkoka²

¹Bugando Medical Centre, Mwanza, Tanzania; ²Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ³Jakaya Kikwete Cardiac Institute, Dar es Salaam, Tanzania

Correspondence: Joshua Duma, jodu4real@gmail.com

BMC Proceedings 2024, 18(15):P114

Background

Cardiovascular diseases are the most prevalent serious disease and the most problem of health that threatens human life in the world. These diseases are the most common causes of death in developed and developing countries and the number of suffering people is increasing. Despite the increasing number of patients with cardiovascular diseases, the lived experiences, their challenges and needs of these patients have remained unknown.

Material and Methods

This qualitative research was conducted using descriptive phenomenological approach. Participants included fifteen adult patients (9 males and 6 females) with different cardiovascular disease. Purposive sampling method used, where adult patients who were admitted from different units/ wards were recruited and interviewed. Data were collected through semi-structured interviews between 30–45 min. The interviews were recorded and transcribed verbatim. Content analysis by Graneheim & Lundman approach was used to analyse data.

Results

The main categories of study were: 1) Patient's life journey /story of the disease and treatment, 2) Uncertainties and fear of the unknown, 3) Managing the disease condition and health promotion, 4) Health promotion through lifestyle modifications, 5) Financial barriers on receiving and complying with the treatment, 6) Barriers on receiving treatment and self-care, and 7) Inability to engage on daily activities. Both categories described the patient's lived experience of cardiovascular disease covering different perspectives including the experience of the disease from the onset of the symptoms and journey of treatment, lifestyle modification, needs and challenges.

Conclusion & Recommendations

The findings of this study enhance the understanding of different challenges faced by patients with cardiovascular diseases. This can assist health care professionals to appropriately counsel and support patients throughout the illness course, aiming at a better integration of the disease in daily life and improve their quality of life.

P115.

Introduction of a master's program in emergency medicine at the KCMUCo

Harald Renz¹, Christian Kreisel¹, Anita Hartmann¹, Andreas Jerrentrup¹, Blandina Mbagwa², Ephata Kaaya², Alfred Mteta², Francis Sakita²
¹University Marburg, Germany; ²Kilimanjaro Christian Medical University College, Kilimanjaro, Tanzania

Correspondence: Harald Renz, harald.renz@uk-gm.de
 BMC Proceedings 2024, 18(15):P115

Background

Providing quality care to patients in the emergency department is playing an increasingly important role in Tanzania. Therefore the Tanzanian government has explicitly named the expansion of capacities in emergency medicine as one of the 10 key interventions in its national five-year development plan. There is currently a major shortage of adequately trained medical staff, as only one master's course in emergency medicine is currently offered throughout the country.

Program Intervention/Methodology

The KCMUCo is currently planning, together with the Philipps-University-Marburg, to introduce a master's program in emergency-medicine at KCMUCo in Moshi.

The project is funded by the German-Academic-Exchange-Service (DAAD).

In the first year of funding, a curriculum was jointly designed that covers the entire spectrum of modern emergency-medicine. As part of a "train-the-trainer" course and a didactics course, future lecturers were specially trained in teaching in the field of emergency medicine. Teaching materials were compiled and additional new ones were created.

Results Finding

The joint introduction of a master's degree in the field of emergency medicine is embedded in an intensive cooperation between the institutions of the Good Samaritan Foundation (KCMC, KCMUCo and KCRI) and the Philipps University of Marburg. The focus of the cooperation is to improve the quality of care for non-communicable diseases (NCDs) with support from the GIZ.

A survey was able to show that eight NCDs are among the top 10 most frequent presentations in the emergency department at the KCMC.

Therefore, in the training of emergency physicians, a special focus will be on the management of NCDs.

Program Implication & Lesson Learned

As part of the joint work, it became apparent that improving the care of emergency patients is very important. It was also shown that the joint establishment of preclinical emergency care in the sense of a professional rescue service, as one of the next projects, would be very helpful.

P116.

Prevalence And Factors Associated with Kidney Dysfunction among People Living with HIV in Northern Tanzania: Retrospective cross-sectional study

Jacob Kitundu^{1,2}, Kassim Bakari^{1,2}, Japhary Joseph^{1,2}, Kajiru Kilonzo^{1,2}, Orgenes Mbwanbo^{1,2}

¹Kilimanjaro Christian Medical University College, Kilimanjaro, Tanzania;

²Kilimanjaro Christian Medical Centre, Kilimanjaro, Tanzania

Correspondence: Jacob Kitundu, jacobhenry@gmail.com

BMC Proceedings 2024, 18(15):P116

Background

People with HIV face a higher risk of kidney diseases, such as HIV-associated nephropathy, focal segmental glomerulosclerosis, immune-complex kidney disease, and comorbid kidney disease. Long-term use of antiretroviral therapy or opportunistic infections further contribute to kidney injury. Current treatment guidelines are based on general population studies, lacking integration of HIV-specific pathways and risk factors. This study conducted in Kilimanjaro investigated the prevalence and factors associated with kidney dysfunction among PLHIV.

Material and Methods

A hospital-based retrospective cross-sectional study conducted in northern Tanzania, clinical records of PLHIV on HAART were examined from October 2022 to April 2023. Participants included PLHIV on ART for 6 months or more attending at Kilimanjaro Christian Medical Centre. Serum creatinine tested were used to estimate eGFR using the 2021 CKD-EPI equation without considering race. A total of 345 clients' files were analyzed using STATA 14. Bivariate analysis identified variables for multivariate analysis, with statistical significance set at $P < 0.05$.

Results

A total of 345 HIV-infected patients participated in this study. But only 331 met the inclusion criteria therefore 14 were excluded in the study. Among these 331 PLHIV on ART, 40 (12.1%) were found to have renal function impairment. Sex (adjusted odds ratio [AOR] = 4.18, 95% confidence interval [CI]: (1.42–8.19) and anaemia (AOR = 3.37, 95% CI: (1.35–8.42) were found to be independent predictors of renal function impairment among people living with HIV.

Conclusion & Recommendations

Our study adds to the existing knowledge by highlighting that PLHIV on HAART may be at significant risk of kidney dysfunction. We found an association between anemia and renal dysfunction, with females at the highest risk. Regular screenings for early detection and treatment of anemia in this population is recommended.

P117.

Risk and Preventive factors for the development Of Atopy and Asthma in Kilimanjaro Region Tanzania

Victor Vincent Mosha¹, Harald Renz², Chrysanthi Skevaki², Blandina Mmbaga¹, Winfrida Mwita¹, Alice Andongolile¹, Gissela Nyakunga³
¹Kilimanjaro Clinical Research Institute, Kilimanjaro, Tanzania; ²Philipps University Marburg, Germany; ³Kilimanjaro Christian Medical Centre, Kilimanjaro, Tanzania

Correspondence: Victor Vincent Mosha, v.mosha@kcri.ac.tz

BMC Proceedings 2024, 18(15):P117

Background

Asthma and allergic disorders are major public health concerns in the Western world, while their prevalence is gradually increasing in developing countries. This study aims to determine the impact of environmental factors, including pathogen exposure, on the development of asthma, and allergies and establish the differences between rural and urban settings in the Kilimanjaro region, Tanzania, and identify the underlying genetic and immunological mechanisms following any given environmental exposure.

Material and Methods

Genetic factors, immune profiles and phenotypes among 40 cases of asthma presenting with asthmatic attack and their non-atopic non-asthmatic controls will be studied. A structured questionnaire will be administered to evaluate the socio-demographic, food, lifestyle, and clinical characteristics. Blood samples, stool, urine, nasopharyngeal and oropharyngeal swabs will be collected. Home follow-up will be done where environmental samples and coordinates of study participants will be collected to understand the exposure to different land use and the environment around the study participants.

Results

This is an ongoing study which has already recruited 14 out of 80 participants expected (40 cases and 40 controls). We will use state-of-the-art network science and machine learning methods to combine

multi-omics patient-level information (expression, mi-RNA, epigenetics, microbiomics, metabolomics) with information on lifestyle and environmental factors. We are interested in analyzing the differences in the changes associated with asthma in both populations, comparing the asthmatic patients with their associated healthy controls in rural and urban populations. Adding further -omic layers will increase our capacity to find differences between both populations.

Conclusion & Recommendations

The results of the study will help to understand the mechanism of bronchial asthma in patients with asthma and the immunological markers which may guide preventive measures, and add information to support the care and treatment of patients with asthma.

P118.

The prevalence of gestational diabetes mellitus and associated risk factors among women attending antenatal care in health facilities in Unguja-Zanzibar

Ali Shehe, Donati Tarimo

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

Correspondence: Ali Shehe, alibinshehe@gmail.com

BMC Proceedings 2024, 18(15):P118

Background

The prevalence GDM has been rising worldwide, including in sub-Saharan Africa. However, limited information is available regarding GDM and its associated risk factors in Zanzibar. The contributing of factors like advanced maternal age, obesity, history of diabetes, and lifestyle to the burden of GDM in Zanzibar. The objective of this study is to determine the prevalence of GDM and associated risk factors among women attending antenatal care in Unguja, Zanzibar.

Material and Methods

This facility-based quantitative cross-sectional study. Participants were screened for GDM using the IADPSG 2017 criteria, and data on socio-demographics, medical and obstetric history, lifestyle factors, and anthropometric characteristics were collected using a structured question. Descriptive statistics were used to summarize the data, while bivariate and multivariate analyses were performed to identify factors associated with GDM. Crude and adjusted prevalence ratios were calculated using modified Poisson tests, with statistical significance set at a *p*-value of 0.05.

Results

Out of the 405 pregnant women were screened, the prevalence of GDM was 13.8%. The majority (43.21%) had a GA of 28 weeks, with a mean GA of 26.25 (SD: 0.08) weeks. Significant risk factors for GDM included maternal age over 40 years (aPR = 2.00, 95% CI: 1.227, 3.272), history of hypertension (aPR = 11.22, 95% CI: 6.475, 19.450), history of macrosomia (aPR = 6.417, 95% CI: 4.223, 9.752), obesity (aPR = 1.697, 95% CI: 0.987, 2.917), alcohol use (aPR = 2.208, 95% CI: 1.130, 4.315), and frequent consumption of carbohydrates (aPR = 0.257, 95% CI: 0.075, 0.879).

Conclusion & Recommendations

Findings of this study re-affirm that GDM is also a problem in Zanzibar; the associated risk factors being maternal age, a history of macrosomia baby, alcohol uses, carbohydrate consumption, obesity, and a history of hypertension. Routine screening for GDM should be included in the focused ANC.

P119.

Leveraging Technology for Enhancing Community-Based NCD Remote Care Monitoring in Zanzibar: A Journey of Implementation and Impact

Queen Msina¹, Hafidh Seif², Faiza Abbas¹

¹PharmAccess, Zanzibar; ²Ministry of Health, Tanzania

Correspondence: Queen Msina, q.msina@pharmaccess.or.tz

BMC Proceedings 2024, 18(15):P119

Background

Non-communicable diseases (NCDs) are among the primary causes of morbidity and admission, causing a significant health burden in Zanzibar. With limited resources and infrastructure, there is an urgent need for innovative approaches to improve NCD care and management in the community. This abstract presents the experience of establishing a pioneering Community NCD Remote Care Monitoring program in Zanzibar and highlights its impact on healthcare delivery and patient outcomes.

Program Intervention/Methodology

This Patient-centered model aims to improve diagnosis and disease management for patients with NCDs through the NCD care bundle. The bundle consists of access to patient group meetings that are self-organized at the local facility, educational discussions, use of devices for self-measurement, digital self-management support, remote monitoring of self-measurements and telecommunications, and Monthly doses of prescribed medication dispensing through a community Health care provider. The pilot area is two Unguja districts.

Results Finding

Three patient groups were established with 89 patients, 56 (63%) Hypertensive cases, 26 (29%) Diabetes, and 7 (8%) have both Hypertensive and Diabetes. Out of these patients, males are 23.6% and Females 76.4%. The average regular attendance to the patient groups was 91%, and those with improvement in blood pressure and glucose measurement reached 98% of total patients.

The implementation phase faced challenges such as technological infrastructure, cultural perceptions, and inadequate capacity among healthcare workers that were addressed accordingly. We learned that involvement of key stakeholders, including community leaders and Community Health Workers, is critical to successfully establishing patient groups.

Program Implication & Lesson Learned

We envision that the success of this program will inspire policymakers and healthcare stakeholders to invest in innovative, community-based NCD care models that harness the potential of digital health technology to enhance patient outcomes and improve the overall health of populations in resource-limited settings like Zanzibar.

P120.

Magnitude of overweight/obesity and associated eating patterns and eating frequency among primary school children in Ilala district, August 2021

Pamela Kipande, Jane Mlimbila

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

Correspondence: Pamela Kipande, pamelasilas9@gmail.com

BMC Proceedings 2024, 18(15):P120

Background

Overweight/obesity among school aged children is one of the most serious global public health challenges of the twenty-first century. In just 40 years the number of school-age children and adolescents who are overweight has risen more than tenfold, from 11 to 124 million. In 2019, 18% of children aged 5–19 years and 6% of children younger than five years of age were overweight or obese globally.

Material and Methods

A cross sectional study done among 374 standard 5 pupils aged 10–13. Cluster sampling was used. Food patterns and eating frequency were determined using a pre-tested 7-day Food frequency questionnaire. Data analyzed using SPSS. Magnitude of overweight was determined by BMI for age and sex computed using measured weight and height. Bivariate analysis was done to test for associations between overweight and eating patterns and eating frequency. Variables with *p*-value < 0.2 were fitted into the multiple logistic regression model.

Results

A total of 374 respondents were recruited in the study. 206 (55.08%) were female. 188 (50.27%) were studying in private schools. Majority of the pupils 259 (69.25%) were aged 10–11 years.

The magnitude of overweight and obesity was 14.44% and 23.26% respectively. Significant eating patterns of being overweight were high consumption of fried breakfast snacks (AOR = 21.6, 95% CI: 5.56, 84.01), high consumption of sugar sweetened beverages (AOR = 6.61, 95% CI: 1.29, 33.8) and high consumption of High calorie foods (AOR = 2.26, 95% CI: 0.49, 13.89) and eating frequency of more than three meals per day (AOR = 1.23, 95% CI: 0.32, 4.76).

Conclusion & Recommendations

The prevalence of overweight and obesity among school children in Ilala District is high and requires deliberate intervention strategies such as Nutritional education to children and moderation of foods sold around school environments so as to reduce the consumption of junk foods, since children spend most time in school.

P121.

Integrating Knowledge Management at Point of Care: Challenges from Developing Countries

Edmond C. Kungwalo
University of Malawi, Malawi

Correspondence: Edmond C. Kungwalo, phd-inf-02-22@unima.ac.mw
BMC Proceedings 2024, 18(15):P121

Background

Doctors are expected to not only use their knowledge and experience in patient care, but also consider patients' values, and current research evidence when developing care strategies. This is called evidence-based medicine (EBM). EBM is a systematic way of solving Clinical problem and has so many advantages in healthcare. To practice EBM, doctors need access to up-to-date patient information and knowledge. However, practicing EBM is a challenge for doctors in Malawi.

Material and Methods

I Interviewed Senior government officials from Digital and Clinical departments of Ministry of Health (MoH) and purposefully selected specialist doctors at referral hospital. Clinical department provided data on strategies and policies regarding Knowledge Management and EBM. Specialist doctors provided data on their Information needs during patient care, challenges they face in getting up-to-date information, and CISs design consideration they would like to support their information needs. Digital health department provided data on state of ICT and KM infrastructure in public hospitals.

Results

Results shows the following as major challenges; Lack of Time due to high disease burden. Lack of hospital wide CISs in public hospitals. Over reliance on paper documents, Electron Medical Records systems (EMR) currently implemented are standalone and program specific. Lack of research data repository, different health studies have been conducted in Malawi, but the results are not shared with people who would benefit from them. Lack of tools, no access to pay walled medical databases. Political reasons, some doctors are not willing to share knowledge with others as it is perceived as source of power and other institutional factors.

Conclusion & Recommendations

Doctors face challenges to access patient information and Medical knowledge. Government should implement hospital wide CISs which seamlessly integrates with doctors every day work for easy access to patient information and medical knowledge. Institution should also champion EBM by subscribing to medical databases, opening hospital libraries and digitizing Medical guidelines.

P122.

Promoting telemedicine in the East Africa Region to improve Healthcare access

Cecilia Augustine
Fellow of the Institute and Faculty of Actuaries

Correspondence: Cecilia Augustine, mankacecy@gmail.com
BMC Proceedings 2024, 18(15):P122

Background

The doctor patient ratio in Kenya is 1 to more than 6000. Some villages are so remote that the nearest health facility is hundreds of kilometres away. Children with chronic and congenital who need specialist care often have to travel far to get care. M-PESA Foundation and Getrudes' Children hospital in 2021 launched Daktari Smart, where children from remote areas can access specialists through the use of technology.

Case Report

With the telemedicine programme launched in four remote counties in Kenya, Samburu, Baringo, Lamu and Homabay, a television set, computer, stable internet, camera, and software, patients can consult with specialists in Nairobi without having to travel there. In Homa bay, by March 2022, 18 patients had benefitted from this treatment for diseases such as Kawaski disease, cerebral palsy, epilepsy and mitral valve diseases. In Mpeketokoni Hospital, Lamu county, a mother's whose 2-year old has a respiratory condition that in the past would meant a 250 km journey to Mombasa can now receive treatment within the county. With a population of 310,327, a doctor patient ratio of 1:10,000, Samburu county is highly understaffed, within one month of launching the project, 48 children had benefitted and about 4 were referred to Nairobi for further treatment. Resident clinical officers also learn from the specialists as they are reviewing patients thereby improving their competency and confidence in their day to day treatment of other patients.

Conclusion

Technology and telemedicine can help improve access to healthcare to marginalised communities, saving lives and improving the quality of life for families living in remote areas. With the right investment, training, maintenance these programmes can save lives of many families in our region. Digital health is possible.

P123.

Enhancing Healthcare Performance and Data Use through the Situation Room Approach: Lessons for Strengthening Primary Health Care Systems in Tanzania

Jackson Ilangali^{1,2}, Felix Sukums³

¹Data for Implementation Project, Palladium International Tanzania; ²Master of Public Health (Implementation Sciences) Student, University of Manchester. ³Muhimbili University of Health and Allied Sciences (MUHAS), Directorate of Information and Communication Technology, Dar es Salaam, Tanzania

Correspondence: Jackson Ilangali, jacksonilangali@yahoo.com
BMC Proceedings 2024, 18(15):P123

Background

Tanzania implemented decentralization policies empowering Local Government Authorities (LGAs) in health and social welfare decision-making. USAID supported the scaling of a quality assurance/quality improvement initiative using the situation room approach. This involved monitoring indicators in technologically enabled rooms, improving data use, and developing action plans. The phased implementation started with Maternal and Child Health. Strengthening data-driven decision-making at the LGAs is crucial for achieving UHC and primary healthcare goals.

Material and Methods

The study employed a mixed-methods approach to investigate the implementation and impact of the situation room approach in enhancing data use for decision making in healthcare management. Qualitative data was collected through in-depth interviews with CHMTs, while quantitative data was obtained through descriptive analysis of indicators monitored in the situation room approach. The study focused on the Dodoma and Dar es Salaam regions. Data analysis involved thematic analysis for qualitative data and comparison of median performances for quantitative data.

Results

The study identified themes of data use and decision-making, implementation, lessons, sustainability, perceptions of the approach, and implementation challenges. Quantitative results showed improved healthcare indicators. ANC attendance increased in all four councils, with the highest increase in Chamwino DC (50% to 66%) and

the lowest in Temeke MC (19% to 25%). HIV viral load suppression improved in six councils and remained stable in three. HIV confirmatory test among HIV exposed infants (HEI) coverage increased in all four councils, with the highest increase in Temeke MC (34% to 76%). These findings contribute to strengthening health systems for UHC and primary healthcare.

Conclusion & Recommendations

Recommendations: Strengthen data use culture with training and collaboration. Improve data quality and expand the situation room approach to other regions, ensuring local ownership.

Conclusion: The situation room approach enhances healthcare performance and decision-making, contributing to the strengthening of health systems for UHC, with a focus on primary healthcare.

P124.

Justification of Imaging Requests and Optimization of Radiation Exposure from Pediatrics Chest Radiography at a Tertiary Hospital, in Dar-es-Salaam, Tanzania

Victor Mhezi^{1,2}

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

Correspondence: Victor Mhezi, vmhezi@gmail.com

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Background

Ionizing radiation is a well-known source of hazardous impacts on human health. Appropriate examination requests and optimal radiographic techniques during X-ray imaging are keys to avoid unnecessary ionizing radiation exposure. Therefore, understanding the principles of "Justification and Optimization" of radiation protection during chest X-ray examinations (the commonest radiographic procedures) is crucial for radiation protection measures, particularly for the pediatric population, a group at higher risk for lifetime ionizing radiation impacts.

Program Intervention/Methodology

Prospective hospital-based cross-sectional study. Enrolled 320 pediatric participants who underwent CXR examinations. Structured data extraction tool was used for data collection. Clinical "justification" of CXR imaging request was concluded by comparing the participant's clinical presentation to the standardized "pediatrics CXR imaging referral guideline". For "optimization", six CXR radiographic technical criteria were evaluated and compared to the known standards. Data were summarized using proportions, central tendency measures, t-test, ANOVA, chi-square-test and logistic-regression model, by SPSS v29.0. Statistical significance at p -value < 0.05.

Results Finding

42.8% female and 57.2% male, mean age 3.17 ± 1.6 years. The proportion of clinically unjustified CXR requests was 36.6%. Among unjustified requests, 51.3% lacked clinical information, remaining 48.7%, clinical information didn't meet the imaging referral guideline. Most unjustified requests were from OPD 82.9% versus 17.1% from IPD, $p < 0.001$, OR = 3.1. AP-projection, unsatisfactory collimation and rotation were 79.7%, 69.7% and 63.8% of CXR examinations respectively, significantly in under-fives. Unnecessary repetition of CXR examinations occurred in 11.6% and 36.9% of examinations didn't utilize optimal levels for at-least one of exposure parameters (kV, mA, ms and mAs). Shielding tools weren't applied at all.

Program Implication & Lesson Learned

Around one-third of pediatric CXR examinations were found to be clinically unjustified, while many were performed with sub-optimal techniques. Improving clinical information provision by clinicians and establishing pediatrics imaging referral guidelines can enhance justification. Optimization can be achieved through standard projections, positioning, collimation techniques, radiation shielding, and optimal exposure levels.

P125.

Capacity Enhancement of Medical Equipment Technical Services (CEOMETS), a Local Training Programme for Biomedical Engineers in Tanzania

Kyoung Kyun Oh¹, Hayoung Kim¹, Suniva S.C. Haule², Swabaha A. Yusuph¹, Hansol Park¹

¹Korea Foundation for International Healthcare (KOFIH) Tanzania Office Alfa Plaza 8 Floor, Chabruma St, Dar es Salaam, Tanzania; ²Ministry of Health – Diagnostic and Health Care Technical Services Sections (HCTS), Dodoma, Tanzania

Correspondence: Kyoung Kyun OH, kyoungkyun@kofih.org

BMC Proceedings 2024, 18(15):P125

Background

Biomedical Engineering (BME) plays a vital role in managing medical equipment, which enables timely diagnosis and sustainable quality service delivery. Despite its crucial role, adequate attention has not been paid, especially in resource-limited settings, including Tanzania, where its role can be even more significant.

Program Intervention/Methodology

The 'Capacity Enhancement of Medical Equipment Technical Services (CEOMETS)' was launched in 2015. This training programme targets junior-level biomedical engineers and technicians. In 4 weeks, the total credits are 178 h, of which 76 h (42.70%) are theoretical lectures and 82 h (46.07%) are practice. The programme employs the Training of Trainers model, and a squad of lecturers is comprised of senior-level engineers who are members of the Association of Medical Engineers and Technicians in Tanzania.

Results Finding

Overall, there are 193 trainees (sex ratio: 69.95% (male): 30.05% (female)). The geographic distributions of trainees are from Coastal Zone (37.31%), Lake Zone (15.54%), Northern Zone (15.03%), Central Zone (14.51%), Southern Zone (12.95%), Western Zone (3.63%), and Zanzibar (1.04%). 18.13% are engineers with a degree, and 81.87% are technicians with a diploma. As of 2023, 75.13% of the trainees remain in BME industry. We found that there were insufficient chances at the individual level, such as on-the-job training and in-service training. In fact, the primary issue is the lack of an absolute number of BME engineers and technicians.

Program Implication & Lesson Learned

CEOMETS, as in-service training, has benefited engineers and technicians. Simultaneously, this unveils vast gaps due to institutional and structural limitations and accentuates the need to set out BME national strategic plans. Ultimately, capacity building in BME is pivotal in strengthening the health system, primary health and achieving Universal Health Coverage.

P126.

Creating a community-led crisis response to support people who use drugs and are in legal custody in Southern Highland, Tanzania

Janeth Mwamtobe^{1,2}, Adela Luswetula²

¹Serve Tanzania (SETA), Tanzania; ²Henry M Jackson Foundation Medical Research International, Tanzania

Correspondence: Janeth Mwamtobe, jannethmwamtobe255@gmail.com

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Background

People Who Use Drugs (PWUD) experience structural barriers that prevent them from accessing health and harm reduction services when detained. When PWUDs are arrested, they lack legal support. Of the estimated 500–800 PWUD living in the Mbeya and Songwe regions in Tanzania, 110 PWUD enrolled in opioid agonist therapy (OAT) have been experiencing barriers in accessing legal justice and support by 2022.

Program Intervention/Methodology

In 2021, HJF Medical Research International conducted paralegal, and crisis response training for PWUD peer educators, empowering them to respond to the legal, social, and health challenges that PWUD face. About 20 peer educators were trained and started supporting PWUDs by ensuring their access to health services while waiting for their charges, bail, and judgment from police, prison, or court. Additional support included escorted visits to the OAT facility to get their medication and return to the detention places.

Results Finding

We had 110 PWUDs in prison or police stations waiting for their cases to be heard between October 2021 and September 2022. The majority (98% of them were men) and 60% were at police stations. Through the established crisis response team, 100 PWUD received assistance, which included legal support and daily access to methadone through an escort system with police or prison officers. Legal counsel and skilled peer educators responded to the crisis situations and followed up at police stations, prisons, and/or courts.

Program Implication & Lesson Learned

The model enhanced retention into harm reduction services for detained clients while lowering the number of clients interrupted in treatment due to legal issues. Findings from this analysis show how critical it is to have the treatment modal that supports legal aspects among PWUD attended at OAT clinics.

P127.

An intertwined association between household hunger and child abuse among orphans and vulnerable children in Tanzania

Amon Exavery, John Charles, Amal Ally, Remmy Mseya, Tumainiel Mbwambo, Henry Mlacha, Innocent Nyika, Rose Fovo, Conjesta Shao, Flora Nyagawa, Asheri Barankena, Levina Kikoyo
Pact-Tanzania, Dar es Salaam, Tanzania

Correspondence: Amon Exavery, aexavery@pactworld.org
BMC Proceedings 2024, 18(15):P127

Background

Child abuse remains a significant problem worldwide and in Tanzania as well. This study assessed the linkage between household hunger and child abuse among orphans and vulnerable children (OVC) in Tanzania.

Material and Methods

Based on data from the ACHIEVE project from 24 regions of Tanzania, children who had experienced one or more incidences of abuse between 1st October 2021 and 31st March 2023 constituted the population studied. Household hunger was assessed using the Household Hunger Scale. The primary outcome was the number of child abuse incidences recorded within the follow-up period, involving physical abuse, emotional abuse, sexual abuse, exploitation, or neglect. Data analysis involved multivariable mixed-effects zero-truncated negative binomial regression at 5% level.

Results

8,028 OVC aged 0–19 years had experienced at least one incidence of child abuse within the follow-up period of 1.5 years. The incidences ranged from 1 to 8, with an average of 1.42 (± 0.77). In the multivariable analysis, there was a significant increase in the average number of abuse incidences as the severity of household hunger increased (Moderate hunger: adjusted Incidence-Rate Ratio (aIRR) = 1.14, 95% Confidence Interval (CI) 1.09–1.20, $p < 0.001$; Severe hunger: aIRR = 1.14, 95% CI 1.09–1.19, $p < 0.001$). While the incidence was higher in urban than rural (aIRR = 1.17, 95% CI 1.12–1.22, $p < 0.001$), it was similar among boys and girls ($p = 0.746$).

Conclusion & Recommendations

Abuse is a major problem to a significant number of Tanzanian children, especially OVC from households with moderate and severe hunger, as well as those in urban. Response measures should be tailored to these factors, with the understanding that children live in different contexts, some of which propel the problem.

P128.

Effect of WORTH Yetu on malnutrition among orphans and vulnerable children in Tanzania

Nisela Didas, Amon Exavery, John Charles, Amal Ally, Remmy Mseya, Tumainiel Mbwambo, Conjesta Shao, Nemes Mallya, Asheri Barankena, Levina Kikoyo
Pact/Tanzania, P.O. Box 6348, Dar es Salaam, Tanzania

Correspondence: Nisela Didas, ndidas@pactworld.org
BMC Proceedings 2024, 18(15):P128

Background

Malnutrition is a significant challenge in Tanzania. In 2021, 32% of children under five were chronically malnourished. While households' inability to meet basic needs for the family due to poverty has been cited as a major contributor, there exists limited evidence of whether economic strengthening (ES) programs can effectively address the problem. This study assesses the effect of WORTH Yetu on malnutrition among orphans and vulnerable children (OVC) in Tanzania.

Material and Methods

Based on routine program data from the USAID-funded ACHIEVE project in Tanzania collected during January–March 2023 from 77 district councils, the outcome variable was OVC nutritional status which was assessed using MUAC tapes. WORTH Yetu, an ES program with focus on saving, lending and consumption support to vulnerable households was the main independent variable. Data analysis involved multivariable analysis using mixed-effects logistic regression model and Propensity-Score Matching (PSM) of the impact of WORTH Yetu on OVC nutritional status.

Results

Of the 72,860 OVC (50.6% female) aged 0–6 years analyzed, 1.0% were moderately/severely malnourished; and 12.5% had caregivers who participated in WORTH Yetu. Adjusting for OVC age, sex, and HIV status; and caregiver age, sex, marital status, education, disability; family size, place of residence, health insurance, and household economic status, OVC with caregivers in WORTH Yetu were 22.7% less likely to be moderately/severely malnourished compared to their counterparts (aOR = 0.773, 95% CI 0.605–0.988, $p = 0.039$). Matching on the same characteristics, PSM confirmed a reduced likelihood of OVC malnutrition due to WORTH Yetu ($\beta = -0.003$, 95% CI -0.005 – -0.0005 , $p = 0.020$).

Conclusion & Recommendations

This study uncovers a significant reduction in the odds of malnutrition among OVC by 22.7% attributable to WORTH Yetu. With this finding, there is a need to expand the coverage of the intervention as a promising intervention to improve nutritional status and possibly other outcomes among OVC and their caregivers.

P129.

Giving health facility autonomy in planning, budgeting, and financial management (DHFF) improves community oversight of health service delivery

Suma Kaare¹, Gemini Mtei¹, Desderi Wengaa¹, Conrad Mbuya¹, Nazar Solar¹, Ntuli Kapologwe²

¹Abt Associates, United States Agency for International Development Public Sector Systems Strengthening (PS3+) Project, Tanzania;

²President's Office, Regional Administration and Local Government (PORALG), Tanzania

Correspondence: Suma Kaare, suma_kaare@ps3plus.org
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Background

Prior to 2017, frontline primary health care providers (PHC) lacked financial autonomy to plan, budget and oversee expenditures. This undermined the ability of PHC to effectively provide needed basic health services to the community. Local Government Authorities (LGAs) headquarters were planning, budgeting, and spending on behalf of health facilities. Lack of financial autonomy reduced Facility Governing Committees' (FGCs) motivation to participate in decision making and expenditure oversight.

Program Intervention/Methodology

This abstract focuses on principles of DHFF and its impact on community engagement in health decision making and expenditure oversight. It shares insight on how the Government of Tanzania (GOT), with the support of USAID Public Sector Systems Strengthening (PS3+) project, and in collaboration with other development and implementing partners, transferred health planning, budgeting and expenditure oversight functions to frontline PHC providers and their governing committees and increased health facilities' autonomy hence improve transparency in health planning and spending management.

Results Finding

In 2017, for the first time in Tanzania, all public primary health care facilities started to receive funds directly to their bank accounts to develop plans and budgets through PlanRep systems. In addition, the electronic facility financial accounting and reporting system (FFARS) was also developed for facilities to manage use of DHFF resources. Early observations show improvement in drugs availability and accountability of providers to deliver needed services. Health workers are more motivated and health facility governing committees plays their oversight role more effectively.

Program Implication & Lesson Learned

It is necessary to provide financial autonomy to PHC to allow them space to accountably provide needed health services to the community. This autonomy needs to be accompanied with extension of public financial management systems to ensure transparency and accountability in the use of limited financial resources.

P130.

Patient's willingness to pay for the improved community health insurance and medications packages in Tanzania

Kassimu Tani^{1,2,3}, Sally Mtenga¹, Fabrizio Tediosi^{2,3}
¹Ifakara health institute, Dar es Salaam, Tanzania; ²University of Basel, Switzerland; ³Swiss tropical and public health institute, Switzerland

Correspondence: Kassimu Tani, ktani@ihi.ortz

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Background

Voluntary community health insurance is an increasingly popular approach for moving toward universal health coverage (UHC) in low- and middle-income countries. Tanzania has made notable efforts to promote health insurance, yet achieving widespread coverage remains a significant challenge. This study aimed to investigate the factors influencing patients' willingness to pay (WTP) for medication and various versions of the Community Health Insurance Fund (iCHF) in Tanzania.

Material and Methods

To elicit patients' willingness to pay (WTP) for medication, iCHF as intended and with additional packages, we conducted a study using a Contingent Valuation Method (CVM). The CVM bids were derived from a multi-stage process that included a review of iCHF as designed and relevant literature. The analysis used a random utility model estimated using an ordered logit model.

Results

Majority of patients exhibited WTP for the existing iCHF and augmented iCHF premium inclusive of additional medication coverage. Upon adjusting for demographic characteristics, we observed that patients enrolled in insurances and benefiting from user fee waivers demonstrated a lower WTP for medication, while those with non-communicable diseases (NCDs) and seeking care in private facilities exhibited higher WTP. Furthermore, patients with secondary education or above expressed greater readiness to pay higher iCHF premiums. Conversely, patients enrolled in private insurance and availing user fee waivers, along with those accessing care in public facilities, demonstrated a diminished likelihood of WTP for higher iCHF.

Conclusion & Recommendations

Our findings underscore the need for targeted interventions to address existing system deficiencies and enhance the availability of medications. Moreover, we emphasize the importance of considering NCDs status and education levels when designing health insurance

schemes for the informal sectors, with the goal of improving the uptake health insurance programs.

P131.

Health Facility Assessment on Vaccine Management Performance informs continuous improvement planning for immunization supply chain in Mwanza Region, Tanzania

Green Sadru¹, Mulatedzi Makhado², Omary Swalehe³
¹Jhpiego Tanzania; ²Interactive Research and Development (IRDSA), South Africa; ³Mzumbe University, Dar es Salaam, Tanzania

Correspondence: Green Sadru, sadrugreen@gmail.com

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Background

Ensuring the availability of high-quality vaccines is every country's priority agenda. Effective vaccine management helps to monitor and assess the supply chain system to identify strengths and weaknesses. Tanzania conducted an assessment in 2021 with an overall performance of 74% below the WHO benchmark of 80%. However, less is known about the root causes of low vaccine management performance. The objective was to assess vaccine management performance in health facilities.

Material and Methods

A descriptive cross-sectional study using mixed methods was carried out in 102 immunization health facilities sampled randomly from Mwanza, Tanzania in December 2022. The World Health Organization's effective vaccine management assessment tool was used to collect quantitative data and key informant interviews on qualitative data. Eight criteria and four facility and management functions were used to measure performance. Quantitative data were analyzed through WHO effective vaccine management tool which provides scores and thematic analysis was used to analyze qualitative data.

Results

The overall performance was 53%, below the WHO benchmark. None of the health facilities had reached the benchmark, but only 67% had an average performance ($\geq 50\%$ — $< 80\%$). The highest health facility score was 76%, and the lowest was 27%. The highest score was on information technology (72%), followed by human resource capacity (53%), and the lowest on standard operating procedures (43%). The major challenges to low performance were lack of training, knowledge about vaccine management practices, incomplete stock records and management, unavailability of standard operating procedures, and limited financial resources to support operations for vaccine management practices.

Conclusion & Recommendations

Effective vaccine management performance was low across all districts which increases the risks for vaccine quality and coverage. Building health facility staff capacity and ensuring the availability of resources will help to improve vaccine management performance. Hence, effectively working on continuous improvement planning is recommended at all health system levels.

P132.

Community Health Care workers' (CHWs) monetary incentive a key component in disease control Programs

Agrey Cosmas¹, Rabia Abeid¹, Venance Muzuka¹, Rose Olotu², Michael Machaku²

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

Correspondence: Agrey Cosmas, agrey.cosmas@shdepha.org

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Background

In Tanzania, CHWs has continued to play critical roles in reaching communities with essential health services. CHWs go door-to-door looking for sick patients and providing education on how to identify danger signs and provide referrals. In Geita region, the USAID Afya Shirikishi have trained a total of 66 CHWs (9 from Nyang'hwale DC) to provide a

community TB services to hard-to-reach communities of 6 administrative districts of the region.

Program Intervention/Methodology

CHWs' recruitment was done in collaboration with Regional and District Community Based health Coordinators as well as Regional and District TB Coordinators. Refresher training was done to all CHWs to equip them with enough knowledge on identifying signs and symptoms of TB. Monthly stipends of Tshs. 100,000/= is provided to every CHW after submission of reports and continuous supportive supervision is conducted to every CHW for data verification and onsite mentorship. The package was agreed between NTLF and the project.

Results Finding

Project data shows that, for the past 4 years (from 2019–2022) there has been a steady increase in TB cases notification from the community in Nyang'hwale DC from 59 TB cases in 2019 to 209 TB cases in 2022. The community contribution to total cases notification in the district has also increased from 15% in 2019 to 44% in 2022. The increase has been contributed by the deployment of motivated 9 CHWs of which 5 were TB survivors. All 9CHWs have stayed in the project for 2 years (100% retention) under USAID Afya Shirikishi project in Nyang'hwale DC.

Program Implication & Lesson Learned

The roles of CHWs against the transition of epidemic to pandemic diseases, as shown during COVID-19 era can be used as a scale up for monetary motivation to CHWs in the provision of community TB services as well as other primary health care.

P133.

Assessment of cost savings with the Jazia Prime Vendor System in Tanzania

August Kuwawenaruwa¹, Karin Wiedenmayer^{2,3}, Marco Salingu⁴, Rashid Omar⁵

¹Ifakara Health Institute, Dar es Salaam, Tanzania; ²Swiss Tropical and Public Health Institute, Allschwil, Switzerland; ³University of Basel, Basel, Switzerland; ⁴Ministry of Health, Tanzania; ⁵President's Office—Regional Administration and Local Government, Tanzania

Correspondence: August Kuwawenaruwa, ajoachim@ihi.or.tz

BMC Proceedings 2024, 18(15):P133

Background

The Jazia prime vendor system (PVS) supplements government supply by MSD with additional supplies from private vendors in a pooled regional approach, contributing to a significant increase of medicine availability. Economic analysis of costs savings from such framework agreements is important for informing policy-makers about the amount of resources averted. The aim was to generate evidence of cost savings with Jazia PVS compared to previous procurement from various private suppliers.

Material and Methods

A cost analysis of a health supply chain intervention incorporating both quantitative and qualitative data was conducted for Morogoro and Shinyanga regions. An ingredient costing approach was used to capture resources devoted to the purchase of commodities using Jazia PVS and the previous procurement system from private suppliers. Procurement document review of secondary and primary data was followed by validation with semi-structured in-depth interviews.

Results

Results showed savings of 2,761,308 thousand Tanzania Shillings (TZS) from the purchase of healthcare commodities in the two regions for three years. A total of 53,194 thousand TZS per year on operations costs was avoided through implementation of the Jazia PVS. Further analysis showed a benefit-cost-ratio of 1.0832, implying that the benefits exceed the costs and the project should be allowed to proceed.

Conclusion & Recommendations

This is the first study to analyse cost savings associated with the implementation of the Jazia PVS to complement the national supply chain in Tanzania. Despite substantial costs incurred in establishing and implementing the Jazia PVS, it resulted in considerable cost savings in the study regions.

P134.

Fostering Implementation Research to understand the Determinants of Data use for Decision Making in Primary Health Care in Tanzania

Albino Kalolo^{1,2}, James Kengia³, Ntuli Kapologwe³

¹St Francis University College of Health and Allied Sciences, Morogoro, Tanzania; ²Centre for Reforms, Innovation, Health Policies and Implementation Research, Tanzania; ³Division of Health, Social Welfare and Nutrition Services, President's Office, Regional Administration and Local Government, Tanzania

Correspondence: Albino Kalolo, kaloloa@gmail.com

BMC Proceedings 2024, 18(15):P134

Background

Data use in decision making in primary health care (PHC) settings is critical for improving quality and efficiency of services and health outcomes. Implementation science methods can help in understanding contexts of data use and how to scale-up interventions. We developed and applied a theory of change (TOC) on determinants of data use, strategies for change, outcomes on quality of services and health outcomes in PHC facilities in Tanzania.

Material and Methods

Guided by TOC a concurrent mixed-methods study to understand the situation of data use was conducted in March 2022. Involved in the study were 78 primary health facilities from six regions. A health facility checklist (star-rating), a patient exit questionnaire ($N=239$), a health worker questionnaire ($N=270$) and an observation checklist collected quantitative data. In-depth interviews to managers and health care workers collected qualitative information. Data were analyzed using descriptive and inferential statistics for quantitative data thematic analysis for qualitative data.

Results

Although 72% of the health facilities reported to ever use data in decision making, there was a sub-optimal capacity and consistency in use of data in day-to-day decision making and facility planning and budgeting. Facilitators of data use included: access to quality data, access to computers, capacity building and technical backstopping and good leadership. Barriers included: Network problems, limited capacity on management Stock outs of data collection tools, lack of motivation and guidelines on data management.

Conclusion & Recommendations

There exists operational and contextual factors that influence data use in decision making and planning. Improving data use context and infrastructure, capacity building and strengthening organizational capacities can foster improvement in data use and hence improve quality of services and health outcomes.

P135.

Economic Burden of Sickle Cell Anemia on Uninsured Patients: A Case Study from Muhimbili National Hospital, Tanzania

Jason Maro

Sickle Cell Programme, Muhimbili National Hospital, Dar es Salaam

Correspondence: Jason Maro, jasonmaro73@gmail.com

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Background

Sickle cell anemia (SCA) poses a significant economic burden on patients, especially those lacking health insurance coverage. In Tanzania, SCA remains a critical health issue, impacting approximately 11,000 births each year. This paper presents a comprehensive case report illustrating the economic impact of SCA on uninsured patient receiving care at Muhimbili National Hospital.

Case Report

A cost of illness analysis was performed to estimate the economic burden borne by a single patient within a one-month timeframe. The analysis encompassed direct costs (hospitalisation, medication, and clinical test expenses) and indirect costs (productivity loss during hospitalisation).

The total cost of care for the patient amounted to 1,570,465 Tanzanian Shillings (TZS), equivalent to \$671. Hospitalisation emerged as the most substantial cost component, accounting for 69% of the total expenses, followed by medications (19%), indirect costs (7%) and clinical tests (5%).

Conclusion

Our cost of illness analysis indicates that one-month cost of caring for a patient with SCA at Muhimbili National Hospital reached \$671. These findings underscore the urgency of implementing targeted policy interventions aimed at enhancing healthcare accessibility and alleviating the economic burden of SCA in Tanzania.

P136.

The Urgency of Fixing and Strengthening the National Health System in Tanzania

Godfrey Swai, Faustine Mayunga

Ultimate Family Healthcare Trust [UFHT], Tanzania

Correspondence: Godfrey Swai, gruben.swai@gmail.com

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Background

Fixing and ensuring structural and functional integrity of National Health System [NHS] building Blocks at all levels is necessary precondition for effecting earmarked strengthening interventions. The availability of comparable performance data, indices and visualizations over the decades on health systems performance at global, regional and country levels can offer insights on areas of NHS in need of fixing and/or strengthening attainment of Universal Health Coverage [UHC] by 2030.

Program Intervention/Methodology

Population pyramids of 1961, 2000 and 2023 were used to visualize Global, Regional, Africa and Tanzania's changes in mortality pattern. The latest information from Global Health Observatory of World Health Organization on Health system performance indicators at Global, Regional and Country levels were used to rank Tanzania. The NHS indicators included Universal Health Coverage [UHC], health:—security, supplies, information, governance, financing; and childhood nutrition.

Results Finding

There was reduction in deaths globally and at Regions over the study period except for the African Continent and Tanzania. The NHS indicators and ranges among 194 World countries [in brackets] were:- UHC index 46, [27–81], world income groups, Low [42], low-middle [68], upper middle[79] and high [85]; health indicators:- security as surveillance capacity 45, [25–100]; supplies- availability of selected generic medicines at public facilities, 38% [15–100]; information not reported; governance as passed legislation on UHC-Nil; financing as per cent of general government spending 9.5 [2.1–25.2]; and nutrition as per cent of stunted children under 5 years, 30.6 [1.6–52.5].

Program Implication & Lesson Learned

The limited improvement in NHS and nutrition indicators of Tanzania over the past six decades demand urgent fixing, wherever missing, weak or areas not tested for reliability so as to ensure effectiveness of strengthening interventions, saving lives and increased productivity and timely attainment of UHC, resilience and sustainable development.

P137.

Policy to Practice: Improving the Implementation and Monitoring of the National Essential Diagnostics Policy in Kenya

Eleanor Ochodo^{1,2}, Lisa Were¹, Jennifer Otieno¹, Sagam Caleb¹, Mercy Mulaku^{1,2,3}, Meggie Mwoka⁴, Tessie Akinyi⁴, Richard Gatukui⁵, Susan Njogo⁵, Eunice Gathitu³, Peter Lokamar⁶

¹Centre for Global Health Research, Kenya Medical Research Institute, Kenya; ²Centre for Evidence-Based Health Care, Department of Global Health, Faculty of Medicine & Health Sciences, Stellenbosch University, South Africa; ³Department of Pharmacology, Clinical Pharmacy and Pharmacy Practice, Faculty of Health Sciences, University of Nairobi, Kenya; ⁴Clinton Health Access Initiative, Kenya; ⁵Directorate of Health Products and Technologies, Ministry of Health, Kenya; ⁶Division of National Laboratory Service, Directorate of Public Health, Kenya

Correspondence: Eleanor Ochodo, eleanor.ochodo@gmail.com

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Background

The World Health Organization (WHO) introduced the concept of a model list of essential diagnostics (WHO EDL) in 2018 to complement the more established list for essential medicines, encouraging member states to adapt the WHO EDL to national contexts. We developed a-priori, an implementation and monitoring plan for the Kenya Essential Diagnostics List (KEDL) Policy to improve access to diagnostic tests and facilitate Universal Health Care Coverage in Kenya.

Program Intervention/Methodology

During KEDL development, we first aligned the KEDL to the Kenya Essential Medicines List (KEML) by considering In-vitro diagnostics (IVDs) that have an associated medicine category in Kenya's EML. Utilizing an iterative approach, we then adapted the existing implementation and monitoring framework for the Health Products and Technologies (HPTs), including the KEML, developed by the Kenya Ministry of Health as per the principles of the Kenya Health Sector Monitoring and Evaluation plan and WHO indicators for health systems monitoring.

Results Finding

The KEDL policy included 249 IVD tests for priority communicable and non-communicable diseases and included an implementation and monitoring plan in its annex. The implementation plan consisted of eight activities and associated indicators to guide KEDL dissemination and implementation. The monitoring plan consisted of one core indicator (proportion of available tracer essential (medicines, medical & diagnostic supplies) in health facilities) and 13 additional indicators to be measured with routinely available data and during site visits.

Program Implication & Lesson Learned

Alignment and adaptation of new policies to similar contexts and existing policies is essential in guiding their implementation, monitoring and evaluation. Follow-up operational research will be needed to assess the impact of the a-priori KEDL implementation and monitoring plan on IVD test availability and health outcomes across Kenya.

P138.

Investing in Family Medicine to Meet Tanzania Health Needs: an Update on Progress to Expand Training Pathways, Funding, and Recognition

John Obondo^{1,2}, Eric Aghan^{1,3}, Henry Ziegler^{4,5,6}, Esther Miriam Johnston⁷

¹Socio and Economic Education Transformation, Dar es Salaam, Tanzania;

²Buguruni Anglican Health Center, Dar es Salaam, Tanzania; ³Aga Khan

University, Dar es Salaam, Tanzania; ⁴Health Tanzania Foundation, Dar es

Salaam, Tanzania; ⁵University of Washington School of Public Health, USA;

⁶Medical College of Wisconsin, USA; ⁷The Wright Center National Family

Medicine Residency at HealthPoint, USA

Correspondence: John Obondo, obondojohn04@gmail.com

BMC Proceedings 2024, 18(15):P138

Background

Tanzania currently has 10 physicians/100,000 people, far short of the minimum 80 doctors/100,000 people set by the World Health Organization. 64% of Tanzania's population is rural, with widely dispersed health facilities. A double burden of infectious and non-communicable diseases exists, Tanzania must create a cadre of skilled primary care level physicians to manage this spectrum of diseases and coordinate efforts at prevention. This is the essence of family medicine.

Program Intervention/Methodology

Aga Khan University Family Medicine Master of Medicine began 2004. Subsequently, agreement on the need for family medicine, expanding family medicine training pathways, increasing specialty recognition and funding have occurred, in Tanzania. This session describes recent successes and ongoing progress in defining competencies and skills of a family medicine physician in Tanzania, engaging government support, and opening the first public university pathway to family medicine graduate education, at Muhimbili University for Health and Allied Sciences (MUHAS).

Results Finding

• Aga Khan University family medicine (FM) 2004.

- FM Tanzanian specialty 2010.
- Multi-university FM working group established 2016.
- 2021 International conference defined Tanzanian FM, proposed curriculum.
- FM team met Minister of Health 2021.
- In 2021, SEET, Tanzanian NGO, created "Family Medicine Development and Research Centre" (SEET FM Centre) coordinating multi-university FM effort.
- January 2023, MUHAS, SEET FM Centre, international partner's two-day FM consultation, curriculum review.
- March 2023 FM two-day meeting Tanzanian Ministry of Health.
- Meetings scheduled with Chief Medical, MOH and the Ministry of Regional Administration and Local Government, President's office (PORAG). PORALG directs all local and regional health services.

Program Implication & Lesson Learned

MUHAS, partners and Tanzanian government will create community-oriented FM. FM doctors will lead and improve primary health care for all Tanzanians, addressing especially those most in need. A Tanzanian internal multi-stakeholder process can result in a coordinated community oriented FM approach to delivering primary health care and likely improved outcomes.

P139.

Factors Influencing Coping Mechanisms in seeking Primary Health Care Services in the Child Headed Households in Kagera Region, Tanzania

Khalid Mwakabwale

Institute of Development Studies, University of Dar es Salaam, Tanzania

Correspondence: Khalid Mwakabwale, pmwakabwale@gmail.com

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Background

Child Headed Households (CHHs) is a new type of household structure (Cantwell & Holzscheiter, 2008). CHHs contributed by an increased number of orphans due to pandemics, wars, and natural disasters (Nar, 2021). According to the 2022 Population and Housing Census, there are 278,339 CHHs in Tanzania, 5% are in Kagera Region. Despite Primary Health Care (PHC) waiver and exemption policy, accessing PHC services among CHHs has been a challenge.

Material and Methods

The study was characterized by a convergent parallel mixed method design in data collection, analysing and interpretation where both quantitative and qualitative methods were employed. A total of 430 respondents (heads of CHHs) from Muleba and Bukoba districts participated in the study. Both qualitative and quantitative primary data were collected using household survey tool, Focus Group Discussion (FGD) guide, Key Informant Interview and observation.

Results

Despite 56.74% of CHHs reside closer to the PHC facilities, 64.88% never visited the facilities in the last 12 months despite falling sick, of those visited, 68.2% paid for the services, only 30.4% were exempted. Additionally; 77.90% of CHHs not aware of the existence of exemption policy, and those aware, only 63.15% benefitted from such exemption. For those not visiting health facilities, applies two major coping mechanisms whenever fall sick: The use of personal un-prescribed herbal medicines (88.9%), while 1.4% visited traditional healers.

Conclusion & Recommendations

Lack of knowledge on the availability of PHC exemption policy and the strong social welfare system are among the factors that limits vulnerable children to access PHC services, hence influence the adaptation of coping mechanism to mitigate health problems. The social welfare in the country should build the supportive system.

P140.

Awareness of Cervical Cancer and its Risk Factors among Women attending Three Health Facilities in Zanzibar

Margaret Tayari¹, Junmei Jonasson², Nadja Jagard²

¹Ministry of Health, Zanzibar; ²University of Gothenburg, Sweden

Correspondence: Margaret Tayari, margarettayari@yahoo.com

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Background

Cervical cancer is the number one cause of death due to cancer among women in Tanzania. Despite this, it is not a health priority in Zanzibar, screening and vaccination is not well established. Awareness of the disease, social support, have previously been concluded to affect participation in prevention programs. This study aimed estimating awareness on cervical cancer in association with possible cofactors, as well measuring attitudes towards screening and vaccination.

Material and Methods

The study was a cross-sectional study in the form of a questionnaire, conducted in March 2022 at three selected health facilities in Zanzibar. 385 women attending the premises volunteered to participate in the study. Descriptive statistics and logistic regression were used in the data analysis. The questions are based on the knowledge regarding the subject. Questions regarding social demographics age, income, education, marital status, and employment, as well as social support, were added to evaluate their association with awareness.

Results

About 210 participants out of 358 were included in the result 86.2% had low awareness only 13.8% had high awareness. Additionally in comparison to a higher level of education, a secondary educational level showed 97.6% among the women who had attended primary school, 92.1% of the women who had attended secondary school and 65.5% of the women who had attended high school or above, had low awareness on cervical cancer and its risk factors. Association was found between education level and risk of low awareness among women presented as crude odds ratio (OR) and confidence interval (CI) 95%

Conclusion & Recommendations

Awareness regarding cervical cancer and its risk factors was low among the study participants, was associated with educational level. Most women stated a willingness to attend screening, a future national screening program could decrease morbidity and mortality rates. A wider spread of knowledge about preventive measures needed to increase awareness.

P141.

Factors Associated with Maternal Mortality among women admitted in Maternity wards at Mnazi Mmoja Hospital—Zanzibar

Dua Mussa

Ministry of Health, Zanzibar

Correspondence: Dua Mussa, abduomary86@gmail.com

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Background

Good Health and Well-being is among of the Sustainable Development goals (SDG) of 2015. The target of these sustainable development goals is to reduce global maternal mortality ratio to less than 70 per 100,000 live births, with no single country having a maternal mortality rate (MMR) greater than 140/100,000 by 2030. Most of maternal deaths are preventable. Zanzibar like other East African countries is experiencing preventable maternal mortality.

Material and Methods

A descriptive retrospective design quantitative approach was utilized. Systematic random sampling was used to select patients' files of women admitted in Maternity Wards at Mnazi Mmoja Hospital. Data abstraction form was used to collect information from women's files. Institutional factors (referral status, birth attendants etc.) and maternal factors (antenatal attendance, conditions of women during admission, parity, obstetric factors, etc.) were extracted. Data were analyzed using Statistical Package for Social Science (SPSS) version 20.

Results

The proportion of maternal mortality among studied population were 24 (6.2%), $N=384$. The Chi square results show that; six factors were statistically significantly associated with maternal mortality; including Parity, obstetric factors, gestational age during birth, conditions of women's during admission, pre-existing health conditions ($p=0.000$) and birth attendants (0.036). However, in logistic regression, the results revealed that puerperal sepsis had significantly higher risk of deaths as compared to other obstetric factors. Post-partum hemorrhage were twenty times more likely to cause maternal deaths and severe preeclampsia were six times more likely to cause maternal deaths too.

Conclusion & Recommendations

The findings of this study show that most mothers are dying due to preventable conditions. Immediate intervention is required to end with reduce preventable maternal mortality. Antenatal and postnatal care could provide opportunities for risk detection. There is a need to focus on integrated care throughout pregnancy and child birth.

P142.

A Single-Centre Experience of Improving Exclusive Breastfeeding Practice

Rukhsar Osman, Mariam Noorani
Aga Khan University, Dar es Salaam, Tanzania

Correspondence: Rukhsar Osman, rukhsar.osman@scholar.aku.edu
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Background

Breastfeeding is amongst the most beneficial ways of ensuring child health and survival. In 2020, the in-hospital exclusive breastfeeding rate at Aga Khan Hospital was between 40–50%. Some reasons for these low rates included: failure of early initiation of breast feeding for caesarean section born babies, inadequate staff knowledge and skills to support lactation, lack of antenatal education for pregnant women and lack of standardised criteria for supplemental feeds prescription.

Program Intervention/Methodology

A quality improvement project was undertaken to improve exclusive breastfeeding rate to 80%. Strategies implemented included drafting hospital policy on breastfeeding and use of supplementary feeds, training staff on lactation management, antenatal education by using breastfeeding videos at clinics, conducting monthly antenatal classes with women identified as high risk for breastfeeding challenges, initiating skin-to-skin and breastfeeding within 1 h of birth in the operation theatre and daily lactation rounds by trained nurses.

Results Finding

The rate of exclusive breastfeeding steadily increased to 68% by end of 2021 and 75% by end of 2022. As of May 2023, exclusive breastfeeding rate prior to discharge is 90%

Program Implication & Lesson Learned

Exclusive breastfeeding rates in hospital can be improved by multi-pronged approach including policies, staff training and antenatal education, multi-departmental involvement and having dedicated staff to support lactation.

P143.

'Not how much you do, but how you invested to save lives of newborns.' Lessons from COVID-19 preparedness, Tanzania

Jitihada Baraka¹, Honorati Masanja¹, Georgina Msemo^{1,2}, Felix Bundala², Joy Lawn³, Rosie Steege³, Christine Bohne⁴, Catherine Paul⁴, Nahya Salim⁵, Karim P Manji⁵

¹Ifakara Health Institute; ²Ministry of Health Tanzania, Dodoma, Tanzania;

³London School of Hygiene and Tropical Medicine, United Kingdom;

⁴Rice University, Houston, Tx, USA; ⁵Muhimbili University of Health

and Allied Sciences, Dar es Salaam, Tanzania

Correspondence: Jitihada Baraka, jbaraka@ihi.or.tz

BMC Proceedings 2024, 18(15):P143

Background

COVID-19 has distressed health systems globally (WHO 2022). Tanzania, like other sub-Saharan countries, used different strategies to stop the spread of COVID-19 pandemic and protect small and sick newborn care (SSNC). We sought to identify these innovation solutions and the gaps in Tanzania's response to inform robust emergency preparedness planning for SSNC.

Material and Methods

We employed qualitative methods in seven public, tertiary hospitals across Tanzania with NEST360, from March to June 2022. We conducted two focus group discussion, and 42 in-depth interviews with respondents purposively sampled from across the health system. We used semi-structured interview guides that covered topics of policy development, service delivery, investment, data and information use, and partnerships. All participants gave informed consent. We audio recorded and transcribed all interviews and analyzed the data using thematic analysis.

Results

COVID-19 initially disrupted SSNC as newborn units were reallocated to COVID-19 isolation units and health insurance was not functioning. Further, national guidelines developed for COVID-19 were not specific to neonatal care. To mitigate this facility developed flexible operational guidelines for COVID-19 and trainings. Further, COVID-19 donations from global partners including International Monetary Funds (IMF), were used for investment into SSNC – critically to supporting the establishment of oxygen plants. This was of huge benefit to SSNC, yet oxygen cylinders still were crucial. Oxygen was imported from cities, leading to critical delays in care, highlighting the need for continued investment.

Conclusion & Recommendations

To ensure continuous provision of quality care services for SSN during health system shocks, robust pandemic preparedness plans should be prioritized with associated budgets. Further investment into a reliable supply of oxygen for SSNC is also critical to protect the reductions to neonatal mortality and reach the sustainable development goals.

P144.

Comparison of diagnostic performance of Lung ultrasonography and chest radiography in diagnosing Respiratory Distress Syndrome in neonates, Muhimbili National Hospital

Dr.Hollo Dadi¹, Dr. Balowa Musa¹, Dr. Irene Mhalu², Dr. Martha Mkony³

¹Radiology Department, Muhimbili University Of Health and Allied

Sciences, Dar es Salaam, Tanzania; ²Radiology Department, Muhimbili

National Hospital, Dar es Salaam, Tanzania; ³Paediatrics department,

Muhimbili National Hospital, Dar es Salaam, Tanzania

Correspondence: Dr.Hollo Dadi, hollodadi600@gmail.com

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Background

Lung ultrasound (LUS) is a promising technique and is currently a modality of choice for the diagnosis of respiratory distress syndrome. Preliminary data have shown high sensitivity and specificity of LUS in the diagnosis of respiratory distress syndrome (RDS). However, it is not currently being used in Tanzania.

This study aimed to determine the diagnostic performance of LUS compared to chest radiography and risk factors of RDS in neonates.

Material and Methods

A quantitative cross-sectional study was conducted at Muhimbili National Hospital from June to December 2022. The study included 179 neonates selected through consecutive sampling. Demographic and clinical data were collected using a structured tool, and analysis was performed using SPSS version 23. Descriptive statistics, sensitivity, specificity, positive and negative predictive values, and logistic regression were used. Significance was set at $p < 0.05$. Ethical clearance was obtained from the Research and Publication Committee of Muhimbili University of Health and Allied Sciences.

Results

In this study of 179 neonates, the mean gestational age was 32 ± 4 weeks, and the mean birth weight was $1,769 \pm 856$ g. Of the total, 103 neonates were diagnosed with RDS. The prevalence of RDS in neonates was 18% in the study duration. LUS compared to CXR showed high sensitivity, specificity, PPV, NPV, and diagnostic accuracy for RDS, 95.1% vs 90.3%, 94.7% vs 89.5%, 96.1% vs 92.1%, 93.5% vs 87.2%, 95% vs 90% respectively. Multivariable analysis demonstrated risk factors significantly associated with RDS were gestational age (p -value = 0.01), low birth weight (p -value = 0.034), and small gestational age (SGA) (p -value = 0.034).

Conclusion & Recommendations

Lung ultrasonography compared to chest radiography had high diagnostic accuracy, sensitivity, specificity, PPV, and NPV for respiratory distress syndrome in neonates. RDS was significantly associated with lower birth weights, gestational age, and SGA.

LUS should be adopted as an additional diagnostic modality to chest radiography in diagnosing RDS in neonates.

P145.

Reaching Zanzibar's children with disabilities and their caregivers through a community health initiative

Julius Rosenhan, Creptone Madunda
D-tree, Dar es Salaam, Tanzania

Correspondence: Julius Rosenhan, jrosenhan@d-tree.org

BMC Proceedings 2024, 18(15):P145

Background

Children with disabilities are among the most marginalized groups in Zanzibar, experiencing significant social, cultural, and economic barriers in accessing their right to health. Coupled with a health system not yet strong enough to cater for their specific needs as well as a remaining knowledge gap in terms of how community health initiatives can address the issue, showcasing best practices programs becomes crucial.

Program Intervention/Methodology

With community health volunteers being well positioned to bridge the gap between marginalized communities and weak health care systems, Dtree capacitated community health volunteers through a training to deliver services to children with disabilities and their caregivers. By employing the quality improvement methodology of PDSA-cycles (Plan-Do-Study-Act) together with the Ministry of Health and the objective to improve the knowledge and skills of community health volunteers on health and disability, several surveys were employed to measure the impact of the intervention.

Results Finding

Structured observations during the testing period showed that all community health volunteers were interested and appreciated the training. Furthermore, improvements in the areas of confidence, skills and knowledge as well as their ability to visit and interact with children with disabilities and their caregivers were recorded. Caregivers of children with disabilities not only reported gratitude but also increased knowledge on the disability of their child and an improved ability to take care of them. Following the evaluation and small-scale testing, a national training curriculum with a disability component was developed which will be deployed to approximately 2300 community health volunteers.

Program Implication & Lesson Learned

Community health volunteers are interested, committed, and successful in delivering services to children with disabilities and creating awareness of caregivers if enabled to do so. Therefore, they can play a crucial role towards achieving Universal Health Coverage by delivering primary health care to improve health equity for children with disabilities.

P146.

Universal Health Coverage for women of Reproductive ages: Survey-based comprehensive assessment of service needs, Utilization and Expenditure in Rural Tanzania

Sophia Kagoye¹, Mark Urassa¹, Charles Mangya¹, Coleman Kishamawe¹, Jim Todd², Milly Marston², Peter Binyaruka³, Ties Boerma⁴

¹National Institute for Medical Research, Mwanza, Tanzania; ²London School of Hygiene and Tropical Medicine, United Kingdom; ³Ifakara Health Institute, Tanzania; ⁴University of Manitoba, Canada

Correspondence: Sophia Kagoye, sophyadam90@gmail.com

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Background

Universal health coverage for women of reproductive ages is a critical component of country and global health strategies. Most evidence on women's health care needs, service utilization, health expenditure, and insurance coverage in especially high-fertility settings is limited to maternity care. Our study aimed to comprehensively assess women's health service utilization and expenditure, with an equity dimension in order to inform universal health coverage strategies.

Material and Methods

We conducted a household survey among women of reproductive ages (15–49 years) as a nested study within Magu HDSS in northwest Tanzania, during 2020–21. Data were collected on self-reported health, general and maternity utilization for admissions in the last 12 months and outpatient utilization in the last 4 weeks, health expenditure and health insurance coverage. We analysed indicators by household wealth quintiles, residence within the study area and health insurance, through logistic regression models.

Results

Among 8,665 women 15–49 years, self-reported health was poor among 3% of women, health insurance coverage was 5.1%; 7.3% reported at least one OPD visit, of which 81% were for their own health; 9.3% were admitted past year, with 74% of admissions for maternity. Total average annual expenditure per woman was TSH 16,860 (~US\$7.50), where 71% was for OPD own health care, 11% for deliveries and admissions for her own care and 7% for OPD maternity. Poorest women had higher healthcare needs, lower coverage and utilization of services for maternity and own health care, and lower health insurance coverage.

Conclusion & Recommendations

Expenditure on women own health care was higher than maternity care. Despite Tanzania successfully minimizing inequalities in maternity related expenditure, poorer women still disadvantaged. Health insurance programs show no impact on service use and were hardly used. Strategies to reach all women with adequate, affordable and equitable services are crucial.

P147.

Reaching the youth for modern contraceptive use based on their informed choices in Kigoma, Katavi, Songwe, and Rukwa Regions, Tanzania

Julius Njunwensi¹, Otmar Massawa¹, Kasanga Mkambu¹, Benedicta Masanja¹, Ola Farid¹, Eva Matiko¹, Annette Almeida¹, Benedict Chidzao¹, Doris Kiama¹, Jane Mvungi¹, Boniface Kasululu², Ibrahim Isack², Jesca Leba², Jonathan Budenu², Bhavin Jani³, Selina Mathias³

¹Tanzania Health Promotion Support, Songwe, Tanzania; ²Regional Health Management Team; ³United States Agency for International Development Tanzania

Correspondence: Julius Njunwensi, jnjunwensi@thps.or.tz

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Background

Youths (10–24 years old) have the lowest contraceptive use rates and the highest unmet need for family planning (FP) in East Africa. In Tanzania, 74% of youth are not using any contraception. Youth with unplanned pregnancies in Tanzania have low levels of education and tend to live in areas where access to health services is relatively poor.

Program Intervention/Methodology

USAID Uhuru Activity and health teams have trained providers who provide services to facilities with scarce FP-skilled personnel. Also, used activity community health volunteers (140) and peer leaders (46) provide FP health education to people attending and provide referrals for FP services within the facility. Through USAID Afya Shirikishi, youth from schools and communities are referred for FP services using royalty cards for evenings and weekends. Program data were extracted from DHIS-2 and analyzed from October 2020 to March 2023.

Results Finding

During the Activity implementation, the number of youths receiving modern FP contraceptives in the four regions namely Kigoma, Katavi, Songwe, and Rukwa has increased, ranging from 40,000 to 61,000 clients each quarter. The youth has increased making up about a third of all modern FP methods beneficiaries each quarter. Through this activity, there were great contributions to reducing the current 74% of the youth who are not in any contraception.

Program Implication & Lesson Learned

Through youth-friendly services, the uptake of modern FP methods among youth is improved. The FP training capacitate HCWs and PEs with skills for demand creation and FP services delivery to youth increasing uptake of modern FP methods and ultimately empowering youth to make informed choices and prevent unplanned pregnancies.

P148.

Addressing Child Health Inequities through Sustainable Financing for Childhood Pneumonia Treatment – Increasing Access to Amoxicillin Dispersible Tablets

Dr. Felix Bundala¹, Nelsha Haji², Pili Mmbaga², Gilbert Mateshi², Sarah Wangilisasi²

¹Ministry of Health, Dodoma, Tanzania; ²Results for Development, Dar es Salaam, Tanzania

Correspondence: Dr. Felix Bundala, bundala.felixambrose@yahoo.com
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Background

Pneumonia accounts for 14% of all deaths of children under five with the highest burden falling on low- and middle-income countries (LMICs). Pneumonia has not received the same level of donor support as other areas, receiving only 7% of total donor support given to malaria and HIV/AIDS between 2007 and 2018. While amox DT, a cost-effective, WHO-recommended antibiotic is available, access to this commodity remains low in LMICs.

Program Intervention/Methodology

In Tanzania, comprehensive technical assistance (TA) supported the governments to strategically address child health financing inequities through: (i) mobilization of donor funding to avert financing cliffs; (ii) development of co-financing agreements to catalyze domestic financing, and (iii) gradual mobilization of domestic resources to promote sustainable financing. Between 2016 and 2023, Tanzania has gradually increased its domestic mobilization resources for Amox DT from \$0 to \$~1.5 M respectively.

Results Finding

The continued development of domestic resource utilization and mobilization strategies as well as other sustainable financing options such as integration into national health insurance schemes and private sector scale-up has resulted in amox DT now being fully funded through domestically mobilized resources in Tanzania.

Combined with additional TA to address regulatory, supply, and demand side barriers, this has resulted in improved availability and

reduced stockouts of amox DT across public health facilities. Availability increased from 25% in 2016 to 90% in 2022 in Tanzania and stockouts reduced by ~75% during the same period.

Program Implication & Lesson Learned

A comprehensive view focused on sustainable financing mechanisms along with addressing supply, demand and regulatory barriers offers a potential model for addressing child health inequities in other LMICs through strengthening systems to improve access to life-saving commodities.

P149.

Patient Satisfaction with Obstetric Fistula Treatment Services at Bugando Medical Center; A Cross Sectional Survey

Jonas Kagwisage¹, Zamda Kikoti¹, Nguke Mwakatundu¹, Bernadetha Nyobeye¹, Reolvin Elishaphat²

¹Department of Programs, Americares Foundation, Mwanza, Tanzania;

²Department of Obstetrics and Gynaecology, Bugando Medical Centre, Mwanza, Tanzania

Correspondence: Jonas Kagwisage, jkagwisage@americares.org

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Background

A total of 2,553 patients underwent obstetric fistula repair from January 2020 through December 2022 at seven hospitals in Tanzania.

Patients are cared for by a multidisciplinary team, which includes ward and theatre nurses, physio and rehabilitation specialists, psycho-social support counsellors, nutritionists as well as the doctors and surgeons. Studies have addressed patient surgical outcomes, but information on patient satisfaction with services is still poorly understood particularly in Tanzania.

Program Intervention/Methodology

Objectives of the survey was to gain understanding of patient satisfaction with fistula treatment services provided at Bugando Medical Center and explore their opinion on the areas to improve in future.

We conducted in-depth interviews with 140 patients discharged from hospital in January through June 2023. Interviews were done on discharge day using validated questionnaires. Information on accessibility, acceptability, satisfaction with services and recommendations for betterment were collected and analyzed using kobo toolbox.

Results Finding

Majority were aged between 25 and 40 years (58.6%). Nearly all 138 (98.6%) participated in health and psychoeducation counselling sessions where by 112 (80%) were satisfied with the way counselling is conducted. Dissatisfaction was on the counselling settings and etiquettes.

Nine (6%) were engaged in different life skills sessions. Making soap and sanitizer, knitting, sewing lessons, and plaiting hair imparted new skills and helped them to come together and chat with each other.

Recommendations for betterment include designating a separate ward for fistula patients (4.3%), stop sharing of hospital bed (11.4%), and conduct patient orientation sessions during admission (3%).

Program Implication & Lesson Learned

Majority of obstetric fistula patient reach to health facilities already terrified. Provision of holistic services is key in addressing their situation and helping them feel safe, valued and loved.

Regular surveys including exit interviews to obtain feedback from patients is recommended to ensure provision of quality and patient centered care.

P150.

Improving Early Childhood Development (ECD) through a digital community health program in Zanzibar: Reflections, different perspectives, and the way forward

Creptone Madunda, Julius Rosenhan

D-tree, Dar es Salaam, Tanzania

Correspondence: Creptone Madunda, cmadunda@d-tree.org

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Background

For the first time, Early Childhood Development (ECD) was assessed by the recent Tanzania Demographic Health Survey. The recently published key indicator report shows both promises and challenges for Zanzibar as 39% of Zanzibari children remain developmentally off-track (compared to 53% in Mainland Tanzania). Therefore, exploring ways in which ECD has been implemented and can be improved are crucial so that children are thriving and reaching their full potential.

Program Intervention/Methodology

The Jamii ni Afya program approaches Early Childhood Development service delivery through digitally-supported community health volunteers. Putting a stronger emphasis on developing information and messages around Early Childhood Development for community health volunteers to deliver high-quality services to children and their caregivers. This exemplifies a shift from the traditional focus on survival, such as child mortality, towards a more holistic and long-term approach and understanding on the human development of children.

Results Finding

Introducing Early Childhood Development as a comparatively new topic in the cultural context of Zanzibar comes with its challenges. While there was a high need in the beginning to develop the understanding of government officials, Community Health Volunteers, and families in the communities about the importance of ECD, this increasingly turned into a vibrant engagement and championing of stakeholders as well as shown acceptance and interest from the target population. While change is a slow process and persisting challenges require adaptive learnings, building collaborations, and creating local ownership and engagement are a promising start.

Program Implication & Lesson Learned

To improve Early Childhood Development requires holistic approaches and persistent efforts in targeting multi-layered challenges. Therefore, not only more collaboration and coordination between different Ministries, development actors and civil society organizations are needed but an in-depth understanding of the cultural context and practices should be increasingly taken into consideration.

P151.

Evaluation of comprehensive post abortion services surveillance system from January to March 2023: A case study of Dodoma region, Tanzania

Jonhas Malija^{1,2}

¹Muhimbili University of Health and Allied Sciences, Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam, Tanzania;

²Ministry of Health, Tanzania

Correspondence: Jonhas Malija, masatu.jm@gmail.com

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Background

Tanzania abortions and their complications account for 10% of maternal death every year. Tanzania's abortion rate is 36 per 1000 for women aged 15 to 49 due to low uptake of modern family methods. We aimed to evaluate performance of Tanzania's comprehensive Post Abortion Services Surveillance (cPASS) in capturing abortion cases and their complications from January to March 2023.

Material and Methods

The cross-section study design used simple random sampling to obtain 5 health facilities in 3 Districts (Chamwino, Kongwa, and Dodoma) located in the Dodoma region, Tanzania, and 22 Health providers who were interviewed by semi-structured questionnaires. The 5 Key informants from district, Regional, and National levels were purposefully selected and interviewed. Secondary abortion data in 2022 was reviewed to evaluate performance of Tanzania comprehensive post abortion services surveillance system in capturing abortions and their complications from January to March 2023.

Results

The 36,203 abortions cases captured by the system, Dar es salaam region reported highest number of abortion 7673(21%), and

Njombe region lowest cases of 303(1%) year 2022. In 5 health facilities, 273(57%) cases were reported by Dodoma referral hospital, and 13(3%) lowest reported by Kikuyu dispensary. Women aged 20 to 29 years old (335(68%)) were more reported. The 379(77%) abortions cases were below 12 weeks Gestation Age (GA) and 113(23%) were above 12 weeks GA. The 20(91%) of participants can use the system due to its simplicity, flexibility, acceptability, stability, and timeliness.

Conclusion & Recommendations

The system provides good estimation of abortions burden, trends, causes, and integrated services. It is robust in usefulness, simplicity, flexibility, acceptability, stability, and timeliness. Challenges observed on data quality, representativeness, case definition, sensitivity, and predictive values are positive, these need to be addressed to make a system meet its objectives.

P152.

Health Awareness and Impact of Short Message Service Intervention on Improved Adolescent Health Literacy in Tanga Region, Eastern Tanzania

Wilbald Anthony¹, Amani Tinkasimile¹, Mariam Ngaula¹, Mashavu Yussuf¹, Innocent Yusufu¹, Imani Irema¹, Sakina Mustafa², Frank Mapendo¹, Cecilia Anthony¹, Azan Nyundo³, Abbas Ismail⁴, Agustine Marero⁵, Abdallah Hussein⁶, Mary Joan Masanja¹, Dr. Stephen Mwandambo², Agness Mchome², Esther Moka², Ally Kasembo², Julieth Bitabo², Salome Materu², Maurus Ndunguru², Kisaka Kachua², David Sando⁷, Charles Mkombe², Mary Mwanyika Sando¹, Wafaie Fawzi^{8,9,10}

¹Africa Academy for Public Health, Dar es Salaam, Tanzania; ²Tanga City Council, Tanga, Tanzania; ³Department of Psychiatry and Mental Health, School of Medicine, University of Dodoma, Dodoma, Tanzania; ⁴College of Natural and Mathematical Sciences, University of Dodoma, Dodoma, Tanzania; ⁵College of Informatics and Virtual Education, University of Dodoma, Dodoma, Tanzania; ⁶Department of Statistics, University of Dodoma, Dodoma, Tanzania; ⁷Management and Development for Health, Tanzania; ⁸Department of Global Health and Population, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA; ⁹Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA; ¹⁰Department of Nutrition, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA

Correspondence: Wilbald Anthony, petertorokaa@gmail.com

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Background

In Tanzania, adolescents are often left behind in health policies and surveillance, resulting in limited information on risk factors and fewer health gains. This study examined adolescent health awareness and the impact of Short Message Service (SMS) intervention on improved adolescent health in the Tanga region, Eastern Tanzania.

Material and Methods

This was a qualitative cross-sectional study involving adolescents from 20 secondary schools and 8 community hotspots in the Tanga region. The schools and hotspots were purposively selected. Ten focus group discussions and ten in-depth interviews explored adolescents' awareness of health domains. We designed a two-way bulk automated SMS intervention where nutrition promotion messages were customized for adolescents. Data analysis was performed using Nvivo software, applying a thematic analysis approach to uncover patterns and themes.

Results

The emerging themes included a perceived understanding of health, the influence of peers on health, and experience with the SMS intervention on nutrition. In-school adolescents demonstrated greater awareness of health concepts and health domains than those out-of-school. Factors such as water, sanitation, and hygiene practices, food availability in schools, engagement in sports, and instructions on menstrual hygiene influenced health behaviors. SMS intervention effectively improved nutritional knowledge and promoted positive changes in physical exercise. Most of the participants faced limited

access to messages as their parents/guardians restricted their use of mobile phones.

Conclusion & Recommendations

In-school adolescents showed a more balanced acquisition of knowledge across adolescent health domains, particularly in nutrition messages than those out-of-school. We recommend scaling up the acquired knowledge within the region to maximize impact, leverage contagious behavioral change, and integrate project SMS intervention in school health programs.

P153.

The impact of DataCipation in improving community health services and well-being in Zanzibar

Abbas Wandella

D-tree, Dar es Salaam, Tanzania

Correspondence: Abbas Wandella, awandella@d-tree.org

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Background

Active involvement of individuals and communities in the data utilization process can enhance services, promote well-being, and empower residents, overcoming the limitations of the traditional top-down approach commonly referred to as dataCipation. With Zanzibar facing different challenges in data governance with limited perspectives and inputs from citizens, an opportunity arises by increasing participation in all stages of data processes.

Program Intervention/Methodology

Jamii ni Afya is a digital health intervention that empowers and engages communities by working collaboratively with Community Health Volunteers (CHVs). CHVs utilise the Jamii ni Afya system to provide efficient, high-quality care, generating valuable data that personalises health services. By involving CHVs, Jamii ni Afya ensures active community participation, fostering a sense of ownership and engagement. If used well, this data can improve supervision, programmatic and policy decision-making, and support healthcare initiatives.

Results Finding

Advancing dataCipation in Zanzibar resulted in several substantial changes across multiple healthcare tiers. Following a high demand and interest, 77 government staff from a district and national level were trained. Furthermore, 192 CHV supervisors underwent training which facilitated and strengthened many linkages, resulting in the integration of Jamii ni Afya dashboards into the district health information management system which has proven invaluable, seamlessly delivering data to support various roles and responsibilities. Such processes allowed community and citizen data to feed into health system processes and decisions directly.

Program Implication & Lesson Learned

Using community data and citizen feedback to inform decision-making, Zanzibar has improved community health services and promoted overall well-being. Through dataCipation, Community Health Volunteers (CHVs) contribute to health data collection, offering insights into specific health needs and challenges. This participatory approach ensures more responsive and effective community health services.

P154.

Empowering Primary health care through Digitization of health information system: A Case of Case-based Electronic TB Recording and Reporting system-DHIS2ETL

Emmanuel Nkiligi¹, Peter Neema¹, Robert Balama¹, Zuweina Kondo²

¹National TB and Leprosy Program, Ministry of Health, Tanzania; ²Health Plus, United States of America

Correspondence: Emmanuel Nkiligi

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Background

Tanzania is among the 30 high Tuberculosis (TB) burden countries that missed 45,000 people with TB in 2021. In line with the SDG, the country aims to reduce TB deaths by 90%, and the incidence rate by 80% by 2030. According to WHO, social and economic development factors

strongly influence the TB epidemic. Ensuring UHC is the only way to reach more people with TB.

Program Intervention/Methodology

To enable efficient and equitable resource allocation and effective planning in TB response, a case-based recording and reporting system was developed in 2017. The system known as DHIS2ETL was developed using a tracker application in the DHIS2 platform. A situational analysis and stakeholder workshop were conducted to determine the requirements. A Government University's Developers were used to ensure smooth maintenance and sustainability. Capacity building was done through training, procurement of laptops, and mentorship.

Results Finding

The DHIS2 ETL captures disaggregation of age, sex, TB risk populations, geographical location, and medicine distribution. It allows data entry, analysis, and use at primary healthcare facilities and provides facilities-based reports and dashboards visualization. There is timely availability of annual TB national and subnational data at the end of January instead of the end of Month May, facilitating subnational evidence-based planning during the Comprehensive Council Health Plans. The system is used by local and international researchers and students for further studies and in-depth epidemiological analyses.

Program Implication & Lesson Learned

A digitized case-based recording and reporting system is essential to provide disaggregated data for risk populations and service delivery outcomes as a means to ensure evidence-based, equity and equality in planning and resource allocation. More variables such as those that are community-based should be included for a more informative system.

P155.

The contribution of Afya—Tek digital system towards the improvement of RMNCH services

Oscar Lugumamu, Sosthenes Ketende, Suleiman Kimatta, Jafary Liana, Fatma Mahmoud, Johanitha James, Monica John, Christina Gabunda, Angel Dillip

Apotheker Health Access Initiative

Correspondence: Oscar Lugumamu, oscugumamu1996@outlook.com

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Background

Afya-Tek is an initiative that co-creates and integrates emerging digital health interventions, including decision-support tools, into the local health systems of the Kibaha region. Afya-Tek digitally links community members with Community Health Workers (CHWs), public health facilities, and private Accredited Drug Dispensing Outlets (ADDOs) to improve decision-making processes, quality of care along the continuum of care, ensure prompt access to care, and reduce inefficiency in the referral system.

Material and Methods

The Afya-Tek digital solution was established in conjunction with the government to address the fragmentation of the primary healthcare system. Afya-Tek brings together 2400 CHWs, 140 ADDOs, and 52 health facilities, using a people-centered approach to increase access to prompt, high quality, and individually-tailored health care. The program involved program beneficiaries, health providers, and government officials; co-developing a system that's in line with government requirements and end-user priorities.

Results

During Phase I of Afya-Tek (2019–2023), we designed, developed, and implemented the system in two councils of Kibaha district. 235,000 clients were registered in the system, representing 95% of the population as per the 2012 District Census. About 500 health service providers were trained and used the Afya-Tek digital system. Referral completion rates from CHWs to ADDOs and CHWs/ADDOs to health facilities are approximately 90%. Phase II, starting in July 2023, will strengthen Afya-Tek and secure its pathway for national scale.

Conclusion & Recommendations

The results show that technology, and inclusion of ADDOs contribute to the improvement of prompt services and the offering of patient-centered reproductive, maternal, newborn, and child health services.

The afya-tek system can be used as a platform for research on other diseases including HIV, TB, NTD, and non-communicable diseases.

P156.

Leveraging Digital Innovations to Strengthen Vaccine Supply Chain in Tanzania: Safeguarding Vaccines during Transport and Beyond

Mariam Johari¹, Diana Harper¹, Tom Mehoke¹, Hannah Mills¹, Juma Ikombola², Happiness Mbesero²

¹Nexleaf Analytics, Tanzania; ²InSupply Health, Dar es Salaam, Tanzania

Correspondence: Mariam Johari, mariam@nexleaf.org

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Background

There has been little insight into potentially dangerous temperature exposure to vaccines in transport. Studies show that as many as two-thirds of vaccines are exposed to damaging temperatures during transport, including dangerous freezing incidents. A single freezing event can destroy thousands of dollars' worth of vaccines in just one hour. New technologies can provide end-end visibility into a vaccine's journey, providing decision makers with insights to protect vaccine potency.

Program Intervention/Methodology

Trek is a bluetooth-based data logging temperature sensor that works seamlessly with an Android application to monitor and record temperature and location data in real-time during the transportation of vaccines, giving real-time alerts to users when temperatures are outside of the safe range for transportation. In partnership with the Tanzania Ministry of Health and inSupply, Nexleaf piloted a program in Mwanza and Geita where Regional and District level health care workers were trained to monitor vaccine temperatures during transport using Trek.

Results Finding

Vaccines are at risk during transport, frequently and unexpectedly becoming too warm or too cold. Trek registered temperatures within range for 66% of the duration of each trip. A total of 94 cold excursions were registered on 59 trips, 12 of those trips reached WHO freeze status, meaning that they were too cold for 60 consecutive minutes or more. 164 warm excursions were registered on 103 trips. Real-time temperature alerts prompted health workers to take action to protect vaccines. Typical responses to Trek alerts include repacking vaccines and exchanging cool water packs, reducing vaccine damage and wastage.

Program Implication & Lesson Learned

Introducing Trek gave health care managers at the national and regional levels visibility into status of vaccine distributions, including the adherence to Standard Operating Procedures (SOPs) for transporting vaccines. Data from Trek has helped participants plan efficient distribution routes and allocate resources where they are most needed.

P157.

The experience of using Power BI to enhance linkage to ART and treatment Continuity among Key Populations, Dar es Salaam

Gilbonce Mwakapinga, Bernard Ogwang, Vicent Daudi, Dorica Boyee, Christa Fischer Walker, Emmanuel Mpinga, Agness John, Ricki Mtitu, Elizabeth Herman, Christina Mbise

Family Health International 360, EpiC Project, Dar es Salaam, Tanzania

Correspondence: Gilbonce Mwakapinga, gilbonce@gmail.com

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Background

Regular data use and visualization is important in showing progress toward achieving the 95-95-95 UNAIDS targets. Some studies in Tanzania have reported low linkage to ART among KPs. EpiC Project deploys various strategies, to improve linkage to ART and treatment continuity. Power BI is one of the effective tools to analyze and visualize clients' ART uptake and Viral Load monitoring. Its interactive interface makes ad-hoc and detailed analyses easier.

Program Intervention/Methodology

We present improvement in linkage to ART and continuity among KPs, after using Power BI to inform decision making. We analyzed ART treatment data for at-risk women (AW) and at-risk men (AM) diagnosed HIV positive in the community at Temeke, Kinondoni, and Kigamboni municipalities where EpiC is implemented, between March 2020 and September 2022. The three municipalities were purposively sampled because they were among initial councils to use Power BI in 2021 as the main data visualization tool.

Results Finding

About 8% of 48,911 AW and 9% of 11,470 AM tested HIV positive from March 2020 to September 2022. The linkage to ART has improved to 96% among AW and 90% AM in 2022. HIV Viral Load (HVL) suppression has improved to 93% among AW and 94% among AM. Data use and review have increased among project staff especially after starting using the Power BI. Using data analytics tools, the project identified and traced clients who interrupted ART treatment, 11% of 357 AW and 16% of 119 AM were returned to care and treatment.

Program Implication & Lesson Learned

The use of Microsoft Power BI has led to improved linkage to HIV care and ART treatment continuity among KPs. Leveraging Power BI for data visualization, and closely monitoring key performance indicators will improve linkage to ART, treatment continuity and the quality of services.

P158.

The Role of a Digital Health Living Lab in Accelerating the Electronic Medical Record System (EMR) Development

Honest Kimaro¹, Josephat Mwakyusa¹, Hassan Muhomi¹, Alfred Msasu², Bernard Mussa¹

¹University of Dar es Salaam-DHIS2 Lab, Dar es Salaam, Tanzania;

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

Correspondence: Honest Kimaro, honestck@gmail.com

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Background

It has proven challenging to capture comprehensive clinical software requirements based on a few interactions with health professionals via interviews and meetings. A living lab provides a continuous working environment for all actors involved to co-design, test, and improve the solution in a live setting through constant use and feedback to ensure full functionality and acceptance. This study aimed to develop an EMR that addresses the challenges of existing EMRs.

Material and Methods

The UDSM health center is used as a living lab model where medical personnel co-work with the developers to produce relevant digital health solutions that best address emerging clinical needs. The clinical processes and users' requirements were analyzed, functionality tested, and versions deployed in test servers and evaluated for improvements. The produced versions were deployed into live servers during a specified support period. The system issues were captured lively or received during weekly feedback meetings to improve the system continuously.

Results

The living lab has aided in developing a robust integrated EMR (called iCareConnect+) that covers the entire patient journey across all hospital services from patient registration, consultation, billing, diagnostic services, and pharmacy, to post-patient management. The usage of the iCareConnect+ has improved healthcare operations and the quality of patient care and health service. The Interoperability Adapter (iAdapter) has been developed, which is a breakthrough that provides the seamless integration of vendor-based EMRs and HMIS-DHIS2 as well as the full-fledged sample-based Laboratory Information System (LIS) currently deployed at the National Public Health Lab.

Conclusion & Recommendations

The living lab approach is commonly used in Europe but has yet to be widely used in developing countries. Given the complexity of

healthcare, a living lab provides an avenue for continuous research and innovations around digital health with medical workers to produce quality clinical digital health solutions.

P159.

Feasibility of an Adaptive E-Learning To Improve Provider Proficiency In Essential And Sick Newborn Care In Mwanza, Tanzania

Peter Meaney¹, Adolfine Hokororo^{2,3}, Hanston Ndosi², Theopista Jacob⁴, Joseph Mwangi², Florence Kalabamu⁵, Christine Joyce⁶, Boris Rozenfeld⁷, Marc Berg^{1,7}, Zach Smith¹, Neema Chami^{2,3}, Namala Mkopi⁸, Castory Mwangi⁹, Enock Diocles¹⁰, Ambrose Agweyu^{11,12}

¹Stanford University School of Medicine, Palo Alto, California, USA;

²Catholic University of Health and Allied Sciences, Mwanza, Tanzania;

³Department of Pediatrics and Child Health, Bugando Medical Centre, Mwanza, Tanzania..

⁴Pediatrics Association of Tanzania, Dar es Salaam, Tanzania;

⁵Department of Pediatrics and Child Health, Hubert Kairuki Memorial University, Dar es Salaam, Tanzania;

⁶Cornell University School of Medicine, New York, USA;

⁷Area 9 Lyceum, Boston, Massachusetts, USA;

⁸Department of Pediatrics and Child Health, Muhimbili National Hospital, Dar es Salaam, Tanzania;

⁹Department of Pediatrics and Child Health, Simiyu Regional Referral Hospital, Simiyu, Tanzania..

¹⁰Mwanza College of Health and Allied Sciences, Mwanza, Tanzania;

¹¹KEMRI-Wellcome Trust Research Program, Nairobi, Kenya;

¹²London School of Hygiene and Tropical Medicine, London, UK

Correspondence: Peter Meaney, meaneypa@stanford.edu

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Background

Pediatric Acute Care Education (PACE) is an adaptive e-learning environment developed to improve healthcare provider knowledge of Tanzanian guidelines for the management of acutely-ill children. We evaluated the feasibility of implementing a subset of PACE modules entitled adaptive Essential and Sick Newborn Care (aESNC) in Mwanza region, Tanzania.

Material and Methods

We conducted a 6-month cohort feasibility trial in 4 health facilities, targeting pediatric care providers. Access to aESNC was through any internet-connected device. Feasibility was defined using the RE-AIM implementation science framework as follows: 1) Reach: >75% of eligible providers, 2) Efficacy: >30% increase in conscious competence or >60% average progress for initial learning, 3) Adoption: all facilities, 4) Implementation: median days to initiation <3 and median reminders per provider <4, and 5) Maintenance: >70% average progress for refresh assignments.

Results

Results: We enrolled 195/231 (85%) eligible providers. A total of 135/195 (69%) were active or completed all initial learning, with average progress of 93% and increase in conscious competence of 41% [IQR 39%, 46%]. Among participants who became inactive before completing all initial learning 60/195 (31%), average progress was 46%, and conscious competence increased by 34% [IQR 17, 42%]. All facilities adopted aESNC.

Median days to initiation was 1 [IQR 0, 5], and median reminders were 3 [IQR 1, 9]. Among 37/195 (19%) participants were active in refreshing assignments, average progress of 3% for refresher.

Conclusion & Recommendations

aESNC met feasibility criteria for reach, efficacy, adoption, and implementation, but not maintenance. PACE increased the reach of newborn acute care training to a heterogeneous workforce. Increasing support to providers during refresher assignments is needed for feasibility.

P160.

Enhancing DHIS2 Data Quality: Insights from Routine Data Quality Assessments in Kagera Region, Tanzania

Mathayo Mtebe, Mathias Newinga, Wilbald Anthony, Mashavu Yussuf,

Innocent Mboya, Mary mwanyika Sando

Africa Academy for Public Health, Tanzania

Correspondence: Mathayo Mtebe, mmtebe@aaph.or.tz

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Background

Accurate and reliable health data is crucial for effective and efficient decision-making, resource allocation, and monitoring of health services activities. DQA plays an important role in ensuring the quality and integrity of health data captured in the District Health Information System 2 (DHIS2). This study highlights key findings and strategies derived from data quality assessments conducted in Kagera to enhance the reliability and accuracy of DHIS2 data.

Material and Methods

This study employed a mixed-methods approach to investigate DHIS2 data quality. Routine DQA was conducted using a standardized tool pre-loaded in ODK, examining timeliness, completeness, accuracy, reliability, integrity, and consistency. Quantitative analysis was performed on routine data to assess completeness and consistency. Qualitative interviews were conducted with health providers and data officers to gather insights into challenges and potential improvements. Data were analyzed using Excel leading to key findings and recommendations for enhancing DHIS2 data quality in the region.

Results

The DQA in 2 namely Katoma Dispensary and Buzi Dispensary was selected sites that prompted MDH, AAPH, and R/CHMT to strengthen various aspects of data accuracy in DHIS2. At the start, 30% of the entered reports in DHIS2 exhibited discrepancies. However, by September 2022, efforts such as internal and external data triangulation, improved documentation of facility registers, pre-submission data review meetings, and enhanced data utilization and quality processes led to a significant reduction in data discrepancies, bringing it down to 10%. These interventions demonstrate the effectiveness of proactive measures in enhancing data reliability and promoting informed decision-making.

Conclusion & Recommendations

Insights gained from routine data quality assessments in Kagera Region offer constructive guidance for enhancing DHIS2 data quality. Identification and resolution of data quality issues by stakeholders can enhance the reliability and accuracy of health data, facilitating informed decision-making and efficient resource allocation within Kagera's healthcare system.

P161.

Development and Implementation of a Digital Application for Infectious Disease Surveillance in Tanzanian Referral Hospitals

Melkiory Beti¹, Rehema Maro^{1,2}, Patrick Kimu^{1,3}, Boaz Wadugu¹, Mariana Shayo^{1,3}, Davis Kuchaka^{1,2}, Wilfred Senyoni³, Happiness Kumburu^{1,4}, Tolbert Sonda¹

¹Kilimanjaro Clinical Research Institute (KCRI);

²The Nelson Mandela

African Institution of Science and Technology (NM-AIST);

³University of Dar es Salaam (UDSM), Dar es Salaam, Tanzania;

⁴Kilimanjaro Christian Medical University College, Kilimanjaro, Tanzania

Correspondence: Melkiory Beti, mekybeti@gmail.com

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Background

Electronic health records systems (EHRS) have improved health information management in African hospitals. DHIS2 and EHRS offer valuable knowledge bases for healthcare quality improvement, research, and disease surveillance. However, DHIS2 lacks integration between epidemiological and pathogen genomics data. Developing a novel application to combine DHIS2 with genomics can enhance information utilization and enable proactive responses to public health emergencies, including outbreaks.

Material and Methods

This study presents the development and implementation of a novel digital application for disease surveillance in six regional referral hospitals in Tanzania. Conducted over a period starting in April 2023, the study focused on patients presenting with fever and diarrhea. Stool and blood samples were collected from these patients for sequence-based infectious pathogen investigations. The application was built on the DHIS-2 open-source platform and designed to capture essential

demographic, socio-economic, infectious diagnostic, environmental, and epidemiological information.

Results

As of the present, the study is still ongoing, and a total of 530 samples have been successfully gathered within a four-month timeframe. Among these, 403 blood samples and 127 stool samples were collected. The collected samples are slated for sequencing, which will generate crucial bioinformatics data. This data holds the potential for precise diagnostic insights, further enhancing disease detection and management capabilities.

Conclusion & Recommendations

The digital application developed will play a vital role in bolstering preparedness against various infectious diseases. The data integration will enable valuable insights for early preparedness, response and management of infectious diseases.

P162.

Harnessing Digital Technologies for Adolescent Health and Nutrition Surveillance in Tanga, Tanzania

Imani Irema, Innocent Yusufu, Frank Mapendo, Mashavu Yussuf, Amani Tinkasimile, Mary Mwanyika Sando

Africa Academy for Public Health, Dar es Salaam, Tanzania

Correspondence: Imani Irema, iirema@aaph.or.tz

BMC Proceedings 2024, 18(15):P162

Background

In Tanga about 25% of the population is made up of adolescents, yet the region is lagging in many areas of adolescent health. Digital approaches have shown potential in collecting key adolescent health indicators remotely. This study aimed at evaluating digital approaches in assessing 24-h dietary intake among adolescents.

Material and Methods

In this study, we conducted a digital survey using a two-way SMS platform, facilitating interactive communication with participants. Monthly messages were sent to their personal or family mobile phones. Dietary intake was assessed following FANTA III guidelines for 24-h dietary assessment. Real-time data collection and remote accessibility were prioritized to reduce reporting biases. Participants provided informed consent, ensuring ethical considerations. The collected data was analyzed using STATA 16.

Results

Out of 98 adolescents invited, 85 (86.7%) agreed to participate in the survey. Among them, 5 (5.1%) did not respond to the consenting message, and 8 (8.2%) declined participation. A total of 60 adolescents completed the 10-question survey on dietary diversity. Response rates decreased with increasing question numbers, ranging from 75 for the first question to 60 for the last. Food consumption patterns varied, with 78.5% consuming meat, poultry, or fish, 76.6% consuming dark green leafy vegetables, and only 16.9% consuming eggs within 24 h before the survey. Approximately 71.7% achieved dietary diversity by consuming five or more food groups.

Conclusion & Recommendations

These findings underscore the importance of promoting diverse dietary habits to improve adolescent health. The SMS platform for digital data collection provides a cost-effective way to collect data remotely. Further studies among adolescents are recommended to explore the feasibility, acceptability, and experience in using digital data collection approaches.

P163.

Development of a Data-Driven Machine Learning Conceptual Framework for Predicting Climate-Sensitive Water-borne Disease Outbreaks

Kadeghe Fue¹, Neema Lyimo¹, Joseph Telemala¹, Silivia Materu¹, Ndimile Kilatu²

¹Sokoine University of Agriculture, Morogoro, Tanzania; ²Prime Minister's Office (TAMISEMI), Morogoro, Tanzania

Correspondence: Kadeghe Fue, kadefue@sua.ac.tz

BMC Proceedings 2024, 18(15):P163

Background

Despite numerous outbreak surveillance discoveries since the 1850s, waterborne diseases continue to afflict Tanzania and other developing nations. Despite the relentless efforts of healthcare professionals, waterborne disease outbreaks remain prevalent in Tanzania. The good news is that advancements in Machine Learning Models (MLM) now offer a viable solution, as they can predict and identify the outbreaks and epicentres of these diseases, aiding in their effective management.

Material and Methods

This study proposes a novel data-driven conceptual framework for forecasting climate-sensitive waterborne disease outbreaks by utilizing MLM. The framework's effectiveness hinges on access to comprehensive datasets encompassing vital information about the outbreaks and their root causes. The dataset is structured into five main categories: demographic characteristics of waterborne diseases, toilet locations and conditions, solid waste management and dump site data, meteorological data from hotspots, and locations of water sources used by local communities for daily household activities.

Results

Addressing the issue of dataset biases, the study highlights how such biases can lead to inaccurate predictions and societal outrage by identifying key parameters that may drag a model to overfitting. The conceptual framework found that incorporating a primary dataset would benefit the development of the robust model. To ensure the development of robust machine learning models and accurate feature engineering processes, the research emphasizes the importance of mitigating bias during data collection for MLM training. Once the data is gathered, machine learning algorithms, both conventional and advanced time-series algorithms, can be employed to extract crucial insights about disease outbreaks.

Conclusion & Recommendations

These insights are invaluable for effective public health management. Leveraging early warning decision support systems, governments and stakeholders can utilize these findings to predict climate-sensitive waterborne disease occurrences and take proactive measures to safeguard public health.

P164.

Effect of the Digitalized Unified Community System on Continuity to Care among People Living with HIV: Experience from Magugu HC

Nelius Rwezaula¹, Charles Shija², Julius Mahundi¹, Camilla Mohabat¹, Nyelu Mkinga³, Francisco Bigirwamungu³, Julius Mkumbo³, Hellen Magige³, Roland Van de Ven³, Sajida Kimambo³, Fredrick Haraka³

¹D-tree International, Dar es Salaam, Tanzania; ²Manyara Regional Referral Hospital, Tanzania; ³Elizabeth Glaser Pediatric AIDS Foundation

Correspondence: Nelius Rwezaula, nprojestus@d-tree.org

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Background

The existing manual system for tracking people living with HIV (PLHIV) who are lost to follow-up (LTFU) from HIV care and treatment services is both time-consuming and costly. We evaluated the effect of the digitalized Unified Community System (UCS) on average time to track and re-engage in care among LTFU in Manyara.

UCS is a national platform, installed in Android-based devices to improve quality and of data for decision-making.

Program Intervention/Methodology

A cross-sectional analysis conducted at Magugu Health Centre to assess the impact of UCS platform in December 2022. The study compared time taken to track and re-engage People Living with HIV who were Lost to Follow-Up before and after UCS implementation. Pre-UCS period was June–November 2022, post-UCS was January–June 2023. UCS facilitated real-time data access for CHW, tracking efficiency. Routine de-identified data from HIV care and treatment database were analyzed using excel and results were presented as proportions.

Results Finding

Before UCS, 198 PLHIV were LTFU with a track and re-engage success rate of 71%, higher among females (88%) as compared to males (64%). The re-engagement rate was 100% and the average time to track and re-engage in care was 21 days. After implementation, 106 PLHIV were

LTFU with a track and re-engage success of 100%. The average time to track and re-engage is seven days, that led to have a better care and continuity.

Program Implication & Lesson Learned

The use of UCS reduced average time to track and re-engage PLHIV who were LTFU. Studies with longitudinal follow-up and accounting for potential confounders are needed to systematically assess the impact of UCS. The increase of UCS use to resource-limited settings will have positive outcomes to HIV services offered.

P165.

Repurposing Closed User Group (CUG) Service to Save Lives in Childbirth in the Lake and Western Zone of Tanzania

Arnold Masaro

John Hopkins Program for International Education in Gynecology and Obstetrics, Mwanza, Tanzania

Correspondence: Arnold Masaro, arnold.masaro@jhpiego.org

BMC Proceedings 2024, 18(15):P165

Background

Delays in accessing appropriate and timely care during labor contribute to increased maternal mortality. In Tanzania's Lake and Western Zone, social-cultural norms, limited healthcare facilities, and poor road infrastructure hinder progress. The Three Delay Model highlights delays in decision-making, reaching facilities, and receiving care as major hindrances to making progress in reducing maternal mortality. Staff shortages and inadequate emergency preparedness further compromise maternal survival rates.

Program Intervention/Methodology

To minimize the three delay factors, USAID Afya Yangu and its predecessor project have been implementing integrated approaches, including repurposing the Closed User Group (CUG) service to strengthen referral management and facilitate clinical consultation. CUG allows subscribers to make free calls, with the cost being borne by a financier at concessionary rates. The WHO emphasizes the importance of strong, cost-effective, and proven emergency and referral systems in maternal and newborn health, in addressing life-threatening conditions and promoting timely access.

Results Finding

CUG was successfully implemented in 14 districts across Geita, Kagera, and Mara regions, with 1,706 healthcare workers from 412 health facilities using it regularly. Between October 2019 and June 2020, 2,015 CUG-supported referrals were made from 9 sentinel sites in Geita region, achieving up to 95% referral feedback. Health authorities expressed satisfaction and interest in continuing the intervention. However, after the project's closure, the sustainability of CUG by the councils was unsuccessful. The new project aimed to enhance the councils' capacity to sustain CUG as part of their comprehensive health plans, ensuring its long-term impact.

Program Implication & Lesson Learned

Solutions to the three delays to accessing maternal and newborn care will be a mix of contextualized approaches, with CUG being an example of a cost-effective, proven lifesaving intervention. When successfully implemented and integrated with other approaches, CUG can contribute to reducing maternal mortality.

P166.

Postpartum Family Planning (PPFP) Services among First-time Young (15–24) Mothers (FTMs) in Dodoma, Tanzania: Findings from a Pilot Project

Lilian Kapinga, Brenda Mshiu

Save the Children, Dar es Salaam, Tanzania

Correspondence: Lilian Kapinga, lilian.kapinga@savethechildren.org

BMC Proceedings 2024, 18(15):P166

Background

In Tanzania, adolescent pregnancy remains high (22%), and current use of modern family planning is relatively low among 15–24-year-olds. Young first-time mothers are at high risk for short birth intervals and poor health outcomes. Few programs at scale target young

first-time mothers (FTMs) to encourage adoption of postpartum family planning (PPFP) in support of healthy timing pregnancies. We aim to reach FTMs during transition to parenthood to improve PPFP utilization.

Material and Methods

We tested light-touch, scalable approaches that build on existing government and project platforms in 13 villages in Kongwa District in Dodoma, Tanzania. Approaches included FTM-focused PPFP content in community support groups (CSGs), community health worker (CHW) home visits, and SMS with health information and reminders. We surveyed 351 FTMs in 2021, conducted descriptive analyses and used regression analyses to identify the association of the approaches with outcomes of interest, specifically PPFP adoption.

Results

Average CSG attendance was 2.81 sessions, and 75% of FTMs received home visits from CHWs. Despite the light-touch nature of the approaches, we saw a 48% increase in PPFP adoption. FTMs who interacted with both home visits, and more than one CSG session were more likely to use PPFP than those who interacted with only one. Exposure to more than one CSG session was associated with improvement of PPFP knowledge (14%), couple communication (28%) and self-efficacy (6%).

Conclusion & Recommendations

Findings suggest that light-touch community-based approaches have promising effects on PPFP uptake among FTMs, even with modest interaction with the program. Multiple approaches can improve effectiveness, accessibility and feasibility of the intervention. Implementation at a larger geographical scale over a longer duration is needed to examine the scalability and sustainability.

P167.

Improving maternal service delivery through application of Value-Based Care principles in MomCare project facilities -Hanang DC

Johnson Yokoyana¹, Anunsiatha Mirema¹, Zamaradi Mbega¹, Liberatha Shija¹, Restituta Kavishe², Emma Mushi³

¹PharmAccess Foundation, Tanzania; ²Hanang District Council, Manyara, Tanzania; ³Regional Administrative Secretary, Manyara, Tanzania

Correspondence: Johnson Yokoyana, yokoyana.johnson@gmail.com

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Background

"Value Based Care" (VBC), is an emerging new concept that seeks to enhance focus on patient outcome while optimizing resources use in healthcare settings. Worldwide the cost of care are rising at unsustainable pace but with little improvement on value and outcome that matter most to patients. We present the preliminary results of a project "MomCare" that employs VBC principles to improve maternal outcomes in Hanang district council.

Program Intervention/Methodology

Health facilities and health management teams were consulted on VBC concept and sensitized on strategies that can optimize value on pregnancy journey pathway. Additionally, certain enablers for VBC, such as value financing and digital health applications were implemented. Six key maternal indicators were selected, appropriate value points were assigned on each. One value point was rated at 7,500TZS. Reimbursement to facilities is done through value points scored by rendering services according to guidelines. Funds received complement replenishing of maternal supplies.

Results Finding

After nine months of project execution, we have seen improvements in a number of maternal KPIs, including facility delivery from 64 to 81%, ANC4 + visitation from 75 to 90%, and early ANC booking from 27 to 36%. (DHIS2 source). Facilities are increasingly developing the sense of holistic care to patient and data use in decision making.

Program Implication & Lesson Learned

Value-Based Care puts patients at the center of service delivery focusing on best outcome. Healthcare systems need to shift its focusing from service volume motivated by profit making to patient outcome.

This will contribute to improving maternal and child service access and wellbeing and adopting VBC principles is necessary.

P168.

Afya-Tek Strengthening Linkage of Primary Health Care Providers for Quality Reproductive and Maternal health

Angel Dillip¹, Suleiman Kimatta¹, Sosthenes Ketende¹, Johaniitha James¹, Christina Gabunda¹, Monica John¹, Fatma Mahmoud¹, Oscar Lugumamu¹, Neema Kafwimi²

¹Apotheker Health Access Initiatives, Dar es Salaam, Tanzania; ²D-tree International, Dar es Salaam, Tanzania.

Correspondence: Angel Dillip
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Background

Poor coordination, delivery of quality and continuum of care provokes negative encounters of pregnancy and childbirth. Afya-Tek a digitally-enabled community-based responsive health system conquers the situation by linking three key primary health actors; Accredited Drug Dispensing Outlets (ADDOs), Health Facilities, and Community Health Workers (CHWs) to improve Reproductive maternal, newborn, child and adolescent health (RMNCAH) through households visits, patient screening and improving referral coordination.

Material and Methods

The Afya-Tek digital solution was established in conjunction with the government to improve Reproductive, Maternal, Child, and Adolescent Health (RMNCAH) services in the primary healthcare system. Registered Antenatal (ANC) and Postnatal (PNC) receive digitally scheduled visits by CHWs and are screened for danger signs and minor illnesses. A digital referral is issued either to ADDOs or HF depending on severity. Through this, ANC and PNC receive high-quality and customized healthcare.

Results

Afya-Tek registered 6,866 ANC clients and 5,847 PNC clients. 2,058 ANC clients & 346 PNC clients were referred to the health facilities with the most common danger signs being; severe fever, abdominal pain, headache, leg muscle cramp. There were 3,530 live births and 1,670 miscarriages reported. However, the number of PNC clients reported were a lot fewer than expected, highlighting the low attendance to PNC services within 14 days post-delivery.

Conclusion & Recommendations

Afya-Tek portrays the strength of linking CHWs, ADDO and Health facilities by tackling the fragmentation within the primary healthcare system thus sustaining delivery of quality care to RMNCAH. Phase II of the program intends to strengthen follow-up and documentation of PNC clients' access to services within 14 days post-delivery.

P169.

Improving Mental Health and Psychosocial Support Counselling Practices among Nurses at Bugando Medical Centre, Mwanza, Tanzania

Jonas Kagwisage¹, Zamda Kikoti¹, Nguke Mwakatundu¹, Reolvin Elishaphat²

¹Americares Foundation, Mwanza, Tanzania; ²Department of Obstetrics and Gynaecology, Bugando Medical Centre, Mwanza, Tanzania

Correspondence: Jonas Kagwisage, jkagwisage@americares.org
BMC Proceedings 2024, 18(15):P169

Background

Obstetric fistula is a physically devastating ailment. Its association with mental health problems is well recognized in literature. However, there is existing knowledge gap among healthcare providers on the understanding of mental health and psychosocial concerns, and their appropriate interventions including mental health screening, psychological first aid, trauma informed care and other evidence-based

interventions. This knowledge gap hinders provision of holistic care for obstetric fistula patients.

Program Intervention/Methodology

The aim was to assess mental health and psychosocial support capacity of nurses and apply findings to develop tailored training curriculum.

We analyzed data on psychological first aid, trauma informed care, mental health screening, psychosocial counselling, understanding of positive self-care strategies and cultural sensitivity using Kobo toolbox.

We aggregated nurse's perception, knowledge and skills for each attribute and composite score of above 50% was regarded capable of identifying mental health issues in a patient and providing appropriate interventions.

Results Finding

We interviewed 24 (80%) nurses working in the fistula and psychiatric wards. Two nurses (8%) were able to provide psychological first aid and trauma informed care, and were conversant with positive self-care strategies. Four nurses (17%) were able to use standardized mental health screening tools. Seven nurses (28.5%) were able to provide psychosocial counselling services and were conversant with intercultural sensitivity.

Then twenty-nine nurses were trained using tailored curriculum. At the end of training nurses demonstrated 36% knowledge increase in general understanding of mental health, safe identification of patients with mental and psychosocial problems and application of positive coping strategies.

Program Implication & Lesson Learned

Despite the growing understanding of association between obstetric fistulas and mental health disorders, mental health and psychosocial support knowledge gap still exist among healthcare providers. Tailored training programs on mental health and psychosocial support is recommended to bridge the knowledge gap among healthcare providers taking care of obstetric fistula patients.

P170.

Increased Access of FP Methods among Adolescents and Youths Through Pharmacies (ADDOs) in Tanzania

Waziri Njau¹, Neema Mpombwe²

¹John Hopkins Program for International Education in Gynecology and Obstetrics, Tanzania; ²University of Dodoma, Dodoma, Tanzania

Correspondence: Waziri Njau, waziri.njau@jhpiego.org
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Background

Across sub-Saharan Africa, young people are accessing health products, including family planning and reproductive health (FP/RH) methods, at local pharmacies. These small businesses are integrated in the local community, offer confidential services, and are led by committed health professionals. TCI project started this initiative with 300 ADDOs in 12 regions in Tanzania. Common users are girls between the age 10 years to 19 years.

Program Intervention/Methodology

All selected ADDOs are given free orientation, coaching and refresher course on serving adolescent and youths in the community with privacy and confidentiality. The services offered are male and female condoms, counseling, emergency contraceptive pills, COC & POPs and referrals to facility that offer youth friendly services. Monthly reports shared with District Reproductive Health Coordinators (C/DRCHCOs). All ADDOs have been registered to open data kits (ODK) and report directly on monthly basis. It had expanded youth friendly services.

Results Finding

From August 2020 to date number of condoms distributed in 12 regions are 24,2754 which is 40.8%, pills both COC and POP are 184,222 (30.98%), emergency contraceptive pills (ECs) 112,656 (18.94%) and number of referral provided from ADDOs to youth

friendly facilities are 54,974 (9.24%). Age category accessed the services are >10–15, >15–19 and 20–24<. Currently 4570 reports had been submitted on the ODK and contributed to the increase of modern contraceptive rate MCPR by 5%. Girls and boys of the age of 10–19 are the ones accessed ADDOs the most.

Program Implication & Lesson Learned

ADDOs program had contributed in mCPR increase and referrals among youths to the near facilities. ADDO program reduces effects of misuse of emergency contraceptive pills and uterotonic drugs among youth. Pharmacists are now more motivated to counsel on contraceptives and are sharing user data on time with the District Pharmacists.

P171.

Reaching zero dose and under-vaccinated children through COVID-19 vaccination into Reproductive Child Health clinics improves vaccination coverage in Manyara, Tanzania

Green Sadru¹, Suka Charles Jangu¹, Furaha Kyesi²
¹United States Agency for International Development, Afya Yangu—RMNCAH Project, Jhpiego Tanzania; ²Immunization and Vaccine Development, Ministry of Health, Tanzania

Correspondence: Green Sadru, sadrugreen@yahoo.com

BMC Proceedings 2024, 18(15):P171

Background

Pregnant and postpartum women with COVID-19 infections face increased risk of being very sick and/or having pregnancy and newborn complications. COVID-19 vaccination protects women and their babies from COVID-19 complications. In May 2022, Manyara Region had the lowest COVID-19 vaccination coverage at 3.6%, with Tanzania's goal to reach 70% of 18 years and above by end of December 2022.

Program Intervention/Methodology

USAID Afya Yangu RMNCAH project's goal was to increase COVID-19 vaccination coverage through integration in routine RCH services in health facilities of Manyara Region. The target was to vaccinate 10,500 pregnant and postpartum women between July and September 2022. The project integrated COVID-19 vaccination in 105 high volume (> 100 monthly ANC visits) from all 8 districts to RCH clinics aiming to reach both COVID-19 zero dose or under-vaccinated pregnant women and provide routine immunization for their zero-dose or under-vaccinated children.

Results Finding

The project vaccinated 21,489 (205% of the target) pregnant and postpartum women with COVID-19 vaccine by September 2022. Through the integrated approach, 333 mothers were provided short term FP methods, 1,460 girls received HPV vaccination and 35,998 routine vaccinations were administered to zero dose or under vaccinated children. Intensified COVID-19 activities contributed to improved regional performance on routine immunization coverage by 32% (from 81% in Jan-Mar 2022 to 113% in Jul-Sep 2022). Manyara Region improved COVID-19 vaccine coverage from 3.6% in May, 2021 to 61% by end of September 2022.

Program Implication & Lesson Learned

Integration of COVID-19 vaccination into RCH routine services reached high number of at-risk women, while being cost efficient and effective at reaching large numbers of zero-dose and under-vaccinated clients. This approach illustrates priority to scale up COVID-19 vaccination integrated through routine RCH services has potential to strengthen overall PHC service.

P172.

Cervical cancer awareness among secondary school girls in Dodoma city, Tanzania

Veronika Berdnikova, Zuwena Alhaini
 School of Medicine and Dentistry, University of Dodoma, Tanzania

Correspondence: Veronika Berdnikova, berdnikova.va@gmail.com

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Background

The lack of basic information about carcinoma of cervix in Tanzanian females is the key setback toward stigmatization and control of this malignancy as it is completely preventable and curable at its early stages. The aim of this study was to assess understanding of causes, risks, clinical manifestations and prevention of cervical cancer among secondary school female students in Dodoma town, Tanzania.

Material and Methods

The cross-sectional study was conducted among 120 secondary school girls from Dodoma Secondary School and Viwandani Secondary School within Makole ward of the Dodoma Municipal Council. Data was collected using a structured questionnaire translated in Kiswahili based on demographic characteristics, knowledge and awareness on cervical cancer and its prevention. SPSS version 20 was used for data analysis.

Results

The majority of respondents were between 16–18 years (56.6%). Most of students (87.5%) had heard about a disease with the common sources of information being from the school (83.3%). However, only 50.0% of participants had adequate knowledge regarding cervical cancer, 30% on risk factors/causes and 40% on cervical screening. 61.7% had knowledge on HPV vaccine and its availability in the country, but only 45.0% believed that cervical cancer can be cured completely if it is early detected and managed. Regular checkups (87.5%), proper use of condoms (80.8%), and HPV vaccination (58.3%) were identified as a cervical cancer prevention measures.

Conclusion & Recommendations

The most of participated students are only aware of the cervical cancer but do not well-educated on the disease in depth. Effective health campaigns should be made towards on educating secondary school girls, as this age are the ones who are at increased risk of acquiring of HPV infection.

P173.

Reaching Adolescents and Youths with Inclusive Sexual Reproductive Health Services: Lessons from SuFP Program in Tanzania

Moke Magoma¹, Lilian Lukumai², Deus Ngerangera², Delphine Msele², Juliana Bwire³, Lilian Lwanda³, Kate O'Connell¹, Danielle Garfinkel¹

¹EngenderHealth; ²EngenderHealth Tanzania; ³Pathfinder International

Correspondence: Moke Magoma, mmagoma@engenderhealth.org

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Background

The Scaling-Up Family Planning (SuFP) program is a five year programme implemented in eight regions in mainland Tanzania and all regions in Zanzibar by a consortium of partners led by EngenderHealth Tanzania delivering youth-responsive and age-appropriate Sexual Reproductive Health (SRH) services through outreach service delivery models in collaboration with the Regional/Council Health Management Teams (R/CHMTs). We report on programme implementation results for the period of February 2020-March 2023.

Program Intervention/Methodology

Descriptive analysis of programmatic data to understand programme performance and inform various approaches such as improving service provider skills through on-job and in-class training, effective engagement of key stakeholders such as teachers, parents, peers who advocate for and support service utilization and community sensitization through CHWs. Other approaches include linking schools, communities and adolescent and youth workplaces to available services, dedicating special times/days for adolescent and youth focused services and maximizing on different platforms to deliver services.

Results Finding

A total of 1,433,837 clients were reached with FP services of whom 15.2% (N=218,646) were adolescents. Of all adolescents served, 208,540 (95.4%) were girls aged 10–19 years of whom 81,822 (39.2%) had never been pregnant before. The programme started tracking in school or out of school adolescents reached with SRH information

during the period of July–September 2022 and 14,474 young people 7,765 (54%) females and 6,599 (46%) males) with SRH information by March 2023. Of the adolescents reached, 110 (92 female, 8 male) were through the Jamvi Model implemented in Dar es Salaam, Arusha and Zanzibar.

Program Implication & Lesson Learned

The SuFP programme approaches provide an opportunity to bridge the SRH knowledge gap and contribute to access to FP services through linkage to health facilities to achieve the outcomes of the pillars of the National Accelerated Action and Investment Agenda for Adolescent Health and Wellbeing (NAIA-AHW) 2021/22 – 2024/25.

P174.

Insights from implementation learning of a pilot project: Kongwa district, Dodoma, Tanzania

Lilian Kapinga, Brenda Mshiu

Save the Children, Dar es Salaam, Tanzania

Correspondence: Lilian Kapinga, lilian.kapinga@savethechildren.org

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Background

First-time young (15–24) mothers (FTMs) encounter various barriers to accessing postpartum family planning (PPFP) services. Our 2020 formative assessment identified key barriers among FTMs, including overlooked in outreach activities by frontline workers. We designed light-touch, scalable community-based approaches to address these barriers. Community health workers (CHWs) recruited FTMs into existing nutrition community support groups (CSGs) for pregnant/breast-feeding mothers and conducted home visits for PPFP counseling and FP facility referrals.

Material and Methods

We tested the approaches in 13 villages from Kongwa District, to assess the effectiveness, acceptability, and feasibility in increasing FTMs' PPFP uptake. Throughout, we gathered qualitative feedback to identify needed revisions and explore specific challenges and risks. We conducted Pause-and-reflect meetings with convenience samples of 20 CHWs, FTM pulse checks with 77 FTMs and feedback from household influencers (25 older female relatives and 12 male partners).

Results

Findings show that FTMs liked the CSGs, particularly the nutrition and income-generation information. CHWs reported that FTMs, particularly younger and unmarried FTMs, seemed uncomfortable during CSG sessions, overall CSG attendance was low due to lack of incentives. FTMs had positive attitudes towards the home visits and preferred to discuss FP in a private setting. FTMs appreciated the CHW's time and care to visit them. While family members reported supporting the home visits, CHWs shared that relatives in some cases were hostile and it affected their ability to conduct the visits.

Conclusion & Recommendations

Overall, project approaches were well-liked by FTMs, and supported by CHWs and MOH. The implementation learning findings were consistent with the survey findings which demonstrate promise to improve FTMs' PPFP use.

P175.

Ensuring Inclusive SRH Services for People with Disability in Tanzania: What Works for FP Services?

Moke Magoma¹, Lilian Lukumai¹, Deus Ngerangera¹, Fredrick Msigallah²,

Novath Rukwago², Kate O'Connell³, Danielle Garfinkel³

¹EngenderHealth, Dar es Salaam, Tanzania; ²CCBRT, Dar es Salaam;

³EngenderHealth

Correspondence: Moke Magoma, mmagoma@engenderhealth.org

BMC Proceedings 2024, 18(15):P175

Background

The Tanzania Persons with Disabilities Act No. 9 of 2010 under section 26 (3) (a) recognizes the right of access to sexual and reproductive health services for persons with disabilities but routine HMIS data do not capture this indicator. We report of the experience of implementing Scaling up Family Planning (SuFP), an integrated and inclusive programme funded by FCDO and implemented by a consortium led by EngenderHealth Tanzania.

Program Intervention/Methodology

Analysis of programme implementation outreach data from 616 health facilities across 8 region in mainland Tanzania and all 5 regions in Zanzibar for the period of February 2020–March 2023. Approaches used include training/mentorship of service providers and CHWs, working with PWD associations, quarterly data reporting, sharing across partners and informing planning and service delivery, quarterly data quality assessment and feedback and reinforcing available skills and service oversight through supportive supervision.

Results Finding

A total of 14,943 PWDs (Physical 4,487(30%), hearing impairment 2,951(20%), intellectual impairment 2,336(16%), and speech impairment 1,617(11%)) accessed FP services during the period. Method choices among served PWD clients included short term methods 1,387 (16%) and 7,327 (84%) long-term methods. Specifically, implants were the most preferred method opted for by 76.8%, followed by injectable 9.6%, IUD 6.7%, pills 3.8%, condoms 2.3% and permanent methods 0.6%.

Program Implication & Lesson Learned

By addressing the systemic challenges for service availability and utilization, PWD are able to utilize available SRH services, including FP. Including tracking of PWD data in routine HMIS tools is key to embedding the practice into routine care and to inform planning and service provision.

P176.

Women perception about contribution of birth companions support comfort and positive childbirth experience in Kigoma and Katavi Regions

Sunday Dominico^{1,2}, Alex Mputa¹, Banzi Msumi¹, Agness Mbanza¹, Calist Nzabuhakwa¹, Selemeni Mbuyita³

¹Thamini Uhai, Dodoma/Dar es Salaam, Tanzania; ²Ministry of Health, Dodoma, Tanzania; ³Double R Investments, Dar es Salaam, Tanzania

Correspondence: Sunday Dominico, sdominico@thaminiuhai.or.tz

BMC Proceedings 2024, 18(15):P176

Background

The intra-partum care model recommends companionship support, mobility and pain relief strategies among other elements during. A companion of choice and pain relief strategies are among recommended elements of WHO intra-partum care mode during childbirth (WHO 2018). Thamini Uhai supported evaluation in 5 selected implementing facilities to determine women perception on type of support provided by companions, role of pain relief strategies in relation to their childbirth experience.

Material and Methods

Birth companionship project implemented in Kigoma and Katavi, allowing women to have a companion during childbirth. Facilities are supported with comfort measure tools and providers trained on birth companionship including comfort and pain relief measures. Data collected using focus group discussion and in-depth interviews in project supported facilities in May 2023. Thematic analysis was done on women perception on type of support received, use of pain relief strategies in relation to childbirth experience.

Results

Women reported receiving instrumental, para-medical and psychosocial support. These includes support in purchasing needed materials

for delivery and ensure availability of food and arranging transport to the hospital and back home. They also reported call for attention of a midwife supported decision making, ANC attendance and birth preparedness plan. Medical pain relief strategies (comfort measures) were reported to be relaxing, assuring, makes childbirth less painful and smooth process. Most would recommend companion during childbirth, and had good experience because of provider attitude and interactions, clean environment and privacy in the labor rooms and having someone around all the time.

Conclusion & Recommendations

Continuous support through birth companions with additional of non-medical pain relief strategies was valued by most women and perceived to contribute to positive childbirth experience. Birth companionship is highly needed and appreciated and efforts to scale-up need to be intensified to ensure it reaches more women in Tanzania and beyond.

P177.

Factors that Influence Parent-Adolescent Communication on Sexual Reproductive Health Issues at Kinondoni B in Dar Es Salaam

Somoe Mohammed^{1,2}

The Aga Khan University School of Nursing and Midwifery, Dar es Salaam, Tanzania; ²The University of Dar es Salaam Health Centre, Dar es Salaam, Tanzania

Correspondence: Somoe Mohammed, somoekmohammed@gmail.com

BMC Proceedings 2024, 18(15):P177

Background

Most parents fail to provide young people with supportive, appropriate, and needed SRH information. ASRH help prevents adverse outcomes, maintain healthy sexual behaviors, engage in family planning, unsafe abortion, etc. However, despite the efforts taken in Tanzania to address ASRH, many still overlook the importance of addressing the parent-adolescent communication gap. This study explored factors that influence Parent-Adolescent communication on SRH issues.

Material and Methods

A qualitative study was conducted among adolescents in secondary schools and parents who had adolescent children from church and mosque in Kinondoni B. Purposeful sampling was used in selecting participants. Data collection method eight (8) individual interviews with parents and 3 Focus Group Discussions (FGDs) with adolescents, using interview guides with open-ended questions for both groups. The inductive and deductive thematic analysis developed by Virginia Braun and Victoria Clarke was used in data analysis.

Results

The themes that emerged are (i.) Parenting expectations and approach to adolescent changes (ii.) SRH Information disclosed (iii.) Facilitators to parent-adolescent communication (iv.) Barriers to parent-adolescent communication (v.) Recommendations. The findings suggest that culture, parenting method, approach to discussion, and the parent-adolescent relationship are likely to influence communication. Fear of early sex initiation, shame, moral inhibition, religion, and gender difference were the barriers to parent-adolescent communication. Most parents would start talking to their adolescent children when there is a need communication does not regularly occur, it is not deeply informative, and neither does it follow a known/established framework.

Conclusion & Recommendations

There is progress in realizing ASRH issues, but the foundations (parents) are untacked yet. After research, I initiated "EMPOWERED YOUTH CAMPAIGN."

Future studies could use quantitative and qualitative approach, Healthcare Professionals should emphasize on communication among adolescents and their parents, Adolescents involvement when planning programs that aim to improve ASRH.

P178.

Risky sexual behaviors among adolescents in the Tanga region, Eastern Tanzania

Kisaka Kachuwa¹, Ester Moka¹, Mariam Nguala², Innocent Yusuf³, Frank Mapendo³, Amani Tinkasimile³, Mashavu Yussuf³, Sakina Mustafa¹, Wilbald Anthony³, Cecilia Anthony³, Mary Joan Masanja³, Azan Nyundo⁴, Abbas Isamil⁵, Augustine Marero⁶, Abdallah Hussein⁷, Charles Mkombe¹, Stephen Mwandambo¹, Agness Mchome¹, Ally Kasembo¹, Julieth Bitabo¹, Salome Materu¹, Maurus Ndunguru¹, Kisaka Kachua¹, David Sando⁸, Mary Mwanyika Sando², Wafaie Fawzi^{9,10,11}

¹Tanga City Council, Tanga, Tanzania; ²Africa Academy for Public Health, Dar es Salaam, Tanzania; ³Africa Academy for Public Health, Dar es Salaam, Tanzania; ⁴Department of Psychiatry and Mental Health, University of Dodoma, Dodoma, Tanzania; ⁵College of Natural and Mathematical Sciences, University of Dodoma, Dodoma, Tanzania ⁶College of Informatics and Virtual Education, University of Dodoma, Dodoma, Tanzania ⁷Department of Statistics, Dodoma, Tanzania; ⁸Management and Development for Health, Tanzania; ⁹Department of Global Health and Population, Harvard T.H. Chan School of Public Health, Harvard University, Boston, MA, United States of America; ¹⁰Department of Nutrition, Harvard T.H. Chan School of Public Health, Harvard University, Boston, MA, United States of America; ¹¹Department of Epidemiology, Harvard T.H. Chan School of Public Health, Harvard University, Boston, MA, United States of America

Correspondence: Kisaka Kachuwa, drkisaka@yahoo.com

BMC Proceedings 2024, 18(15):P178

Background

Risky sexual behaviors among adolescents increase the risk of short- and long-term social, psychological, and health consequences such as sexually transmitted infections including HIV. The study aimed to explore the prevalence of risky sexual behaviors among in- and out-of-school adolescents (10–19 years) in the Tanga region, Eastern Tanzania.

Material and Methods

This was a descriptive cross-sectional survey among in- and out-of-school adolescents from 20 out of 27 wards in Tanga City. About 1,274 adolescents were randomly selected to participate in the survey, and a structured Swahili questionnaire was used to collect data. Descriptive data analysis was conducted using STATA 16 and the results were presented in frequencies and proportions.

Results

Among 1,274 surveyed adolescents, 15.6% had initiated sexual intercourse. About 41.3% of out-school adolescents had engaged in sexual activity while 7.7% of in-school adolescents had engaged in sexual activity. Prevalence of risky sexual behaviors was observed to vary between in-school and out of school adolescents with higher prevalence observed among out of school adolescents. About 22.4% of in-school adolescents had more than one sexual partner compared to 22.7% of out of school adolescents. A third of in-school adolescents (32.8%) reported using contraceptive methods while only 24.7% of out of school adolescents reported using contraceptive methods.

Conclusion & Recommendations

The prevalence of risky sexual behavior is high among both in and out of school adolescents in Tanga City. It is crucial for the Government, Health and Education sectors to increase access to SRH education and services through strengthening school-based trainings and outreach services on SRH in the community.

P179.

Baseline characteristics and stakeholder feedback following implementation of Adolescent Wellness Visits in Tanzania

Isaac Lema¹, Rachel Jared¹, David Gitagno¹, Anna Minja¹, Sylvia Kaaya¹, Joy Baumgartner²

¹Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania; ²University of North Carolina, Chapel Hill, USA.

Correspondence: Isaac Lema, lemaisaac@gmail.com

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Background

Adolescents are less likely than adults to access HIV testing and counseling in Tanzania, in the absence of comprehensive preventive adolescent healthcare. This cluster randomized control trial aims to determine the impact of a new healthcare service—Adolescent Wellness Visits-AWVs, coordinated via primary schools and health facilities—on future HIV testing and health service use. The AWVs include screenings for nutrition, vision, mental health, dental, optional sexual and reproductive health-services.

Material and Methods

20 government primary schools were randomized to intervention and control groups. Standard 7 classrooms at intervention schools were eligible to participate in AWVs at nearby health facilities in Dar es Salaam and Bagamoyo. District health managers trained providers on national adolescent-friendly health guidelines, referral; teachers escorted students to attend AWVs. Data included surveys, medical record reviews for AWV participants and meeting notes from extensive stakeholder advisory groups. We report baseline findings using descriptive statistics, recommendations from local stakeholders for sustainability.

Results

Of 1,285 eligible students, 85% enrolled in the study ($n=1,095$). Among all participants, 4% experienced physical or emotional violence (past year); 1% experienced moderate/severe depression (past two weeks); and 8% indicated moderate-severe household hunger (past month). In the intervention arm ($n=509$), 13% had dental pain, and 8% were referred for vision follow-up. In both arms, 6% had ever received an HIV test prior to the study, and 33% received an HIV test during the AWV. Stakeholder meetings revealed strong support for AWVs, but mixed opinions on future financing.

Conclusion & Recommendations

AWVs were designed to create a model that complements existing health and education systems. Baseline data indicate that AWVs are feasible for schools and clinics to implement, and health problems that required follow-up were identified.

The government should consider the implementation of AWVs in current health and education systems.

P180.

Knowledge and Myths about Preeclampsia/Eclampsia and its influence on Antenatal Service Utilization among expecting couples in Mtwara Region

Aziza Machenje¹, Fabiola Moshi²

¹Division of Nursing and Midwifery Services, Ministry of Health, Tanzania;

²Department of Nursing and Midwifery, College of Health Science of University of Dodoma, Dodoma, Tanzania

Correspondence: Aziza Machenje, gmachenje2@gmail.com

BMC Proceedings 2024, 18(15):P180

Background

Pregnancy induced hypertension; including preeclampsia and eclampsia are the major health problem and the main cause of maternal and perinatal morbidity and mortality in Tanzania. This study aimed to assess knowledge and myths about preeclampsia and eclampsia and its influence in Antenatal Clinics (ANC) utilization among pregnant women and their male partners in Mtwara region.

Material and Methods

A community-based cross-sectional analytical study conducted in Mtwara Region, a random sampling procedure employed to obtain a sample size of 384 pregnant women and their male partners a total of 768 participants (male=384 and female=384). Interviewer structured questionnaire used for data collection and Statistical package for social science (SPSS v.20) software used for data entry and analysis. Descriptive statistics, cross tabulation, Principal component analysis (PCA) was conducted and inferential statistics were used to test association between variables obtained.

Results

Among 768 participants, male partners 167(43.5%) and pregnant women 171 (44.5%) had adequate knowledge about preeclampsia/eclampsia. More than a half 396(51.6%) of respondents had

weak myths while 372(48.4%) had strong myths on pre-eclampsia/eclampsia. Pregnant women 244 (64%) had adequate antenatal care utilization. Study participants who had adequate knowledge on pre-eclampsia/eclampsia were almost 3 times more likely to utilize antenatal care services (AOR=2.827; CI=1.719 – 4.651; $p<0.001$). Participants who had weak myth on pre-eclampsia/eclampsia were less likely to have adequate antenatal care attendance (AOR=0.370; CI=0.229; $p<0.001$).

Conclusion & Recommendations

The overall knowledge of preeclampsia and eclampsia was low. Majority of the female had adequate antenatal service utilization. Majority of respondents had weak myths. Government and stakeholders should ensure that community is equipped with knowledge about preeclampsia and eclampsia and the available Myths should be dispelled.

P181.

Knowledge, Attitude, Practices, and factors associated with Self-medication among medical students in clinical years at Muhimbili University, 2020

Magreth Angelus

Young Professionals—Chronic Disease Network (YP-CDN), University of Dar es Salaam (UDSM). Dar es Salaam, Tanzania

Correspondence: Magreth Angelus, angelusmaggie@gmail.com

BMC Proceedings 2024, 18(15):P181

Background

Self-medication is the use of medicines by individuals to treat self-recognized illnesses or symptoms without seeking professional health-care advice. It is recognized by the World Health Organization (WHO) as a significant factor contributing to the overuse, misuse, and resistance of antibiotics. It is a widespread practice globally, carrying serious implications. This study assessed inappropriate self-medication among undergraduate students in their clinical years at Muhimbili University of Health and Allied Sciences.

Material and Methods

A quantitative cross-sectional study was conducted on undergraduate students in their clinical years at Muhimbili University, located in the Dar es Salaam region of Tanzania. A questionnaire was utilized as the assessment tool to measure the level of knowledge, attitudes, practices, and factors associated with self-medication. The data were analyzed using SPSS version 23.0 software and were summarized using frequency tables. Proportions were analyzed using the chi-square test at a significance level of 0.05.

Results

Among the 216 participants, 99.1% were aware of the precautions for self-medication, with 40.3% possessing a high level of knowledge. There was a significant statistical association between the level of knowledge and the year of study, residence, and course of study (p -values of 0.003, 0.000, and 0.000, respectively). Alarming, a total of 85.6% of participants admitted to using medication without a prescription. The most commonly reported driving factors for self-medication were headache (80.5%), fever (62.2%), and saving time (62.2%). However, a significant proportion (78.2%) stated that they refrained from providing self-medication advice to others.

Conclusion & Recommendations

Despite having knowledge, a significant number of medical students still engage in self-medication. Provocative physical symptoms and waiting time at the hospitals were identified as the main contributors to self-medication. Urgent attention is needed to influence behavioral change from the individual level as self-medication poses significant challenges to public health.

P182.

Access to Emerging Pharmaceutical Products in Zanzibar: A Focus around Regulatory Scope and Healthcare Professionals' Perception

Salma Ali^{1,2}

¹Technology University Dublin, Ireland; ²Zanzibar Food and Drugs Agency (ZFDA), Zanzibar

Correspondence: Salma Ali, salma.khamis@zfda.go.tz

BMC Proceedings 2024, 18(15):P182

Background

A 4–7 year lag between the authorization of a newly developed pharmaceutical product by SMRA and NMRA exists as reported by WHO. Technology advancements have triggered a shift to the production of advanced products including biopharmaceuticals and ATMPs. However, access to these remains considerably low in LICs. This research aimed to address the challenges associated with limited access in Zanzibar through the lens of medicine regulation and healthcare workers' perceptions.

Material and Methods

The case study was performed in Zanzibar using both literature review and surveys. Review of literature was conducted prior to the distribution of the three online surveys. The surveys targeted 100, 20 and 15 healthcare workers, local representatives of marketing authorization holders, and medicine regulatory officers respectively. Survey responses were analyzed using google spreadsheet and the IBM SPSS Version 29. A cross-tabulation method was selected to determine the relationship between data and 95% confidence level ($p < 0.05$) was considered significant.

Results

Below 20% of the participants of survey A reported to have accessed pharmaceutical knowledge through the NMRA. 47.6% of the healthcare personnel delivered biopharmaceuticals less often. Respondents of both survey A and B ranked high cost as a top challenge. Over 55% average of the participants of survey A and C considered strengthening of the NMRA's capacity as a remedy, whereas 7.3% of the responses from survey A focused around reform on policies and updates on guidance documents. A score of $p < 0.05$, established a direct relation of knowledge access or belief on ease of acquiring biopharmaceuticals to attitude towards delivery.

Conclusion & Recommendations

Study concluded the lag in accessing emerging pharmaceuticals as a multifaceted scenario. As such it is influenced by several factors including cost, manufacturer's willingness to register a product, absence of domestic production, and limited capacity of the NMRA. Hence, recommendations including the initiation of domestic production activities were proposed.

P183.

Building AI-Forecasting Models for Primary Healthcare Facilities using eLMIS- A Case Report by The National Quantification Team

Harrison Mariki¹, Msafiri Reginald², Daudi Msasi², Vicent Manyilizu³, Peter Boshe¹, Mbwambo Mbonea¹, Juma Ikombola³

¹Afya Intelligence, Dar es Salaam, Tanzania; ²Ministry of Health, Dodoma, Tanzania; ³InSupply Health, Dar es Salaam, Tanzania

Correspondence: Harrison Mariki, hmariki@afyaintelligence.co.tz

BMC Proceedings 2024, 18(15):P183

Background

Accurate forecasting is crucial for reliable healthcare services, particularly in primary healthcare facilities. This case study focuses on adopting predictive analytics and artificial intelligence (AI) to enhance the bottom-up quantification approach in Tanzania. The project aims to develop an AI-based forecasting module for the eLMIS platform, simplifying the process and improving demand forecast accuracy for healthcare commodities.

Case Report

This case study presents the findings of implementing an AI-based forecasting module by the National Quantification Team in Tanzania. The project focuses on streamlining data gathering, cleaning, and forecasting processes using AI, with a strong emphasis on improving and monitoring forecasting accuracy. Different forecasting models were tested, enabling accurate forecasting at various levels within the healthcare supply chain.

Preliminary analysis using test data revealed that integrating the AI module significantly improved demand forecast accuracy for healthcare commodities. The eLMIS platform and existing bottom up quantification processes provided a suitable foundation for implementing the AI-based forecasting module within 3 months. The successful

implementation of the bottom-up approach, combined with AI, demonstrates its potential for scalable adoption in healthcare facilities across Tanzania.

Furthermore, the approach shows promise for quick adoption by health facilities utilizing the eLMIS platform, offering a sustainable and scalable solution for enhancing healthcare supply chain operations and optimizing resource allocation.

Conclusion

This case study showcases the successful development of an AI-based forecasting module for the eLMIS platform. The results highlight improved forecasting timeliness, accuracy and the potential for implementation in healthcare facilities across Tanzania. The National Quantification Team has commissioned a pre-scaleup implementation in Dodoma Municipal starting in August 2023.

P184.

Price comparison between contracted regional Prime Vendors, private suppliers and Medical Stores Department in Tanzania

Romuald Mbwasi¹, Kelvin Msovela¹, Jasmina Saric^{2,3}, Manfred Stoermer^{2,3}, Karin Wiedenmayer^{4,3}

¹St. John's University of Tanzania, Dodoma, Tanzania; ²Swiss Tropical and Public Health Institute, Allschwil, Switzerland; ³University of Basel, Basel, Switzerland; ⁴Swiss Tropical and Public Health Institute, Allschwil, Switzerland

Correspondence: Romuald Mbwasi, rmbwasi@gmail.com

BMC Proceedings 2024, 18(15):P184

Background

Jazia Prime Vendor System (PVS) is a Public Private Partnership for procuring health commodities when not available at national Medical Stores Department (MSD). The system is operational since 2018 in all regions of Tanzania and has improved availability of medicines significantly. Criteria for selecting prime vendors (PV) include cost of commodities, lead-time, quality assurance and reliable services. The aim of the study was a price comparison between PVs and MSD.

Material and Methods

A quantitative price survey was conducted using a mixed-method approach combining document review and semi-structured key informant interviews (KIIs) with PVS responsible officers to get insights on the contract prices of purchases. The study covered contracted regional PVs and private suppliers in seven purposively selected regions.

Results

Analysis showed a significant price difference between MSD and regional PVs. Prices of health commodities from private suppliers outside the PVS were higher than both the contracted regional PV and MSD. Prices from private suppliers decreased after implementation of the PVS. Private for-profit vendors do not benefit from scale and public pricing as compared to the national non-profit MSD. KII responses acknowledged the price difference yet favoring the PVS due to its high transparency, efficiency in acquiring products when needed and the improved accountability.

Conclusion & Recommendations

The difference in prices between regional PVs and MSD is significant. However, prices from other private suppliers are higher than MSD and regional PVs, demonstrating no cost advantage to purchase outside the PVS and MSD. PVS created a reference level for private suppliers reducing prices after the establishment of PVS.

P185.

Prime Vendor system implementation guidelines- the national roll-out

Denis Mbepera¹, Rashid Omar²

¹Ministry of Health, Dodoma, Tanzania; ²President's Office Regional Administration and Local Government, Dodoma, Tanzania,

Correspondence: Denis Mbepera, dmbepera@gmail.com

BMC Proceedings 2024, 18(15):P185

Background

Jazia Prime Vendor System (PVS) is a Public Private Partnership for procuring health commodities when not available at Medical Stores Department, operating since 2018. Structural adaptations required updating for stakeholders. Implementation Guidelines were developed to support operations in all 26 regions. The objective was to strengthen capacity of regional and council health teams in implementing PVS and to assure consistency, transparency and efficiency of procurement from the private sector.

Program Intervention/Methodology

Management tools for PVS were developed and approved including an Implementation Manual, Standard Operating Procedures, an integrated information management system, an M&E handbook and a Vendor Guide. These tools were rolled out nationally as a cascading process starting with master training at national level, followed by regional, council and facility training. The national roll-out consisted of a three-day training and dissemination of PVS tools. Data on costs and participant coverage were analyzed by level of care and funding source.

Results Finding

Master training was provided to 35 participants who trained 1578 trainers at regional and council level.

12'239 health facility staff received training: 208 participants at hospitals, 719 at health centers and 11'312 at dispensaries. 208 participants from private vendors received training. The total cost incurred amounted to TSH 6'789'295'000. The large majority of funding was provided by health facilities (4'413'420'000), followed by local government authorities (1'966'350'000), regional secretariats (58'560'000) and private vendors (42'000'000). The Swiss funded, HPSS project contributed TSH 308'965'000 (4.5%).

Program Implication & Lesson Learned

Capacity was built for efficient and transparent Jazia PVS operations with ministry-approved guidelines, covering 13'852 health care workers at all levels. HPSS contributed 4.5% of costs while the government covered the majority of costs. Ownership of this innovative and successful complementary supply system by the government promises sustainability.

P186.

The Integration of Traditional medicine in the Management of Communicable and Non-Communicable Diseases in Tanzania: A Historical Milestone in Africa

Marko Hingi¹, Mussa Lipukuta¹, Mary Komba¹, Lucy Samwel¹, Liggyle Vumilia¹, Ulumbi Mkumbo², Paschal Ruggajo³, Paulo Mhame⁴

¹Traditional and Alternative Medicine Section, Ministry of Health, Dodoma-Tanzania; ²Mkonze Health Centre, Po.Box 1249, Dodoma-Tanzania; ³Directorate of Curative Services, Ministry of Health, Dodoma-Tanzania; ⁴VANAPCO, Dar es Salaam-Tanzania

Correspondence: Marko Hingi, markohingi@gmail.com

BMC Proceedings 2024, 18(15):P186

Background

Traditional medicine has played a great role in prevention and treatment of disease since ancient times. Extracts from plants that were used for ameliorating symptoms of COVID-19 contained high percentage of flavonoid that exhibited potential inhibitory activity against the COVID-19 virus. Buoyed by the best outcomes of traditional medicine during the COVID-19 crisis in Tanzania, the Ministry of Health started the integrative health services since May, 2023.

Program Intervention/Methodology

The Ministry of Health through the Section of Traditional Medicine within the Directorate of Curative Services prepared essential training tools that included; The Standard Treatment Guideline, Training Manual and Integration of Traditional Medicine Guideline were prepared. A set of three health workers (Doctor, Pharmacist, Nurse) were recruited from each of the seven Regional Referral Hospital (RRH) and trained on traditional medicine integration.

Results Finding

A total of 21 health workers underwent induction training on integration of traditional medicine alongside routine clinical care. To start

with, 38% (2,063/5,444) doses of 22 different traditional medicines were distributed in Temeke RRH, Morogoro RRH and Dodoma RRH. From May–June, 2023 a total of 25 patients from these RRHs voluntarily opted for traditional medicine treatment. Proportionally, 50% had NCDs whilst 40% suffered from URTI. None of them has reported any untoward or adverse drug reaction so far, and monitoring still continues.

Program Implication & Lesson Learned

Tanzania is taking a bold step (guided by robust clinical studies) towards integrating traditional medicine within routine clinical care, a move that among other advantages, will empower both patients and caretakers in considering treatments options for various ailments as well as bringing traditional medicine practice into light and advancement.

P187.

Assessment of Eucalyptus grandis poultice as Snake Venom Antidote

Benjamin Mashauri

Sokoine University of Agriculture (SUA), Morogoro, Tanzania

Correspondence: Benjamin Mashauri, benjaminmshauri@gmail.com

BMC Proceedings 2024, 18(15):P187

Background

Eucalypts are the world's most widely planted hardwood trees. Their outstanding diversity, adaptability and growth have made them a global renewable resource of fibre and energy.. (Myburg, A., Grattapalia, D., Tuskan, G. et al., 2014).

Envenomation by poisonous snakes is a complex neglected health problem implicated as one of the major causes of mortality, disability, psychological morbidity, and socio-economic losses recorded worldwide (Tomaz M.A. et al., 2016).

Material and Methods

A cytotoxic snake antivenom was prepared from its essential pulverized poultice obtained through maceration. 500 g of pulverized Eucalyptus charcoal was collected and soaked into 1000 mL of distilled water for 3 days then concentrated in water bath. A 5% of the solution was prepared. Eight rats were used; four rats were used as control and the rest four rats served as samples. Each rat was introduced with 10 µl of the prepared 5% of the solution containing snake venom.

Results

The two rats from control group one died after 46 min and 44 min respectively. However, both the third and the fourth sample rats survived throughout the experiment. The two rats from group two control group died seven minutes each after being poisoned. The seventh and the eighth sample rats lasted for 80 min and 76 min respectively. Moreover the control rats exhibited swelling, blistering as well as loss of function at the site where venom was introduced before they died. However, despite of dying the seventh and eighth rats from group two sample rats, did not show significant inflammation.

Conclusion & Recommendations

This study demonstrates the potential of Eucalyptus poultice as an effective snake venom antidote. The findings contribute to expanding body of knowledge surrounding alternative therapies for snake envenomation and pave the way for future investigations of Eucalyptus poultice formulations. Further investigations are necessary to elucidate the efficacy of Eucalyptus poultice.

P188.

Clinical outcomes of patients managed for Ameloblastoma at the Oral-maxillofacial Surgery Department MNH, Tanzania

Arnold Mahegga¹, Kasusu Nyamuryekunge¹, Arnold Augustino²

¹Muhimbili University of Health and Allied Sciences (MUHAS); ²Muhimbili National Hospital (MNH)

Correspondence: Arnold Mahegga, maheggaarnold98@yahoo.com

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Background

Ameloblastoma is the most common benign oral neoplasm among Tanzanians. Late reporting to health facilities, lack of primary prevention and late diagnosis among patients with ameloblastoma have been associated with significantly poor outcomes to the treatment provided. In Tanzania, information on clinical outcomes associated with ameloblastoma is still lacking.

This study aimed at assessing clinical outcomes of patients managed for ameloblastoma at the Oral-maxillofacial Surgery Department MNH, Tanzania.

Material and Methods

A hospital-based cross-sectional study was conducted at the Oral-Maxillofacial surgery department MNH. The study involved records for patients histologically diagnosed, admitted and treated for ameloblastoma between 2016-2017. Data were abstracted using a well-structured, electronic clinical form and supplemented with a pre-developed telephone interview for determination of subjective needs and recurrence status.

Data entry and analysis was conducted using SPSS version 25. Descriptive statistics, Chi-square tests and logistic regressions were performed. A consent waiver was requested from MUHAS IRB and MNH.

Results

A total of 79 patient records were retrieved (mean age 34 years), 48.1% being females. Over half (55.7%) reported to the hospital at least two years after development of initial symptoms. Painless swelling and facial asymmetry were the most common symptoms reported. The mandible was affected 8 times more than the maxilla. The majority of patients (85.7%) received radical treatment involving jaw resections, while only 27.2% received reconstructive care.

Among the 33 patients followed-up, reported difficulties chewing (72.7%), speaking (60.6%) and unpleasant appearance (69.7%). Recurrence was reported in 7.6% of the patients with most (87.5%) reporting to require reconstructive care.

Conclusion & Recommendations

Radical approach through hemi-mandibulectomy was the most common treatment offered to ameloblastoma patients. Reconstructive treatment was sparingly provided negatively impacting patients. Increased community awareness is crucial for early reporting and screening for facial swelling. Local management guidelines should be reviewed to include jaw reconstructions as an integral component of treatment.

P189.

Lesson learned from HIV Data Quality Audit at Nzera District Hospital, Geita District Council

Kimwago Singo¹, Nsiande Lema², Henry Molle³, Lawrencia Mushi³, Godfrey Kacholi³, Mackfallen Anasel³, Devotha Leonard^{2,3}, Nelson Malugu^{2,3}, Andrew Makoi⁴

¹Geita District Council, Geita, Tanzania; ²Field Epidemiology and Laboratory Training Programme, Dar es Salaam, Tanzania; ³Centre of Excellence in Health Monitoring and Evaluation, Mzumbe University, Tanzania; ⁴Division of Global HIV and TB, U.S. Centers for Disease Control and Prevention, Dar es Salaam, Tanzania.

Correspondence: Kimwago Singo, ksingo24@gmail.com

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Background

Data audit is important for reliable data. However, gaps in HIV/AIDS data completeness still exist, which hinder production of good quality data for decision-making. Nzera District Hospital plays crucial role in treating individuals living with HIV/AIDS and in providing data to contribute to the 95-95-95 HIV targets. We conducted a data quality audit to assess the completeness of HIV/AIDS data at Nzera District Hospital in Geita, Tanzania.

Program Intervention/Methodology

A data quality audit was conducted at the Nzera Care and Treatment Center (CTC) to assess the completeness of data from January 2021 to December 2022. Three data sets were assessed, the HIV Testing Services index register, the CTC-2 cards, and the HIV viral load register. Nineteen key variables were assessed. A systematic sampling method

was used to select 380 records. Data collection was conducted using the HIV Data Quality Audit tool, and data analysis was performed using Microsoft Excel.

Results Finding

A total of 380 records from three data sets were reviewed. These included 100 records from the HIV index testing service register, 120 records from the CTC-2 cards, and 160 records from the HIV viral load register. The results revealed that all 100 records on the HIV index testing service register were completely filled. Ninety-eight percent (98%) of the 120 records on the CTC-2 cards were completely filled, as well as 96% of the 160 records on the HIV viral load register were completely filled.

Program Implication & Lesson Learned

Despite the overall high data completeness observed, which demonstrates the importance of effective data management practices, small gaps and errors can still exist in the data. Therefore, conducting regular data quality audits is important to ensure reliable and accurate data for informed decision-making processes in HIV/AIDS programs.

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