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EDITORIAL

HIV remains a public health concern in Tanzania and other sub-Saharan African countries. In Tanzania, the infection is unevenly distributed across geographic area, gender, age groups and social economic classes. It ranges from 3.6% to 6.7% for females and males respectively in Tanzanian mainland. The HIV prevalence is low in Lindi (0.3%) and high in Njombe (11.4%) regions. It is less than one percent in Zanzibar (THIS, 2017). HIV is a generalized epidemic in Tanzania with heterosexual transmission being the main route of transmission. Recently, however, there has been growing concern on the potential role of key populations in HIV epidemic in the country. Tanzania has made considerable progress towards achieving the 90-90-90 goals, particularly in linkage to and retention in HIV treatment as demonstrated by the 2nd and 3rd 90 targets (91 and 88 percent, respectively).

Achieving the 90-90-90 targets includes attaining Zero Deaths. It is estimated that 24,000 HIV/AIDS related deaths are still happening in Tanzania annually (UNAIDS Report 2018). The challenge is to identify the causes of deaths and design appropriate interventions and issues related to adherence to ARVs, to avoid opportunistic infections and addressing co-morbidities.

The Government of Tanzania implements a range of programs for the prevention, care and treatment of people living with HIV/AIDS with the support of PEPFAR. Relevant research findings and dissemination enable formulation of policies that are evidence-based specific to the Tanzanian context, contributing to improvement of provision of HIV/AIDS-related services and control measures. NIMR plays a pivotal role in strengthening health systems, specifically, in facilitating and guiding implementation of health interventions through operational research, implementation science, policy analysis, and identification of best practices that impact health in Tanzania. Dissemination of the research findings to different stakeholders is among the mandatory functions of NIMR.

Against this background, NIMR has organized this Conference that brought together policy and decision makers, implementation partners, development partners, academicians and researchers to network, share experiences, concerns and best practices, and strengthen collaborations between HIV/AIDS stakeholders. The conference whose main theme was “Achieving and Sustaining HIV Control in Tanzania” was held at the Arusha International Conference Centre (AICC) on 10th-12th September 2019 in Arusha, Tanzania. A total of 144 participants attended the conference. Key areas of the conference were HIV care and Treatment, Prevention, Health Systems Strengthening and other HIV cross cutting issues. Additionally, there were exhibitions to showcase the activities of the implementing partners and beneficiaries.
CONFERENCE OBJECTIVES AND EXPECTED OUTCOMES

Objectives:

1. To support and promote the carrying out of country-led HIV/AIDS related programs and research to inform HIV/AIDS planning and interventions in Tanzania;

2. To provide a forum that brings together policymakers, implementing partners, development partners, academicians and researchers to network, share experiences, concerns and best practices; and

3. To strengthen collaborations between HIV/AIDS stakeholders

Expected outcomes:

1. Recommendations that will support planning and implementation of programs and researches that will accelerate the attainment of the 90-90-90 targets towards ending the HIV epidemic by 2030;

2. Increased dialogue, networking, sharing of knowledge and practices as well as thorough discussions of the driving forces behind successes and challenges faced; and

3. A better understanding of stakeholders’ role and responsibility in the need for coordinated national action.
First and foremost, we would like to extend immense appreciation to the Deputy Minister of Health, Community Development, Gender, Elderly and Children, Hon. Dr. Faustine Ndugulile for taking time out of his extremely busy schedule to officiate and participate in the Stakeholders Dissemination Conference on HIV and AIDS in Tanzania.

The achievement of convening the conference was made possible by the collaborative efforts of different organizations, institutions and individuals whose contribution is gratefully appreciated. The National Institute for Medical Research would like to express its sincere gratitude to the Government of the United Republic of Tanzania through the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) and the Centers for Disease Control and Prevention (CDC) for funding this Conference through the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) and for providing technical support.

**Organizing Committee:**
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Dr Ndekya M. Oriyo
Dr Arlodia D. Mulokozi
Ms Neema Makyao
Dr Elizabeth H. Shayo
Dr Godfather D. Kimaro
Mr Prince P. Mutalemwa
Dr Amos M. Kahwa
Dr Judith M. Msowela
Ms Koleta A. Njelekele
Mr Wilfred A. Mgaya
Ms Gracia L. Sanga
Mr Obedi S. Ole-Kaondo
Dr Esther S. Ngadaya
Dr Otilia Gowelle
Mr Eric J. Mutemi
Dr Ruby Mcharo
Mr Jonathan M. Mshana

**Committee:**
NIMR Director General
Chairperson
Member
Member
Member
Member
Member
Member
Member
Member
Member
Moderator
Secretary
OPENING REMARKS BY THE NIMR DIRECTOR GENERAL

Guest of Honor, Deputy Minister of Health, Community Development, Gender, Elderly and Children, Hon. Dr Faustine Ndugulile,
Dr. Deodatus Mtasiwa, Chairman of the National Institute for Medical Research Council,
Dr.. Leonard Maboko, Executive Director, Tanzania Commission for AIDS,
Representatives, Country Director, Centre for Disease Control and Prevention, Tanzania,
Representative, PEPFAR Tanzania
Representative, UNAIDS
NIMR Directors and Directors of Government Sectors
Distinguished Delegates, Ladies and Gentlemen,

Good Morning;

I would like to welcome you to this Conference that brings together key stakeholders on HIV and AIDS in Tanzania to discuss their implementations towards controlling the HIV epidemic.

I would like to thank all of you for attending this important Conference where you will raise your voices, share knowledge, strategies and visions in the fight against HIV/AIDS.

I would like to extend a big thank you to NACP, TACAIDS, CDC Tanzania and NIMR for the organizing this Conference and to PEPFAR for the financial support.

I know, and you all know, that controlling this Epidemic requires all responsible institutions and individuals to combine efforts, work together to end this epidemic by 2030.

Dear Guest of honour and conference participants;

This is the very first Conference that brings together Implementing partners, researchers, academicians, Policy and decision makers in the context of HIV and AIDS.

It is my expectation that this Conference will contribute in a meaningful and practical way in guiding policy and programmes to ensure that by 2030 the HIV and AIDS Epidemic is ended. There is no better way to start and there is no better way to proceed than through this conference.

Dear Guest of honor and conference participants;

The global commitment to fighting the epidemic is evident with examples from The United Nations 70th General Assembly which adopted a political declaration on HIV and AIDS where heads of member states reaffirmed their commitment to end the AIDS
epidemic by 2030 by accelerating and scaling up the fight to reach the target by seizing opportunities presented in the Sustainable Development Goals.

Another evident example is PEPFAR who made it possible to be here today. The PEPFAR (2017-2020) Epidemic Control Strategy sets a bold course for achieving control of the HIV/AIDS epidemic by the end of 2020 through prioritized actions that include Acceleration of optimized HIV testing and treatment strategies particularly to reach men under age 35 and Expansion of HIV prevention, particularly for young women and men to mention a few.

Dear Guest of honor and conference participants;

The fact that we all have to accept, and face is that control of the HIV/AIDS epidemic requires a multi-sectoral integrated approach. Efforts are also needed from the education, works and communications sector so that people living with HIV/AIDS can fully exercise their human rights.

Guest of Honour, I reconfirm the commitment of NIMR to provide evidence-based information and promote the sharing of scientific findings through platforms such as this one. NIMR looks forward to continuing working with PEPFAR and all other partners and stakeholders in the efforts to halt the epidemic in our Country.

Thank you
OPENING SPEECH

By the Deputy Minister of Health, Community Development, Gender, Elderly and Children Honourable Dr. Faustine Ndugulile (MP)

The Deputy Minister expressed his sincere thanks to the participants of this important Conference on HIV and AIDS control and insisted that this should be a sustainable trend where all implementing partners, policy makers at the MoHCDGEC and its institutions should be attending to share experiences rather than setting priority to attending similar conferences that are held outside Tanzania.

He was grateful to the National Institute for Medical Research (NIMR) for hosting this Conference which is a proud milestone as it is a unique platform for national dissemination of HIV and AIDS control interventions and scientific findings. He reiterated that NIMR is the only National agency that informs and advises the government on uptake of health researches and other interventions that would benefit the people of Tanzania, therefore he insisted to take charge in its regulation role and set priorities for areas of research by informing the sector with its research agenda.

The Deputy Minister recognized the big role that is played by the U.S. Government through the President’s Emergency Plan for AIDS Relief (PEPFAR) in HIV and AIDS control in Tanzania. Moreover, he reminded PEPFAR and all other HIV implementation stakeholders on the need of having a unified database with undeviating information to its implementers in order to avoid confusion that may arise.

On HIV prevalence in Tanzania Mainland, the Minister pointed out that overall, HIV prevalence has steadily declined over the past decade from 7% in 2003 to 4.7% in 2016. Lindi records lower prevalence of around 1% and Njombe still has high prevalence at 14.8%. There are pockets of concentrated epidemics among key populations such as people who inject drugs, youth, migrants, mobile populations and prisoners. These key populations account for 54% of new HIV infections globally. Estimates done in Unguja Island of Zanzibar in 2011/2012 using multiple methods concluded that the key population size was approximately 9,115; the total population of Unguja at the time was estimated to be 896,721 from the 2012 census.

He added that the Ministry is focused on equity and access to health services to all people in their respective settings where the Ministry has made remarkable progress in the fight against HIV and its associated co-infections. While commending everyone involved in HIV control, he reminded them that the future of people living with HIV/AIDS must be central to every decision and come up with recommendations that will aid the control of the HIV/AIDS epidemic.
SUB-THEME 1:
GENERAL OVERVIEW AND UPDATES ON HIV
CONTROL IN TANZANIA

Over the last decade, Tanzania has increased its efforts to get more people testing for HIV. The number of voluntary counselling and testing (VCT) sites in the country has rapidly expanded. Tanzania introduced new HIV testing approaches such as home-based testing, PITC, index and community testing. Although HIV prevalence has fallen in Tanzania over the past decade, tens of thousands of people become infected with HIV every year. Stigma against HIV positive people and human resource shortages are among the obstacles to ensuring a sustained reduction of new HIV infections and to providing care and treatment to those already infected.

There is also a greater need for targeted HIV programming for key affected populations. As well as programmes that reach hard-hit pockets of communities along high traffic areas. A 2015 analysis by PEPFAR cites health financing, supply chain, and performance and financial data collection as areas where Tanzania’s national HIV response needs improvement. In response to this, the government presented a comprehensive health care financing strategy to the Cabinet, with a focus on scaling up health insurance coverage, strengthening value for money, and engaging the private sector. These efforts will be necessary if Tanzania is to overcome the debilitating effects the HIV epidemic continues to have on its economy and society.
Overview of HIV prevention and control in Tanzania in line with the HIV Health Sector Strategic Plan IV 2015 – 2020

Dr. Prosper Njau

Institutional affiliation: National AIDS Control Programme- MoHCDGEC

Introduction

The overall HIV prevalence for Tanzania Mainland is estimated at 5.1% whereas it 3.5% and 5.1% for males and females respectively. It is highest in southern highlands regions of Njombe, Iringa and Mbeya (11.4, 11.3, and 9.3 respectively) and lowest in Lindi region (0.3). Assuming improved survival with advanced ART program, Incidence remains the most powerful parameter in explaining Tanzania’s prevalence whereas; overall Annual HIV incidence is estimated at 0.25 [0.21 – 0.28]. New infections per year; 72,000 (61,000 – 83,000), double among Females 0.4, as compared to Males 0.17. The risk seems to increase for both males and females after 19 years of age.

Figure 1: HIV Prevalence in Tanzania

Source: NBS Tanzania HIV Impact Survey (THIS) 2016 - 2017
Figure 2: Prevalence by Age Group and Sex

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Males</th>
<th>Females</th>
</tr>
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<tbody>
<tr>
<td>0-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-9</td>
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<tr>
<td>10-14</td>
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<td>55-59</td>
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<td>60-64</td>
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Source: NBS Tanzania HIV Impact Survey (THIS) 2016 - 2017

HSHSP IV Objectives

The universal access is available to combination prevention services designed to reduce new HIV infections, HIV-related mortality, and stigma and discrimination. About 90 percent of people living with HIV will know their status, 90 percent of all people diagnosed with HIV are enrolled, followed up on, and in receipt of timely and efficacious ART and 90 percent of all people receiving ART will attain sustainable viral suppression. The capacity of the health system is strengthened to support quality HIV and AIDS interventions, and foster integration within the health sector.

Priority interventions and response

The main priority interventions are HIV testing services (HTS), HIV prevention services, Treatment, care, and support for PLHIV, Health system strengthening (HSS) and Crosscutting interventions. The focus of the HIV response should be on the identification of PLHIVs, hard to reach at risk populations. This has to be streamlined to targeted testing, index testing, adaptation of HIV self-testing, and change of HIV law to lower consenting age and allow self-testing and resent HIV infection surveillance. Others are linkage and retention of PLHIVs into ART.
within 7 days’ initiation. These are differentiated care services, centered around client need (Adolescent friendly services, multi months ARV prescription and dispensing etc.). Lastly is viral suppression, which is subcategorized to adaptation of superior regimen, i.e. Protease Inhibitor containing regimens for pediatric patients and switching of adults to Dolutegravir regimens.

Interventions

Output

Outcome

Impact

<table>
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<tr>
<th>Interventions</th>
<th>Output</th>
<th>Outcome</th>
<th>Impact</th>
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<tbody>
<tr>
<td>HTS</td>
<td>PLHVs linked to HIV care</td>
<td>Attainment of viral suppression</td>
<td>Reduction in HIV infection and mortality</td>
</tr>
<tr>
<td>KVP programs</td>
<td>Patients retained and adhere ART care</td>
<td>Prevention of primary infection</td>
<td></td>
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<tr>
<td>PMTCT</td>
<td>Reduction of HIV risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBHS</td>
<td></td>
<td></td>
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<tr>
<td>Patient centered ART care</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Health promotion and Condom Programming</td>
<td></td>
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<tr>
<td>VMMC</td>
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<td></td>
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<tr>
<td>STI prevention and treatment</td>
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Systems Strengthening

This entails decentralization of ART service for general population and children. Issues to consider under this were decentralization, increased PMTCT sites form 5051 in 2015 to 6313 in June 2019 and sites for general and pediatric ART increased from 1210 to 2560. Expansion of HVL Capacity where testing labs increased from 3 HVL capable labs with 3 machines to 20 Labs with 35 machines and HVL TAT has reduced from 1 month, to 2 weeks. Last on the SYSTEMS Strengthening was revitalization of Lab Systems; Lab machines standardization, and Lab MIS is complete.
Table 1: HIV Testing Services

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018*</th>
<th>2019*</th>
</tr>
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<tbody>
<tr>
<td>Number received HTS</td>
<td>7,041,197</td>
<td>9,396,275</td>
<td>9,365,812</td>
<td>13,073,136</td>
<td>6,832,079</td>
</tr>
<tr>
<td>Number of HIV positive identified</td>
<td>260,435</td>
<td>322,689</td>
<td>283,075</td>
<td>286,159</td>
<td>180,110</td>
</tr>
<tr>
<td>Number of HIV positive starting ART treatment</td>
<td>169,231</td>
<td>218,303</td>
<td>251,600</td>
<td>269,412</td>
<td>152,787</td>
</tr>
<tr>
<td>Positivity rate</td>
<td>3.7%</td>
<td>3.4%</td>
<td>3.0%</td>
<td>2.2%</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

# high testing due to campaign, but yet yield is not improved

* Half year Data

Figure 1: Linkage to ART

HTS – Linkage to ART
Figure 2: PMTCT

![PMTCT Chart](chart1.png)

**Figure 3: Key Vulnerable Populations (KVP) – HIV diagnosis and linkage to care**

![KVP Cascade Chart](chart2.png)

*Challenges are linkage to ART among KVP with HIV*

: CBHS – HIV diagnosis and Linkage to care ART and ART Retention
Figure 4: Anti-Retroviral Treatment (ART)

Trend of Adult & Children Current on ART

Figure 5: Community-Based HIV Services (CBHS) – HIV diagnosis and Linkage to care

CBHS - HIV diagnosis and Linkage to ART

Figure 6: ART – 90/90/90

90/90/90 as of June 2019
Challenges

Challenges response geared through addressing the challenges these are identification of PLHIVs, hard to reach at risk populations, linkage and retention of PLHIVs into ART and Viral suppression.

1. Identification of PLHIVs, hard to reach at risk populations
   a. Female Sex Workers, Drug users, Men who have sex with Men
   b. Adolescent girls and young men and women

2. Linkage and retention of PLHIVs into ART
   a. Delayed ART initiation
   b. Retention among Adolescents
   c. Retention among patients with special needs

3. Viral suppression
   a. Pediatric patients, due to suboptimal formulation
   b. Adults due to inferior regimens

Response

1. Identification of PLHIVs, hard to reach at risk populations
   a. Targeted testing, index testing
   b. Adaptation of HIV self-testing, and change of HIV law to lower consenting age and allow self-testing
   c. Repeat HIV infection surveillance

2. Linkage and retention of PLHIVs into ART
   a. Within 7 days initiation
   b. Differentiated care services, centered around client need (Adolescent friendly services, multi months ARV prescription and dispensing etc)

3. Viral suppression
   a. Adaptation of superior regimen, ie Protease Inhibitor containing regimens for pediatric patients
   b. Switch of adults to Dolutegravir regimens
Figure 7: Progress on some key new indicators
The HIV/AIDS epidemic response in United Republic of Tanzania (UNAIDS) - key data and estimates for 2018

Koech Arap Rotich

Institutional affiliation: UNAIDS

UNAIDS publishes the Global AIDS Update report with key data from around the globe for an elaborate snapshot of the progress of the AIDS response. The report draws on data and strategic information submitted by each member state. In addition, the report each year puts spotlight on a theme of current relevance for the global AIDS response. This year’s theme is ‘Communities at the centre’.

Eastern and Southern Africa: HIV Epidemic Overview 2018

Figure 1: Prevalence of HIV in Eastern and Southern Africa

<table>
<thead>
<tr>
<th>Description</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV prevalence (15-49 yr)</td>
<td>7% [5.9 – 7.9%]</td>
</tr>
<tr>
<td>People living with HIV</td>
<td>20.6 million [18.2 million–23.2 million]</td>
</tr>
<tr>
<td>Children (0-14 yr)</td>
<td>1.1 million [850 000–1.4 million]</td>
</tr>
<tr>
<td>Women (15+ yr)</td>
<td>12 million [10.7 million–13.4 million]</td>
</tr>
<tr>
<td>Young people (15-24 yr)</td>
<td>2.2 million [1.2 million–3.2 million]</td>
</tr>
<tr>
<td>New HIV Infections</td>
<td>800 000 [620 000 – 1 000 000]</td>
</tr>
<tr>
<td>AIDS-related deaths</td>
<td>310 000 [230 000 – 400 000]</td>
</tr>
<tr>
<td>Coverage of ART</td>
<td>67% [52 – 78%]</td>
</tr>
<tr>
<td>Coverage of PMTCT</td>
<td>92% [69 – &gt;95%]</td>
</tr>
</tbody>
</table>
Figure 2: Percentage change in new HIV infections, by country, eastern and southern Africa, 2010–2018
Leaving No One Behind  The role of communities

Community empowerment and ownership have resulted in a greater uptake of HIV prevention and treatment services, a reduction in stigma and discrimination and the protection of human rights. A common lesson learned in all parts of the world is that community approaches to the AIDS response delivers results.

There are many successful examples from the Eastern and Southern African region which include:

a. Door-to-Door efforts by CHWs to promote and provide HIV prevention and control services has led to attainment of the 90-90-90 targets and dramatic reduction in new infections in certain communities in Southern Africa.

b. Peer support projects leading to uptake of services and adherence to treatment

c. Sensitization by Women HIV in Tanzania to other women on cervical cancer screening leading to dramatic increase in uptake of screening services and reduction in HIV and cancer related stigma.

Key issues presented were the estimates for children (<15 years) as at 2018 who were infected: Children living with HIV 92,000, New HIV infections in 2018 was at 8,600, AIDS-related deaths in 2018 was 5,400.

Conclusion and recommendations

Efforts and increased investments still needed to achieve and sustain HIV control. Comprehensive set of services tailored by and for the people in greatest need scaled up. Reaching large percentages of the people in greatest need demands a community-based and community-led approach. Removing barriers to access services. Taking AIDS out of isolation and achieving Universal Health Coverage.
Overview of PEPFAR support on HIV/AIDS prevention and control activities in Tanzania

Dr Hiltruda Temba

Institutional affiliation: PEPFAR Tanzania

Introduction

PEPFAR is the President’s Emergency plan for AIDS Relief, which is an appropriation spearheaded by President George W. Bush to address the HIV/AIDS epidemic. PEPFAR is driven by a shared responsibility among donor and partner nations to make smart investments to save lives. Funding and implementation is overseen by the Office of the Global AIDS Coordinator who ensures coordination among the various agencies involved in this global response.

Epidemic Control Strategy

This Epidemic Control Strategy focuses and aligns U.S. government resources and activities toward achieving epidemic control and ultimately ending the HIV/AIDS pandemic.

PEPFAR/Tanzania has been receiving funding since 2005, the beginning of PEPFAR itself. Since 2013, annual funding amounts have increased each year. However, you’ll note that for the upcoming fiscal year, funds were reduced by 23%. With shrinking foreign assistance budgets in DC, PEPFAR/Tanzania will have to do more with less money. These budget cuts were in line with prior year’s expenditures, however, there are increased program demands. PEPFAR is also moving towards performance-based funding, so there is intensified pressure to meet targets.

Figure: PEPFAR Tanzania goal: to reach 95 - 95 - 95
In addition to targeted testing, PEPFAR/Tanzania also focuses on the following priorities:

- Finding the missing, getting them on treatment, and retaining them ensuring viral suppression (adult men, adult women, AGYW/KP, Pediatrics, Focusing on cities with high burden, Linkage and Retention, TB Screening with Fidelity and Isoniazid preventive therapy Coverage.

- Prevention, specifically detailing programs for priority programming (HIV prevention for AGYW and children, Key Populations, VMMC

- Additional country-specific priorities listed in the planning level letter (Policy Changes that include Planned 6 MMD, HIV Self-Test and Prep, evidence-based solutions to bring to Scale).

- Commodities.

- Collaboration, Integration and Monitoring (use of granular data to improve performance, Improving Integration of Health Systems Interventions, Improving Quality and Efficiency of Service Delivery)

- Critical Systems Investments for Achieving Key Programmatic Gaps (Information Systems and Data Use, Human Resources for health, Laboratory systems, Private Sector, Supply chain and commodities management, Surveillance, Research, and Evaluation)

**Conclusion and recommendations**

Tanzania is lagging behind in identifying PLHIV who know their HIV status; reductions in over-testing and increased focus on targeted testing is helping to address this. Tanzania is strengthening efforts to retain patients and track those who are lost to follow-up. PEPFAR is increasing its engagement with CSOs and indigenous partners, including peer-led, community, and faith communities and community- and faith-based organizations, in pursuit of more sustainable programs and pointed out that it aims at having more than 70% local IPs in the coming phases of grant.

Efforts to improve treatment literacy at both community and facility levels is essential to fast tracking the TLD transition.
Global Fund support on HIV epidemic control in Tanzania

Joyce Emmanuel Lyimo

Institutional affiliation: Program Management Unit of Global Fund, MoHCDGEC

Introduction
Global Fund initiative is the brainchild of former UN Secretary - General Kofi Annan, who sought to create what he called a “war chest” to fight AIDS. And that TB and malaria were added because together these three diseases are the greatest barrier to socio economic development. Leaders of the G8 acknowledged the need for resources mobilization in their 2000 meeting in Okinawa, Japan, and approved the creation of the Global Fund (GF) to Fight AIDS, Tuberculosis and Malaria at their 2001 meeting in Genoa. The Global Fund was established as a private Swiss foundation and the Secretariat opened its doors in January 2002.

Countries are awarded initial funding on the basis of well-thought-out proposals, but continuing funding is dependent upon demonstrated results against agreed-upon targets. However, each grant disbursement may be reduced, suspended, or cancelled due to poor grant performance.

Global Fund HIV Grants
Tanzania is one of the major beneficiaries of GF to fight AIDS, TB and Malaria (GFATM) grants since 2002. GFATM has remained to be a major funder of the HIV, TB and Malaria services in the country. Since 2002 to 2011 countries worldwide have been accessing the Global Fund funds through Rounds of call for proposals. This resulted into ten rounds of funding (1 to 10). Tanzania was successful in seven Rounds that were translated into 16 grants. From 2013 the GFATM have come up with new funding modality in which countries are allocated funds by disease component to be spent within three years’ period. From 2002 to date a total of US$ 1,942,903,621.41 has been disbursed out of US$ 2,531,407,850.36 committed by the Global Fund (GFATM)

Notable achievements through global fund support
There are a number of achievements from Round 1 to Round 9 and later to New Funding Model, that have been realized in improving coverage and quality of health services in the areas they have focused.

These include: the GFATM support more than 80% of commodities need for the three programmes. Hence quality assured medicines for the three diseases have been made available, accessible and affordable, scale up of HIV testing and
counselling, prevention and care and treatment services which have contributed into reduction in average national HIV prevalence from more than 10% in 1990s to 5.1% in 2012. Implementation of HIV test and treat policy started on 1st October 2016, Reduction in HIV transmission rate from Mother to child from 26% in 2010 to 4.5% by 2015, Improvement of storage and distribution capacity at the Medical Stores Department at central and zonal levels. Almost 12,000 sq. meters have been expanded in MSD zonal stores and additional expansion is being discussed.

Others are strategic review of MSD was conducted which recommended among others establishment of Strategic Management Office (SMO) to oversee MSD transformation and to undertake Holistic Supply Chain System Assessment (HSCSA). These two recommendations have also been implemented with GFATM support; the SMO operations is ongoing and the HSCSA was finalized last year and hence implementation of the recommendations is on-going. Improvement of the Health Management Information System, monitoring and evaluation of the three diseases and implementation of operational researches in the same areas.
Financing HIV and AIDS prevention and control in Tanzania

Mr. Yasin Abbas

Institutional affiliation: Tanzania Commission for AIDS

Introduction

The Costed National Multi-Sectoral Strategic Framework (NMSF III) 2013/2014 – 2017/2018, estimated HIV and AIDS services at TZS 6 trillion (USD 2.975 billion) for the 5 years’ period of the Strategy and that 93% of the fund was expected from external support (excluding infrastructures and personnel costs). US Government through PEPFAR Program and Global Fund ATM alone contributed over 86%. Other donors such as UN Family, Denmark, Canada, German and Japan contributed about 7%.

Figure: Estimated costs of implementing the NMSF III (2013 – 2018)
**HIV and AIDS Funding level for 2015 - 2017**

AIDS Trust Fund (ATF) was established in 2015 through Amendment of TACAIDS Act No. 22 of 2001. The aim of the ATF includes to increase domestic funding from 7% (2015) to 30% (2018), hence reducing external dependency, to increase contribution of private sector from 8% (2015) to 15% in 2018 and increase Government contribution gradually to 300 billion by 2018. [Note: TZS 3 billion (2015/2016), TZS 5.5 billion (2016/2017), TZS 3 billion (2017/2018), TZS 3 billion 2018/19 and TZS 2 billion in 2019/20].

**Priority Areas for the ATF**

The areas of the ATF priorities which include ATF priorities is aligned with the NMSF Priorities. According to the ATF Operational Manual, distribution of fund are as follows, 60% for commodities, including ARV, STI Drugs, OIs Drugs, Lab equipment, Reagents, Condoms etc. 25% for prevention programs such as VCT, SBCC, Comprehensive, Sexual Education etc. and 15% for Enabling Environment such as Resource Mobilization, Monitoring and Evaluation, Program Management and Board operations.

**Achievements**

On the ATF achievement, the following are some of the achievements that have been realized establishment of ATF by law through Amendment of TACAIDS No. 6 of 2015, appointment of Board of Trustees in July 2016, launching of the Board and ATF in December, 2016 and development and approval of governing documents for the ATF by March, 2017.

Other realizations are ATF Resource Mobilization Strategy, ATF Operational Manual and ATF Financial Management System, government contribution of TZS 2.075 billion by June, 2019, two fund raising events, a marathon and charity walk have been conducted and raised TZS 635 million, the Board has disbursed TZS 1.85 billion (TZS 1.110 billion for procurement of Septrin, TZS 462.5 million for prevention programs (including TZS 250 million for construction and refurbishment of a CTC at Mererani, Simanjiro DC, and TZS 277.5 million for enabling environment and construction of Mirerani CTC is completed and it provide services to the surrounding community.

**Challenges and Way Forward**

The challenges that ATF faces are under release of fund by the government, absence of reliable and sustainable source of fund for the AIDS Trust Fund, absence of professional personnel for the ATF (ATF Manager and Assistants) to support the Board uncosted NMSF IV and Declining support from partners.
Tanzania HIV Impact Survey (A population –Based HIV impact Assessment) 2016-2017

Mr Emilian Karugendo

Institutional affiliation: National Bureau of Statistics

This survey (THIS) was led by the Government of Tanzania through Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), MoHCDGEC and Ministry of Health Zanzibar, National Bureau of Statistics (NBS) and Office of the Chief Government Statistician (OCGS). Data measures were collected through participant interviews questions regarding exposure to and uptake of HIV services and interventions, socio behavioural and demographic factors. Blood was collected for biomarker testing.

THIS survey is the first survey to be implemented with Technical assistance from ICAP Columbia University and CDC. There have been 10 surveys in Tanzania implemented with technical assistance from the MEASURE DHS project. A second SPA or Service Provision Assessment survey will be carried out in 2013. The SPA includes information on malaria and HIV services in health care facilities so will be very helpful in putting data from the current THMIS in context.

THIS was part of PHIA surveys are general population household-based surveys that aim to measure the impact of national HIV programs at a population level.
Background

Data measures were collected through participant interviews—questions regarding exposure to and uptake of HIV services and interventions, socio-behavioural and demographic factors. Blood was collected for biomarker testing, HIV diagnostic tests, HIV regency as a proxy for incidence. Sample size for most PHIA surveys was expected to be around 15,000 HH / 35,000 blood draws. THIS 2016-2017 was a household-based national survey involving 521 Enumeration Areas and 14,811 households. 35,793 interviews were conducted between October 2016 and August 2017.

Results

Preliminary findings released in December 2017, Final report includes, updated incidence & prevalence estimates, progress towards 90-90-90, behaviours associated with HIV acquisition & transmission and HIV comorbidities (i.e., syphilis, HBV and HCV). This brief presentation highlights: HIV incidence, prevalence, VLS and UNAIDS 90 90 90.

The survey report shows that the overall prevalence of HIV among individuals aged 15 – 49 is 4.7% (3.1% among men and 6.2% among female). And the incidence among the same age group stands at 0.24% (0.14 among men and 0.34% among female). As regard to the attainment of the 90-90-90 targets this survey shows that we are at 60.9% for the 1st 90, 93.7% for the 2nd 90 and at 87% for the 3rd 90. Prevalence 0-14 years old: 0.4%, 15+ years of age: 4.9% and regions ranged from <1% (Zanzibar) to 11.4% (Njombe).

The burden of HIV infection also varies geographically across Tanzania, ranging from 11.4% in Njombe to less than one percent (<1%) in Zanzibar. THIS 2016-17 results show a higher PLHIV burden in Kagera, Iringa, Tanga, Dodoma, and Mwanza compared to the 2016-17 Spectrum data. In Kagera, for example, there was a 125% increase in PLHIV, from 54,000 to 121,000. Likewise, PLHIV burden decreased in Dar es Salaam, Mtwara, Arusha, and Njombe. In Dar es Salaam, for example, THIS 2016-17 results showed an 81% decrease in PLHIV from 193,000 to 138,400. HIV prevalence also varied between urban (6.0%) and rural (4.2%) areas.

Conclusion and recommendation

The overall HIV prevalence is declining. Regarding the attainment of the UNAIDS 90-90-90 targets, we are lagging behind by 29.1% to attain the first 90 target. Whereas, there is considerable progress toward achievement of the 2nd and 3rd 90s targets in adults. It was surprising that, 8.7% of those 568,716 individual tested were on ART although they reported to be unaware of their HIV status during survey. This could be due to stigma or any other unknown reasons, which may need well planned quantitative study to establish the magnitude and qualitative studies to establish the reasons behind these practises.
National Management of HIV care and treatment

**Dr. Werner Maokola, Anath Rwebembera, James Kamuga**

**Institutional affiliation:** National AIDS Control Programme- MoHCDGEC

**Introduction**

The ART milestone in the Country is as follows: 2013: Option B+ where all pregnant women were eligible for ART regardless on CD4 and Clinical staging, 2015: ART initiation to all under 15 years of age, and also all client with clinical stage 3 and 4, and those with CD4 below 500copies/mm3 and 2016: Test and treat was released by October 2016 and the guideline for management of HIV and AIDS was released in 2017. The overarching goal of the HIV Sector Health Strategic Plan (HSHSP) III was to achieve zero new infections, zero discrimination and zero HIV related deaths in the population including children in Tanzania. Among key strategies put in place to achieve this goal is the expansion in coverage of pediatric HIV services as outlined in the HSHSP III.

**Table 1: Revised Guidance on the use of ARV regimen (2019) and Transition assumptions**

<table>
<thead>
<tr>
<th>Population</th>
<th>Preferred</th>
<th>Alternatives</th>
<th>Special situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult men and adolescent boys</td>
<td>TLD+ (TDF + 3TC + DTG)</td>
<td>TLE600</td>
<td>AZT+3TC+ EFV600</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TLE400</td>
<td>TDF+3TC (or FTC)+PI/r</td>
</tr>
<tr>
<td>Women and adolescent girls with effective contraception or not of childbearing potential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnant (from eight weeks after conception) and breastfeeding women and adolescent girls</td>
<td>TLE600 (TDF + 3TC/FTC) + EFV</td>
<td>TLE400</td>
<td>AZT+3TC+ EFV600</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TDF+3TC (or FTC) + PI/r</td>
<td>TDF+3TC (or FTC) + RAL</td>
</tr>
<tr>
<td>Women and adolescent girls of childbearing potential who want to become pregnant and have no effective contraception</td>
<td>TLD = TDF + 3TC + DTG</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TLE = TDF + 3TC (or FTC) + EFV</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) In PLHIV with TB using rifampicin, the dose of DTG needs to be increased to 50 mg twice daily.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) NVP may be used in special circumstances where alternative options are not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) If national prevalence of EFV pre-treatment drug resistance exceeds 10% or if no other alternatives are available.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TLD = TDF + 3TC + DTG
TLE = TDF + 3TC (or FTC) + EFV
HIV care and treatment for PLHIV Paediatric, Adolescent in Tanzania

Challenges associated with HIV care and treatment of pediatric and adolescents living with HIV include limited access to Early Infant Diagnosis (EID), Provider Initiated Counselling and testing (PITC), pediatric ART services, weak linkage between the PMTCT and the pediatric ART programs, delayed initiation of HAART to HIV infected children, poor retention of those initiated on HAART and irregular supply of commodities and supplies. The ART services coverage, the presenter informed the participants that by April-June 2019, PLHIV were on ART: 1,194,557, Children: 62,456 (5%) vs 38,848 (ACT goal by 2016). Among of the PLHIV on ART tested for Viral load, 87% were virally suppressed.

Summary of the Clinical Sub-committee recommendations (17th Aug 2018) on eligibility for use of DTG based regimens

Summary of the Clinical Sub-committee recommendations (17th Aug 2018) on eligibility for use of DTG based regimens that this regimen is recommended to adult men, Adolescent boys, women and adolescent girls of child bearing potential on effective contraception; provided they have been given the necessary information on DTG containing regimens to make an informed decision and have signed the Consent form and women who expect to be pregnant and choose not to take DTG should be given options to use TLE. Clients with DTG intolerance such as severe liver diseases should not be given DTG containing regimens.

Discussion and conclusion

The importance to continue working with TMDA to collect pharmacovigilance information of the GTD. Also it was reported that in July 2019 WHO issued a guideline that DTG cannot be used in women in child bearing potential urged countries to monitor birth outcomes so as to monitor neural tube defects and other risks to birth and pregnancies, the Active pharmaco-vigilance birth defects surveillance of the MoHCDGEC will be expanded to accommodate this observation so as to have systematic reporting and provide evidence for action. However, there is need to explore more so as attain the desirable viral suppression so as to control the epidemic.
Tanzania targets for 2020 are to achieve a 90% rate of diagnosis in HIV-positive individuals, to provide antiretroviral treatment (ART) to 90% of HIV-diagnosed individuals and to achieve virological suppression in 90% of ART patients. A powerful momentum is now building towards a new narrative on HIV treatment and a new, final, ambitious, but achievable target. As per THIS 2016-2017, to-date, the first 90 target the country is at 60.9% although detection of ARVs in blood samples showed some under-reporting of both HIV positive status awareness and ART status. There is a remarkable change in 1st 90 estimates with minimal changes in 2nd and 3rd 90 between the two methods of estimation of 90-90-90. The current treatment cascade shows that considerable progress toward achievement of the 2nd and 3rd 90 of the UNAIDS 90-90-90 targets in adults. The 2nd 90: among PLHIV diagnosed 93.7% receiving ART and 3rd 90: among those on ART, 87.0% virally suppressed. The challenge to address is that diagnosis is still a task which has to be focused on using various strategies to ensure targeted testing.

Updates from Mwanza Region

Dr. James Kamuga

Institutional affiliation: Mwanza Regional AIDS Control Coordinator (RACC)

The presenter presented on the progress on the attainment of the 95-95-95 in Mwanza region which is constituted of eight councils including: Buchosa district council (DC), Ilemela Municipal (MC), Kwimba DC, Magu DC, Misungwi DC, Nyamagana MC, Sengerema DC and Ukerewe DC.

First 95

The overall regional attainment of the first 95 target is estimated at 54%. These achievements vary greatly across the councils ranging from 32% (Ilemela Municipal) to 77% (Nyamagana Municipal).
Figure 1: 1st 95 Progress Towards Covering Treatment Gap by April – June 19

<table>
<thead>
<tr>
<th>#</th>
<th>Council</th>
<th>ePLHIV</th>
<th>On Treatment</th>
<th>% Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Buchosa DC</td>
<td>12,147</td>
<td>7,286</td>
<td>60%</td>
</tr>
<tr>
<td>2</td>
<td>Ilemela MC</td>
<td>21,978</td>
<td>6,932</td>
<td>32%</td>
</tr>
<tr>
<td>3</td>
<td>Kwimba DC</td>
<td>16,553</td>
<td>8,534</td>
<td>52%</td>
</tr>
<tr>
<td>4</td>
<td>Magu DC</td>
<td>17,834</td>
<td>9,789</td>
<td>55%</td>
</tr>
<tr>
<td>5</td>
<td>Misungwi DC</td>
<td>17,551</td>
<td>7,584</td>
<td>43%</td>
</tr>
<tr>
<td>6</td>
<td>Nyamagana MC</td>
<td>25,899</td>
<td>19,850</td>
<td>77%</td>
</tr>
<tr>
<td>7</td>
<td>Sengerema DC</td>
<td>13,283</td>
<td>7,968</td>
<td>60%</td>
</tr>
<tr>
<td>8</td>
<td>Ukerewe DC</td>
<td>8,401</td>
<td>4,863</td>
<td>58%</td>
</tr>
<tr>
<td></td>
<td>Mwanza Region</td>
<td>133,646</td>
<td>72,806</td>
<td>54%</td>
</tr>
</tbody>
</table>

Second 95

The overall attainment of the second 95% target is estimated at 106%. All councils had attained more than the set target of 95%. The attainment at councils ranged between 100% (Nyamagana MC) and 120% (Sengerema DC).

Figure 2: FY19Q1 TO FY19Q3 Mwanza Regional Treatment Linkage

<table>
<thead>
<tr>
<th>Council</th>
<th>Total Positive</th>
<th>Facility TX_NEW</th>
<th>Community TX_NEW</th>
<th>Total TX_NEW</th>
<th>% Linkage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buchosa DC</td>
<td>2,018</td>
<td>1,941</td>
<td>455</td>
<td>2,396</td>
<td>119%</td>
</tr>
<tr>
<td>Ilemela MC</td>
<td>1,898</td>
<td>1,881</td>
<td>142</td>
<td>2,023</td>
<td>107%</td>
</tr>
<tr>
<td>Kwimba DC</td>
<td>2,541</td>
<td>2,525</td>
<td>250</td>
<td>2,775</td>
<td>109%</td>
</tr>
<tr>
<td>Magu DC</td>
<td>2,001</td>
<td>1,964</td>
<td>347</td>
<td>2,311</td>
<td>115%</td>
</tr>
<tr>
<td>Misungwi DC</td>
<td>2,040</td>
<td>2,034</td>
<td>107</td>
<td>2,141</td>
<td>105%</td>
</tr>
<tr>
<td>Nyamagana MC</td>
<td>3,618</td>
<td>3,534</td>
<td>72</td>
<td>3,606</td>
<td>100%</td>
</tr>
<tr>
<td>Sengerema DC</td>
<td>2,000</td>
<td>1,918</td>
<td>479</td>
<td>2,397</td>
<td>120%</td>
</tr>
<tr>
<td>Ukerewe DC</td>
<td>1,476</td>
<td>1,463</td>
<td>145</td>
<td>1,608</td>
<td>109%</td>
</tr>
<tr>
<td>Mwanza Region</td>
<td>17,592</td>
<td>12,285</td>
<td>6,380</td>
<td>18,665</td>
<td>106%</td>
</tr>
</tbody>
</table>
Third 95

The overall attainment of the third 95 target is estimated at 92%, none of the council has attained the 95% target, as their achievement range from 83% in Ukerewe DC to 93% in Ilemela MC, Kwimba DC, and Nyamagana DC.

Figure 3: Mwanza Region – HVL Coverage and Suppression Rate, FY19 Q3

<table>
<thead>
<tr>
<th>Council</th>
<th>TX_CURR</th>
<th>Eligible for HVL</th>
<th>Clients with Documented results in the past 12 months</th>
<th>Patients with Results; HVL&lt;1000 cpm in the past 12 months</th>
<th>% HVL Coverage</th>
<th>% HVL Suppression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buchosa DC</td>
<td>7,286</td>
<td>5,397</td>
<td>5,279</td>
<td>4,844</td>
<td>98%</td>
<td>92%</td>
</tr>
<tr>
<td>Ilemela MC</td>
<td>6,932</td>
<td>5,534</td>
<td>5,453</td>
<td>5,059</td>
<td>99%</td>
<td>93%</td>
</tr>
<tr>
<td>Kwimba DC</td>
<td>8,534</td>
<td>7,851</td>
<td>7,569</td>
<td>7,035</td>
<td>96%</td>
<td>93%</td>
</tr>
<tr>
<td>Magu DC</td>
<td>9,789</td>
<td>7,635</td>
<td>7,156</td>
<td>6,594</td>
<td>94%</td>
<td>92%</td>
</tr>
<tr>
<td>Misungwi DC</td>
<td>7,584</td>
<td>5,850</td>
<td>5,153</td>
<td>4,627</td>
<td>88%</td>
<td>90%</td>
</tr>
<tr>
<td>Nyamagana MC</td>
<td>19,850</td>
<td>19,180</td>
<td>16,400</td>
<td>15,252</td>
<td>86%</td>
<td>93%</td>
</tr>
<tr>
<td>Sengerema DC</td>
<td>7,968</td>
<td>6,043</td>
<td>5,386</td>
<td>4,979</td>
<td>89%</td>
<td>92%</td>
</tr>
<tr>
<td>Ukerewe DC</td>
<td>4,863</td>
<td>3,217</td>
<td>3,052</td>
<td>2,546</td>
<td>95%</td>
<td>83%</td>
</tr>
<tr>
<td>Mwanza Region</td>
<td>72,806</td>
<td>60,707</td>
<td>55,448</td>
<td>50,936</td>
<td>91%</td>
<td>92%</td>
</tr>
</tbody>
</table>

Updates from Arusha region

Dr Winnie Leete Laizer

Institutional affiliation: Arusha Regional AIDS Control Coordinator (RACC)

Arusha has 7 councils with approximately 1.9 million people with a regional prevalence of 1.9% (2016/17 THIS Report). There are 375 health facilities all offering RCH services, 77% of RCH sites provides PMTCT & 34% HEID services, 21% of these health facilities provide CTC (79) services. Region’s priority areas include Elimination of new HIV infections, reduction of AIDS related deaths and eliminate stigma and discrimination and it set the next indicators to achieve the set targets:

First 90

The regional performance towards achieving the first 90% in 2018 was at 96%. This achievement was possible because of availability of HIV testing commodities, high coverage of the HIV Testing Services through PITC, CITC and CBHCT, increased number of PMTCT coverage within the region trained healthcare providers on HIV test and counselling. And supportive supervision by NACP/RHMT/CHMTS and Implementing partners. Another reason for testing many
clients is introduction of special days/extended hours for testing clients who were unable to reach the facility on working days, number of identified HIV positive has been increasing on Index testing.

Figure 1: Number of clients counselled, tested and received their HIV test results

Achievement for the second 90 target stands at 98% in 2018. Reasons for this performance was new implementation of the Test and treat policy, service delivery model (SDM) multi months script (3months refill), tracing LTF(CBHS) and ART Outreach refill to Stable clients.

Figure 2: Current number of persons (Adult and Children) on ART at the end of the reporting period (Total of 1st, 2nd and 3rd line)
Third 90

Attainment of the third 90 was estimated Percentage of ART patients who underwent Viral Load tests and with suppressed viral load (<1000 copies/ml) (3rd 90), for Jan-Dec 2017, 5,330 clients had viral load <1000 which is 79% of the targets, for Jan-Dec 2018, 7,473 clients had viral load <1000 which is 80%.

Figure 3: Total number of VL tests < 1000 copies/mL during reporting period

Success story: Implementation of SDM at CTC sites within the region has helped our clients to receive their services within the vicinity and resulted into increasing enrolments and initiations of clients into ARTs and good coordination between NACP/RHMT/CHMT and our Implementing partner has been cornerstone of our performance.

Despite these achievements, shortage of human Resource for Health, inadequate supply of Medicine for management of Opportunistic infections and stigma and discrimination within the community are some of the challenges that needs to be addressed.

Way forward: To promote accessibility of ART services, to lower levels facilities through training and mentoring medical personnel on ART initiation (NIMART), incorporate budget of OIs in CCHP
Updates from Njombe Region

Dr Robert Maselle

Institutional affiliation: Njombe Regional AIDS Control Coordinator (RACC)

The presenter presented on the progress on the attainment of the 95-95-95 from Njombe region which is constituted of seven councils including: Ludewa DC, Makambako Town Council (TC), Makete DC, Njombe DC, Njombe TC and Wanging’ombe DC.

First 95

The overall of the attainment of the first 95 target is estimated at 88% with Makambako TC (at 106%) and Makete DC (108%) performing very well whereas Njombe DC performing poorly (at 69%).

Table 1: 1st 95 Progress Towards Covering Treatment Gap by April – June 19

<table>
<thead>
<tr>
<th>Njombe</th>
<th>ePLHIV</th>
<th>TX Curr All facilities-275HFs</th>
<th>% Toward 1st 95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ludewa DC</td>
<td>10,917</td>
<td>8,503</td>
<td>78%</td>
</tr>
<tr>
<td>Makambako TC</td>
<td>8,286</td>
<td>8,814</td>
<td>106%</td>
</tr>
<tr>
<td>Makete DC</td>
<td>8,658</td>
<td>9,315</td>
<td>108%</td>
</tr>
<tr>
<td>Njombe DC</td>
<td>7,681</td>
<td>5,285</td>
<td>69%</td>
</tr>
<tr>
<td>Njombe TC</td>
<td>14,583</td>
<td>13,779</td>
<td>94%</td>
</tr>
<tr>
<td>Wanging’ombe DC</td>
<td>12,504</td>
<td>9,250</td>
<td>74%</td>
</tr>
<tr>
<td>Overall Njombe</td>
<td>62,630</td>
<td>54,946</td>
<td>88%</td>
</tr>
</tbody>
</table>

Second 95

The overall of the attainment of the second 95 target is estimated at 92% with Njombe TC (at 98%) performing above the target, whereas, the rest of the council are below 90%.
Table 2: Q3 Regional Treatment Linkage

<table>
<thead>
<tr>
<th>District</th>
<th>Total POS</th>
<th>Facility TX_NEW</th>
<th>Community TX_New</th>
<th>TX_NEW</th>
<th>True Linkage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ludewa DC</td>
<td>271</td>
<td>221</td>
<td>6</td>
<td>277</td>
<td>82%</td>
</tr>
<tr>
<td>Makambako TC</td>
<td>524</td>
<td>472</td>
<td>41</td>
<td>506</td>
<td>90%</td>
</tr>
<tr>
<td>Makete DC</td>
<td>310</td>
<td>272</td>
<td>3</td>
<td>289</td>
<td>88%</td>
</tr>
<tr>
<td>Njombe DC</td>
<td>235</td>
<td>194</td>
<td>13</td>
<td>211</td>
<td>83%</td>
</tr>
<tr>
<td>Njombe TC</td>
<td>529</td>
<td>518</td>
<td>133</td>
<td>659</td>
<td>98%</td>
</tr>
<tr>
<td>Wanging’ombe DC</td>
<td>242</td>
<td>195</td>
<td>180</td>
<td>374</td>
<td>81%</td>
</tr>
<tr>
<td>Njombe Region</td>
<td>2111</td>
<td>1940</td>
<td>376</td>
<td>2316</td>
<td>92%</td>
</tr>
</tbody>
</table>

**Third 95**

The overall attainment of the third 95 target is estimated at 92% with Njombe DC performing well (at 96%). The rest of the council are below 92%.

Table 3: Njombe – HVL Coverage and Suppression Rate, FY19 Q3

<table>
<thead>
<tr>
<th>Region</th>
<th>TX_CURR</th>
<th>Eligible for HVL</th>
<th>Clients with Documented results in the past 12 months</th>
<th>Patients with Results; HVL&lt;1000 cpm in the past 12 months</th>
<th>% HVL Coverage</th>
<th>% HVL Suppression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ludewa DC</td>
<td>8,034</td>
<td>6,558</td>
<td>5,430</td>
<td>4,974</td>
<td>83%</td>
<td>92%</td>
</tr>
<tr>
<td>Makambako TC</td>
<td>5,963</td>
<td>4,727</td>
<td>4,566</td>
<td>4,056</td>
<td>97%</td>
<td>89%</td>
</tr>
<tr>
<td>Makete DC</td>
<td>8,868</td>
<td>7,405</td>
<td>6,650</td>
<td>6,111</td>
<td>90%</td>
<td>92%</td>
</tr>
<tr>
<td>Njombe DC</td>
<td>4,491</td>
<td>3,967</td>
<td>2,858</td>
<td>2,741</td>
<td>72%</td>
<td>96%</td>
</tr>
<tr>
<td>Njombe TC</td>
<td>12,316</td>
<td>9,819</td>
<td>9,158</td>
<td>8,379</td>
<td>93%</td>
<td>91%</td>
</tr>
<tr>
<td>Wanging’ombe DC</td>
<td>8,352</td>
<td>7,312</td>
<td>5,522</td>
<td>5,086</td>
<td>76%</td>
<td>92%</td>
</tr>
<tr>
<td>Overall</td>
<td>48,024</td>
<td>39,788</td>
<td>34,184</td>
<td>31,347</td>
<td>86%</td>
<td>92%</td>
</tr>
</tbody>
</table>
Figure 1: Pediatric VL suppression Trend from Q4 FY 18 - Q3 FY 19

Best Practice

Psychosocial pairing and viremia clinic for Pediatric and Adolescent with high viral load
National Council of People Living with HIV in Tanzania (NACOPHA)’s engagement towards achieving 90-90-90: SAUTI YETU

Deogratius Rutatwa

Institutional affiliation: National Council of People Living with HIV and AIDS (NACOPHA)

The presenter began by giving background of NACOPHA and its role in the fight against HIV/AIDS epidemic. He informed the participants that NACOPHA is the national grassroots-based organization of all individuals living with HIV in Tanzania mainland recognized through organized Groups, Clusters and Networks of PLHIV. It is a non-governmental and not-for-profit organization. It was founded in 2003 and registered in 2005. It acts as a unified voice of PLHIV, coordinates efforts and contribution of PLHIV in the national response led by the Government of Tanzania. It applies bottom-up approach for engaging and coordinating efforts of PLHIV in the delivery of HIV programs.

On 2013, NACOPHA received funds through USAID to implement Citizen Engagement in Government Oversight which enabled them to formulate SAUTI YETU project in 46 priority districts in Tanzania Mainland.

SAUTI YETU Project is an opportunity for PLHIV to actively engage and participate in delivery of HIV services, policy influencing, capacity strengthening and contribute to achieving both the PEPFAR and national epidemic control targets (90-90-90).

The objectives of Sauti Yetu include:

- Increased demand for targeted HIV testing among families of PLHIV clusters by 50% in 46 scale up districts through community HIV testing promotion by PLHIV
- Increased PLHIV retention on ART by reducing LTFU by 50% in 46 scale up districts
- Strengthened community linkages and referral systems through established PLHIV community action and cluster coordination teams for adherence and retention on ART in the 46 scale up districts
- Evidence generated through modeling new knowledge for enhanced ART adherence and retention using community structures in 3 scale up districts
- Improved enabling environment for overall national HIV response
**Sauti Yetu Key strategies include:**

1. HIV Services demand creation: Index client testing (elicitation & testing)
2. HIV community services delivery; Treatment Literacy; Retention, Stigma and GBV reduction and Retention
3. Bi-Directional Referral and linkages and retention to care; Referral and linkage services and support (Case Management)
4. Modelling community structured ART, adherence and retention groups; PLHIV Empowerment Group
5. Influencing policies reviews and development, and decision making; Advocacy for enabling environment

Where Sauti Yetu Project wants to go with PEPFAR towards Epidemic control: Reaching 95 95 95 targets

- Enhanced access and linkage to HTS, ART, Retention and Stigma reduction: Optimized HTS and ART services to Children, adolescents, and men
- Investing more in community engagement with PLHIV and community structures (FBOs, LGAs, Private Sector)
- Strengthened coordination among PEPFAR IPs: Engage PLHIV through existing structure (i.e. PLHIV Clusters) acknowledging contribution of PLHIV where PEPFAR is supporting
- Continued support and collaboration with, Government, research institutions and IPs for policy improvement, innovations for programming and Mobilizing Resources for the national response
- Enhanced Support and engagement of CSOs in policy influencing for improved enabling environment and Programming

**Discussion**

*From the NACOPHA experiences towards 90-90-90.* The audience wanted to understand more the reasons to why, treatment advocacy targets more those in villages and those with low socio-economic status, and not targeting those in cities and those at middle- and high-income classes? Response to this was that, those at cities and with high economic status are not ready to disclose their status making it difficult to engage them because of stigma, so we need another study to establish on what type of stigma we have and its magnitude?
Reaching the First 90 in Southern Highlands Zone: Success in Contacting and Testing the Named Sexual Partners of HIV-infected individuals

Dr. Abel Wilson Ngwale, Jimson Mgaya, David Maganga, Samoel Khamadi, Aminiel Ngomuo, Emma Basimwaki, Joseph Ng’weshemi, Brown Mwakibambo, Julius Muhumuza

Institutional Affiliation: Henry Jackson Foundation Medical Research International (HJFMRI)

Introduction and rationale

HIV Testing Services (HTS) remain to be a critical entry point to prevention, care and treatment and support services. HTS has evolved through different approaches since its initiation in 1989. Data indicates that 61% of people living with HIV in Tanzania know their HIV Status. Reaching the goal 90% by 2020 requires a huge investment in targeted testing. We are presenting an experience of sexual partner notification and testing in the Southern Highlands Zone. The results presented emanated from survey whose aim was:

• To provide evidence on the acceptability of HIV partner notification services in the Southern Highlands Zone.
• To assess the impact of the reboot activities on the implementation and results of index testing.

Proportion of HIV positives identified through index testing increased to 46% of total positives on week 26, compared to 18% on week 14, at the beginning of the intensified case-finding activities.
• Active partner notification is feasible, acceptable, and effective.
• Provision of airtime and fare costs to reach index contacts at home contributed to reach more contacts.

Involvement of community partners for home testing contributed to reach more contacts

Methodology

New HIV positive clients from October 2018 and those with high viral load were listed and contacted to elicit their sexual partners for index testing. The clients and their sexual partners were reached through phone calls or physically through counsellors or peer educators and the sexual partners were invited for HIV testing to the facility or community testing points at the clients’ convenience. If tested by community counsellor’s clients were brought to health facilities for antiretroviral therapy and reporting.
Results

19,067 index clients were listed from the Health facilities registers; 17,261 offered and accepted index testing. 31,766 partners were mentioned which was equivalent to 1.7 partners per index client. 27,151 of the mentioned contacts were reached of those, 824 already knew their HIV+ status. 26,327 contacts with unknown status were tested, 3983 (15%) were HIV positive. Reboot data in selected 132 facilities during the reporting period indicates that Index Testing Yield has increased from 14.5% to 23% and the Proportion of HIV positives identified through index testing rose to 46% of total positives from 18% when we started at week 12 of year 2019.

Challenges

Inadequate knowledge and skills of providers, and low accountability/ownership among providers, Improper documentation of the index cascade: the national HTS database does not capture the whole cascade but reports on index testing outcomes, Stigma and disclosures issues.

Next step

Motivate trained HTS staff to provide services by Refresher training or exchange visits programme, extend the index testing and partner notification services to facilities beyond PEPFAR supported facilities to achieve universal coverage, Task sharing using lay cadres, such as expert clients (Treatment Advocates), for elicitation and for follow up of partners, as part of the linkage case management initiative, strengthen mentorship program among staff and support for communication and transportation of providers and clients.

Conclusion and recommendation

Active partner notification is feasible, acceptable, and effective. Partner notification will increase early identification and referral to care of HIV-infected clients and facilitate risk reduction among high-risk uninfected partners.

DISCUSSION

Several issues were raised how to reach the First 90 in Southern Highlands Zone. The project had two arms for – i.e. facility based which was coordinated from the central and community that was coordinated by CSOs using the skilled workers identified from communities. Njombe and Iringa were not included in the southern highlands zone as they are geographically in the respective zone but reasons for exclusion was a central decision by the IPs. There is a an urgent for further research to inform reasons for poor viral load suppression.
SUB-THEME 3:
CARE AND TREATMENT

People with HIV can live long and healthy lives when they have proper access to treatment. Since HIV was first reported, substantial progress in research and the development of antiretroviral drugs have been made. There are now more than 20 approved antiretroviral drugs. Despite this development, people with HIV face many barriers to accessing affordable and effective HIV treatment. HIV treatment requires effort and commitment as drugs must be taken at the exact times each day. Some people may experience serious side-effects or may not respond to certain drugs. On the whole, treatment, care and support can help people adhere to treatment and address any problems they may have with their treatment regimen. Different factors have been observed to influence people’s care and treatment avenues. This section presents comprehensive information from both research and programmatic issues on care and treatment in Tanzania. The following are some of the key areas:

• Identification of people living with HIV
• Viral load monitoring and
• HIV and comorbidities
• Linkage and Retention
• Optimized Provider Initiated Testing and Counselling
• Viral Load Monitoring

Advanced HIV Disease in Low- and Middle-Income Countries

Sayoki G Mfinanga¹,², Sokoe L Kivuyo¹, Ayubu Masasi¹, Godfather Kmara⁰, Frank Erick¹, Rehema Simbauranga¹, Bernard Ngowi¹, Amos Kahwa¹, Esther Ngadaya¹, Saidi Egwaga², Angela Ramadhani³, Janneth Mghamba³, Angela Loyse⁵, Thomas S Harrison⁵, Shabbar Jaffar⁶, on behalf of the REMSTART and ACTA trial teams

Institutional affiliation:

¹National Institute for Medical Research, Muhimbili Medical Research Centre, Dar es Salaam, Tanzania; ²National Tuberculosis and Leprosy, Ministry of Health, Community Development, Gender, Elderly and Children, Dar es Salaam, Tanzania; ³National AIDS control programme, Ministry of Health, Community Development, Gender, Elderly and Children, Dar es Salaam, Tanzania; ⁴Muhimbili University of Health and Allied Sciences; ⁵St Georges University of London, London, UK; ⁶Liverpool School of Tropical Medicine, UK
Background

For adults and adolescents, and children older than five years, advanced HIV disease is defined as CD4 cell count <200 cells/mm$^3$ or WHO stage 3 or 4. This definition includes both ART naïve individuals and those who interrupt treatment and return to care. All children younger than five years old with HIV are considered to have advanced HIV disease. The proportion of people presenting with advanced HIV disease has remained largely unchanged during the past five years, although the number of people receiving ART in LMICs has more than doubled over that time. Thirty to forty percent of PLHIV starting ART in LMICs have advanced HIV disease. In some LMICs, up to half of the people present to care with advanced HIV disease. The most common causes of death for people with advanced disease are treatable, mainly Tuberculosis and Cryptococci meningitis.

Management of advanced HIV disease

The WHO package of care focuses on screening, treatment, and prevention of severe opportunistic infections to reduce deaths in people with advanced HIV disease. The first step to offering this package of care is to identify people who have advanced HIV disease. Measuring CD4 cell count in people starting or restarting ART is essential for the detection of people who have advanced HIV disease.

Interventions to reduced mortality in Advanced HIV Disease

Researchers from the National Institute for Medical Research Tanzania in collaboration with researchers from the UK, and African institutions conducted several randomised trials with primary goals of reduction of early mortality among individual with Advanced HIV disease. These trials contributed to the development of WHO guidelines in the Management of Advanced HIV disease.

The WHO recommended package of care for advanced disease in ambulatory PLHIV includes

Screening for severe opportunistic infections, giving preventative treatment to prevent severe opportunistic infections, testing those with symptoms of severe infection, Starting ART as soon as possible, and giving tailored counselling to people with advanced HIV disease to support their care.

WHO Guidance on Cryptococcal Disease Management: Diagnosis

Cryptococcal antigen screening (CrAg) is now recommended (in adults and adolescents ONLY) and Lumbar puncture with CSF pressure measurement.
Prevention/Screening

Screening and pre-emptive antifungal therapy in CrAG positive individuals with CD4 cell count < 200 cells/mm³. If screening is not available: fluconazole (FLU) is used as primary prophylaxis for individuals with CD4 cell count <200 cells/mm³.

Treatment

New standards for adults, adolescents, and children: one week of amphotericin B (AmB) + flucytosine (5-FC). If AmB is not available or cannot be administered safely: two weeks of 5FC + FLU. If 5-FC is unavailable: two weeks’ AmB + FLU

Challenges for implementing WHO guidelines for Advanced HIV Disease

Currently, there are challenges for early detection of Advanced HIV Disease and limited access to the use of drugs for the treatment of opportunistic infections such as cryptococcal meningitis. These challenges need urgent attention by all concerned authorities at the national and international levels. The UNITAID Advanced HIV Disease Initiative aims to reduce morbidity and mortality by accelerating access to optimal products for the prevention and management of key opportunistic infections; focusing on advocacy for registration of flucytosine and liposomal amphotericin B by the country for treatment of Cryptococcal Meningitis. Consolidation: Eight weeks of FLU and Maintenance: FLU

Discussion

During discussion the following challenges were raised:

- Unavailability of Flucytosine in the country as it is not registered yet
- Unavailability of CD4 cells estimation services in the facility due to lack of reagents and functional CD4 machine. This delays identification of individuals with advanced HIV and AIDS disease and timely initiates them on appropriate treatment.
- Limited funding for purchasing Amphotericin B and the limited skills to administer the drug and manage toxicity that may occur.
HIV and NCDs INTERACTION: Fact or Fiction?

Prof. Kaushik Ramaiya

Institutional affiliation: Hindu Mandal Hospital, Dar es Salaam

Introduction

As the HIV-infected population continues to age, new cardiovascular issues are emerging.

HIV associated with a 50% increased acute MI risk after adjustment for major risk factors. Increased risk remained among those with well-treated HIV. Impact of HIV on risk comparable to traditional risk factors including Hypertension (HTN), Diabetes mellitus (DM), and hyperlipidaemia. Drivers of Cardiovascular Disease (CVD) in HIV may include a combination of factors including a higher prevalence of traditional (e.g., smoking) and non-traditional (e.g., stress) risks, the effects of ART, and the effects of HIV itself.

The risk factors and link between HIV and CVD

• Rate of acute myocardial infarction (MI) is higher in HIV-positive patients
• HIV infection is a risk factor for ischemic stroke
• HIV-infected men have a greater prevalence of coronary artery plaque
• There is a strong correlation between LDL-C and CVD risk
• HDL-C is an independent predictor of CVD
• Combination HIV therapies are associated with increased risk of CVD, but recent data suggest that uncontrolled HIV infection is also a risk for CV events
• Insulin resistance is common in HIV and increases risk of diabetes and CVD
• Insulin resistance can result from direct and indirect effects of some NRTIs and PIs
• Further, traditional CVD risk factors, including some that can be changed (smoking), may have a greater impact on CVD risk than ART

Take-home message

• CVD is prevalent among HIV-infected individuals, many of whom have major CVD risk factors
• Different ARV agents have varying effects on lipids and drug interactions with medications used to treat CVD
• The potential impact of ARV agents on CVD risk must be considered when selecting HIV therapy
• With current ARTs, PLWHA are living longer but are exposed to increasing burden of NCDs which may be contributing to their increased morbidity and mortality if left unattended.

Discussion
During discussion, given the prevalence of NCDs and risk factors among HIV-infected individuals, suggestions of seeing possibility of:

• Screening HIV-infected individual attending CTC is screened for NCDs and NCDs related risk factors.
• Integrating the NCDs and HIV services such that they are provided not only under one roof but also patients with co-morbidity are attended to by one physician
• Integration will also allow the laboratory samples are also shared instead of collecting the similar sample from the same patient and processed at the same laboratory by the same technicians.
High prevalence of Human Immunodeficiency Virus, Hepatitis B and C Viral Infections among People Who Inject Drugs: A Potential Stumbling Block in the Control of HIV and Viral Hepatitis in Tanzania

Mtebe Venance Majigo, Rahim H. Kawambwa, Ahmed A. Mohamed, Mecky I. Matee

Institutional affiliation: Muhimbili University of Health and Allied Sciences

Introduction and rationale
Tanzania has witnessed a significant decrease in the prevalence of HIV and viral hepatitis in the general population attributed to several preventive measures. It is uncertain whether this decline in the general population has also occurred among people who inject drugs (PWID).

Methodology
A cross sectional study was conducted between June and September 2017 among PWID recruited from pre-identified hotspot sites following snowball referral sampling technique. A structured questionnaire was used to obtain information regarding socio-demographic characteristics, behaviour and drug use. Blood was tested for the presence of IgG antibodies against HIV and Hepatitis C virus (HCV) and for Hepatitis B surface antigen (HBsAg). Data were entered in the computer using excel software and analysed using Statistical Package for Social Sciences version 20.

Objective
This study aimed to determine the seroprevalence of HIV, Hepatitis B and C virus infection among PWID recruited from their hotspot sites in Dar es Salaam, Tanzania.

Results
A total of 219 PWID were recruited with median age of 39 years, [inter-quartile range 35 – 43]. Majority were males (74.9%), unmarried (60.7%), had low education (62.6%) and low income (57.1%). Approximately 32.0% had history of drug injection for more than 3 years, 79.9% had history of drug injection more than 3 times per day and 47.5% were sharing needles. The overall prevalence of HIV, HBsAg and HCV were 33.8%, 7.8% and 50.2%, respectively. There was serological evidence of at least one infection for 68.9%, while 22.4% had two or more infections. Factors independently associated with the occurrence of infection included being married for HIV, injecting drugs for more than 3 years and unprotected sex for HCV.
**Conclusion and recommendation**
Over two third of PWID in this study had serological evidence of infection with at least one virus while 22.4 % having dual or triple multiple infections. The study also found that one third of them were HIV positive, half had evidence of HCV infection and 8% HBV infection. The high prevalence blood borne infection in PWID may hamper initiatives of ending HIV and viral hepatitis epidemic in Tanzania, appropriate interventional measures should target hotspot sites.

**Discussion**
During discussion the following issues were pointed out:

- There is poor linkage to care for newly diagnosed with blood borne infections
- People who receive early diagnosis and initiation of effective treatments are less likely to develop liver complications
- Treatment for HCV using direct acting antivirals (DAA) not routinely available.
- Appropriate interventional measures should be instituted in these subpopulations
- Strategy to screen PWIDs in their hideout sites should be initiated and linkage to care and treatment to reduce transmission
- Utilize the current advances and opportunities for care and treatment of people infected with HBV and /or HCV
Implementation of TB and HIV Collaborative Activities in Tanzania

Liberate Mleoh

Institutional affiliation: National Tuberculosis and Leprosy Programme - MoHCDGEC

Introduction

Globally, Tanzania is estimated to be one of the countries with the 3 high-burden lists for TB, TB/HIV and MDR-TB between 2016–2020. Globally, in 2017 there were 10 million incidents of TB, 1.3 million deaths among HIV negative individuals and 300,000 deaths among HIV-infected individuals.

- Risk factors for acquiring TB infection
- Only 10% of infected persons with normal immune systems develop TB at some point in their lives.
- HIV is the strongest risk factor for development of TB if infected
- Risk of developing TB disease is 5% to 10% each year
- Certain medical conditions (E.g. Diabetes, Malnutrition, Aging, Silicosis etc.) increase risk that TB infection will progress to TB disease

TB and HIV interactions

Globally, TB is the leading preventable cause of death among PLHIV. WHO reported that 32% of all HIV deaths were from TB in 2017. Globally, it is estimated that 9% of PLHIV fell ill with TB in 2017, 72% of whom were in Africa. Literature shows that, the lifetime risk of developing active TB among PLHIV is 20 times greater than in people without HIV.

According to the Tanzania NTLP annual report of 2017, about 31% of all TB-notified cases were co-infected with HIV.

TB Prevention among HIV-infected individuals

One of the preventive activities to prevent HIV-infected individuals from acquiring TB is the use of IPT. Tanzania is implementing Prevention of TB (using Isoniazid Preventive Therapy (IPT) to HIV-infected individuals since 2011. Currently more than 512 sites are offering IPT throughout the country. Between July 2017 & June 2019, a total of 511,591 (68%) HIV-infected individuals were already initiated on IPT out of 995,427 estimated clients receiving HIV care in the country.
Challenges and possible solutions
About 3.6 million people are missed by health system each year and they may not get adequate care they need. This therefore calls for the need to accelerate TB/HIV response by increase the coverage of ART to HIV-infected individuals with latent TB infection and other interventions.

Discussions
During discussion, concerns on at what point are these people missed? Is it at the facility level or at the community?

The responses were as follows: The 2012 National TB Prevalence survey revealed that we are notifying less than 50% of the people who are supposed to be notified. Majority are at the community – have not showed up at the facilities. Others are also missed at the facilities. Especially children due to challenges of diagnosing them. Furthermore, criteria of cough of two weeks of more may be contributing to this missing.

Some of the proposed solutions:
• Due to the challenges associated with obtaining respiratory samples from children, the use of stool GeneXpert, which has shown to be promising alternative
• Design and implement Implementation research on how much we are missing by relying on the cough of two duration and how we can improve the TB case notification.
• Design studies and intervention that will improve TB notifications from the community
Predictors of HIV positive results among Orphans and Vulnerable Children in Tanzania

Asheri Barenkana, Amon Exavery, Amal Ally, Alison Koler, John Charles, Levina Kikoyo, Elizabeth Jere

Institutional affiliation: Pact Tanzania

Background
In Tanzania about 50% of children under the age of 15 years who are living with HIV (CLHIV) have not been diagnosed. Pact, through the USAID Kizazi Kipya project, developed an HIV screening tool with 18 risk factors to support HIV case identification for orphans and vulnerable children (OVC). This study assesses risk factors for HIV status among OVC in Tanzania.

Method
OVC age 0-17 years were assessed between January 2018 and March 2019 in 18 regions of Tanzania, by the HIV screening tool. HIV status before screening and after HTS referral were self-reported to CCWs. 18 risk factors (independent variables) were analyzed using Pearson’s Chi–square test, and inference was made at a significance level of 5%, where HIV self-report status was the outcome variable.

Results
Out of the 47,701 OVC who reported their HIV status after their HTS referrals, 1.0% (n = 549) were HIV positive. In the multivariate analysis, OVC with malnutrition were 2.14 times more likely to be HIV positive than those who were nourished (aOR=2.14, 95% CI 1.51-3.03). OVC living in households with one or more HIV positive members were 1.71 times more likely to be HIV positive than those from households where all household members were HIV negative (aOR=1.71, 95% CI 1.41-2.06). OVC who had recurrent skin problem were 2.05 times likely to be HIV positive that those without (aOR=1.54, 95% CI 1.29-3.28).

Conclusion
To attain the first 90 in the 90-90-90 global goals among OVC, the following risk factors are predictive of HIV positivity among the OVC: Malnutrition; one or more household members is HIV positive; recurring skin problems; and poor health in the last three months.
Engaging Community Health Workers to Improve Linkage and Retention in Care among HIV Positive Pregnant Women in Tabora, Tanzania

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Background
The use of community health workers (CHW), lay health providers linking communities to health services, is a public health strategy applied to bolster support in health services in sub-Saharan Africa. This study assessed the effectiveness of three CHW integration models in improving retention in HIV-related services (linkage to care, HIV-exposed infant testing and retention into care).

Methods
The evaluation design was a mixed-methods cluster-randomized longitudinal observational study of clinic and person-level patient outcomes. The intervention was launched in 2016 at 15 sites and had three study arms (5 sites per arm): 1) case-management, where CHWs are trained to follow up women/infants with elevated pregnant related-risk factors such as prior miscarriages (case-management arm); 2) inclusion of CHW in Quality Improvement (QI) Teams implementing the “Plan, Do, Study, Act” cycle at facilities (QI arm); and 3) standard of care (SOC). Data were abstracted from national registers and medical records of all HIV-positive women seen at study facilities from April 2016-March 2017 (1-year cohort). Chi-square testing was used to test for differences in proportions across arms.

Results
During the one-year study period, 406 HIV-positive women were seen at the facilities, 26%, 39% and 35% from case-management, QI and SOC arms respectively. In the case-management and QI arms, 40% and 45%, respectively, attended ANC four or more times, compared to 18% in the standard care arm (p<0.0001). Significantly lower LTFU was observed in the case-management arm (4%) compared to the QI (16%) and standard of care (16%) arms (p=0.004). The case-management arm had the highest rate of HIV-exposed early infant testing for HIV (74%) compared to the case-management arm (63%) and the standard of care arm (66%) although this was not statistically significant (p=0.241).
Conclusions
Interventions to support integration of CHWs in activities at a health facility contributed to improved patient outcomes. Both case-management and QI approaches improved antenatal care attendance, and case-management was effective in reducing LTFU of HIV-positive women. There is merit in both interventions, suggesting that CHWs can play an important role in supporting patients individually, as well as working within the health provider team to monitor reportable indicators and quality improvement.
Operational Feasibility on the Implementation of Infant HIV Point of Care Diagnostics at Birth in Tanzania

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Background
Point-of-Care (PoC) HIV testing for early infant diagnosis (EID) enables nurse-based, decentralized testing with the potential to replace centralized laboratory EID. PoC-EID has been recommended in the latest 2016 WHO guidelines, however, this is a conditional recommendation due to lack of implementation experience. In this study we evaluated the operational feasibility on the implementation of Xpert HIV-1 Qual PoC test for HIV EID and Xpert HIV-1 VL for viral load testing in Tanzania.

Methods
In this prospective study we included HIV-infected pregnant women and their exposed infants during delivery. PoC-EID was performed by nurses at the obstetric health facilities at birth, and after 1, 2, 3 and 6 weeks postpartum using Xpert HIV-1 Qual. Maternal plasma HIV-RNA was performed by using Xpert HIV-1 VL. Maternal viral load and positive EID PoC test results were confirmed by using the Roche COBAS TaqMan system.

Results
Between July 2015 and August 2016, 614 mother-child pairs were included, and 15 (2.5%) infants were diagnosed HIV positive. Of those 10 (67%) were diagnosed at birth suggesting intra-uterine infection. The Xpert HIV-1 Qual correctly identified all HIV infected and non-infected infants. Out of 2736 infant Xpert tests performed 97.7% provided valid results, HIV PoC testing related problems
were reported in 5.6%. In 4.4% tests were repeated and in 6.8% were sent to other sites for analysis usually due to power cuts. The median turnaround time for results communication to the mother was <2 hours. Good agreement was observed between the Xpert HIV-1 VL and the TaqMan plasma HIV-RNA in mothers.

**Conclusions**
We could demonstrate an excellent Xpert HIV-1 PoC test performance for both early infant HIV diagnostics and maternal viral load monitoring at delivery. The main challenges related to PoC test handling were related to power cuts which need to be improved by PoC test provider.
Optimization of Positive Case Identification through Index Testing at Ruangwa District Hospital in Lindi Region

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Background
The UNAIDS has set a goal to ensure that 90% of people living with HIV are aware of their status by 2020, according to the Tanzania HIV Impact survey conducted in 2016-17, 61% of PLHIV know their status, this is 29% behind the target. An effective HTS approach is mandatory in order to address this gap. Index testing has demonstrated to have higher positivity rate of greater than 20% at different settings. Lindi regional has an overall HIV prevalence of 0.3%. Employing this will lead to an enhanced case finding and effective utilization of resources for conducting HTS.

Objective
The objective of this activity was to employ targeted community-based approaches and services delivered by HTS trained healthcare providers to offer maximum index testing.

Methodology
The HTS provider used the two methods; the clients or provider’s referral method to contact the index client directly and confidentially. The HTS provider had to make community/home visit when the client discloses their HIV status to their partners. The HTS provider then offered HTS to the sexual partner(s) and their biological children aged less than 15 years. Positive clients identified were linked to ART.
Results
For Ruangwa DC, in the months of Jan-Feb 2019, 19 index clients were identified from which 17 partners were identified and all were tested (100%) and 3 were found to be HIV positive, an HIV positivity rate of 17%. In April-May 2019, some 109 index clients were identified, 130 partners were identified, and 87 clients were tested, 56 turned out to be HIV positive, a positivity yield of 64.3%.

Conclusion and Recommendations
Index testing with fidelity results to higher positivity rate as seen in the reports of April-June 2019. In March 2019 a training on index case testing was carried out. This was followed by enhanced home-based Index testing. The HTS providers and PLHI volunteers were compensated for extra hours spent at work with intensive facility backstopping by the program staff. Training and onsite mentorship capacitated service providers and PLHIV volunteers.
Effectiveness of Index Testing for Elicited Sexual Partners of Newly Diagnosed HIV+ clients at Mlimba HC, Morogoro

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Background/Introduction and Rationale
Early identification of HIV infected individuals, proper management of clients on antiretroviral therapy and getting them to be virally suppressed are the three global goals to achieving HIV epidemic control. Index testing for elicited sexual partners has been found to be an effective approach of diagnosing new HIV infected individuals and increasing positivity yield.

Objective
To assess the effectiveness of sexual partners’ index case testing in identification of New HIV+ clients at Mlimba HC, Morogoro; Tanzania between January and July 2019.

Methodology
Mlimba Health Center had challenges in index case testing that included suboptimal index sexual partner testing resulting to low index elicitation, fewer sexual partners tested and low linkage to treatment. As part of improvement a total of 21 HBCSP and HCW were oriented on doing index testing with fidelity. Elicitation of current PLHIV on treatment (index cases) was done by asking them to disclose their sexual partners so that they can offered HIV counselling and testing services. Testing was conducted by trained CBHSPs and HCWs at facilities and households depending on the preference of sexual contacts. Newly identified HIV positive clients were linked to care and treatment services. Daily data was collected through index testing registers and reviewed every evening by facility team, thereafter, uploaded in the project database PRODMIS and analyzed using MS excel 2016.

Results
A total of 978 index contacts were tested. Out of these, 256 (26%) turned out to be positive for a period of seven months (Jan-July) 2019. Testing rates increased from 22 in January to 198 in July 2019, April and May having more clients. ART initiation at the Mlimba Health Center increased from 48 to 106 clients.

Conclusion and recommendations
Index sexual partner testing is an effective approach for identifying new HIV infected individuals. Involvement of CBHSPs, orientation of HCWs on index elicitation & testing and intensive site monitoring through daily data reviews are the key to success. We recommend that this approach is scaled in other health facilities in Morogoro Region.
Improvement in identification of positive clients through index testing in southern Tanzania

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Background and rationale
In spite of the increased HIV testing services globally, it is estimated that up to 40% of people who are HIV-infected remain undiagnosed. To achieve the first 95% of people living with HIV/AIDS to know their HIV status, identification of people living with HIV through HIV testing is key to achieving this goal. In Tanzania, the positivity is lower than what is expected in terms of new cases. This low yield prompted PEPFAR to adopt index case testing, where a person with confirmed HIV infection is asked to contact sexual partners, biological children, drug injecting partners, or siblings with aim of identifying those infected with HIV.

Objective and Methodology
In the southern highlands, all the clients attending ART clinics are encouraged to provide names and addresses of their contacts for HIV testing. Additionally, newly diagnosed and clients known to have high viral loads are given priority for elicitation since they are considered to be highly infectious due to their unsuppressed viral load.

Results
In the period of one year from 2018-2019 there has been a steady rise in identification of positives using the index testing modality. As compared to other testing modalities, index testing generated 14.84% positivity rates, while PMTCT positivity rates were 1.97% TB testing positivity of 7.5% while PITC had a positivity rate of 3.1%. In terms of the settings that elicited the highest rates of index testing positivity rates, the clinical setting had the highest positivity rates (16%) as compared to the community setting (14.4%). Overall, the highest yield of positives was elicited from sexual partners (22%) as compared to biological children (4%), and those sharing needles and biological mothers.

Conclusion and Recommendation
Index case testing has shown that with a focused strategy in actively testing contacts of those already infected with HIV, the program can increase HIV case detection. This strategy, if applied properly will help Tanzania achieve the 1st PEPFAR 95 and go a long way in helping to increase identification of HIV positive individuals in the country. It is recommended that this strategy be extended to all facilities in order to increase identification of people living with HIV/AIDS.
Promising practices to optimize HIV service delivery for adolescents in Tanzania

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Background
Adolescents and young people bear a disproportionate burden of new HIV infection. In Tanzania, it is estimated that 93,000 adolescents between 10-19 years are living with HIV, of which 58 per cent are young girls (UNAIDS estimates, 2018). Adolescents lack the access to vital services required to achieve optimal adherence and viral suppression. To address challenges faced by adolescents requires innovative adolescent-focused approaches. Several organizations provide care and support services for ALHIV which remain undocumented.

Approaches
The Ministry of Health in collaboration with UNICEF set out in 2018 to document innovative approaches and promising practices of healthcare provision to ALHIV in Tanzania. First of its kind process aimed to provide insight into current implementation and describe strategies that can be replicated, adapted and potentially scaled-up across the country. Twenty-six promising practices submitted by partner organizations were selected according to pre-set criteria. Key information, including outcome data were available, was summarized and categorized according to the corresponding section of the HIV cascade: HIV case identification; linkage to care and referral; HIV treatment and care; and psychosocial support.

Findings
Analysis was done to identify several distinctive components across the chosen promising practices. These include: the importance of psychosocial support to improve HIV and health outcomes; the vital role of young people as peers as providers, through support groups and as advocates; the importance of improving the quality of health services for adolescents; the importance of combination of community- and facility-based interventions and linkage; and collaboration between implementing partners and government programmes. Many of the interventions reviewed remained limited in coverage, health outcome data was not available and implementation costs often not known. Development of adolescent tailored interventions should also have stronger involvement of adolescents and young people.
Conclusion

To further improve and scale up health service delivery in facilities and in communities for adolescents living with HIV, studies of implementation methods, cost and outcomes of the differentiated HIV service delivery model are required. Addressing common reasons for loss to follow up among adolescents, like stigma, financial constraints adolescents face and ‘being tired’ of taking medication, is also urgently needed.
Experiences on Implementation of National HTS Eligibility Screening Tool to identify individuals at risk of HIV infection in the selected facilities in Southern Highland Zone, Tanzania

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**Background and rationale**
PEPFAR Tanzania can no longer exceed testing targets, therefore recommends Screen Better and Test Smarter. HJFMR adopted the use of the standardized national screening tool to achieve over 90% HTS coverage among OPD attendees. HIV screening tool decrease the number needed to test to Identify one positive, improve testing efficiency and testing yield.

**Objective**
To share the experiences of using eligibility screening tool in HIV status identification

**Methodology**
Group pre-test counselling offered to all patients in the waiting areas. All clients referred for screening on HIV Testing eligibility. Screening outcomes were documented on the register. PITC number was written on the routing aids to help ensure that all eligible clients are called to PITC room and offered HTS while maintaining their place in the clinic queue. Route all clients with a testing slip to PITC room for opt-in testing and test eligible who accepts the test.

**Results**
The current reboot data indicates that, a total of 110,058 patients attended the OPDs for various services. 102,536 (93% %) attendees were screened for eligibility of HTS. 36,858 (36%) were eligible. 34,730 (94%) of eligible tested for HIV. 2,128 found HIV positive, the overall performance was 6.1% there were variations across the regions. Testing is being conducted by various cadres’ clinicians, nurses and counsellors conduct the eligibility screening. Inadequate; providers, knowledge, skills and low accountability among providers and lack of space for screening are some of the challenges.

**Conclusion and recommendation**
Eligibility screening tool represents a successful strategy for targeted HIV testing in entry points and has improved the yield amongst adults and children visiting the health facilities.
SAMBA Point of Care Viral Load Testing: Complementing Centralized HIV RNA Monitoring

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Background and rationale
In resource limited settings including Tanzania real time monitoring of viral load for patients on ART is limited due to viral load testing being confined to centralized laboratories due to the complexity of the technology and requirements for highly trained personnel, cold chain, sophisticated equipment and adequate laboratory infrastructure. As a consequence, results have long turnaround time potentially negatively affecting treatment cascade. Implementation of simple point-of-care viral load testing has the potential to alleviate some of these challenges, particularly in rural and remote areas.

Objective
To assess the performance of SAMBA Semi-Q Point of Care whole blood viral load test in HIV-1 infected adults compared to the gold standard COBAS® TaqMan® before cART initiation and during treatment in Moshi Municipal region with multiple co-circulating HIV-1 subtypes.

Methodology
Three hundred and fifty HIV-1 infected patients will be recruited for the study from care and treatment clinics. Approximately 6 mL EDTA blood will be collected for HIV-1 viral load standard of care while SAMBA testing is performed in real time at each site using a capillary whole blood collection by finger prick.

Conclusion and recommendation
This study has already started but results from a multi-country clinical trial have shown that the SAMBA assay, which uses whole blood that is automatically loco-depleted during the process, have shown good concordance with the centralized gold standard test (97.6% in venous samples and 95.8% in finger-prick samples) in a trial in 4 countries (Cameroon, UK, Ukraine and Zimbabwe). A simple POC such as SAMBA would facilitate meeting the third 90 target of the 90-90-90 treatment target, since the SAMBA POC test could be deployed in less privileged health facilities with timely interventions in case of virological failure and complement the centralized standard of care viral load testing.
HIV Testing and linkage to care for key and vulnerable populations in southern Tanzania

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Introduction and rationale
HIV is a generalized epidemic in Tanzania with heterosexual transmission being the main route of transmission. In recent years, studies have shown a significantly higher HIV prevalence in key populations compared to the general population. The risky behaviours and vulnerabilities of KVPs result in their being disproportionately affected by HIV globally. Despite this, HIV services for key populations remain largely inadequate and yet the HIV incidence in these populations continues to rise in the general population.

Objective and Methodology
HJFMRI has been working in the southern highlands of Tanzania over the years to determine the prevalence rates of HIV in KVPs and the positivity rates with the aim of developing and implementing strategies of reducing the incidence of HIV in this population. The main KVP groups that have been identified include men who have sex with men (MSM), people who inject drugs (PWID) and female sex workers.

Results
From October 2018 to June 2019, a total of 22482 KVPs were tested for HIV with 1663 (7.4%) of these turning positive and 1519 (91.4%) of those who were positive being linked to care. Of all who were tested, 1708 (7.6%) FSW were positive with 1554 (91%) of these being linked to care; six (0.36%) of the total positives were MSM and all of them were linked to care while of all positives that were identified to be PWID, 83% of them were linked to care.

Conclusion and recommendation
HIV prevalence among KVPs is consistently very high, therefore, to ensure an overall effective and sustainable response to HIV there is a huge need to reach key and vulnerable populations (KVPs) with a comprehensive package of prevention, treatment, care, and support interventions, together with public health services and structural interventions. Community-based outreach services should be provided by health facilities located within the hotspots to improve KVPs’ engagement and connectivity to health and other social services. Combination prevention interventions for KVPs should always be advocated in all settings when reaching KVPs as it takes a bottom-up approach that encourages ownership of the response by the local communities.
Using an mHealth intervention to improve the uptake of viral load testing in southern Tanzania

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Background and rationale
With the scale up of viral load testing as a routine test of care for HIV infected clients, there is need to strengthen documentation in facilities and communication between patients, facilities and the testing laboratories to improve viral load (VL) uptake and result utilization with the aim of ensuring viral suppression among clients on antiretroviral therapy (ART). Additionally, it is important to ensure that those clients who are failing treatment are contacted and taken through enhanced adherence counselling to improve their treatment outcomes. A tracking system that can communicate with the clients via mobile phone can help to improve these communications.

Objective and Methodology
HJFMRI piloted the use of an mHealth intervention called the Viral Load Tracking System (VLTS) with the aim of improving communication between testing laboratories and health facilities. The VLTS allows visibility of the sample pathway from collection and dispatch; from facility to receipt at the laboratory; and return of VL results to the health facility for patient management. The system generates alerts when VL testing is due, when there are delays in transmitting results, high VL, delays in clients receiving results and helps to track enhanced adherence counselling (EAC) for non-suppressed clients. This system prompts action by clinical and laboratory staff and sends a text to the client to return to the facility to receive results. Twenty facilities with ≥1000 HIV clients on treatment were selected for the pilot. Clinic and laboratory staff were trained on use of the system including enrolment of clients and checking and acting on alerts. Clients were sensitized to return to the facility when a text message is received.

Results
A total of 24,441 clients on ART were enrolled in the VLTS from March to July 2018, 15,642 of whom owned a mobile phone. 80% of phone owners were successfully contacted and returned to the health facility to receive their results. A total of 2,444 clients were non-suppressed and contacted to return to the facility. 60% of returning clients received EAC.
Conclusion and recommendation
A high number of clients contacted through the VLTS returned for results. Of those who were non-suppressed, further analysis is needed to determine reasons for the incomplete uptake of EAC. Factors may include a direct switch to second line or client failure to engage in EAC. Limitations include timely entry of data into the system and prompt action upon alerts. Future analyses comparing routine systems to VLTS will further determine practical utility and impact.
The Mwanaume Jitambue Initiative for identification and linkage to care for HIV positive men in southern Tanzania

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Background
Men in sub-Saharan Africa are less likely than women to engage in HIV services across the care cascade, resulting in poorer clinical outcomes. The main barriers to HIV/AIDS testing among men include concerns over confidentiality, the distance to health facilities and hours of testing that are considered to be inconvenient for them.

Objective and Methodology
The Henry Jackson Foundation Medical Research International (HJFMRI) Tanzania has been implementing the Mwanaume Jitambue (MJ) initiative since April 2017. This initiative targets high risk and HIV-exposed men aged 15-50 years. They are targeted with men-friendly services and are then counselled and offered HIV/AIDS testing and counselling services. The men are reached through sports activities, as sexual partners of adolescent girls and young women (AGYW) and via index testing. Peer recruiters are used to recruit them for testing.

Results
From the testing activities, the positivity rates in the different age groups are: 15-19 years (4/1004, 0.4%); 20-24 years (39/2087, 1.8%); 25-29 years (88/2800, 3%); 30-34 years (132/2509, 5.2%); 35-39 years (102/1621, 6.2%); 40-44 years (73/1236, 5.9%); 45-49 years (50/437, 11.4%) and over 50 years of age (20/386, 5.2%). The highest positivity rates were evidenced in men aged 45-49 years.

Conclusion and recommendation
The MJ initiative has been successful in helping to get men tested for HIV and linked to care at health facilities. Support groups such as men only post-test clubs and income generating activity groups have helped to improve retention and linkage to care. Some of the best practices learned from MJ include use of screening tools specifically developed for men, use of peer recruiters and use of support groups. It is important to elicit more testing in the different age groups with more focus on older men who generate higher yields.
SUB-THEME 4: HIV PREVENTION

The HIV epidemic in Tanzania is a result of a complex interplay between biological, socio-cultural and socio-economic factors. The strategies outlined here are aimed at reducing the risk of infection in the general population, with special attention being paid to young people, both through enhancing knowledge and skills and through making relevant health services more accessible and youth-friendly. The health sector at the community level will contribute towards enhancing dialogue on sexuality, gender roles and cultural practices to initiate critical reflection and action to militate against local factors that increase people’s vulnerability to HIV infection. The availability of relevant health services, such as the management of Sexually Transmitted Infections, HIV testing and counselling (HTC), prevention of mother-to-child transmission (PMTCT) and safe blood will be further expanded while safeguarding the quality and ensuring gender sensitivity. Condoms for both males and females will be made available in all health facilities. This section presents comprehensive information from both research and programmatic issues on HIV prevention in Tanzania. The following are some of the key areas:

- Pre-exposure Prophylaxis (PreP)
- Comprehensive Condom Programming
- Voluntary Medical Male Circumcision
- Index testing
- Reaching men and key populations
Overall HIV prevention services in Tanzania

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Introduction

As the epidemic continued to unfold in an exponential manner, it is clear that the epidemic requires urgent control measures. HTS as entry to prevention, KVP HIV Programs - PrEP, PMTCT, CBHS, VMMC, STIs prevention and treatment and Health Promotion and Condom Programming. HTS - Entry to HIV Prevention include implementation of HTS in the country is guided by National HTS guidelines (2005), (2013), (2019) that address the needs of all HTS approaches and Population Groups and currently NACP is implementing the HSHSP IV 2018-2022.

All HIV activities are coordinated by MoHCDGEC, planning, implementation and monitoring is inclusiveness to all stakeholders including beneficiaries, a number of strategies are in place in the efforts to attain epidemic control and national targets. Services are offered in several services’ delivery points in the health facilities and in the communities as outreach.

Delivery of HTS, in the routine clinics such as OPDs, IPDs; HTS screening has been introduced to identify individuals at risk. In the special clinics such as TB, ANC, Malnutrition, KVP, STIs; HTS are offered as part of the package in the clinics. More than 70% of tests are performed in the health facilities though Provider Initiated Testing and counselling. Community mobilization using lay counsellors has been important piece in client identification, referrals and linkages. Community testing through outreach and mass campaigns have yielded results in the past.

New Direction towards the 1st 90

In order to achieve the 1st 90, there is a need to stop over testing, need to screen better and test smarter, use data for targeted testing is key, reach the unreachable and implementation of the Developed Accelerated Plan for HTS (2019-2020).

New Policies and Guidelines

Age of consent under review - HAPCA review, task sharing adopted and implemented non health cadre for HIV testing (SW, CD, CHCWs), Services to Key and Vulnerable Populations more inclusive, Strengthen Index Testing Services and demonstrate the value of HIVST, Use of HTS Eligibility Screening tool, allow for moonlight testing, Review SBCC Messages - Targeted HIV Testing, National HTS M&E tools has been reviewed.
**Task sharing - Non-Health HTS Providers**
MOHCGEC engages Non-Health Cadres in provision of HIV services including HTS. These Cadres include SWO, CHW, CD, the training Package has been developed, TOTs trained, cascade of the training going on under support on that note a certification programme has been developed.

**Index testing**
Providers trained on Index testing elicitation, national mentors have excelled in supporting implementation, services offered in both facility and community services. Mainly supported by the Implementing partners in some selected districts and promising positive yield up to 20% in some regions.

**Operationalizing HIV self-test**
There was a need to generate data on the implementation models, uptake, feasibility and acceptability of HIV self-testing through community services provision so as to inform future policy and program development. Implementation was in 10 regions with pre-existing combination HIV prevention programs for KVP. Amendment of HIV Prevention and Control ACT 2008 is ongoing.

**HTS Gaps**
Among the identified gaps in the HTS were inadequate Identification of HIV positive Individual at different settings that entailed human resource issues, low coverage, commodities, inadequate demand creation for HTS, limited capacity to manage data for evidence and action, improper Waste Management in some facilities and Inadequate linkage to care and treatment services.

**Conclusion and recommendations**
Councils and facilities to update their list of HTC trained personnel to identify active providers and gaps, capacity building of new staff on HTS, mentorship and support of the existing staff for Quality Testing, motivate trained HTS staff to provide services e.g. Refresher training or exchange visits programme, task sharing using lower cadres to promote/ triage HTS and involve and utilize Interns in the provision of HTS services.
Nutrition and HIV in Tanzania

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Introduction
Good nutrition is a fundamental part of the care for people living with HIV/AIDS and is one of the simplest means of helping people to live longer and more productive. An effective quality nutrition care and support for PLHIV is essential to prevent malnutrition and reduce the impact of the pandemic on individuals and communities. The Benefits of Good Nutrition are Strengthens Immunity, reduces Illness, enhances activeness, productivity and income generation, improves intake and utilization of medication (efficacy, tolerance, adherence), reduces conditions that hinder food intake e.g. sores in the mouth/throat and thus improves food intake and reduces weight loss.

Coverage of Social Behaviour Change Communication (SBCC)
Sensitization seminars on NACS have been conducted to 1,031 regional and district health managers and community leaders from 22 regions. Sensitization seminars were conducted on NCS for PLHIV and management of acute malnutrition using Ready to use therapeutic foods (RUTF) to 453 RHMTs and CHMTs in six regions (Dodoma, Singida, Arusha, Mtwara, Lindi and Tanga). Awareness creation and sensitization seminar to heads of all training institutions under the sectors of education, agriculture, livestock development and community development and creation to general public on the role of nutrition in PLHIV using different media (TV, Radio) were done.

Monitoring and evaluation
Audit- feedback conducted for 218 health facilities in the regions of Singida, Arusha, Dodoma, Mtwara, Lindi and Mtwara regions were conducted, TFNC staff participated in four international meetings on nutrition and HIV.

Research
Follow-Up study to determine efficacy and effectiveness of Plumpy’Nut® supplementation in malnourished PLHIV was conducted in Singida Municipal as from January 2012 and the second one was conducted in March 2012. It was revealed that nutritional status for most of malnourished PLHIV improved after using RUTF in 4-6 weeks.
Bottlenecks
Inadequate funding for nutrition and HIV activities, weak coordination among nutrition and HIV stakeholders, weak linkage of nutrition activities with other programs, inadequate CHWs/CHVs at community setting with sufficient nutrition information to support PLHIV and inadequate knowledge and skills of health care providers on NACS.

Conclusion and recommendation
Advocate for incorporation of activities related to management of acute malnutrition using RUTF in District Health Plans, advocate for increased funding for nutrition and HIV interventions, strengthen coordination on nutrition and HIV among stakeholders, continue to create and raise public awareness and capacity building on the importance nutrition in the prevention and management of HIV/AIDS and stimulate more research on dietary diversity using local foods to prevent and manage HIV/AIDS.
Increasing uptake of HIV Testing Services through index elicitation by Treatment Advocates in Tanzania Mainland

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Introduction and rationale
NACOPHA Index Testing by definition and implementation refers to sexual partners (couples, extra marital), Children (biological siblings). It starts with PLHIV from Empowerment Groups, applies face-to-face persuasive, peer linkage. It completes with referral cum escort that involves bi-directional referrals and linkages. Here the rationale is to maximize on peer to peer engagement for increased positive yield.

Objective
To promote meaningful engagement of PLHIV for increased uptake of HTS, identify partners with undiagnosed infection and automatically contribute to the 1st 90.

Methodology
NACOPHA Methodology follows the following approach: recruit and train Treatment Advocates (TAs) from PLHIV Empowerment Groups (EGs), EGs members start elicitation within their index partners (biological siblings and sexual partners), TAs use interpersonal approach (elicitation), door to door campaign and testimonies for HIV testing, TAs conduct bi-directional complete referrals and linkages of newly diagnosed PLHIV to care and later to EGs for more support. TAs support in dealing with self-stigma because it is high to newly-diagnosed PLHIV and disclosure to index partners associated with challenges and discrimination.

Results
Between December 2018 and June 2019, a total of 1,359 (790 females) and out of these, 754 (55.5%) diagnosed HIV positive. Majority were females (57%). Positive yield through NACOPHA's ranged between 35-62%.

Conclusion and recommendation
In order to increase positive yield, it is worth investing on index than general testing. Index testing works more on stable PLHIV than newly diagnosed cases. The training and use of PLHIV in Empowerment Groups has proven to be more effective, addresses stigma and reduce violence during elicitation. The approach contributes to disclosure, identification, linkage and retention. Collaboration among IPs is key to effective linkage and retention. NACOPHA invites NIMR to invest in a research that will analyse, document and disseminate the potentials of NACOPHA's approach towards achieving the 1st 90.
Increased identification of new HIV clients among People who inject drugs (PWIDs) through Multisectoral collaborative approach: Experience from Moshi, Morogoro, Shinyanga, Mtwara Municipals, Arusha City, Kilindi and Kisarawe Districts

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Background and rationale
Drug use is a growing public health burden with consequences on health and social systems. The prevalence of HIV is higher among key and vulnerable populations (KVPs) With the Global Fund for AIDS, TB and Malaria support, Tanzania Health Promotion Support (THPS) received funding through Amref to implement comprehensive community-based HIV and TB prevention interventions among in 25 councils across 13 regions. Specifically, THPS targets PWIDs in seven councils to increase access to HIV prevention, care and treatment services.

Objective
To increase identification of HIV, Tuberculosis and sexually transmitted infections (STIs) among PWIDs in seven districts.

Methods
Sensitization meetings with stakeholders were conducted followed by mapping of available services for KVP and hotspots in collaboration with district community HIV coordinators. Training of health care providers and peer educators was done. Weekly outreach combination prevention services (biomedical, behavioural and structural) were conducted at hotspots. Quarterly review meetings with stakeholders to discuss performance, challenges and solutions for improvement were held. Districts formed working groups in preparation of harm reduction services and conducted quarterly meetings to create a roadmap for introduction of Medical Assisted Treatment (MAT).

Results
For the period of July 2018 and June 2019, 3,896 PWID were reached, and 361 (9% %) diagnosed HIV positive (general population prevalence is 4.7%: THIS 2017-18). 88% were linked to treatment services. 206 were TB suspects and 52 were confirmed and initiated treatment. 130 were found to have symptoms of STI and escorted to health facilities for treatment.
Conclusion and recommendation

Key and vulnerable populations, specifically PWIDs are a high-risk group for HIV and other infections. Targeted testing increased identification of HIV clients and increased enrolment to HIV care and treatment services. Multi-sectoral collaboration is necessary in reaching this group and increase their access to HIV and harm reduction services.
Impact of Mobile Diagnostic services on accessibility of HIV services among individuals in rural communities

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Background
People with or at risk of HIV who live in rural communities face major challenges in accessing services due to long distances to health facilities and lack of laboratory services. The use of mobile laboratory services has the potential to overcome barriers and therefore increase accessibility to HIV services. We aimed to assess the impact of the Mobile Diagnostic and Training Center (MDTC) on the accessibility of health services and linkage to care among HIV infected individuals in hard to reach areas in Mbeya region.

Methods
In this retrospective study we included individuals from rural communities who visited the MDTC for combined TB/HIV services. Outreach teams visited hard to reach communities in eight districts within the Mbeya region twice annually and performed HIV testing, CD4 count, AFB smear and Xpert MTB/RIF testing. HIV infected individuals with a low CD4 count were referred to nearby care and treatment centres (CTC) for treatment initiation in line with National HIV treatment guideline at a particular year.

Results
From 2009 to 2015, a total of 28,881 individuals were offered HIV testing and counselling (HTC) services through the MDTC. Median age of clients was 33 years [25-45] with 18,954 (66%) of clients being female. HIV tests were positive in 3,956 (14%) individuals and among those 2,040 (52%) were successful enrolled in CTCs for care and treatment. Initial CD4 testing was performed in 2,236 individuals with their median CD4 count of 318 (IQR,153-501) cells/mm³.

Conclusion
The use of the MDTC has demonstrated a substantial increase in accessibility to HIV/ TB services and facilitated linkages in areas with hard to reach communities. The MDTC has the potential to accelerate the attainment of UNAIDS 90-90-90 targets through increasing coverage of HTC services and being able to offer ART treatment monitoring at community level. Use of mobile laboratory provides state of the art diagnosis in remote areas as well as much needed regular information and education. MDTC has the potential to contribute to scale up of VL testing in the presence of good collaboration with the nearby health facilities.
**Reaching Men through Innovative “Moonlight” HIV Testing and Counselling in Southern Highlands Zone**

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**Introduction and rationale**
Many men who are HIV positive continue to be undiagnosed. Therefore, they are more likely than women to access HIV treatment and care late and are more likely to die of AIDS related illnesses. Reasons include harmful gender norms fuel men’s general lack of engagement with health services. Evidence shows that some men equate their masculinity with the need to be dominant, have multiple sexual partners, not wearing condoms, and alcohol and substance abuse. HJFMRI implemented Moonlight HIV testing to complement the efforts of identifying HIV positive people.

**Objective**
To document the acceptance of Moonlight HIV testing among Female Sex Workers and their Clients

**Methodology**
Mapping of the hotspots for moonlight HIV testing to identify trading centers such as bars, night clubs, truck stops and other areas with at high risk individuals of acquiring or transmitting of new infection was conducted. Conducted key stakeholders meeting which includes LGAs like RMO, DMOS, WEOs, and Police to inform about implementation of moonlights HIV counselling and testing services. Meet with the night clubs and bar managers where moonlights HIV testing conducted to request a permit for provision of moonlight HIV testing service to targeted populations within the club/bar. Moonlight was conducted between 20:00 p.m. and 01:00 a.m.

**Results**
632 high risk individuals tested through the moonlight approach. Among 335 FSWs tested 48 (14.3%) were HIV positive 45 (93.7%) were linked to care. While 297 clients of FSWs were tested, 30 (10.1%) were HIV positive and 27 (90%) were linked to care. Linkages was a key challenge due to nature of the population groups

**Conclusion and recommendation**
Moonlight HIV testing is a highly successful way to provide, HIV testing services to high-risk individuals including commercial sex workers and their clients and need to be scaled in our region where we have outreach partners work.
Performance of and factors associated with TB screening among People Living with HIV: analysis of 2012-2016 routine HIV data in Tanzania

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Background and rationale
Tuberculosis (TB) screening among People Living with HIV (PLHIV) using symptoms and signs is a gateway for TB disease diagnosis and TB preventive Therapy. We evaluated the performance of the TB screening and determined factors associated with TB screening among PLHIV attending HIV Care and Treatment Clinics (CTCs) from January 2012 to December 2016, in Dar es Salaam, Iringa and Njombe regions in Tanzania.

Objective
To determine the proportion of PLHIV screened for TB and factors associated with TB screening at these clinic visits.

Methodology
Retrospective cohort study of PLHIV enrolled in HIV CTCs in Dar es Salaam, Iringa and Njombe regions in Tanzania.

Results
A total of 169,741 PLHIV made a total 2,638,876 visits to CTC between January 2012 and December 2016. We excluded 2,074 (0.1%) visits as these involved patients enrolled in CTC with a prior TB disease diagnosis. Majority of visits 2,524,494 (95.7%) had TB screening of these, 60,796 (2.4%) had TB screening positive. Of the 60,796 visits with a positive TB screening, only 22,825 (37.5%) had sputum microscopy examination.

In multivariate logistic regression analysis, TB screening was more likely among females than males (OR=1.30, 95% CI: 1.27-1.32, P<0.001), 2016 enrolment year compared to early years (OR=1.26, 95% CI 1.21-1.32, P<0.001), in the first visit compared to subsequent visits (OR=1.48, 95% CI 1.43-1.53, P<0.001) and in Njombe region (OR=2.38; 95% CI 2.28-2.48, P<0.001) compared to other regions. TB screening was less likely among those with WHO clinical stage 1; (OR=0.54, 95% CI 0.52-0.57, P<0.001), those attending private health facilities (OR=0.46, 95% CI: 0.45-0.47, P<0.001).
**Conclusion and recommendation**
In more than 95% of the visits to CTC PLHIV were screened for TB. This calls for a need to be supplemented with quality improvement along the diagnosis cascade to improve TB diagnosis using sputum examination. NACP should be involved in the upcoming project that will be used to train health care workers at the lower level. In addition, NACP should initiate the TWG meetings that will involve all stakeholders that are dealing with HIV management.
A health system consists of all organisations, people and actions whose primary intent is to promote, restore or maintain health. The importance of HSS for HIV and AIDS, tuberculosis (TB), and malaria programs is recognized in Tanzania’s national strategic plans. HSS focuses on ensuring that improvements in the health care system are sustained after donor support ends, and that there is institutionalized capacity for ongoing improvement.

Strong health systems are critical for achieving the global goal of ending the AIDS epidemic. The importance on HSS is to build the capacity of and strengthening the health system in Tanzania, enabling it to support high-quality, cost-effective, accessible HIV services and to increase the number of people accessing those services.

On the other side, cross-cutting issues require action across multiple sectors. In seeking to promote an enabling environment for health, it is important to devise appropriate policies and practices to address barriers to health service scale-up, access, quality, and use posed by three cross-cutting issues: poverty, gender inequality, and lack of human rights. It is important to design and implement policy responses that will ensure equitable access for the poor and reach those most in need of services, address gender inequalities to enable women and girls and men and boys to obtain and use the information and services they need for better health; and protect human rights especially as they pertain to the rights of women and the poor as well as reduction of HIV-related social stigma and discrimination against people living with HIV and others affected by the epidemic.
System Integration of Task Sharing practices to improve Availability, Access and Quality of HIV/AIDS Services in Tanzania

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Background
A shortage of human resources for health (HRH) affects access and quality of HIV/AIDS services in Tanzania. Despite efforts to increase HRH in the past decade, the current shortage stands at 56%. To mitigate this crisis, the Technical Support Services Project (TSSP) supports the Ministry of Health, Community Development, Gender, Elderly and Children in implementing task sharing and nurse-initiated management of ART (NIMART) through rational redistribution of tasks among the existing health workforce to improve delivery of HIV/AIDS and other health services.

Objectives and Methodology
In collaboration with the MoHCDGEC and partners, TSSP is facilitating the integration of task sharing and NIMART practices into the Tanzanian health system, which includes creating an enabling regulatory framework through the development of an implementation plan and supportive supervision guidelines; institutionalizing performance measurement and accountability systems; and developing training modules to support training, coaching, and mentoring to enable lower and mid-level health workers to attain skills to perform clinical tasks, including community HIV testing and counselling, provision of ART, and PMTCT.

Results
Successful integration of Task Sharing and NIMART into the Tanzania health systems has enabled formalization and delegation of HIV/AIDS services to 10,231 lower and mid-level health workers that led to increased service availability such as ART initiation by Nurses, HIV testing and counselling by non-laboratory professionals and PMTCT services by lower level health workers.

Discussion and conclusion
Task sharing and NIMART practices is an important strategy to rapidly expand HRH capacity to improve HIV service delivery. The MoHCDGEC has to work with PoRALG to ensure that its intended plans are included in the CCHP for sustainability. In Tanzania, TSSP is working through a robust systems approach to design and implement the strategy to improve HIV/AIDS services.
Addressing the needs of the children living with HIV through the National Integrated Case Management System model—the USAID Kizazi Kipya project experience

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Introduction

In Tanzania, services to most vulnerable children (MVC), including children living with HIV (CLHIV), are guided by the National Plan of Action to end Violence against Women and Children. While the plan provides thematic areas to address the needs of children and women, the plan does not provide systematic ways of providing integrated services to these vulnerable groups. To meet the wider needs of the MVC, MoHCDGEC and PO-RALG collaborated with Pact and JSI to develop the National Integrated Case Management System (NICMS) model aiming at providing comprehensive services to MVC, including CLHIV. This paper provides experience of using NICMS model in meeting the CLHIV needs.

Method

Pact, through Kizazi Kipya project, works with community case workers (CCWs) trained by government on NICMS. Through Community case management step-by-step process, CCWs identify the MVC, including CLHIV; conduct assessment to identify their needs; and support the caregivers or individual children to develop their care plan and its implementation.

Results

Between April 2018 and June 2019, Kizazi Kipya provided services to 824,911 OVC and their caregivers. Of 11,130 (5,300 males and 5,830 females) served, (5.3%) were CLHIV. Services provided to CLHIV included: supporting immediate ART initiation; monitoring ART daily uptake; monitoring clinic attendance; supporting long term adherence; HIV status disclosure; psychosocial support; and economic strengthening to caregivers. During this period, CCWs identified 6,383 new CLHIV, 99% of which were initiated to ART. ART adherence of CLHIV in the project ranges between 94% and 97% quarterly compared to national rate of 46%.

Conclusion

Using the NICMS model, can greatly increase pediatric case identification for HIV Testing Services, linkage to care, and offer close monitoring to ensure ART adherence in children. The MoHCDGEC should adapt the model but implementation research including the cost-effectiveness component is important before its scaling up.
Partnering with Tanzania to integrate HIV standards into the Star Rating assessment tool to achieve sustainable epidemic control

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Background
While Tanzania has made great progress in strengthening service delivery and health systems, impediments to scaling up and ensuring consistent quality of HIV services remain. In 2016, Tanzania conducted its first star rating assessment of all primary health care facilities in the country. It showed that most public health facilities needed significant improvement in infrastructure, management, and patient care. Of recently, the PEPFAR Quality Strategy provides a framework for sustaining reduction, morbidity, mortality and transmission of HIV and facilitates country ownership.

Methodology
The Technical Support Services Project (TSSP) worked with the Tanzania MoHCDGEC and Public Health Institution to strengthen the Star Rating system, the health care facility performance management system, by integrating HIV/AIDS standards. In alignment with Tanzania’s National Health Policy and Tanzania Quality Improvement Framework, TSSP updated the Star Rating (SR) system. This includes the harmonization of program specific quality assurance tools and integration of HIV quality standards into SRAT and integration of facility Quality Improvement Plan into the DHIS 2 platform. Further development of the SR system will allow creation of dashboards into DHIS2. This will allow triangulation of SR data and quantitative data from other sources to inform policy decisions, and resources allocation at all levels.

Discussion and conclusion
With this update to the Star Rating system, Tanzania can systematically institutionalize Continuous Quality Improvement culture at all levels and ultimately lead to improve HIV program performance. This should accelerate efforts towards achieving sustainable HIV epidemic control. MoHCDGEC should monitor health facilities on SR system and star rating to be moved down to community level especially for CHWs.
Strengthening HIV and AIDS Reporting and Data Use through the District Health Management System (DHIS2) in Tanzania

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Background
The government of Tanzania understands the importance of quality data for health care management. However, there was moderate use of data in all program areas, including HIV, due to fragmented data collection systems; lack of capacity to analyse data from routine health services; little use of data for policy and practices; and lack of existing guidance on data analysis, dissemination and use.

Objectives and methodology
Joint United Nations Program on HIV/AIDS (UNAIDS) has set a goal to end AIDS by 2030. Meeting this requires analytical tools to support decision-making, leading to better service availability, case finding, diagnosis, referrals, and ART initiation. The MoHCDGEC, with support from the CDC-funded TSSP project and other partners including the Global Fund, developed quarterly bulletin, score cards, MOH web portal and dashboards to facilitate HIV data use at all levels.

Results
DHIS2 now provides data from more than 8,000 health facilities for major national programs, including National AIDS Control. The user-friendly interactive HIV dashboard and reports have increased demand and use of HIV data for planning and decision-making at national, region and council levels. By June 2019, DHIS2 host data showed 2,842,519 clients had tested for HIV, with 1,195,075 clients on ART. Further, DHIS2 data shows the success of the country’s PMPTCT program, where 98% of pregnant women are tested for HIV and more than 91% of those found positive are receive ARV to prevent HIV transmission.

Discussion and conclusion
DHIS2 have increased use of HIV data for planning and decision making. The MoHCDGEC is in the final stages of integrating the CTC3 macro database and DHIS2 to increase efficiency and reduce manual data entry errors. In addition, HIV spectrum data will be uploaded into DHIS2 to monitor country progress in reaching UNAIDS targets. Include laboratory component in the DHIS2 and access should be made at health facilities for analysis and planning.
Improving Access to HIV Statistics: Introduction of District Health Profiles in Mainland Tanzania

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Background
Tanzania Technical Support Services Project (TSSP) working with the MoHCDGEC and other stakeholder in health including WHO Country Office has facilitated to standardize and rollout of the revised District Health Profile (DHP) report that provide insights into the health status of the population and health system. The final DHP template and generated reports of 52 councils are available on the website http://path.bigdata.co.tz/index.php.

Objective and Methodology
The TSSP program and MoHCDGEC reviewed the DHP health and HIV indicators and made the following revisions to more closely align with COP 19 goals: 1) Replacing HIV prevalence in the 15-24-year age group with ANC HIV positivity rate and 2) adding HIV pregnant women on ARV for PMTCT and adults and children currently on ARVs. The University of Dar es Salaam Computing Centre then created a DHP dashboard in DHIS2. Fifty-two district representatives received training on using the revised DHP template and producing DHP reports. A virtual meeting group allowed for interactions among facilitators and HMIS focal persons to speed project completion. TSSP engaged a panel of 12 DHP reviewers to quality check the submitted reports.

Results
The activity led to a revised, user-friendly DHP template, a standard DHP dashboard in DHIS2, and 52 DHP higher-quality reports, which appear on MoHCDGEC and district Council web sites.

Discussion and Conclusion
Dissemination of user-friendly DHP template is going to trigger data analysis, interpretation, dissemination and use at council level. Posting the reports on the DHP dashboard/website ensures increased access information to the Councils and other stakeholders for effective evidence-based planning.

TSSP will work with MoHCDGEC and other stakeholders to integrate DHP into Comprehensive Council Health Plan (CCHP) reports. MoHCDGEC in collaboration with TSSP is mobilizing resources from other stakeholders to roll out the revised DHP template in the remaining councils. There is a need to identify individuals who will be reviewing the templates in the councils to ensure that data reaches those involved in decision making. Also ensuring the update of the DHP to ensure alignment to the priorities outlined.
Improving health outcomes through a strategic supply chain to manage ARVs Regimen Transition: Case of TLD Transition in Tanzania

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Introduction and rationale
With ongoing global transitions of ARV regimens to Tenofovir 300mg Lamivudine 300mg Dolutegravir 50mg (TLD), it is important to manage an effective supply chain that will ensure availability of the new regimen while carefully managing exit of legacy ARV regimens. The process of changing the regimen of over a million HIV clients in Tanzania involves multiples changes that have to be done at various points of the supply chain at the right time.

Objective
To ensure availability of new TLD regimen to all eligible HIV clients on ART.

Methodology
A series of steps were taken which included forecasting and planning the supply for the new regimen, managing and monitoring existing legacy regimens, guidance on national phased transition and coordination plans to ensure all stakeholders along the supply chain are aligned in ensuring availability of the new regimen.

Results
The forecasted demand for TLD required for transition was calculated, taking into account transition for monthly prescribing to multi-month prescribing (as shown in the charts below). A gradual transition was planned from TLD pack of 30 tablets (monthly prescribing) to TLD pack of 90 tablets (multi-month prescribing). Legacy regimens such as Lamivudine 150mg Nevirapine 200mg Zidovudine 300mg (LNZ) were monitored and managed to minimize expiries. Guidance to MSD, regional health management teams, council health management teams and health facilities was established and disseminated to manage the phased transition to TLD.

Discussion and conclusion
The new TLD regimen was made available to health facilities through a phased approach. Going forward, it is recommended to increase data visibility, adherence and alignment to transition plans so as to avoid. This is a good strategy but should continue other stakeholders in the supply chain.
Enhancing Training and Certification of HIV Rapid Testers Using ECHO (Extension for Community Healthcare Outcomes) Tele-Mentoring in Tanzania

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Background
Point of Care Technologies (POCT) have simplified HIV testing to allow non-laboratory healthcare providers (HCPs) perform HIV rapid testing to overcome the human resource for health shortage and improving access to HIV/AIDS services towards achieving UNAIDS 90-90-90 target. To maintain quality of HIV testing, testers are trained and certified by the Health Laboratory Practitioners Council (HLPC) according to the POCT Certification Framework.

With funding support from PEPFAR through CDC, Tanzania Health Promotion Support (THPS) in collaboration with Health Links Initiative (HLI) and University of New Mexico (UNM) supported the MoHCDGEC to train and certify HIV testers through ECHO (Extension for Community Healthcare Outcomes); a video conferencing technology developed by UNM that enable HCPs to share knowledge and experience with experts and peers while at their working facility.

Method
Facility management from sites with ECHO equipment was sensitized on the technology and HIV testers’ certification program to foster participation. HCPs received refresher HIV rapid testing training through ECHO covering nine modules predefined by HLPC. The training was revised to daily, one-hour session for two weeks from once a week for 9 weeks to improve participation and maintain training groups. Eligibility for competency assessment (CA) was minimum attendance of 60% modules.

Results
The revised ECHO training approach improved attendance of sessions from 191 (April 2018 - January 2019) to 2,585 (February – June 2019) at 32 ECHO facilities and HCPs eligible for CA from six (6) to 1743. CA was done to 1625 (93.2%) whereby 919 (68%) qualified for certification.
Discussion and conclusion
Using ECHO enabled HCPs receive training without disruption of work schedules and increased the number of testers trained and certified within a short period. Ownership and stewardship from HF management is important for accelerated scale up of the certification using ECHO for quality of HIV rapid testing in the country.
The National Integrated Case Management System in Tanzania (NICMS)

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Background
The USAID/PEPFAR funded Community Health and Social Welfare System Strengthening Program (CHSSP) to supports the Government of Tanzania’s (GOT) commitment to strengthen community health and social welfare structures and systems to ensure the most vulnerable children (MVC) aged 0-18 and their families holistically receive social welfare, protection services, and HIV-related services. CHSSP, implemented by JSI Research & Training Institute, Inc., has supported GOT efforts to ensure a systematic response that engages both community- and facility-based providers in a connected system. Consensus on the need for stronger linkages between the health and social welfare sectors has been reached.

Description
In 2017, the GOT in collaboration with CHSSP developed the National Integrated Case Management System (NICMS) that brings together Social Welfare, Protection and Health sectors. The NICMS facilitates and coordinates prevention and response to the protection and social welfare needs of the children and their families and particularly to those affected/infected by HIV/AIDS. CHSSP implemented NICMS in 68 Councils (districts) where different cadres were trained to prevent and identify victims of abuse, conduct needs assessments, develop care plans and/or refer clients to various services which are beyond their scope. The community cadres comprise of both social welfare staff and Community Case Workers (CCWs) who are trained to integrate community-based services provided to children. The services include: identification of MVC and HIV testing services (HTS). During follow up visits, CCWs determine needs of the children and monitor individualized care plans. To date more than 15,560 CCWs have been trained and can potentially reach 311,200 MVCs, assess their needs, and refer them to care and ART services. CCWs will also play a key role in awareness rising on prevention of violence against children.

Discussion and conclusion
Critical to the success of the development and implementation of NICMS was CHSSP’s role in cultivating consensus between GOT, donors and implementing partners on the approach to reach MVC in Tanzania. Scaling up NICMS will support the GOT and PEPFAR/USAID reach the 90-90-90 targets through a coordinated response at the community level that will ensure all MVC receive HIV prevention and treatment services.
Normalized HIV testing among men through SBC interventions: Case of Furaha Yangu Campaign

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Background and rationale
Tanzania HIV Impact Survey 2016/2017 (a population-based HIV impact assessment), reported progress towards achievement of the UNAIDS 90-90-90 targets in adults ≥15 years, as demonstrated by the 2nd and 3rd 90s achievement of 93.6% and 87.0% respectively. However, based on self-reported HIV status and ARV detection data, among adults 15 years and older living with HIV, only 60.6% were aware of their HIV-positive status. Stigma and low HIV testing particularly among men and youth contributed to challenges in achieving HIV testing targets. Tulonge Afya project supported the Government of Tanzania to design and implement a SBCC campaign designed to normalize HIV testing and reduce the stigma associated with it. Targeted work to promote HIV testing and treatment uptake among most at-risk groups was also implemented.

Objective
To transform perception of HIV from a death sentence to a chronic, manageable condition, reduce stigma and generate demand for Test and Treat services among higher-risk groups, including men.

Methodology
Between June 2018 and March 2019, the national Test and Treat SBCC campaign was launched and deployed under the Furaha Yangu brand name via mass media and community-based activities. Mass media included radio spots with a high male listenership, TV ads, billboards, posters and social media which led to maximum reach with the campaign’s target audience, such as high-risk men. Community-based interventions included mid-media events and small group IPC sessions implemented in high-risk geographies. Small group dialogue sessions co-designed by target groups were used to engage participants in discussions, reinforce awareness, and increase dialogue around HIV testing to increase HIV testing uptake. To assess reach and recall of the SBCC messages, quarterly omnibus survey, daily media monitoring and community intervention monitoring was used.
Results
By June 2019, the campaign had been adapted and scaled up across 26 regions in mainland Tanzania, with over 8,500 radio spots aired on 4 national and 9 regional radio stations. Over 250,000 pieces of print materials, including posters and informational brochures promoting Test and Treat services, were deployed over a 12-month implementation period. According to media monitoring reports, an estimated 20,761,417 listeners, mostly men, were reached by the messages. 1,555,127 individuals, 48% being at-risk men, were reached in communities through small group dialogues sessions. From Feb 2018 to June 2019, gains were seen across multiple objectives. The proportion of individuals who heard and recalled SBCC messages about HIV testing and starting ART immediately if HIV+ increased from 52% to 75%; awareness of availability of ART immediately after HIV+ diagnosis increased from 49% to 75%; and proportion of people who believe it is better to know HIV status (positive attitude toward HIV testing) increased from 50% to 65%. Data from National Information System (DHIS2) showed there was an 8% increase of males tested Jan-June 2019 (1,826,532) compared to Jan-June 2018 (1,691,974). Figure 1 shows increase in HIV testing yields from 2% to 4.5% among the 29 project districts.

Discussion and conclusion
Attaining HIV/AIDS pandemic control in Tanzania requires multifaceted approaches. The campaign was proven to have positive impact in attaining HIV/AIDS pandemic control in Tanzania. With stigma still a hindering factor to achieve the national first 90 target, more focused strategies to reach at-risk groups, like men, need to be implemented.
Improving the quality of HIV - related Point of Care testing through certification program

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Background
The Health Laboratory Practitioners Act No. 22 of 2007 requires licensing of Non-Laboratory Health Personnel performing laboratory test. Also, the World Health Organization (WHO) in 2015 recommended for certification of HIV testing points and all non-laboratory testers who provide HIV testing services in order to increase accuracy and reliability of test results. Based on these, the Ministry developed National Framework for Point of Care Testing Certification, 2017.

Objective
To conduct external auditing of HIV testing points and assign quality level to each point.

Methods
From March 2018 to June 2019, external auditing was conducted in 81 Health Facilities in 10 Regions using an on-site monitoring checklist adopted from WHO. Each health facility has more than one testing point. Compliance to quality standards was categorized into five levels: level 4 (score of ≥90%) meaning high level of compliance, hence eligible for national certification; level 3 (80-89%) - close to national certification; level 2 (60-79%) - partially eligible for national certification; level 1 (40-59%) - needs improvement in specific areas; and level 0 (<40%) - needs improvement in all quality standards.
**Results**

A total of 366 HIV rapid testing points were audited. Out of the 366 points, 21 (5.7%) scored level 4, 81 (22.1%) level 3, 191 (52.2%) level 2, 61 (16.7%) level 1, and 12 (3.3%) level 0. The results show that 72.2% of testing points are in level 2 and below which means the quality of HIV testing services is suboptimal. Several challenges were noted, and these include lack of comprehensive training on HIV testing, lack of user-friendly infrastructure with privacy to enhance confidentiality, inadequate documentation in the testing points, laboratory testers were not certified, and other testing are done by non-laboratory personnel.

**Discussion and conclusion**

In order to improve the quality, strong collaboration is needed among testers, supervisors and partners. We recommend to: increase enrolment of testing points into proficiency testing; strengthen supervision of testing points; ensure opening of new testing points adhere with the standards; and strengthen certification of non-laboratory testers in order to improve compliance to quality standards.
Mainstreaming of HIV services into Social Health Insurance- Cost and Planning Implications: Tanzania Case

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Background
Integrating HIV services into social health insurance schemes can sustainably increase domestic resources available for HIV, though regulatory and financial mechanisms must be in place. Results from select countries can illuminate options applicable for both generalized and concentrated epidemics. However, 32% of population are on the insurance, which is a small proportion countrywide. Estimation of people leaving with AIDS and the services to be considered needed to be established, and the cost associated to provide such services. In NHIF integration of HIV services was seen to be possible but in ICHF it was not possible.

Objective
Forecast expenditures and resources needed to include HIV/AIDS in Health Insurance benefit package.

Methodology
The analysis structured to mirror the ongoing Tanzanian health insurance reforms. Based on basic vs. comprehensive packages of HIV services, HP+ projected utilization rates through insurance. This involved analyses of the current and future proportion of people living with HIV (PLHIV) enrolled in schemes. Costs to the scheme of selected HIV services were estimated based on underlying unit costs, to project the scheme’s total annual expenditure on HIV. This additional liability was compared to scheme revenues and expenditures, to assess sustainability.

Results
Under the baseline scenario, 465,375 PLHIV could have health insurance coverage through either the NHIF or iCHF in Year 1 represents 33% of PLHIV in Tanzania. A standard package (excluding commodity costs) of ART, PMTCT, and HTC services is estimated to cost an additional $30 million in Year 1 ($115 million with commodities) based on projected utilization. A plus package of HIV services (including HIV support services) would cost $38 million ($124 million with commodities).

Discussion and conclusion
The results suggest the financial impact on insurance schemes is manageable within the scope of existing NHIF pooled resources in the short to medium term. HIV integration into the iCHF Scheme will require cross-subsidization from the NHIF. While insurance schemes differ in design and implementation, this approach to analysing integration of HIV services can be consistently applied in countries with established health insurance schemes and declining external resources for HIV. Financial impact on insurance schemes is manageable within the scope of existing NHIF pooled resources in the short to medium term.
Tracking Access to Health Services through use of Geographic Information Systems
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Institutional affiliation:
National Institute for Medical Research (NIMR)

Introduction and rationale
Recognizing the relationship between location and healthcare including HIV/AIDS prevention, care and treatment service delivery, NIMR is implementing a programme that aims to strengthen capacity of collection, utilization and presentation of health data in spatial context.

Objective
To promote utilization and presentation of health and programmatic data in geospatial context to inform national and partner programmatic interventions.

Methodology
Population of the national health facility registry (HFR) is supported to add accurate geographic location of health facilities and services including HIV with continuous updates.

A mapping and data analysis needs assessment was conducted to identify (i) Key types of data analyses needed to inform policy and decision-making and (ii) Datasets and variables needed for spatial analysis. A total of 23 PEPFAR implementing partners were selected.

Results
More than 91% of health facilities have geographic coordinates in HFR system. Handheld GPS devices are available in all Districts of Tanzania. A GPS data collection guideline has been developed and distributed. A total of 496 health officials from regions, councils, health research Institutions and HIV IPs have been trained in GIS. The IP needs assessment findings revealed that IPs collect various data on HIV service delivery in prevention, care and treatment and community support and have specific variables required to plan, implement and evaluate program activities. Most of institutions reported to have collected data with spatial components (Data containing geographic information). The common types of analysis needed were Proximity, Disease trend or pattern and Cluster or Hotspot.
Discussion and conclusion
Location-based data reveals relationship and trends that might not be evident when the data is viewed in tabular format. Use of GIS for integrating, visualizing and utilizing collected health data informs decision-making and evaluation of programme progress.
Capacity of health facilities to deliver quality HIV rapid testing services: lessons from internal auditing in 19 regions covering 65 local government authorities

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Background
HIV rapid testing is the cornerstone of HIV prevention efforts. Health facilities have more than one HIV rapid testing point which enables clients to access care, treatment and support services. The Ministry developed National Framework for Point of Care Testing Certification, 2017 that incorporated the recommendations of World Health Organization in order to provide guidance on how to increase accuracy and reliability of HIV test results.

Objective
To conduct internal auditing of HIV testing points and identify areas for improvement.

Methods
Internal auditing of HIV testing points was done in 19 Regions involving 65 Local Government Authorities (LGAs) between March and July 2019 by auditors within the respective Regions. We report health system strengthening issues that require attention in order to improve the quality of HIV rapid testing services. Compliance was categorized into five levels: 4 (≥90%); 3 (80-89%); 2 (60-79%); 1 (40-59); and 0 (<40%).

Results
A total of 666 testing points in 146 Health Facilities were audited. Out of the 666 points, 18 (2.7%) scored level 4, 88 (13.2%) level 3, 399 (59.9%) level 2, 150 (22.5%) level 1, and 11 (1.7%) level 0. The following gaps were identified: non-adherence to quality standards during testing; inadequate infrastructure such as rooms, equipment for waste segregation and timers; testers are not evaluated for their competencies; inadequate guidelines and SOPs; inadequate internal supervision; and internal quality control is not conducted. The internal auditing results show that 84.1% of testing points are in level 2 and below indicating that majority of testing points do not meet the required standards.

Discussion and conclusion
In order to improve quality of HIV testing services, we recommend to: provide refresher training and certification of non-laboratory testers; improve infrastructure requirements in testing points; and conduct internal supportive supervision of testing points by laboratory personnel.
Implementation of provider-initiated HIV testing and counselling (PITC) in the southern highlands of Tanzania

Caroline Mavere, Jimson Mgaya, Joyce Makando, Adella Peter, Emmanuel Bahemana, Anange Lwilla, Reginald Gervas, Iman Mwakabanje, Brown Mwakibambo, Julius Muhumuza, Aday Adetosoye and Samoel Ashimosi Khamadi

Institutional affiliation:
The Henry Jackson Foundation Medical Research International (HJFMRI)

Introduction and rationale
In Tanzania as is the case in many of the sub-Saharan countries with a high prevalence of HIV/AIDS, identifying people who are HIV positive and initiating them on treatment is important in controlling the HIV epidemic. Provider initiated HIV testing and counselling (PITC) presents an opportunity to screen a large number of people for HIV, who are accessing health facilities for other services.

Objective and Methodology
The Henry Jackson Foundation Medical Research International (HJFMRI) Tanzania supports the implementation of optimized PITC services in health facilities. When a client comes to the health facility, he/she is offered PITC and voluntarily makes a decision to be tested for HIV. PITC encompasses HIV counselling, diagnostic HIV testing, and HIV screening and must be in line with the “Three C’s” of informed consent, counselling and confidentiality. The person is asked guided questions for the assessment of possible risk contracting HIV. Only those deemed to be at risk are offered PITC. In the last 19 weeks, HJFMRI has been implementing an intensive campaign to improve PITC.

Results
A total of 303,823 clients >15 years were captured at the out-patient department (OPD) of which 249,616 were screened for eligibility. Out of those screened, 74,965 were eligible for HIV testing and 3,976 turned out to be positive, a prevalence of 5.2% ranging from 2.9% to 6.3%. It has been seen that optimizing PITC is key in ensuring that only those who are at high risk of contracting HIV/AIDS are tested for HIV. This is because healthcare workers are mostly overstretched and unable to add PITC to the routine work they do. As a result, there is leakage in some high-volume facilities with multiple entry points where clients who are eligible to undergo HIV testing are not screened. There is need to hire full time counsellors to carry out PITC in these facilities. There is also needed to ensure there is close monitoring of the facilities where PITC is carried out to ensure it is done to the required standards. Availability of screening space is a big challenge. Without a designated “safe space” confidentiality cannot be guaranteed and hence it becomes less “attractive” for clients who may want to be tested for HIV.
Discussion and conclusion
Optimizing PITC is key in ensuring that only those who are at high risk of contracting HIV/AIDS are tested for HIV. Absolute numbers of positives identification and positivity rates have increased compared to pre-screening era, the way forward is to work towards ensuring safe spaces are provided for PITC at all high-volume health facilities in order not to have leakages. Quality testing must be emphasized as well as ensuring on-job training and mentorship is done continuously to assure quality of testing. Availability of dedicated counsellor will increase further identification and hence move closer towards achieving the first 90. There is also needed to ensure there is close monitoring of the facilities where PITC is carried out to ensure it is done to the required standards.
Implementation of redesigned logistics system; Implications to ARVs management and data visibility for decision making

Sixbert Vicent

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Global Health Supply Chain technical-assistance, Tanzania program

Background
In 2017, MoHCDGEC conducted a Holistic Supply Chain Review (HSCR) to identify issues and strategize on solutions to improve performance of the public health supply chain systems. Among the issues identified, were related to distribution of health commodities and reporting of commodities consumptions and needs which adversely affect availability of health commodities. The review recommended increased frequency (inventory velocity) of delivery of health commodities to improve availability of commodities including ARVs.

Objectives
The study aimed at implementation of the redesigned logistics system aimed at achieving; improved availability of health commodities, optimum inventory parameters for all categories of commodities at MSD and other levels, increased data visibility for decision making and increased efficiency through integration of more health commodities in the ILS.

Methodology
Led by the System Redesign Coordinating Team (SRCT) made up of representatives from the Medical Stores Department, Directorate of Pharmacy Services, vertical programs including NACP, and implementing partners a system redesign workshop was held in December 2017. The workshop led to updating logistics guideline, tools and training materials. As part of the implementation a total of 3,197 health care workers from Mwanza, Geita, Kagera, Shinyanga, Mara, Tabora and Simiyu were trained. Phase 1 implementation began in March 2019 in six regions served by Mwanza MSD zone.

Results
With the implementation of the redesigned system we are able to visualize the stock on hand of all ARVs across all facilities on monthly basis this is a big shift from the staggered quarterly reporting. This has facilitated more prompt responses to some challenges at health facilities. Since ARVs have been integrated into ILS their distribution has been integrated. This has provided efficiency at MSD by reducing number of orders to process and served resources incurred during distribution with slight change in the OTAT. Implementation of redesigned logistics system has reduced the number of baby sites that were ordering on monthly basis from a mother site which in most cases was the DMO or DDH. This has provided relief to the commodity managers at the mother site/District from handling many orders from one facility and facilitating distribution. For example, DMO Nyamagana had 17 ARV sites before redesign system implementation and currently has 2.
Discussion and conclusion
The implementation of the redesigned logistics system has transformed the supply chain logistics for ARV medicines, it has provided less workload to the district and streamlined ordering of health commodities at facility level and provided monthly data which is useful in guiding prompt decisions. However, more efforts need to be placed capacitate health care workers to provide quality data and proper management of the medicines to ensure that the system redesign is exploited fully. Furthermore, Capacity strengthening remains important for sustainability.
ART initiation rates among Key and Vulnerable populations in Dar es Salaam Region

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Introduction
Globally, HIV is still one of the biggest public health challenges with Key and Vulnerable populations (KVPs) bearing heavy burden of the pandemic. KVPs being a marginalized group, faces additional challenges that hinders them from accessing health facilities for HIV testing services (HTS) and ART initiation. We aimed to describe the trends of HTS uptake and ART linkage by among KVPs in Dar es Salaam region of Tanzania. This information may be used to improve targeted HTS and ART initiation.

Methods
We did a secondary analysis on data collected routinely by FIKIA project from 01st October 2018 to 31st June 2019 in Dar es Salaam region. We included FSW, MSM and PWID aged 18 years or above. We also included AGYW who were aged between 15 to 24 years old. In FIKIA project, HTS is provided via community approaches using Health Care providers and ART is initiated at the community level on the same day. Outreach Community Volunteers (COVs) do assist in identifying KVP hotspots and mobilizing clients for HTS. All HIV positive clients are linked to a Care and treatment Centre (CTC) of their choice. Data was analyzed descriptively using proportions and graphs.

Results
We reached a total of 34275 KVPs in the nine months of the study period. MSM were 4248 (12%), PWID were 4909 (14%), FSW were 11552 (34%) and AGYW were 13566 (40%). Of those reached the proportion found positive were 11% for MSM, 12% both for FSW and PWID and 3% for AGY. The linkages rates were highest among MSM at 89%. Linkage rates among FSW, PWID and AGY were 86%, 82% and 84% respectively.

Discussion and conclusion
The data show that MSMs are leading in ART linkage rates to ART compared to other KVPs subgroups in Dar es Salaam region. This calls for additional interventions for ART initiation among FSWs, PWIDs and AGY.
Pre-analytical errors that impact on provision of quality laboratory testing in Southern Tanzania

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Institutional affiliation:
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Background and rationale
Identifying laboratory errors and implementing corrective actions and preventive actions (CAPA) promptly should be part of every laboratory’s quality monitoring and improvement plan. This can be used to minimize errors that occur in the pre-analytical, analytical and post-analytical phases of the testing process that contribute to delays in results. Current evidence suggests that up to 70% of errors occur in the pre-analytical phase of laboratory testing. In this era where HIV diagnosis is important in management of the HIV/AIDS epidemic, the laboratory is key in ensuring accurate diagnostic and viral load results are generated at all times. This can only be achieved if there is close monitoring of all laboratory procedures.

Objective and Methodology
We describe the type of errors and their frequency as identified in the Mbeya Zonal Referral Hospital Laboratory in Tanzania and the rate of corrective actions taken, as timely and accurate laboratory testing services are critical to making clinical decisions for patient care. Data on pre-analytical errors and corrective actions were obtained from specimen rejection forms. Data from January 2014 to June 2018 was entered into Excel and frequency of errors was calculated.

Results
144 sample rejection forms for test requests received from hospital departments were analyzed. Haematology test requests made up 53% of the rejections, while collectively chemistry, viral load and parasitology requests made up 22% of the rejections. Of the errors reported, clotted samples and incomplete test requisition forms were a majority at 18% each. Other errors included wrong containers, insufficient and haemolysed samples. All errors and corrective actions required were communicated to the relevant department but only 55% of errors were corrected.

Discussion and conclusion
Clotted samples and incomplete test request forms were the most frequent pre-analytical errors. There is a need for laboratory quality managers to monitor these indicators continuously and share data with hospital management, laboratory and clinical mentors. They can also utilize the data to target CAPA, conduct sensitization and training for health workers on sample collection technique and completion of test requisition forms in order to improve performance of laboratory indicators that impact quality and timeliness of laboratory and clinical services.
Increasing awareness of and access to cervical cancer prevention and treatment services in Tanzania, the Jali Afya Project Experience


Institutional affiliation:
1 Tanzania Health Promotion Support, 2 Tanzania Network of Women Living with HIV, 3 MoHCDGEC, 4 UNAIDS

Background and rationale
Cervical cancer is the commonest malignancy affecting women of reproductive age and the commonest cause of cancer related deaths among women in Tanzania. Women living with HIV (WLHIV) have high incidence rates compared to HIV negative women. Tanzania suffers one of the highest cervical cancer burdens in the world and the highest Eastern Africa. With support from UNAIDS through the Pink Ribbon Red Ribbon initiative, Tanzania Health Promotion Support (THPS) in collaboration with Tanzania Network of Women Living with HIV (TNW+) and MoHCDGEC implemented the Jali Afya project in the high HIV burden regions of Geita, Njombe, Tanga and Songwe.

Objective
To increase awareness of, and access to cervical cancer prevention and treatment services.

Methodology
Project introduction meetings held in each region, and training WLHIV as trainers of trainers (TOTs) in cervical cancer prevention (CECAP). Community monthly advocacy and sensitization meetings were conducted by TOTs and referral to health facilities for screening by visual inspection with acetic acid. Sessions to address stigma and discrimination towards cervical cancer and HIV were conducted. Quarterly joint supportive supervision and data collection conducted by TNW+, THPS and MoHCDGEC.

Results
The project sensitized 20,285 women on CECAP. Of 16,371 women screened 13,104 were WLHIV surpassing the target of screening 9,752 WLHIV. A total of 475 women screened positive for pre-cancerous lesions among whom 412 received cryotherapy and 63 referred for large lesion treatment. Of women screened, 83 had suspicious cancer lesions and were referred to Ocean Road cancer institute.

Discussion and conclusion
Engaging communities and networks of people living with HIV increased access to cancer prevention services. The TOTs served as community resource for ongoing sensitization on CECAP and other cancer services. We recommend scale up of this model to ensure reaching MoHCDGEC target of screening at least 60% of women over 30 years old.
Procurement and supply of HIV commodities

Billy Singano

Institutional affiliation: Medical Stores Department

Introduction
MSD was enacted by Act of Parliament No.13 of 1993 and came into operation in 1994. It operates under MoHCDGEC with its own governing Bank of Tanzania. It has mission and vision “To make quality health products accessible to all public health facilities in Tanzania” and being a “Centre of excellence for health commodities supply chain in Africa” respectively. Among its core values are reliability, innovation, teamwork, integrity and customer focused. MSD has a motto which is “Dedicated to save your life - Stock out no more”. The operations of MSD are guided by the Medium-Term Strategic Plan (2017 - 2020) where key aspirations are Financial sustainability, digital transformed and Stock availability. Its focus areas are Financial sustainability, Supply chain management, Technology, Human capital management and Governance with stakeholders’ management. Being public entity we are regulated by the following Public Procurement Regulatory Authority – procurement processes, Tanzania Medicines and Medical Devices Authority (TMDA) – quality issues, Government Chemist Laboratory Agency (GCLA) – quality, Public Health Laboratory Board (PHLB) – Quality issues, Tanzania Bureau of Standards (TBS) – Quality issues and Control and Auditor General.

Keys issues
Its main/key functions are procurement, storage and distribution of Medicines, medical supplies, medical equipment’s and laboratory reagents on behalf of Government of Tanzania. For instance, its annual Procurement Plan for Fiscal year 2017/2018 was TZS 273,998,177,975. It has about nine Warehouse locations with the capacity of 36,985.36sqm and about 37,497 pallet positions. It operates from Dar es Salaam as its headquarters supporting 8 zonal stores and two sales points, it uses DDD (Distribution under Directly Delivery) system to health facilities. It has different product ranges for instance for Vertical programs such as for Anti-malarials (5), ARVs (37) and for reagents and test kits (33), anti-opportunistic infections (21), contraceptives (9), Anti TB and Leprosy (16) and immunization vaccines (18).

Challenges
There several challenges that MSD faces among these are increased needs for health commodities that does not match with budget allocations, lack of local capacity to manufacture medicines and related medical supplies, long lead times for imported goods as required by law, infrastructure such as poor roads during rainy season, storage space, data quality especially those for Forecast and quantification and insufficient funding.

Discussion and conclusion
MSD has to digitalize the process and improve manufacturing facilities in the country. As well it has continue strengthening other zones to properly handle procure the commodities.
CONFERENCE RECOMMENDATIONS

The conference came out with a number of recommendations each of which is directed to the responsible sector:

A: Recommendations to the MOHCDGEC on HIV Care and Treatment

i. There is a need of using a single data source for HIV/AIDS information in order to avoid raising confusion when sharing HIV related statistics.

ii. The Government should ensure an increased allocation of domestic funds for HIV control on one hand and elsewhere there should be strategies to solicit and mobilize an increased funding from donors (e.g. PEPFAR, Global Fund etc.) to restrain the gap so as to attain the National targets of HIV control.

iii. The ministry should prepare to take and scale up Cryptococcal Antigen Screening and pre-emptive treatment with fluconazole to prevent Cryptococcal Meningitis

iv. The ministry should register Flucytosine in the country for treating cryptococcal meningitis among individuals with advanced HIV disease.

v. The ministry should make sure that CD4 reagents are regularly supplied and the CD4 machines are maintained and repaired at all levels of health facilities.

vi. The ministry should ensure funding for purchasing Amphotericin B for the treatment of cryptococcal meningitis and train the healthcare providers on how to administer the medication and monitor the toxicity.

vii. The ministry should ensure updated changes to treatment guidelines for care and Treatment so as to apply the one week of amphotericin B plus flucytosine and 2 weeks of fluconazole plus flucytosine for effective induction therapy for cryptococcal meningitis among individuals with advanced HIV diseases in resource limited settings.

viii. Controlling NCDs requires multi sectoral collaborations. Hence there should be practical efforts to ensure that management and control of NCDs services are integrated into HIV services.

ix. There is a need for integration of Hepatitis C Virus, HIV and Hepatitis B Virus services so as to ensure continuum of care especially to Key and Vulnerable Population. Treatments for Hepatitis C Virus using direct acting anti-retroviral (DAA) should be routinely available. Integrate Hepatitis screening and treatment in HIV program due to growing data on co-infection on Hepatitis and HIV.
x. There is need to conduct implementation research to monitor liver and renal toxicity and complications for clients on PrEP.

xi. CHWs should be trained and empowered to perform multiple functions and interventions. These include referring community members for HIV testing, linking them to care, accompanying them to clinic appointments, providing psychosocial support and making referrals to services other than HIV.

xii. HCW/HF should continue reporting pharmacovigilance data on DTG on the neural tube defect and other side effects by using online report for TMDA.

B: Recommendations to the MoHCDGEC on HIV Prevention

xiii. There is a need to mobilize resources for scale up and inclusion of the use of the MDTC into management protocols. This is because it has demonstrated a substantial increase in accessibility to HIV/TB services using state of the art diagnostic equipment.

xiv. There should be efforts to link clients from community and index testing to care, treatment and retention on HIV services.

xv. There should be intended efforts to raise awareness of and access to cervical cancer prevention and treatment services to community members and health service providers in the country.

xvi. There should be intended efforts and determination to strengthen behaviour change through IECs on the sustained condom use among the Key and Vulnerable Populations. Elsewhere NACP should ensure steady availability of the condoms.

xvii. The ministry should ensure practical strategies to address HIV related stigma and discrimination in health facilities and community levels.

C: Recommendations to the MoHCDGEC Health Systems Strengthening and Cross Cutting Issues

xviii. Although task sharing is acknowledged to comfort the shortage of health staff, the ministry has to develop a sustainable plan to motivate and retain available workforce.

xix. The ministry should reinforce the harmonized and standardized National Integrated Case Management System that is comprehensive and complementary to Tanzania’s national policies and other legal frameworks.
xx. There is a need to increase enrolment of testing points into proficiency testing; strengthen supervision of testing points; ensure that new points adhere with the standards; and strengthen certification of non-laboratory testers in order to improve compliance to quality standards.

xxi. Strengthen ART supply chain to be able to track and report commodity status to all stakeholders to avoid stock out and expiries.

xxii. There is a need for the ministry particularly PSU to assume oversight of all quantifications and procurements for all commodities including vertical programmes. Procurement, quantification and distribution for vertical programme commodities must be standardized /harmonized.

xxiii. MSD should speed up the tendering process and consequently availability of laboratory standardized equipment and Planned Preventive Maintenance contracts with supplier as this HSCR recommendation has been delayed in terms of implementation.

xxiv. The ministry should invest in Research and Development pertaining to local pharmaceutical industry and create a conducive environment that fosters investment in pharmaceutical industry locally. This includes strengthening the link between the industry and academia.

xxv. It is important for the ministry to build on the support from IPs in not only improving infrastructure for pharmaceutical management and dispensing but also for laboratory commodities management.

xxvi. The ministry needs to allocate additional budgets for NCDs short course training in order to equip more of the frontline staff and CHWs with sufficient knowledge on, and skills to manage, NCDs.

xxvii. NACP to convene Technical Working Group meetings at least twice a year to discuss the care and treatment challenges, new advances and forward planning.

D: Recommendations to the PORALG on Health Systems Strengthening and Cross Cutting Issues

xxviii. Although task sharing is acknowledged to comfort the shortage of health staff, the ministry (PORALG) has to develop a sustainable plan to motivate and retain available workforce. These plans should be included in the CCHP for sustainable budgeting.
xxix. It is important for PORALG to build on the support from IPs in improving infrastructure for pharmaceutical management and dispensing but also for laboratory commodities management.

xxx. The PO-RALG need to allocate additional budgets for NCDs short course training in order to equip more of the frontline staff and CHWs with sufficient knowledge on, and skills to manage, NCDs

E: **Recommendations to the National Institute for Medical Research (NIMR)**

xxxii. NIMR should organise Researchers and HIV implementers to prepare policy briefs and research summaries from their scientific works in a most simple language and be shared with politicians and other key policy makers who in turn may influence the policy changes and hence guarantee effective quality care.
CLOSING REMARKS

By Dr. Leonard Maboko, Executive Director, TACAIDS

He thanked the participants for their active participation which was a huge success in the response to the HIV epidemic control and prevention. This conference consolidated programmatic and scientific evidence that created a dialogue between and among policymakers, implementing partners, development partners, academicians, researchers and other stakeholders, which rarely happens in our country. At his capacity at TACAIDS, pledged TACAIDS commitment to work with NIMR and Other Stakeholders to hold such conferences every year or every two years as it is an opportunity for policymakers, implementing partners, development partners, academicians, researchers and other stakeholders to review our efforts and progress, share experiences, and identify gaps and how to improve them toward HIV/AIDS control and prevention strategies in our Tanzanian context. He pointed out few relevant issues on the fight against HIV/AIDS in this country: First focusing to the aim of achieving the Global Targets that we, as a country, have adopted three 90 Targets by 2020 and three Zero Targets by 2030.

Regarding the **Three Zero Targets**, there are some challenges and gaps that need to be addressed as well. One prevention strategy needs to be strengthened such as BCC including effective condom programming to make sure that those who are negative maintain their negative sero-status and to identify the causes of deaths and design appropriate interventions. He pointed out several cross-cutting issues that need to be addressed in order to control the HIV/AIDS epidemic in this country. Among these domestic financing of HIV/AIDS response, including AIDS Trust Fund, Health Insurance Schemes to include HIV Commodities.

He ended his remarks by insisting the need of proper packaging and sharing of best practices and research findings for policy changes to the Policy Makers and Politicians hence reminding NIMR, Academicians and Program Evaluators to find mechanisms of documenting the research findings that may lead to policy changes and best practices and lobby to share them appropriately, involving other institutions such as TACAIDS, UNAIDS and Development Partners.
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**ACHIEVING AND SUSTAINING HIV CONTROL IN TANZANIA**

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