HIV AND AIDS

RESEARCH AND BEST PRACTICES DISSEMINATION CONFERENCE

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NATIONAL HIVAND AIDS RESEARCH AND BEST PRACTICES CONFERENCE

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TRACK A: HIV PREVENTION: COMMUNICATIONS AND BIO-MEDICAL INTERVENTIONS

This Track looks at research into prevention strategies, experiences and questions of the social and bio-medical nature [HIV testing, prevention of mother to child transmission of HIV] and HIV prevention programs that have demonstrated innovation and impact. The Track also highlights research and program designs relating to community advocacy and social mobilization.

A1 Factors motivating men to go for couple counselling and testing

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For Oral Presentation

Introduction: Couples HIV Counseling Testing (CHCT) is one strategy to prevent HIV transmission among couples. Engaging males in HIV testing centered around female dominated service delivery such as Antenatal clinic, family planning and general preventive services has been challenging. Male championship programs to date have had limited impact, increasing couples testing at Antenatal from 1 to 8%. To encourage male testing, we conducted a study to find out the factors motivating men to come for couples counseling and testing services at Bwaila hospital.

Methodology: In-depth individual interviews (IDI) were conducted on 10 men who came for CHCT at Bwaila antenatal clinic. Men were invited through their partners to come for CHCT. Men provided informed consent and Interviews were conducted in a private room. Data was analysed manually using the ground theory methods. Data was read word by word in order to understand the meaning and generate emerging themes and concepts from it

Results: All Men recognized CHCT services as very important for couples. Men came for CHCT to learn how to protect their babies, know their HIV status and better plan for their future. Reasons for not coming for CHCT services included the fear of being found with HIV that will invite accusation of sleeping around, poor communication and love among couples. They also reported lack of time as a significant barrier

Interpretation and Conclusion: Based on in depth interviews, men are receptive to CHCT. Men are encouraged to attend CHCT upon good communication about it by their partners and formal invitations from Health care workers to participate in CHCT. Focus Group Discussions, not employed in this study, may complement this work to give a broader range of group perceptions and opinions regarding couples testing.

Recommendations: Information giving about the importance of CHCT, formal universal invitations and pre-pregnancy testing should be encouraged among couples. Couple testing remains a critical area for future research.

A.2 Impact of Theater for Development and interactive Drama in community awareness and community mobilization of Sexual Reproductive Health and Rights services

Kent Mphepo, Blessings Nkhata, Ambele Kayuni, Gladson Makowa, Ceaser Chembezi, and Kate Phiri

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Story Workshop Education Trust

Story Workshop Education Trust (SWET) conducted a baseline study in order to design Social Behavior Change Communication programs on HIV prevention. This was followed by Theater for development (TFD) using Interactive drama.

The aim of the study was to assess the knowledge levels on Sexual Reproductive Health and Rights among the youths aged between 15 to 24 years.

The study was carried out in Balaka district in Traditional Authority Chanthunya and Amidu.

The baseline was carried out through inter personal interview questions. This was followed by TFD sessions and data collection using activity performance forms.

The baseline interviewed 52 youths from the two traditional authorities. This revealed that 84% of the youths are knowledgeable about Sexual Reproductive Health and Rights (SRHR), 42% of which were females. Their main sources of information are their peers, making up to 40%. The percentage of youths engaged in sexual activities was found to be 57%. The percentage of youths knowledgeable on Voluntary Medical Male Circumcision (VMMC) was found to be 92%. Males made up 42% of the percentage on VMMC. The percentage of circumcised males was found to be 23%.

After the Theater for Development and interactive drama sessions, SWET conducted 40 Theater for Development and interactive drama sessions in the area. This resulted into 84741 youths reached using interpersonal forum discussions on SRHR. The Theater for Development sessions resulted to 1143 youths demanding VMMC services.

TFD and drama communicates information that is not discussed in most community gatherings. Its use should be explored in order to involve different age groups and trigger community discussions on sensitive subjects like HIV and AIDS.

A.3 Reaching out Community with HIV Testing and Counseling though Mobile Testing Services in Mwanza District, Malawi.

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Introduction:
This research study compares client value, demographics, testing results and cost of three mobile HIV counseling and testing (HTC) approaches with existing stand-alone HTC in Mwanza.

Methods
A retrospective cohort of 1,250 individuals received HTC between June 2014 to May 2015 was analyzed. Mobile HTC approaches assessed were community site mobile HTC, Semi-mobile container HTC and full mobile truck HTC. Data were obtained from project monitoring data, project accounts and personal interviews.

Results
Mobile HTC reported a higher proportion of client with no prior HIV test than stand-alone (88% versus 58%), stand-alone HTC reported a higher proportion of couples than mobile HTC (18% versus 2%) and higher proportion of discordant couples (12% versus 4%).

Conclusion and Recommendations
Adding mobile HTC to existing stand-alone HTC appears to be a cost effective approach for expanding HTC coverage for reaching different targets population, including women and young people and for identifying persons with newly diagnosed HIV infection for referrals to treatment and care.

A.4 Access to Comprehensive Gender Based Sex Education Regarding STIs, HIV/AIDS and Safe Sex Education among Adolescent School Girls in Mulanje district, Malawi.

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Introduction

Sexually Transmitted Infection including HIV/AIDS mainly affects sexually active young people aged 15-29 years, account for 32% of AIDS cases reported in Mulanje district and the number of young women living with HIV/AIDS is twice that of young men. The aim of this study was to evaluate adolescent school girls' knowledge, excretion and attitudes towards STIs, HIV/AIDS and Safe Sex practice and sex education and to explain their current sexual behaviour.

Methods

A cross section study was carried out in 2015 in Mulanje to investigate the perception, knowledge and attitudes of adolescent school girls towards STIs, HIV/AIDS, safe sex Practice and sex education. The self-completed questionnaire was completed by 112 female students from two Community Day Secondary Schools.

Results

More than one third of students in this study had no accurate understanding about the signs and symptoms of STIs other than HIV/AIDS. About 40% of respondents considered HIV/AIDS could be cured, 49% felt that condoms should not be available to youth, 41% were confused about whether the contraceptives ills could protect against HIV infection and 32% thought it should only be taken by married women.

Conclusion and Recommendations

Though controversial, there is an immerse need of comprehensive gender based sex education regarding STIs, HIV/AIDS, safe options and contraceptives in Secondary Schools.

A.5 Factors associated with acquisition of HIV during 2005-2014 among men and women in 5 African cohorts

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Introduction:

As HIV/AIDS epidemics mature, treatment becomes widespread, and behaviour changes, correlates of incident HIV infection may change. We examined factors associated with HIV incidence during 2005-2014 among men and women aged 15 to 49 in order to implement targeted interventions

Methods:

We analysed longitudinal data from five population-based cohorts from Kenya, Malawi, South Africa, Tanzania, Uganda and Zimbabwe with regular HIV testing to ascertain social and demographic factors associated with incident infection subsequent to ART rollout (2005-2014). We fitted piecewise exponential models to survival time to estimate hazard ratios (HR) for HIV incidence. Analysis time begins at the first negative HIV test and ends at sero-conversion or is right censored by death, out migration or the end of data collection

Results:

We found that current marriage, compared to never married, is associated with elevated hazard for young men aged 15 to 24 years (HR of 1.94, $p<0.05$), but a reduced hazard for the older women (Hazard ratio of 0.52, $P<0.05$). Having left a marriage was a risk for older men aged 25-49 year (HR of 1.86, $p<0.05$) and young women (HR of 2.61, $p<0.05$). For young men, having one partner was associated with the Hazard ratio of 2.48, $p<0.05$ compared to the Hazard ratio of 7.09, $p<0.001$ for young men with four plus partners. Having a new partner increased women's hazard of sero-conversion (1.53, $P<0.05$).

Conclusion or Interpretation:

For younger women, risk increases as time since first sex increases, could be due to male partner seroconverting or due to acquisition from older already infected male partner. Factors associated with incidence vary between men and women and by age calling for the need to design and implement targeted interventions

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A.6 Promoting Sexual Repoductive Health and HIV Testing and Counseling literacy among youth people at Luwani Refugee Camp in Neno District, Malawi.

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Introduction

Little is known about access to sexual reproductive health including HIV testing and counseling information among young people with refugee background living in Luwani refugee camp in Neno district. This paper report on a research study of Sexual Reproductive Health Rights including HIV testing and counseling services amongst recently arrived of young people who are refugees from Mozambique.

Methods

The study employed qualitative research methods to explore and describe how resettled youth access, interpret and implement sexual reproductive health information including HIV testing and counseling between May and July 2016. Data was collected through 23 focus Group discussion and 14 in-depth interviews involving 142 young people with refugee background. Participants were positively selected to reflect the ethnic composition of humanitarian entrants to Malawi over the past six months.

Results

The findings highlights how young people with refugee background are disadvantaged in relation to access to HIV prevention services including blood testing and counseling. Young people with refugee background had little knowledge on HIV and AIDS including their sero status. While they are aware of potential services of sexual reproductive health information, few of these services are utilized. Specific barriers for youth to access HIV testing and counseling are shame and embarrassment when found HIV positive.

Conclusion and Recommendations

This study argues for sexual reproductive health promotion including HIV testing and counseling to be an explicit part of services for refugee youth and implications for the development of appropriate sexual reproductive health rights

TRACK B: TREATMENT, CARE AND SUPPORT

The Track looks at basic clinical research into diagnosis and treatment of HIV-related infections, clinical course of HIV infection, antiretroviral therapy and all aspects medicine, program-linked studies that inform planning and treatment and care models emerging as good practice

B.1 Assessing Implementation of Models of Differentiated Care for HIV Service Delivery In Malawi: Multi-Month Prescriptions, Fast-Track Refills and Community ART Groups

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Introduction:

In Malawi, innovative models have been developed to optimize the efficiency of HIV service delivery in order to achieve the 90-90-90 targets. In particular, three key models of differentiated care have emerged: multi-month prescriptions; fast-track drug refills; and community ART groups. This study assessed the extent to which patients in Malawi are differentiated based on clinical stability and described the characteristics and costs of models offered.

Methods:

A mixed methods process evaluation was conducted in 30 purposefully selected ART facilities across Malawi. Qualitative methods included: interviews with 32 healthcare workers responsible for ART services; and 30 patient focus groups including 216 individuals. Quantitative methods included: record reviews for 75,364 patients; orally-administered questionnaires with 136 health workers; observations of 714 visit times; and a questionnaire on facility characteristics in each of the 30 facilities.

Results:

Among ART patients, 77.5% were eligible for differentiated care based on clinical stability. Across all facilities, 69% of patients were receiving MMS. In facilities offering FTRs and CAGs, 67% and 6% of patients were enrolled in the models, respectively. Patient differentiation was not always accurate according to eligibility criteria, particularly for MMS, with only 72.9% of eligible patients and 42.3% ineligible patients receiving MMS. Unit costs of ART service delivery through the MMS, FTR and CAG models were similar and represented a reduction of approximately 10% in the annual unit cost of providing care to stable patients that receive no model. Feedback from patients and providers was generally positive about the models, but several challenges were identified.

Conclusions and recommendations:

MMS has already generated cost savings and efficiencies in Malawi, but MMS and other models could be improved by more accurate patient differentiation. FTRs and CAGs are not likely to offer significant additional costing savings, but may be appropriate in some contexts in the country.

B.2 Low rates of successful defaulter tracing and re-engagement in care in Option B+ women in Central Malawi

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Background:

Under EQUIP, a USAID/PEPFAR project, Health Surveillance Assistants (HSAs) were trained to trace women lost to follow up from Option B+, provide basic education about the importance of antiretroviral therapy (ART) for maternal and infant health, and encourage women to return to care. Limited data exist around whether women traced in this manner re-engage in care and are retained.

Methodology:

Between October 2014 and April 2015 we reviewed ART registers at 14 health centers in Central Malawi to determine the number of women who had defaulted from care (>60 days without ART). HSA records were reviewed to determine how many women were successfully traced, and of these, how many agreed to return to care. ART registers and patient files were reviewed three months after tracing to determine how many women re-engaged in care (defined by having at least one appointment after tracing) and were retained in care for at least 90 days.

Results:

A total of 289 women met criteria for default and were traced by HSAs. Fifty women (17%) were successfully located and received ART education. Of these, 49 (98%) agreed to return to care and were confirmed to re-engage in care with at least one clinic appointment. Twenty-six women (53%) were retained and 23 (47%) defaulted again within three months of returning to care (Table). Among women retained, 19/26 (73%) remained in care at the same site, 6/26 (23%) transferred to another facility, and 1/26 (4%) died after re-engaging in care.

Conclusions:

A small proportion of women who defaulted from Option B+ were successfully traced by HSAs and almost half of these women were lost from care within three months of re-engagement**.** Interventions that identify women's challenges and help address specific barriers are needed to improve retention in Option B+.

B.3 Successes and Challenges of HIV Mentoring in a PEPFAR-USAID program in Malawi: The Mentee Perspective

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Background:

HIV clinical mentoring has been utilized for capacity building in Africa, but few formal program evaluations have explored mentee perspectives on these programs. EQUIP is a PEPFAR-USAID funded program in Malawi that has been providing HIV mentoring on clinical and health systems since 2010. We sought to understand the successes and challenges of EQUIP's mentorship program through interviews with mentees.

Methods:

From June-August 2014 we performed semi-structured, in-depth interviews with EQUIP mentees who had received mentoring for ≥1 year. Interview questions were focused on program successes and challenges and were performed in English, audio recorded, coded, and analyzed with ATLAS.ti version 7. Inductive content analysis was used to identify themes from interviews and proportions of themes were calculated.

Results:

Fifty-two mentees from 32 health centers were interviewed. The majority of mentees were 18-40 years old (79%, N=41), 69% (N=36) were male, 50% were nurses (N=26), 29% (N=15) medical assistants, and 21% (N=11) clinical officers. When asked whether EQUIP mentoring was successful, all mentees answered affirmatively (100%, N=52). The most common benefit reported by mentees (33%, N=17) was the increase in clinical knowledge that allowed them to initiate antiretroviral therapy (ART). One-third of mentees (N=17) reported that patient encounters benefitted from EQUIP's systems mentoring, including support for supply chain (basic supplies and equipment) and the provision of minor construction at clinics allowing for improved efficiency and creating a better environment for mentoring and patient care. The most common challenge (52%, N=27) was understaffing at facilities, with mentees having multiple responsibilities during mentorship visits resulting in impaired ability to focus on learning. Mentees also reported that lack of furniture/limited space in the clinic (46%, N=24) and problems with medication stock-outs (42%, N=22) created challenges for the mentoring process.

Conclusions:

EQUIP's systems-based mentorship and infrastructure improvements allowed for an optimized environment for clinical training. Shortages of health workers at sites pose a challenge for mentoring programs because they pull mentees away from learning experiences to perform duties outside of the HIV clinic. Evaluations of existing mentoring models are needed to continue to improve upon mentoring strategies that result in sustainable benefits for mentees, facilities, and patients.

B.4 The burden of care for integrated management of hypertension and diabetes mellitus in HIV patients in Zomba district

Raltegravir in second-line antiretroviral therapy in resource-limited settings (SELECT): a randomised, phase 3, non-inferiority study

McNeil Ngongondo presenting on behalf of A M La Rosa, L J Harrison, B Taiwo, C L Wallis, L Zheng, P Kim, N Kumarasamy, M C Hosseinipour, B Jarocki, J W Mellors, A C Collier, for the ACTG A5273 Study Group*

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Introduction:

For second-line antiretroviral therapy, WHO recommends a boosted protease inhibitor plus nucleoside or nucleotide reverse transcriptase inhibitors (NRTIs). However, concerns about toxicity and cross-resistance motivated a search for regimens that do not contain NRTIs. We assessed whether boosted lopinavir plus raltegravir would be non-inferior to boosted lopinavir plus NRTIs for virological suppression.

Methodology:

A5273 was a randomised, open-label, phase 3, non-inferiority study at 15 AIDS Clinical Trials Group (ACTG) research sites in nine resource-limited countries. Adults with plasma HIV-1 RNA concentrations >= 1000 copies per mL after >= 24 weeks on a regimen based on a non-NRTI inhibitor were randomly assigned (1:1) to receive ritonavir-boosted lopinavir (100 mg ritonavir, 400 mg lopinavir) plus 400 mg Raltegravir twice a day (raltegravir group) or to ritonavir-boosted lopinavir plus two or three NRTIs. The primary endpoint was time to confirmed virological failure (two measurements of HIV-1 RNA >400 copies/ml) at or after week 24 in the intention-to-treat population. Non-inferiority (10% margin) was assessed by comparing the cumulative probability of virological failure by 48 weeks.

Results: Between March 13, 2012, and Oct 2, 2013, we randomized 515 participants: 260 to the raltegravir group and 255 to the NRTI group. By the end of follow-up, 96 participants had virological failure (46 in the raltegravir group and 50 in the NRTI group). By 48 weeks, the cumulative probability of virological failure was 10·3% (95% CI 6·5–14·0) in the raltegravir group and 12·4% (8·3–16·5) in the NRTI group. 62 (24%) participants in the raltegravir group and 81 (32%) in the NRTI group had grade 3 or higher adverse events; 19 (7%) and 29 (11%), respectively, had serious adverse events.

Conclusion ad Recommendations: In settings with no available resistance testing, our data support WHO's recommendation for ritonavir-boosted lopinavir plus NRTI for second-line antiretroviral therapy. Ritonavir-boosted lopinavir plus raltegravir is an appropriate alternative, especially if NRTI use is limited by toxicity.

B.5 The population-level effect of Option B+ on female-to-male HIV transmission in Malawi: a mathematical modeling analysis

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Introduction: Programmatic efficiency of Option B+ over Option B has been shown in Malawi through a dramatic increase in the number of pregnant or breastfeeding women on ART. However, the impact of Option B+ on the adult HIV / AIDS burden through reduced heterosexual transmission has not been quantified in this setting.

Methods:
We developed a mathematical model to estimate the expected relative reduction in HIV incidence among men in Lilongwe, Malawi under Option B+ versus Option B from 2011 to 2020.

Results:
Comparing Option B+ to the Option B scenario in which ART uptake values in the period 2011-2020 were assumed to be the same as those assumed for Option B+, the estimated relative HIV incidence (RI) under Option B+ was 4% lower (median RI = 0.96; 95% CI: 0.94 – 0.97) in 2015 and was projected to be 7% lower (median RI = 0.93; 95% CI: 0.90 – 0.95) by 2020. Comparing Option B+ to the Option B scenario in which ART uptake values in the period 2011-2020 were assumed to remain at 2011 levels, the estimated RI under Option B+ was 14% lower (median RI = 0.86; 95% CI: 0.84 – 0.88) in 2015 and was projected to be 21% lower (median RI = 0.79; 95% CI: 0.74 – 0.83) by 2020.

Conclusions and Recommendations:
Option B+ can substantially reduce adult HIV incidence, even in an era when ART-for-health begins at CD4 counts < 500 cells/mm^3. Countries implementing Option B+ should continue expanding the program with the expectation of reduced HIV transmission in the population.

B.6 The relationship between maternal antiretroviral therapy initiation time and preterm birth: Option B+ for the prevention of mother-to-child HIV transmission in Malawi

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Introduction:
Preterm birth, more common among HIV-infected women, is the second-leading cause of death in children under five years. Antiretroviral therapy (ART) for HIV-infected women during pregnancy can virtually eliminate the risk of vertical HIV transmission and improve maternal health. Despite these clear benefits, the effects of ART exposure during pregnancy on fetal development and birth outcomes are still unclear.

Methods:
We conducted a retrospective cohort study of HIV-infected women delivering at ≥27 weeks of gestation, April 2012-November 2015. Among women on ART at delivery, we restricted our analysis to those who initiated ART before 27 weeks of gestation. We defined preterm birth as a singleton live birth at ≥27 and <37 weeks of gestation, with births at <32 weeks classified as extremely to very preterm. We used log-binomial models to estimate risk ratios (RR) and 95% confidence intervals (CIs) for the association between ART and preterm birth.

Results:
Among 3074 women included in our analyses, 731 preterm deliveries were observed (24%). Overall preterm birth risk was similar in women who had initiated ART at any point before 27 weeks and those who never initiated ART (RR = 1.14; 95% CI: 0.84 – 1.55), but risk of extremely to very preterm birth was 2.33 (1.39-3.92) times as great in the latter group vs. the former. Among women on ART before delivery, ART initiation before conception was associated with the lowest preterm birth risk.

Conclusions and recommendations:
ART during pregnancy was not associated with preterm birth, and it may in fact be protective against severe adverse outcomes accompanying extremely to very preterm birth. Current practices to initiate ART in pregnant women should be continued. Pre-conception ART should also be encouraged.

B.7 Prevalence of Baseline Renal Injury Among Women Enrolled in Option B+

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Background:

HIV positive pregnant women in the Option B+ program are routinely initiated on Tenofovir/emtricitibine/Efavirenz (TDF/FTC/EFV) therapy without renal monitoring despite the potential for renal toxicity due to TDF. We determined the prevalence and risk factors for abnormal renal function prior to initiation of TDF/FTC/EFV treatment in the Option B+ population.

Methods:

We analyzed data from 300 newly diagnosed HIV-infected pregnant women initiating standard first-line ART with TDF/3TC/EFV. Participants were recruited at a large, government ANC clinic in Lilongwe, Malawi as part of an ongoing prospective observational cohort study on Option B+. At first ANC visit, renal function was assessed via serum Creatinine (Cr), estimation of Creatinine Clearance (CrCl) via the Cockroft-Gault equation and urine dipstick. Demographic data and laboratory evaluations from enrollment were used for descriptive statistical analysis of the cohort.

Results:

A total of 300 women were enrolled in the study. Participants had a median age of 31.6 years (IQR 27-35), a median BMI of 24.2 (IQR 22.2 -26.67), median CD 4 count of 382 /uL (IQR 231-524) and median hemoglobin of 10.9 g/dL (IQR 10-11.7). At enrollment, 99.6% had a normal CrCl (>90ml/min) and 0.4% had a mild CrCl (60-89 ml/min), 16.6% had mild proteinuria (30-99 mg/dl) and 6.8% had moderate proteinuria (>100 mg/dl).

Conclusion:

Our results suggest that the prevalence of kidney injury in HIV+ pregnant women in Option B+ is low at enrollment when assessing by Cr and estimated CrCl. This finding supports rapid initiation of TDF based therapy in absence of monitoring as a public health approach.

Recommendations:

Further study should examine long term trends in Tenofovoir related kidney injury for women enrolled in Option B+ as well as examine the prevalence of kidney injury amongst women enrolled in Option B+ with a subsequent pregnancy.

B.8 HIV Incidence patterns and sexual behaviour in the era of ART, Karonga Prevention Study 2007 - 2011

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Introduction:

We investigate the incidence patterns and sexual behaviour of participants in the Karonga Prevention Study in northern Malawi. This work aims to provide estimates of incidence trends and sexual behaviour of the study participants in the ART era.

Methods:

We used data for the period from 2007 to 2011 on HIV testing and multiple imputation commands to estimate sero-conversion dates, we estimate HIV incidence rates and trends for participants aged 15 – 60. We also used partner history data reported in the cross-sectional surveys to represent a sample of partnerships during the survey reference period.

Results:

Incidence levels are generally lower than similar studies elsewhere in Africa. They ranged from almost 4 per 1000 person years in 2007 to around 1 per 1000 person-years in 2011. There is a clearer declining pattern for women than for men. Relating the incidence levels to background characteristics showed that the hazard of seroconverting was 3 times higher among men who had first sex before age 15 as compared to those who did not. Compared to the never married, the hazard of seroconverting among the formerly married men was about 6 times higher. Regarding women, the hazard of seroconversion was 2.6 times higher among those who were in the first six months of a new sexual partnership. The hazard of seroconversion was 3.3 times higher for those who acquired a new partner in the year before the survey compared to those who did not.

Conclusion or Interpretation:

The above results suggest falling incidence in the ART era, this has to be teased out further to isolate the respective contributions of the epidemic stage, behaviour and treatment effect. The differences in seroconversion status by background characteristics suggest that strategies for treatment and care should be appropriately targeted to sex, age, and marital status among other characteristics for them to be effective.

B.9 Prevalence of renal toxicity among HIV patients on Tenofovir Disoproxyl Fumarate (TDF) containing Anti-Retroviral Theraphies (ARTS) at Dream Health Center, Blantyre.

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Background: Tenofovir Disoproxil Fumarate (TDF) is known to cause renal toxicity in HIV (Human Immunodeficiency Virus) patients who are using these ART's (Anti-Retroviral Therapy). The World Health Organization (WHO) recommended the use of TDF containing ARTs as a first line regimen in 2013. The Malawi government adopted this recommendation later in 2013. This cross sectional study, aimed at determining the prevalence of clinically significant renal toxicity in HIV patients who are on TDF containing ARTs at Dream Health Centre in Blantyre, Malawi.

Methods: A total of 60 HIV patients who have been on Tenofovir containing ART's for over six months were recruited and their serum creatinine levels were measured using SpinLab 180 chemistry analyzer for the calculation of estimated Glomerular Filtration Rate (eGFR) and the levels of glucose, proteins and creatinine in urine were also measured using the same chemistry analyzer so that the renal toxicity would be established. Furthermore, blood samples for the measurement of viral load were collected and analyzed on Abbott m 2000sp. Viral load tests were performed to determine if the HIV infection by itself is a risk factor for the development of the observed renal dysfunction.

Results: After analysis of the data we found that 13 (21.67%) of the sample population had moderate to severe renal impairment (<60ml/min). 7 (53.8%) of the 13 patients had high proteinuria (>20mg/dl). We also found by multivariate analysis, a significant association between age and eGFR of <60ml/min (p value=0.003).

Conclusion: These results show that there is a significant number of patients who are on TDF that have moderate to severe renal impairment. And that age is a risk factor to the development of renal dysfunction.

Recommendations: Other studies preferably cohort studies which allow for follow up have to be done to establish association between duration on TDF containing ARTs and renal toxicity.

B.10 The Effect of type of Progestin-only contraception (DMPA versus Levonorgestrel Implant) on HIV viral shedding in the genital tract of HIV-infected women on antiretroviral therapy

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Introduction: Hormonal contraception has been linked to higher genital HIV shedding and risk of HIV transmission to partners. There is limited information about this association in the context of antiretroviral therapy (ART). We assessed the effect and compared the impact of two progestin-containing contraceptives, the Depot Medroxyprogesterone Acetate (DMPA) injectable and the 5-year Levonorgestrel (LNG) implant, on HIV shedding in the genital tract of HIV-infected women.

Methodology: This analysis is from a randomized trial evaluating the effects of DMPA and LNG-implant on the genital tract of HIV-infected and uninfected women in Malawi. HIV-1 RNA viral load (VL) was measured in cervicovaginal lavage using the Abbott RealTime assay. We compared the frequency and magnitude of genital shedding at visits before and for 6 months after initiation of contraception and between arms using repeated measurement models fit by generalized estimating equations.

Results: We randomized 73 HIV-infected women (37 to DMPA, 36 to LNG-implant). Eighty-nine percent of DMPA users and 97% of LNG-implant users were on ART at enrollment. Among women on ART, 6.1% of DMPA users and 5.7% of LNG-implant users had detectable genital HIV at enrollment. The frequency of genital shedding and the genital VL were not different before and after contraceptive initiation [RR = 1.01 (95% CI = 0.98-1.04)] or between the two arms [RR = 1.01 (95% CI = 0.98-1.04)] among women on ART. Genital shedding was uncommon (< 10% at any time point) and of low magnitude (maximum 3,478 copies/ml).

Conclusions: Neither DMPA nor the LNG-implant were associated with increased genital HIV shedding during the first 6 months of use among women on ART. These findings suggest that progestin contraception is not associated with increased HIV transmission risk.

Recommendations: Women on ART should be counseled that they can use progestin contraceptives without concern of increased HIV transmission risk.

B.11The burden of gynaecomastia among men on Antiretroviral Therapy in Zomba, Malawi

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Introduction: Gynaecomastia in HIV infected men has been associated with hypogonadism and the use of several medications, most commonly efavirenz. After the introduction of the standardized first-line ART regimen 5A, which contains efavirenz, reports of gynecomastia appeared in popular media, however prevalence data of gynaecomastia in Malawi are lacking.

Methods: We conducted a cross–sectional study of adult males (≥18 years) on ART at the Tisungane HIV clinic, Zomba Central Hospital. Males were asked if they had ever experienced breast or nipple enlargement. Those who replied yes received a standard questionnaire for further details about gynecomastia and a physical examination. Clinicians confirmed the presence of gynecomastia along with grading according to accepted criteria. Patients reported perceptions and concerns about their gynecomastia. We extracted data from our electronic database on ART regimen, anthropometric measurements, history of tuberculosis (TB) and WHO clinical staging, from all participants, irrespective of self-reported gynecomastia.

Results: A total of 1,011 men were included in the study. The median age was 44 years (IQR: 38-52), median ART duration was 55 months (IQR: 26-83); 47% were in WHO disease stage III/IV, 80% had 5A (tenofovir/lamivudine/efavirenz) as current ART regimen; 9% were overweight or obese. The prevalence of gynecomastia was 60/1011 (5.9 %; 95%-CI: 4.6% to 7.6%) of whom 86% reported nipple enlargement (75% bilateral) and 98% increased breast size (85% bilateral), 44% had painful breasts, 3.4 % had nipple discharge. 80% found the gynecomastia important or very important. Embarrassment was reported by 53%, stigma by10%. On physical examination, 90% had confirmed gynecomastia; in 29 (54%) this was grade 3/4. None had a testicular mass.

Conclusion/Recommendations: The burden of gynecomastia among males on ART in Malawi was higher than previously reported, and was associated with adverse psychological consequences, calling for increased awareness among patients and healthcare workers.

B.12 Early experiences of integrating non-communicable disease screening and treatment in a large ART clinic in Zomba Malawi.

Authors and affiliations

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Introduction: ART programs represent the first large scale chronic disease systems in Africa and can be leveraged to manage the growing burden of non-communicable disease (NCD).

Methodology: Tisungane HIV clinic at Zomba Central Hospital has 6550 patients receiving treatment. In October 2015 a model of integrated HIV-NCD care was developed. Clinical protocols for hypertension and diabetes screening and treatment were developed combining international literature and National Treatment Guidelines. All HIV clinic staff (n=27) were trained during 2 two-day sessions. Blood pressure was scheduled to be measured on adults at every visit and random blood glucose every two years. If initial blood pressure was raised, it was repeated at that visit and confirmed on a subsequent visit before hypertension was diagnosed. Only patients with stage 2 hypertension (systolic>160 and/or diastolic>100 mmHg) or those with stage I hypertension and cardiovascular risk factors were given antihypertensive drug treatment. If random glucose was high, it was confirmed with a fasting glucose, using WHO thresholds. All measurements were done by lay health workers and expert clients who received stipends. Combined ART-NCD treatment was provided by clinical officers, uncomplicated ART-only care by nurses.

Results: In the first six months >6,500 clients attended HIV care, of whom 5864 had ≥1 blood pressure recorded and 3,803 had ≥1 glucose reading measured. Five expert clients/lay health workers were employed for the additional care burden. This was manageable as the prevalence rates of newly diagnosed stage 2 hypertension and diabetes were fairly low. The less-flexible vertical nature of the ART system made the design of integrated tools including electronic data capture challenging. Process mapping and patient flow were utilized to decrease missed screening opportunities. Integration of NCD care increased workload and consultation time.

Conclusions / Recommendations: Screening and treatment of hypertension and diabetes in single “one-stop” HIV-NCD clinic appears feasible.

B.13 Expanding HIV-TB and STI care and treatment to Malawian prisons, the experience from Zomba Central Prison, Malawi.

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Introduction: Globally, prevalence rates of HIV, sexually transmitted infections (STI's) and hepatitis B (HBV) in prison populations are 2 to 50 times higher than in general populations. Risks affect prisoners, prison staff, their families and the entire community. In 2013, the Malawi Prison Services established a steering committee to scale-up HIV care and treatment in Malawian Prisons. We used routinely collected program data to evaluate the HIV-cascade and prevalence rates of syphilis and HBV in Zomba Central Prison.

Methodology: Since 2014, Dignitas International (DI) and the Malawi Prison Health Services have been implementing a comprehensive package of care and treatment for HIV-TB and STI's. Prisoners are routinely screened for HIV, TB and STI at entry, during their stay and when they are released. In addition, HIV, TB, syphilis and HBV screening campaigns are conducted bi-annually.

Results : During a June 2015 screening campaign 1052/1745 (60%) prisoners with unknown HIV status accepted to be tested for HIV, HBV and syphilis. 68/1052 (6.5%) tested positive for HIV, making the overall prison HIV prevalence 23.8%. 52/1052 (4.9%) tested positive for syphilis and 59/1052 5.7% tested positive for HBV. 1.1% were co-infected with HIV/HBV. By October 2015, 482/539 (89%) HIV positive patients were on ART, 52% were initiated with WHO stages 3/4, 48% due to low CD4 (<350 or 500 cells/µL). 98% were on 1st line ART regimen. ART patients eligible for routine viral load (VL) monitoring according to National Guidelines received VL testing. 277/319 (86%) were virologically suppressed (<1000 copies/ml). All patients with VL≥1,000 accessed enhanced adherence counseling.

Conclusion: Malawian Prisoners attained acceptable HIV testing coverage, high ART uptake, and good adherence evidenced by high virological suppression. During incarceration opportunities exist to provide high-quality HIV care in hard-to-reach individuals. Prison health care programs needs to plan for special needs of prisoners such as confidentiality.

B.14 Exploration of Factors Associated with ART Adherence and Retention Under Option B+ in Malawi: a Qualitative Study

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Introduction: Although several studies have documented challenges related to inadequate adherence to antiretroviral therapy (ART) and high loss-to-follow-up (LTFU) among Option B+ women in Malawi, there is limited understanding of why these challenges occur and how to address them. This qualitative study examines women's experiences with adherence to ART and retention under Option B+, while exploring factors affecting their treatment related decision making.

Methodology: In-depth interviews were conducted with 39 pregnant and lactating women who initiated ART at Bwaila Hospital in Lilongwe Malawi. Study participants included women who remained in care (N=14) and were LTFU (N=25).

Results: Twenty of the respondents stopped and re-started treatment, while 5 women stopped ART completely. Findings showed the strength of one's support systems was one of the most important factors in influencing adherence and retention. This includes emotional and financial support from male partners, psychological support from health care providers (HCPs) and logistical support from designated guardians. Alternatively, when women were unable to harness support from social networks, they were more likely to be LTFU and interrupt their treatment. Major barriers to remaining in care were the absence of male partner support, including conflict and dislocation following disclosure, lack of guardian that assists with clinic appointments and medication pick-ups, transportation costs, minimal to no engagement with HCPs and negative attitudes towards ART. Mobility and its resulting difficulties in accessing drugs were also frequently noted causes of stopping treatment. The most common reasons women re-started treatment after stopping was due to HCP counseling and encouragement and the mother's desire to be healthy.

Conclusion: Improved counseling at initiation, active follow-up counseling, economic strengthening interventions, promotion of peer counseling schemes and meaningful engagement of male partners can help in addressing the identified barriers and promoting sustained retention of Option B+ women.

B.15 Burden of Primary Drug Resistance Among Patients with High Viral load on HAART in Malawi

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Introduction: The Malawi ART program started in 2004 and since then, about 600,000 patients are on ART with a possible risk of transmitting or acquiring already resistant HIV strains among the population. About 15% of patients who have access to viral load test have high viral load(VL) of more than 1000 copies per ml. We evaluated the magnitude of early drug resistance at 12 months based on the results and quantify the extent of Primary resistance among patients on HAART.

Methods: We prospectively followed 2,614 patients on first-line ART in 5 health centres whose viral loads were done at 12 months then, every 12 months. Patients with VL >1000 were purposively selected to undergo HIV genotyping and intensive counselling. If genotyping at 12 months' reveal mutation, a baseline sample genotyping was done to ascertain if the mutation is primary or secondary. In patients with VL>1000 at 12 months, the test was repeated after six months after counselling and if still high second genotyping was done.

Results: Based on VL>1000, 3.3 % (85/2164) qualified for genotyping at 12 months. Genotyping showed 49%(42/85) patients harbouring major HIVDR mutations. Resistance testing at baseline, showed that 42.3 % (21/49) of those with mutations at 12 months had primary resistance at baseline. In multivariable analysis VL>1,000 at 12 months was associated only with lower adherence. About 50% had VL< 1000 copies/ml at 18 months. Independent determinants of 18 months VL>1,000 were higher VL at 12 months (OR 2.12; 95%-CI: 1.02-4.47) and presence of HIVDR mutations at 12 months (OR 4.35; 95%-CI: 01.59-11.1).

Conclusion or Interpretation: The results show that there is high burden of resistant drug resistance in patients with virological failure with considerable proportion associated with transmitted resistance. Adherence support to patients with virological failure helps about half of the patients to re- suppress.

B.16 A study of Unique Vulnerabilities for Adolescents and the Youth in Urban and Semi-Urban Areas in Malawi

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Introduction: Adolescents face a range of health related challenges such as, substance use, mental ill-health, malnutrition, violence and injuries. HIV and maternal mortality are two of the most important health problems for sexually active adolescents in low income countries including Malawi. About 13% of the 2.3 million new HIV infections globally occur among adolescents. About two thirds of these new HIV infections in adolescents are among females. In 2014 HIV infection among male adolescents was at 2.5% and 3.5% among female in Malawi. A study was therefore commissioned with the aim of identifying and investigating factors and contexts which make adolescents and other youths vulnerable to HIV infection in the country. The study focussed on urban and peri-urban areas.

Methodology: A mixed-methods approach was used for collecting primary and secondary data. Primary data collection comprised structured and semi structured interviews. Secondary data collection included review of both local and international literature. The study participants, who were purposively sampled, included: youths, parents, college administrators and other gate-keepers such as the clergy, police, teachers, traditional leaders and business owners.

Results: We found that the main factors making young people vulnerable included personal (pleasure or sensation seeking, lack of knowledge), household (poverty, lack of parental supervision or adult encouragement to engage in transactional sex) and structural (conflicting policies and lack of age and lifestyle appropriate sexual and reproductive services). Barriers to accessing sexual and reproductive health services included: limited locations for adolescent and youth friendly health services, perception that anal sex was safer, non-availability of services within boarding schools and stigma and discrimination against unmarried youths accessing sexual and reproductive health services. Males were more likely to access sexual and reproductive health (SRH) services (55.9% of males compared to 36.8% of females ($p<0.05$). With regard to marital status, married youths were more likely to access SRH services (86.7% of married youths compared to 43.7% of single youths). There was no difference in access to services between those with primary and secondary education (46.% for both groups). However, those with tertiary education were more likely to access services compared to those with primary and secondary school education. Access to services increased with age: with 25.5% of 10-14 years olds, 43.2% of 15-19 year olds, and 62.7% of 20-25 year olds reporting to have ever accessed services.

Conclusions and Recommendations: The main factors making young people vulnerable are pleasure or sensation seeking, lack of knowledge, poverty, lack of parental supervision or adult encouragement to engage in transactional sex, conflicting policies and lack of age and lifestyle appropriate sexual and reproductive services. There is need to widen the availability of effective adolescent and youth friendly services to address the service delivery gaps identified in the study. Joint planning by the Ministry of Health and the Ministry of Education, Science and Education on sexual and reproductive health services that can be provided to in-school youths is also important. There is need for creation and enforcement of policy and legislation protecting adolescents and young people from alcohol and other illicit drugs, criminalizing sexual violence against boys, supporting adolescents and other young people who drop out from school through vocational training and social safety nets for orphans. There is need to mitigate youths, especially girls against the effects of parental separation or divorce.

B.17. Determining trends in mortality rates disease events and treatment compliance among long term adolescent HIV positive survivors.

Authors: Davie Kalomba, **Bagrey Ngwira,** Levi Lwanda, Blackson Matatiyo, Chimwemwe Mablekisi, Lonjezo Sithole, and Jessie Khaki.

1 National AIDS Commission 2 The Polytechnic

Introduction: The first AIDS case in Malawi was diagnosed and confirmed in 1985. From the initial case of AIDS, the HIV epidemic has become one of the greatest public health and socioeconomic challenge of the current generation. In spite of the devastating effects, Malawi's three decades HIV epidemic history includes significant successes for a country with public health and socioeconomic constraints. Of note, there has been a steady decline in prevalence from 16.4% in 1999, 12% in 2008 to 10.6% in 2010 and with recent estimates in 2015 suggesting a 10.0% prevalence. Despite the successes of the national ART program, data show that children and adolescents have disproportionately lower ART coverage compared to adults. For example, whereas estimated ART coverage for adults was 68%, only about 50% (50,533 / 101,000) of children <15 years needing ART were on treatment by September 2015. In light of the preceding, National AIDS Commission (NAC) commissioned a study to determine trends in adherence, mortality rates and disease events among long-term adolescent HIV positive survivors; and to explore access to and acceptability of HIV services among adolescents living with HIV. Ultimately a comprehensive understanding of these factors is critical for improving and better targeting of service delivery to young people living with HIV.

Methods: A mixed methods study using qualitative and quantitative approaches was used to achieve a comprehensive understanding of the issues under investigation in the Malawian context. The study used various methods to obtain relevant information for the study, including: data abstraction from databases of patient electronic records managed by Baobab health; desk review; Focus Group Discussions (FGDs); and Key Informant Interviews.

Results: Results show an encouraging trend of increased survival of adolescents on ART. From less than a quarter retained alive and on ART in 2005, ALHIV survival on ART has increased with up to about 50% alive on ART as of December 2015. Nonetheless, survival analysis of the oldest cohort of ART clients for all ages in Malawi (ART cohort from September, 2005) showed 48% were alive and on ART as of September, 2015. Furthermore, adherence has been consistently above 75% among adolescents who have been on ART for the past 10 years. Of note, a number factors emerged from both ALHIV and their parents on the challenges faced by adolescents in adhering to treatment, including: inadequate information, lack of parental disclosure about HIV status; and fear of stigma and discrimination especially for adolescents in boarding schools.

Conclusions: In view of the findings from this study, it is recommended that various stakeholders in the HIV and AIDS response, particularly those focusing on children and adolescents should consider implementing interventions that support young PLHIV in accessing ART and remaining in care. These should include establishment of teen clubs in areas where they do not exist to promote utilization of essential HIV services, treatment adherence and psychosocial support among ALHIV.

TRACK C: IMPACT MITIGATION: SOCIAL, ECONOMIC AND PSYCHO-SOCIAL

This Track highlights areas of scientific investigation into social, economic and cultural dimensions of the epidemic and its impacts and cases of programs and interventions that address these challenges with high impacts and benefits to the target groups.

C.1 Stigma against HIV/AIDS people in Malawi: What drives the acceptance attitudes gap in women?

G. C. Chirwa and M. Chilongo

Study Objectives:

The main objective of this study is to investigate the socioeconomic factors that influence social acceptance gap in women, for people living with HIV and AIDS. We focus on women since HIV burden is higher amongst them. Our motivation is that in order to come up with effective policies, a gender approach to HIV must also be unearthed from a social science perspective.

Methodology:

We make use of a logit Model to identify the determinants, and the *fairlie* decomposition method to explain the gap. Secondary data from the Malawi Demographic Health Survey data set of 2010 is used for analysis.

Main Results:

Findings shows variations in individual and community-level determinants of social acceptance of people living with HIV and AIDS in Malawi. Acceptance increases with age and is non-linear. The Married, widowed, and separated individuals have more accepting attitudes than the non-married. Frequency of listening to the radio, wealth status, having HIV comprehensive knowledge, as well as secondary and primary education have positive accepting attitudes. Furthermore, those in urban areas are much more likely to have positive accepting attitudes than the rural dwellers. However, exposure to media such as newspaper, television have not conformed to apriori expectations by being insignificant. The decomposition analysis shows that accepting attitudes are 54% in rural and 65% in urban. The gap difference is around 11%, and the explained part is 6%.

Recommendations:

There is need for more media coverage to foster acceptance of people living with HIV/AIDS. HIV prevention programs and policies aimed at promoting accepting attitudes towards PLHIV should bring more attention to the structural aspect of community improvement.

TRACK D: PROGRAM MANAGEMENT AND COORDINATION

This track focuses on research-based lessons on community involvement in HIV services, effective organizational set-up and development support initiatives, organization of responses and capacity to respond effectively at all levels.

D.1 Antiretroviral treatment failure and retention in care of patients in community ART adherence support programme compared to those not in this programme at Lighthouse clinics in Lilongwe, Malawi: 2006-2014

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Introduction:

In order to achieve the second and third 90 in the UNAIDS 90-90-90 HIV-strategy, there is need to identify strategies that improve antiretroviral treatment (ART) retention and prevent ART failure. The Lighthouse Trust had been implementing community ART adherence support (CAS) programme since 2006 but no formal evaluation has been done. We, therefore, assessed the effect of CAS programme on ART retention and first line ART failure.

Methods:

We conducted retrospective cohort study of patients registered at Martin Preuss Centre (MPC) and Lighthouse (LH) clinics between 2006 and 2014. Enrolment in CAS programme is voluntary. Patients receiving CAS were visited by community volunteers twice monthly to check ART adherence and provide psychosocial support. Retention was defined as being alive and on ART while transferred out a censored event whereas 'attrition' was defined as died, lost to follow-up or stopped treatment. ART failure was defined as having ≥1000 viral-load copies/µL of blood in patients receiving ART for ≥6 months. Cox regression was used to determine factors associated with attrition and first-line ART failure at 5% significance level.

Results:

Of the 45184 patients registered during study period, 5% received CAS. ART retention at 6, 12 and 24 months of follow-up was 93%, 89% and 85% in CAS vs. 88%, 83% and 77% for those not receiving CAS. Crude ART attrition RR among CAS was 0.48 (95%CI:0.43–0.55, p<0.001). After adjusting for other factors, ART attrition rate was significantly associated with CAS (RR:0.88, 95%C:0.78-0.99, p=0.04). Receiving CAS was not associated with rates of first-line ART failure.

Conclusion:

Retention in care was higher among patients in CAS programme compared to those not in CAS. There were no statistically significant associations between CAS and first-line ART failure.

Recommendations:

Sustaining patients on ART using CAS may help achieve second 90 of UNAIDS 90-90-90 HIV strategy.

D.2 Ethical blind spot: Information gap regarding compliance with material transfer agreements by foreign laboratories.

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Background

Research institutions conducting clinical research in developing countries regularly send samples to laboratories in the developed world mostly due to lack of specialized laboratory techniques in the developing world but also to ensure standardization in assaying (assaying is done in one central lab). Sending such samples requires material transfer agreements (MTAs) which outline how the samples should be managed (e.g. intended use, storage location, fate of the samples etc.). We investigated how research institutions which conduct HIV clinical research in Malawi and thus routinely send biological samples to foreign laboratories monitor compliance with MTAs by the foreign laboratories to which they send their samples. Use of samples outside MTAs is unethical. Monitoring MTA compliance can prevent this.

Methods

Laboratory managers or their delegates of the nine major research institutions in Malawi were interviewed. Questions included what tools, if any, they use to monitor MTA compliance, if the tools work, if the institutions, or their agents, have ever audited foreign labs' compliance with MTAs and if they receive communication regarding fate of their samples.

Results

None (0%) reported that they monitor MTA compliance by labs to which they send their samples. None (0%) reported that they, or their agents, have ever audited any foreign lab to assess MTA compliance. None (0%) reported that they have ever received any communication regarding fate of their HIV research samples. All (100%) reported that they '*simply trust'* that MTAs are being adhered to. All (100%) indicated monitoring compliance would be important.

Conclusion

Research institutions in Malawi have no knowledge of levels of compliance with MTAs by foreign laboratories to which they send their research samples. Institutions should put in place mechanisms to monitor compliance with MTAs by labs working on their samples to ensure that every step in biomedical HIV research is taken ethically.

POSTERS

P.1 HIV counselling and testing and HIV acquisition

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For submission to NAC 2016 track A.

Introduction: Annually, millions of people in sub-Saharan Africa (SSA) receive HIV counselling and testing (HCT), a service designed to inform persons of their HIV status and, if HIV-uninfected, reduce HIV acquisition risk. However, the impact of HCT on HIV acquisition has not been systematically evaluated. We conducted a systematic review to assess this relationship in SSA.

Methodology: We searched for articles from sub-Saharan Africa meeting the following criteria: an HIV-uninfected population, HCT as an exposure, longitudinal design, and an HIV acquisition endpoint. Three sets of comparisons were assessed and divided into strata: A) sites receiving HCT versus sites not receiving HCT, B) persons receiving HCT versus persons not receiving HCT, and C) persons receiving couple HCT versus persons receiving individual HCT.

Results: We reviewed 1635 abstracts; eight met all inclusion criteria. Strata A consisted of one cluster randomized trial with a non-significant trend towards HCT being harmful: incidence rate ratio (IRR): 1.4. Strata B consisted of five observational studies with non-significant unadjusted IRRs from 0.6 to 1.5. Strata C consisted of two studies. Both displayed trends towards couple HCT being more protective than individual HCT (IRRs: 0.3 to 0.5). All studies had at least one design limitation.

Conclusions: In spite of intensive scale-up of HCT in SSA, few well-designed studies have assessed the prevention impacts of HCT. The limited body of evidence suggests that individual HCT does not have a consistent impact on HIV acquisition, and couple HCT is more protective than individual HCT.

Recommendation: Interventions beyond HCT are needed for substantial declines in HIV acquisition, including couple HCT.

P.2 Addressing HIV and AIDS Issues Through Community Voices

Joshua Chirwa and Levie Nkunika

Introduction

Zammadela slot is a 5 minute rightsholders centred and user generated audio message aired in the Morning Basket radio programme. The slot provides a platform for communities for discussing development related issues around HIV and AIDS. Such HIV and AIDS issues include HIV Testing and Counseling (HTC), adherence to Anti Retroviral Therapy (ART), faithfulness, Prevention of Mother to Child Transmission (PMTCT), abstinence and Stigma. The *Zammadela* slot targets their fellow community members, service providers and other audiences.

Methodology

The *Zammadela* slots are generated by the community and are aired three times a week (Monday, Wednesday and Friday) in the Morning Basket radio programme on MBC Radio 1 with a reach of 80.2% in Malawi. The messages for *Zammadela* slots are produced by community members themselves through radio listening clubs (RLC) and sent to the Malawi Broadcasting Corporation (MBC) for broadcasting. For this reason, there is a ready audience for the broadcasts. The RLCs mobilize communities to listen to the *Zammadela* broadcasts.

RLCs are small organized community groups that meet regularly to receive a special programme after which the members discuss issues emanating from the programme. The RLCs are trained to be able generate appropriate messages on issues of concern. Moreover, the club members are provided with recorders for capturing community voices ready for broadcasting.

Results

Through the use of radio programmes, and the *Zammadela* slot in particular, RLCs facilitate dissemination of relevant message on HIV and AIDs to their fellow community members. The radio programmes have also provided a platform through which RLCs enhance participation of community members in addressing challenges relating to HIV and AIDS and other development related issues. The *Zammadela* slot has also acted as a channel through which a community can voice their concerns to relevant stakeholders for appropriate action.

Conclusions and Interpretation

The radio is one of the key channels for disseminating HIV and AIDS messages to rural communities. Through the *Zammadela* slot, communities have actively been involved in dissemination of HIV and AIDS messages. This has helped to increase the number of community members accessing messages on HIV and AIDS for behavior change.

P.3. Empowering faith leaders to take leading role in the fight against HIV in Blantyre

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Introduction: Faith leaders have greater role in HIV prevention care, treatment and support in the country. However, reports reviewed that, only few are taking part while the rest do nothing rather than promoting stigma and discrimination and misinformation regarding HIV prevention and treatment. In Blantyre mainly in the rural areas, misinformation has negative impacts on people living with HIV and AIDS that lead to stop taking ARTs. It was against this background where Rural Education and Rehabilitation Unit implemented the project that build the capacities of faith leaders to take active role in the fight against HIV. The project runs from 2015 to December 2016.

Methodology: 250 faith leaders including lay, pastors, elders , preachers, prophets and influential leaders from all congregations from both Blantyre City and rural were mobilized, trainings which focus on HIV prevention, treatment, care and support including their role in the response in biblical and Quran perspectives and four series of community dialogues, quarterly discussions. Data was collected through baseline survey, 10 focus group discussion for 60 faith members, health service providers and case studies.

Results and discussions: Increased openness of HIV status among the members, from 21% at the start to 55% at the end. Increased uptake of HIV and AIDS services including HTC, ART, reduction in cases of stigma and discrimination, at least 75% of people living with HIV and AIDS reported that. At least, 50% of faith leaders established HIV and AIDS response in their congregation.

Conclusion: Strengthening the capacities of faith leaders has greater benefits because they save many people and it's the best way of intergrating HIV and AIDS programs biblical or Quran perspectives. But much efforts need to be done to motivate more faith leaders to take HIV and AIDS as issue to deal with.

P.4 Assessing youth attitudes and perceptions towards VMMC as an HIV/AIDS intervention strategy

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Voluntary male medical circumcision (VMMC) has been touted in the media by both policy makers and health practitioners as one way of reducing the spread of the human immunodeficiency virus (HIV) in Malawi. This exploratory study sought to provide some knowledge regarding the procedure and its concomitant implications; specifically, the focus of the study is on the attitudes of young men and women toward VMMC. Although, VMMC is performed on men, the procedure has implications for the well-being of women as well because they are, more often than not, the sexual partners of men. A sample of young men and women was drawn from one of the public universities in Malawi, and the study utilized three theories: Cognitive Dissonance Theory (CDT), Health Belief Model (HBM), and the AIDS Risk Reduction Model (AARM). Using a combination of a questionnaire and one-on-one structured interviews, the study sought to establish whether subjects thought VMMC conflicted with their religious beliefs and cultural mores; it also sought to establish what they thought about the health and sexual benefits of the procedure. The study found that VMMC was ranked third after abstinence and condom use as a way to prevent HIV transmission. However, the older the subject the more confidence they had in VMMC as a way to prevent HIV. The procedure was generally considered one way to ensure personal hygiene. Moreover, women said they preferred to have sex with circumcised men than uncircumcised men. Some of the findings of the study also suggested that circumcised men may be more promiscuous than uncircumcised men. One obvious recommendation based on the study is the need to offer more information to young men and women about the pros and cons (if any) of VMMC.

P.5 Fighting stigma and discrimination by Promoting Access to HIV/AIDS Health Care and practice among youth and Commercial sex workers in Nsanje District.

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Introduction: Youth and Commercial sex workers were facing stigma and discrimination on accessing HIV/AIDS treatment and care at health facilities. This allowed Sexually Transmitted Infections, HIV/AIDS and TB to affect lives of Youth and Commercial sex workers. Therefore, Active Aid Africa (AAA) intervened in the situation targeting 15,000 people in Traditional Authority Tengani in Nsanje.

Methodology: Recruited100 Community volunteers in sensitizing 15,000 people in refraining from stigma and discrimination in the area. Representative data collection using both quantitative and qualitative methods, Focus group discussions of youth, commercial sex workers, men and women separately took place including Counselling and Community sensitizations.

Results: The number of youth and sex workers going for HIV/AIDS health services increased by 60% within 8 months. The project also found that many community members believed that youth and Commercial sex workers were deliberately contacting HIV and sexually transmitted diseases hence no need for them to use health facilities meant for innocent people thus stigma and discrimination. Therefore, the project reduced stigma and discrimination among the youth and Commercial sex workers who have been hiding to access these services.
Reduction of ignorance and misconception among 15,000 people's mind.

Conclusion/Interpretation: Promoting access to Reproductive Health Care and practice among youth and Commercial sex workers is achievable mainly when the communities are well sensitized about the topic.

Recommendation: Ignorance contributes to stigma and discrimination hence more awareness campaigns should be included when planning for HIV/AIDS interventions.

P.6 Study on Knowledge, Attitude and Barriers to condom use among Female Sex Workers and men in Karonga District.

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Introduction: The study was to assess knowledge, attitudes and barriers to condom use among female sex workers (FSWs) and men as part of providing information necessary for the design of a behavior change communication (BCC) for use in addressing HIV/STI risk-taking behaviors among FSWs and men in Karonga district.

Methods: We held focus group discussions and conducted key informant interviews to explore FSWs' and men 'to explore knowledge of and attitudes towards condom use among female sex workers and men.

Results: Condom knowledge was high with 97% of FSWs and 95% of men agreeing with the statement using condoms properly and consistently reduces risk of HIV infection. Attitudes towards condom use were generally favorable with 91% of FSWs and 82% of men agreeing with the statement condom use is the best method of HIV prevention. Findings show that poverty, refusal to use condoms by male partners and alcohol use before sex remain key barriers to consistent condom use.

Conclusion: Our findings suggest that while female sex workers and their clients are knowledgeable about condoms as an HIV prevention method and have favorable attitudes towards their use, economic and relationship factors continue to hamper consistent condom use among these populations.

Recommendation: These findings recommend a need for interventions that address condom use barriers as well as improve economic independence of FSWs as part of condom promotional efforts in a bid to prevent HIV.

P.7 Behaviour Change and Access to HIV treatment and care amongst commercial sex workers on the spots places of interest in Chigumula and Bangwe Township

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Introduction: Behaviour Change and Access to HIV treatment and care amongst commercial sex workers on the spots places of interest in Chigumula and Bangwe Townships Project is in line with **90-90-90** ambitious treatment target to help end the AIDS epidemic among key populations among of them are sex workers that found in hot spot places of interest in Chigumula and Bangwe Township such as Chitaganya, Baluku, Newlands area, Bangwe proper, Mvula- Bangwe, Nthandizi, BCA trading centre and Banana areas that are hot spots for sex workers.

Sex workers are one of the groups most affected by HIV and AIDS across all countries and regions with HIV infection rates much higher than those of the general populations. The vulnerability of sex workers to HIV infection is compounded by attitudes of stigma and discrimination. They face abuse and violence from police officers and clients that pay for sex without using condoms at all. They often face barriers in accessing HIV- related services once known by health providers and police for legal protection, lack of knowledge about free and confidential services. The 90–90–90 target provides that by 2020: (a) 90% of all people living with HIV will know their HIV status; (b) 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; and (c) 90% of people receiving antiretroviral therapy will achieve viral suppression.

CHIYOSO therefore thought to reach unreached key populations like sex workers that are often missing from real HIV related services and programmes. CHIYOSO targets approximately 2000 female sex workers on the hot spot places of interest and especially in southern region, there is a largest population of sex workers. Objectives: (a) Increased demand for 2000 sex workers for quality HIV related services; (b) Intensify behavioral change communication and knowledge for both sex workers and their clients; and (c) 1000 sex workers placing them in work and income earning opportunities, thus enabling them to become socially and economically active.

Methods: The project laid out a number of activities as follows: (a) conduct one day long session with hot spots owners and health providers on the need to encourage key population to access HIV related services in time. (b) Individual sessions with sex workers on female condoms use. (c) Love Yourself Actual anonymous HIV voluntary counselling and testing services through phone text messages, phone call and via e-mail to refer them to government health facilities in completely privacy to access services; and (d) Referral for further health services and loans lending institution for only those willing to stop sex work as means of income earning opportunities.

Results: Through Love Yourself Actual anonymous HIV voluntary counselling and testing services at their work place through phone text messages, phone call and via e-mails CHIYOSO has reached both sex workers and their clients easily. The strategies have promoted demand creation for services and psychosocial support to People Living with HIV. Number of marginalized sex workers mobilised and empowered to start self business increased by 30% out of 2000 targeted.

Conclusions and recommendation: Investing in sexual and reproductive health among key populations is one of the surest and most effective ways to promote equitable and sustainable development and achieve the Sustainable Development Goals. Commitment to close the gaps for key populations in accessing services must be for all service providers. The pace of scale-up of HIV testing services must accelerate if we are to reach the goal of 90% knowledge of HIV status among people living with HIV.

P.8 Integration of Syphilis and HIV screening among clients presenting to the Sexually Transmitted Infection clinic in Kande, Nkhatabay

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Introduction: Syphilis-HIV coinfection is a common public health problem. As a cause of genital ulcer disease, syphilis has been associated with an increased risk of HIV transmission and acquisition. Most persons with syphilis tend to be unaware of their infection and they can transmit the infection to their sexual contacts or, in the case of a pregnant woman, to her unborn child. If left untreated, syphilis can cause serious consequences such as stillbirth, prematurity, neonatal deaths, and can progress to life threatening complications. Early detection and treatment is critical in preventing severe long term complications in the patient and onward transmission to sexual partners. In Malawi syphilis prevalence in pregnant women is approximately 2% but the prevalence of syphilis in HIV infected individuals and other risk groups has not been well studied. We conducted surveillance of HIV and syphilis infections among clients attending a Sexually Transmitted Infection Clinic.

Methods: From November 2014 to September 2016, all STI clients were routinely screened for *Treponema pallidum* using *Alere* Determine Syphilis TP rapid test kit for the detection of antibodies to *Treponema pallidum,* and HIV testing and counseling was done according to Malawi HIV testing algorithm protocols.

Results: 144 STI clients were routinely screened for syphilis and 15 (10%) tested positive to *Alere* Determine Syphilis TP rapid test. 94 (65%) were screened for HIV infection and 26 (18%) tested HIV positive. Syphilis and HIV infection co-existed in 12 (8%) of the cases.

Conclusions: The study has found that 10% of the clients tested syphilis positive and 18% tested HIV positive. Syphilis and HIV co-existed in 8% of the cases. Integration of syphilis to the already established HIV prevention programme would be possible. Thus, the existing weaker syphilis intervention efforts could be strengthened, which ultimately diminish the impact of the disease. Dual screening of HIV and syphilis infection would be crucial in realizing the global efforts of dual elimination of HIV and syphilis in pregnant women or other at-risk subpopulations.

P.9 HIV- and TB-associated in-hospital mortality in Nsanje, Malawi

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Background: Malawi has a high prevalence of both HIV and TB. Rates of hospitalizations and in-hospital mortality associated with HIV/TB are not known. Our aim was to assess the impact of HIV and TB on in-hospital mortality in Nsanje District Hospital (NDH), Malawi.

Methods: We reviewed medical records of HIV and/or TB-related admissions and deaths in the period between 1 May and 31 July 2016.

Findings: HIV inpatients accounted for 30% of all admissions, HIV-related deaths made up 51.5% of all deaths. TB inpatients accounted for 8.7% of all admissions and 14.7% of all deaths. HIV and TB-related deaths amounted to 58.8% of all deaths.

The pooled risk of death among patients who either were HIV +ve or had been diagnosed with TB regardless of HIV status was 26.1% (40/153), whereas the risk of death among those who were not known to be of HIV-positive status and had not been diagnosed with TB (HIV-/TB-) was 9.5% (28/294) (risk difference, 16.6%; 95% CI, 8.8% to 24.9%; $p < 0.0001$). Among those who died, the median age was 36 years in the HIV/TB group vs 50 years among those not infected by HIV or TB ($p = 0.02$).

Conclusion: In-hospital mortality was driven mainly by HIV and TB. Patients who died and were affected by HIV and/or TB were younger than those who died of other causes.

P.10 Virologic Outcomes among women initiating Antiretroviral therapy through the Option B+ program in Malawi: 6 month results from the PURE study

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Background: In 2011, Malawi launched Option B+, a program of universal ART treatment for pregnant and lactating women to optimize maternal health and prevent pediatric HIV infection. For best results, women need to achieve HIVRNA suppression. The Malawi ART program supports HIVRNA testing at 6 months as a first assessment of treatment success. We report the 6 month HIVRNA results for women participating in the PURE study.

Methods: The PURE study is a cluster-randomized trial evaluating three strategies for promoting uptake and retention in ART program; Arm 1: Standard of Care, Arm 2: Facility Based Mentor Mothers, and Arm 3: Community based expert Mothers. Pregnant and Breastfeeding mothers were enrolled at the time of HIV diagnosis in the ANC or post-partum clinics and followed according to Malawi ART guidelines. Dried Blood spots for HIVRNA testing were collected at the 6 month visit. HIVRNA > 1000 copies/ml was considered ART failure. We evaluated risk factors for ART failure using Chi-2 and t-tests as appropriate.

Results: We enrolled 1272 Women across 21 sites in Southern and Central Malawi. The majority enrolled while pregnant (86%), were WHO Stage 1(95%), and the median age was 26 years (IQR 22-31). At 6 months, 833/1272 (65%) had HIVRNA testing conducted and 672 (80.5%) of women were suppressed. Assuming all untested individual were not suppressed, overall suppression rate for the cohort was 47%. There was no statistical difference in ART failure rate according to age (< 25 vs. 25 and above), WHO stage (Stage 1 vs. Other), or Pregnancy vs. Breastfeeding status.

Conclusions: Virologic suppression was well below proposed targets of 90% suppression while on ART.

Recommendations: Increased effort is required to improve testing as well as promote adherence in the Option B+ program so as to achieve optimal outcomes.

P.11 Option B+ initiation, retention, and infant follow up in Lilongwe, Malawi

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Introduction: Malawi launched Option B+, a program for all pregnant or breastfeeding HIV-positive women to begin lifelong combination antiretroviral therapy (cART), in July 2011.
This study characterizes a portion of the continuum of care within an antenatal setting in Lilongwe.

Methodology: Women testing HIV-positive and having an ART initiation record at Bwaila Antenatal Clinic from July 2013 to January 2014 were included. Logistic regression models analyzed relationships between maternal characteristics and return for infant testing.

Results: Four hundred ninety women were diagnosed with HIV and had a cART initiation record. Of these, 360 (73%) were retained at three months. Of these 203 (56%) were adherent. Two hundred four women (42%) were linked to a record of infant testing. Women who were not retained were less likely to have an early infant diagnosis record (aOR=0.19; 95% CI: 0.09, 0.40).

Conclusions: Even with a test-and-treat program, many women did not remain in care or bring their infant for testing. Women lost at earlier continuum stages, who are at higher risk for mother-to-child-transmission, were less likely to bring infants for testing.

Recommendation: Facilitating strategies to improve early retention, pill adherence, and early infant diagnosis remains an important unmet need. Finding the infants of women who are lost is critical.

P.12 Male Partner Involvement Is Associated with Improved ART Retention and Adherence in Malawi's Option B+ Program

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Introduction: Through Malawi's Option B+ program, all HIV-infected pregnant women are offered free lifelong antiretroviral therapy. Within Option B+, mother to child transmission is negligible among women who remain in care and adherent to drugs. However, many women face challenges with retention and antiretroviral therapy (ART) adherence, and it is not known whether male partner involvement could help.

Methodology: In 2014, a randomized controlled trial was conducted in the antenatal clinic at Bwaila District Hospital in Lilongwe, Malawi. The trial compared two strategies for helping HIV-infected pregnant women recruit their male partners for couple HIV testing and counseling (cHTC). This analysis was conducted among the entire cohort of HIV-infected pregnant women, irrespective of randomization status. We assessed whether those who presented for cHTC were more likely to be retained in ART care one month later. Retention was based on clinical records. Among retained women, we assessed whether ART reminders by male partners were associated with ART adherence. ART adherence was dichotomized into those who had taken >90% versus ≤90% of their pills based on clinician pill count.

Results: Two-hundred HIV-infected pregnant women were included in this analysis; 126 of their partners presented to the clinic for CHTC. Median age of women was 26 years. Most women (86.5%) were retained; of these 69.3% had >90% adherence. Women who received couple HTC with their partners had 4.2 times the odds of being retained (95% CI 1.8, 9.9). Among these women, those with partner reminders had 2.0 times the odds of >90% adherence (95% CI 1.0-4.1).

Conclusion: CHTC was associated with substantially higher retention in care for HIV-infected pregnant women. Many of these male partners reminded women to take pills, and this, in turn, supported better adherence.

Recommendations: CHTC could play an important role in improving Option B+ retention and adherence.

P.13 Adherence to ART during and after pregnancy: Cohort study on women receiving care in Malawi's "Option B+" programme

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Background: Adherence to antiretroviral therapy (ART) is crucial to preventing mother-to-child transmission of HIV and ensuring the long-term effectiveness of ART, yet data are sparse from African routine care programs on maternal adherence to triple ART

Methods: We analyzed data from women who started ART at 13 large health facilities in Malawi between September 2011 and October 2013. We defined adherence as the percentage of days "covered" by pharmacy claims. Adherence of ≥90% was deemed adequate. We calculated inverse probability of censoring weights to adjust adherence estimates for informative censoring. We used descriptive statistics, survival analysis, and pooled logistic regression to compare adherence between pregnant and breastfeeding women eligible for ART under Option B+, and non-pregnant and non-breastfeeding women who started ART with low CD4 cell counts or World Health Organization clinical stage 3/4 disease.

Results: Adherence was adequate for 73% of the women during pregnancy, for 66% in the first 3 months post-partum and for about 75% during months 4–21 post-partum. About 70% of women who started ART during pregnancy and breastfeeding adhered adequately during the first 2 years of ART, but only 30% of them had adequate adherence at every visit. Risk factors for inadequate adherence included starting ART with an Option B+ indication, at a younger age, or at a district hospital or health center

Conclusions and recommendations: One-third of women retained in the Option B+ program adhered inadequately during pregnancy and breastfeeding, especially soon after delivery. Effective interventions to improve adherence among women in the Option B+ program should be implemented.

P.14 Accelerating Children's HIV/AIDS Treatment ,Care and support in Thyolo District.

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Introduction: Among infants and children not taking antiretroviral treatment (ART), HIV infection is often rapidly progressive and fatal. Approximately 20% of HIV-infected infants will die by 3 months of age without treatment, 50% will die before reaching their second birthday, and 75% will die by five years of age. ART initiation upon diagnosis can reduce mortality among HIV-infected infants by as much as 75%. Therefore, CCDO carried out the project aimed at identifying HIV infected children and link them to care and treatment at facilities in TA's Changata and Nsabwe.

Methodology

Baseline data from health facilities was collected.

Conducted awareness campaigns about children's HIV testing and treatment.
Organized mobile HIV testing sessions.
Facilitate linkages to care and treatment for all identified children
5,000 mothers reached through the awareness campaigns on HIV testing and treatment for children.
Holding 12 radio talk shows.
Formation of trio's among infected children and affected parents.
Conducting door to door visits.

Results: 4200 children went for HIV testing and counseling from which 109 were identified as HIV positive.10,114 mothers were sensitized about the importance of having their children tested.
36 trio's were formed for infected children. All (100%) children identified as HIV infected were enrolled into care and treatment at the facility.

Conclusion/Interpretation: Accelerating Children's HIV/AIDS Treatment, Care and support is achievable and can reduce the death of the infected children.

Recommendation: More efforts is needed to mobilize parents and guardians to have their children tested of HIV because timing treatment to children can reduce mortality among HIV-infected infants by as much as 75%.

P.15 Masculinity and cultural attuned perceptions delays Tuberculosis early diagnosis, case management and timely treatment: An analysis of barriers and contributing factors.

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Introduction: Though Tuberculosis (TB) and HIV/AIDS constitutes a deadly combination, TB infection transmission control and early diagnosis is still one of the challenges amongst men especially in rural and resource-limited settings. It is against this backdrop that a study was conducted to analyse factors and barriers that contribute to delayed TB early diagnosis and treatment amongst men. The study was carried out in randomly selected villages of T/A Chowe (11Villages) and T/A Nankumba (18 villages) in Mangochi district.

Methodology

In an exploratory, mixed method study, a well structured questionnaire was used to collect data in which key questions were centered on finding and exploring barriers, constraints and factors contributing to delayed TB diagnosis and treatment amongst men. Comparative TB Data records (female/male versus survival and death) from 4 health facilities in the two areas were analysed. We also collected data through focus group discussion from communities, randomly selected sample of 8 health care workers, situational analysis and in-depth interviews with 38 chronic coughing men.

Results

The study come up with the following as some of the factors and barriers contributing to delayed TB early diagnosis and treatment.

- Culturally men are regarded as strong and in most cases bread winners and providers in a family hence men disregard and conceal symptoms of TB (*Mamuna salira*) to remain empowered.
- Health facilities in Malawi are gender responsive hence men are not given special priorities that they need in as far as service or treatment delivery is concerned as such men feel demoralized and disempowered to be on the queue for hours together with women.
- There is a general mindset and perception that TB is associated to being HIV+ hence some men take their wives as their own mirrors as such a man would force the wife to go for TB testing after several weeks of coughing of which positive results compel the man to seek medication from other sources thereby not coming out for diagnosis.
- In Malawi public Health facilities are far apart in which case paying and privately owned facilities (CHAM) serves the populations in many rural and hard to reach areas of the country where public or non paying health facilities are not available as such men feel that spending financial resources on a long time treatment (TB) is an extra burden.

Conclusion and Recommendation

Government through the Ministry of Health and other stakeholders should periodically/annually organize a TB screening/testing campaign in rural areas .Unless the government of Malawi reinvigorates its efforts to address the masculinity and cultural related factors as barriers to early TB early diagnosis and access to treatment for men as highlighted herein the ambitious dream of a TB- free Malawi will remain a nightmare.

P.16 A Comprehensive Knowledge Translation Approach to Improve the Screening and Treatment of Hypertension in People Living with HIV in Malawi

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Introduction: In Malawi, recent studies show an adult hypertension burden of between 24% - 46% with a large majority of individuals unaware of their hypertension. The prevalence among people living with HIV (PLWHA) also appears to be high. To support effective uptake of evidence into national health policies, Malawi has formed a knowledge translation platform (KTPMalawi) with support from WHO's Evidence-Informed Health Policy Network.

Methodology: Led by the Ministry of Health's Department of Research, a steering committee prioritized the formation of a community of practice (CoP) of policymakers, researchers, implementers and civil society members, to improve screening and treatment of hypertension in PLWHA. Members of the CoP were trained to develop a systematic evidence brief for policy by global KT experts. This evidence brief synthesized the best available evidence on the size and underlying factors of the problem, four policy options to address the problem, and examined potential implementation barriers. This brief was used as the primary input into a national policy dialogue.

Results: Dialogue participants concluded that:

1. More evidence was needed prior to recommending a policy direction.

2. Further research on non-communicable diseases (NCD) – HIV integration was warranted.

Four geographically and programmatically diverse programs have been developed within Malawi and are implementing one of four proposed policy options:

1. Integrating the screening and treatment of hypertension into existing HIV clinics
2. Hypertension screening within HIV clinics and subsequent referral
3. Development of a comprehensive chronic care clinic model
4. The addition of hypertension screening and referral into community-based HIV activities

KTPMalawi has led a coordinated approach to align the programs' monitoring and evaluation frameworks to allow for meaningful comparisons on program outputs and outcomes.

Conclusions: KTPMalawi represents a viable model for engaging diverse stakeholders in evidence synthesis and policy development, ultimately feeding high quality evidence into ongoing policy discussions.

P.17 A Client and Provider Satisfaction Study of Dignitas International's Teen Club Program

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Background: Young people between the age of 15 and 24 account for 50% of all new adult HIV infections in Malawi. In an effort to provide HIV care and treatment, as well as specialized psychosocial support, Dignitas International, a medical and research organization, introduced and scaled up a Teen Club Program throughout Malawi's South-East Zone. We performed a Teen Club satisfaction study with the objective of exploring attitudes and perceptions of adolescents enrolled in the Teen Club program and facility staff that are providing the Teen Club intervention.

Methodology:A cross-sectional study using qualitative and quantitative methods was undertaken at six Teen Club programs across Malawi's South-East Zone.

Results:459 teens [59% girls] who had been in the Teen Club Program for at least 3 months were interviewed. 98% were enrolled in school. 99% of respondents viewed teen clubs as informative, 97% believed they were educational and 94% saw them as interactive. 77% considered their facilitators to be of the right age, with 20% found them too old. The interviewed teens reported that facilitators' attributes, roles and characteristics were generally satisfactory or good, and said that the frequency of their meetings was satisfactory. The study found judgemental health worker attitudes as the main deterrent for family planning uptake among adolescents and that youth friendly services were considered sub-optimal. All health workers interviewed stated that teen clubs increased the number of adolescents accessing care and had a beneficial effect on adherence to medication. Respondents also indicated that there were inadequate playing materials and playing space.

Conclusion: Client and health provider satisfaction with Dignitas International's Teen Club program is high. Findings from this study will be utilized to refine and improve the Teen Club program.

P.18 Retention in care and treatment failure among adolescents receiving antiretroviral therapy from integrated adult oriented care and adolescent dedicated services at Lighthouse clinics, Lilongwe, Malawi: A comparative retrospective cohort study: 2013-2015.

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Introduction: Poor retention in care among adolescents living with HIV continues challenging HIV programs in low income countries. Adolescents require tailor made services in order to achieve 90% antiretroviral therapy (ART) retention and 90% viral suppression. We compared ART retention and ART failure among adolescents living with HIV accessing care in adolescent dedicated care and general HIV care clinics.

Methods: A retrospective cohort study was conducted among adolescents living with HIV accessing ART between 2013 and 2015 at Martin Preuss Centre (MPC) and Lighthouse Clinics. The Lighthouse has general HIV care and enhanced adolescent dedicated services. The enhanced services, conducted at MPC on Saturdays, provide peer to peer psychosocial adherence support, positive living activities, HIV disclosure and stigma counselling in addition to clinic consultations and drug refill. Descriptive statistics were used to characterise the study population. Mantel Haenszel stratification and chi-square tests were followed by Cox regression.

Results: Of the 1057 adolescents, 19% were in adolescent dedicated care. The median age at enrolment was 15 years (IQR 10-17). The crude rate of attrition was 266.6 per 1000 person years of follow-up. Retention was significantly higher in adolescent dedicated care model compared to adult oriented care clinic at 6 months and 12 months with a proportion of 91% and 51% versus 66% and 44% in adolescent dedicated model and adult oriented care model respectively . In the univariate analysis, attrition was significantly associated with model of care (RR: 0, 02, 95%CI:0.00-0.14, p<0.001). In multivariable analysis being in adolescent dedicated care program was associated with decreased attrition (RR0.04, 95%CI:0.01-0.32, p=0.04).The treatment failure rates did not differ between care models.

Conclusion: Adolescent dedicated care model was associated with higher retention but it was not associated with treatment failure. Adolescent dedicated care may help to achieve second 90 of UNAIDS 90-90-90 HIV strategy.

P.19 Comparison of HIV testing yield rates for pregnant and lactating women towards zero new paediatric HIV infection: experiences from Bwaila District Hospital, Lilongwe, Malawi*

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Background: Option B+ has led to dramatic reductions in mother-to-child transmission (MTCT) among those diagnosed during pregnancy. However, MTCT may still occur in mothers who acquire HIV during the pregnancy period.

Methods: We implemented an HIV testing initiative to identify HIV positive pregnant and lactating women in labour and delivery (L&D) wards of Bwaila District Hospital in Lilongwe. Targeted and universal HIV testing services (HTS) were offered in the L&D ward from Oct 2014 to Jan 2015 and from Feb 2015 to Dec 2015, respectively. In targeted HTS, women were tested if their last HIV test was done over three months ago. In universal HTS, women were tested regardless of the past HIV test history.

Results: A total of 4900 women registered in L&D ward during targeted HTS, while 14322 were tested for HIV during universal HTS. On average, 372 and 962 women registered in L&D ward during targeted and universal HTS, respectively. Among 1488 tested during targeted HTS, 10 were confirmatory tests, 17 (1%) were new diagnosis, and incidence was estimated at 3.1 women per 100 person-years. Of 11547 tested during universal HTS, 1025 (9.1%) were confirmatory tests, 66 (0.6%) were new HIV positive and incidence was estimated at 1.4 women per 100 person-years.

Conclusions: Targeted HTS had a higher yield rate when compared to universal HTS. Universal HTS was essential in establishing confirmatory results, in order to provide treatment packages for the mother-infant pair. A combination of routine third trimester testing during antenatal follow up, along with targeted testing focused on women that have not been tested within 3 months at time of delivery may be appropriate in resource limited settings where testing efforts could focus on other high yield points of care.

P.20 Characteristics and outcomes of older HIV-infected persons receiving antiretroviral therapy: A retrospective observation cohort study

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Objective: To estimate patients enrolling on antiretroviral therapy (ART) over time; describe trends in baseline characteristics; and compare immunological response and mortality by three age groups (25-39, 40-49 and ≥50 years).

Design: A retrospective observation cohort study

Methods: This study used routine ART data from Lighthouse Trust's two public clinics in Lilongwe, Malawi. All HIV-infected individuals, except pregnant or breastfeeding women, aged ≥ 25 years at ART initiation between 2006 and 2015 were included. Poisson regression models estimated risk of mortality, stratified by age groups.

Results: Of 37,378 ART patients, 3,406 were ≥ 50 years old. Patients aged ≥ 50 years initiated ART with more advanced WHO clinical stage and lower CD4 cell count than their younger counterparts. Older patients had a significantly slower immunological response to ART in the first 18 months on ART compared to patients aged 25-39 years. Overall mortality rates were 2.3, 2.9 and 4.6 per 100 person-years in patients aged 25-39 years, 40-49 years and 50 years and older, respectively. The proportion of patients aged ≥ 50 years and newly enrolling into ART care remained stable at 9% while the proportion of active ART patients aged ≥50 years increased from 10% in 2006 to 15% in 2015.

Conclusion: Older people had slower immunological response and higher mortality. Malawi appears to be undergoing a demographic shift in HIV infection. Increased consideration of long-term ART-related problems, drug-drug interactions and age-related non-communicable diseases is warrated.

P.21 Assessing men's willingness to be involved in care & support to their wives' SRHS and ART adherence in Nsanje District

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Introduction: Malawi traditions put men's at the centre of decision making. The study set out to assess men's willingness to be involved in care and support their wives' SRHS and ART adherence in Nsanje District.

Methods: Quasi-statistics through individual household questionnaire, targeting 100 families both husband and wife of 18 years and above. 20 health staff from 5 selected health facilities was interviewed where SPSS was used to analyse data. Families interviewed on gender equality, parenting, SRHS and gender legislation. 100 community members were also involved in FDGs to provide their understanding in male involvement in supporting ART adherence.

Results: 45% of men indicated to be ready and be involved care and support, but pointed a myth that using condom as a contraceptive does not satisfy each other. 85% of men did not provide any support and care to their wives during the birth of their last child regardless of being on ART treatment and 45% of men involved in wives' FP choices, usage and seeking methods while 30% are ready to be part of their wives' Anti-Natal Clinic (ANC) visits, have knowledge on care and supporting their wives on Anti-referral Therapy (ART).

Conclusion and Recommendations: Men's willingness to participate should be capitalised; all men must be equipped with information and skills on level of involvement in care and support people living with HIV and AIDS, support their wife's to adhere uptake of ART to reduce non adherence. There is need for bottom up approach in policy formulation and awareness.

P.22 An investigation into factors contributing to low motivation of Anti-Retral Viral Therapy providers. The case study of Mangochi District Hospital

***Christopher Kandionamaso*[1], *Richard Abdul*[1], *Mike Nyirenda*[1], *Massa Simon Musa*[1], *Robert Majoni*[1], *Mphatso Sokos*[3], *Faith Teleka*[4] *and Arthur Mateyu*[1]**

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Background: The study sought to investigate into factors contributing to low motivation of antiretroviral (ART) providers that compromise the quality of the services delivered to HIV patients receiving ARTs at Mangochi district hospital. The specific objectives of the study were to identify potential reasons for lack of motivations among ART providers, to determine the effects of low motivation on patients care and to draw some recommendations to address motivation among heath staff.

Methodology: Both qualitative and quantitative data collection questionnaires were used to collect data from various respondents. All data collected was analyzed using excel program. Factors assessed where categorized as “independent” that includes condition of service, remuneration and training; “dependent” that includes self-motivation, workload and client-provider relationship; and “moderating” that includes resources, personalities and interpersonal relations at work.

Results: The results findings have shown that the service providers are low motivated due to several factors which are independent, dependent and some are moderating. The study also revealed that the clients or patients do have more expectations from the service providers but due to the low morale of the service providers the clients were not able to air out the issues. The study also shows that trainings, conditions of service, remuneration packages, availability of working resources and also relationships among the health care workers and performance appraisals can also improve the service provider’s

Conclusions: Present is the time when issues of motivation are being promoted to a wider spectrum, the health sector is one of the fields that have felt the waves of this phenomenal development. We recommend district health management team, ministry of Health and other partners working in the same field should review the remuneration package and implement routine performance appraisal to service providers in order to timely address motivation issues.

PROGRAMME FOR THE 2016 RESEARCH AND BEST PRACTICES DISSEMINATION CONFERENCE

OFFICIAL OPENING CEREMONY		
Venue: Auditorium Director of Ceremonies: Mr. Francis Thawani **Rapporteur:** Blackson Matatiyo		
08:00 – 08:30	Registration	Madalo Chiomba
08:30 -10:00	Opening Prayer	
	Remarks by the Executive Director, National AIDS Commission	Mr. Davie Kalomba
	Official Opening by the Chief of Health Services	Dr Charles Mwansambo
	GROUP PHOTOGRAPH AND REFRESHMENTS	
OPEN SESSION		
10:00 -10:20	Integrating evidence in the decision process	Dr Abiba Longwe-Ngwira
10:20– 10:50	Make Art Stop AIDS	Global Health Center Africa

Note: There are three sessions after the open session in the Auditorium (HIV Prevention), Mbidzi room (Treatment Care and Support) and the side Foyer(Treatment Care and support). These presentations will be made before Lunch. After Lunch, there will be two sessions and these will be in the Auditorium (Program Coordination) and Mbidzi room (Treatment Care and Support). Poster presentations will be done in the Side Foyer next to the Auditorium and this will be done from 16:00 hrs to 16:40 hrs.

PARALLEL SESSIONS

PARALLEL SESSION 1- THE AUDITORIUM

PARALLEL SESSION 1A: HIV PREVENTION		
Venue: Auditorium **Chairperson: Dr Bagrey Ngwira** **Rapporteur: Lonjezo Sithole and Benson Botha**		
10:50 – 11:10	A1. Factors motivating men to go for couple counselling and testing	Bertha Maseko
11:10 – 11:30	A.2. Impact of Theater for Development and interactive Drama in community awareness and community mobilization of Sexual Reproductive Health and Rights services	Ceaser Chembezi
11:30– 11:50	A.3 Reaching out Community with HIV Testing and Counseling through Mobile Testing Services in Mwanza district, Malawi.	G.Banda
11:50 – 12:10	A.4. Access to Comprehensive Gender Based Sex Education Regarding STIs, HIV/AIDS and Safe Sex Education among Adolescent School Girls in Mulanje district, Malawi.	Brenda Zakaria
12:10 – 12:30	A.5. Factors associated with acquisition of HIV during 2005-2014 among men and women in 5 African cohorts	Albert Dube
12:30 – 12:50	A.6. Promoting sexual reproductive health and HIV testing and counseling literacy among youth people at Luwani Refugee Camp in Neno District, Malawi.	Ephraim Chimwaza
12:50 – 13:50	**LUNCH**	
PARALLEL SESSION 1B – Programme Coordination		
Venue: Auditorium **Chairperson: Dr Damison Kathyola** **Rapporteur: Leonisa Nsiku and Misheck Nkhata**		
13:50 – 14:10	C.1. Stigma against HIV/AIDS people in Malawi: What drives the acceptance attitudes gap in women?	M. Chilongo
14:10 – 14:30	D.1 Antiretroviral treatment failure and retention in care of patients in community ART adherence support programme compared to those not in this programme at Lighthouse clinics in Lilongwe, Malawi: 2006-2014	Wingston Ng'ambi
14:30 – 14:50	D.2 Ethical blind spot: Information gap regarding compliance with material transfer agreements by foreign laboratories.	K.Phiri
14:50 – 15:10	B.9 Prevalence of renal toxicity among hiv patients on Tenofovir Disoproxyl Fumarate (TDF) containing Anti-Retroviral Theraphies (ARTS) at Dream Health Center, Blantyre	Aunex Kwekwesa
15:10 – 15:50	**TEA BREAK**	
15:50 – 16:30	**POSTER PRESENTATIONS AND EXHIBITIONS**	Poster Presenters
16:30 – 17:00	**CLOSING CEREMONY IN THE AUDITORIUM**	Francis Thawani

PARALLEL SESSION 2: MBIDZI ROOM

PARALLEL SESSION 2A - TREATMENT, CARE AND SUPPORT		
Venue: Mbidzi Room **Chairperson: Dr Sam Phiri** **Rapporteur: James Njovuyalema and Alice Chikhoswe**		
10:50 – 11:10	B.1 Promoting Evidence-Informed Practice for the Attainment of the 90:90:90 Targets	Clement Banda
11:10 – 11:30	B.2 Low rates of successful defaulter tracing and re-engagement in care in Option B+ women in Central Malawi	Khumbo Phiri Nyirenda
11:30– 11:50	B.3 Successes and Challenges of HIV Mentoring in a PEPFAR- USAID program in Malawi: The Mentee Perspective	Khumbo Phiri
11:50 – 12:10	B.4. Raltegravir in second-line antiretroviral therapy in resource-limited settings (SELECT): a randomised, phase 3, non-inferiority study	Oscar Divala
12:10 – 12:30	B.5 The population level effect of Option B+ on female to male HIV transmission in Malawi: a mathematical modelling analysis	M.B.Chagomerana
12:30 – 12:50	B.6 The relationship between maternal antiretroviral therapy initiation time and preterm birth: Option B+ for the prevention of mother-to-child HIV transmission in Malawi	M.B.Chagomerana
12:50 – 13:50	**LUNCH**	
PARALLEL SESSION 2B - TREATMENT, CARE AND SUPPORT		
Venue: Mbidzi room **Chairperson: Dr Agness Moses** **Rapporteur: Kenneth Phiri and Jessie Khaki**		
13:50 – 14:10	B.7 Prevalence of Baseline Renal Injury Among Women Enrolled in Option B+	CG Melhado
14:10 – 14:30	B.8 HIV Incidence patterns and sexual behaviour in the era of ART, Karonga Prevention Study 2007 - 2011	C.Kanjala
14:30 – 14:50	B.16 Evaluation of unique vulnerabilities for the youth in urban and semi-urban areas	Adamson Muula
14:50 – 15:10	B.17 Determining trends in mortality rates, disease events and treatment compliance among long-term adolescent HIV positive survivors	Bagrey Ngwira
15:10 – 15:50	**TEA BREAK**	
15:50 – 16:30	**POSTER PRESENTATIONS AND EXHIBITIONS**	Poster Presenters
16:30 – 17:00	**CLOSING CEREMONY IN THE AUDITORIUM**	Francis Thawani

PARALLEL SESSION 3: SIDE FOYER

PARALLEL SESSION 3A - TREATMENT, CARE AND SUPPORT		
Venue: Side Foyer **Rapporteur: Levi Lwanda and Dominic Gondwe**		**Chairperson: Dr Ben Chilima**
10:50 – 11:10	B.10 The Effect of type of Progestin-only contraception (DMPA versus Levonorgestrel Implant) on HIV viral shedding in the genital tract of HIV-infected women on antiretroviral therapy	Lameck Chinula
11:10 – 11:30	B.11 The burden of gynaecomastia among men on Antiretroviral Therapy in Zomba, Malawi	Victor Singano
11:30– 11:50	B.12 Early experiences of integrating non-communicable disease screening and treatment in a large ART clinic in Zomba Malawi.	C.Pfaff
11:50 – 12:10	B.13. Expanding HIV-TB and STI care and treatment to Malawian prisons, the experience from Zomba Central Prison, Malawi.	D.Garone
12:10 – 12:30	B.14 Exploration of Factors Associated with ART Adherence and Retention Under Option B+ in Malawi: a Qualitative Study	S.Gugsa
12:30 – 12:50	B.15 Burden of Primary Drug Resistance Among Patients with High Viral load on HAART in Malawi	J.B.Sagno
12:50 – 13:50	**LUNCH**	
13:50 – 15:10	Mounting posters	Blackson Matatiyo
15:10 – 15:50	**TEA BREAK**	
15:50 – 16:30	**POSTER PRESENTATIONS AND EXHIBITIONS**	Poster Presenters
16:30 – 17:00	**CLOSING CEREMONY IN THE AUDITORIUM**	Francis Thawani