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COVID-19 PANDEMIC IMPACT ON THE SCIENTIFIC WRITING AND PUBLICATION COMMUNITY

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OPINION ON THE COVID-19 PANDEMIC IMPACT ON THE SCIENTIFIC WRITING AND PUBLICATION COMMUNITY: A CASE OF THE HEALTH PRESS ZAMBIA

Editorial

By : M L Mazaba

Citation Style For This Article: Mazaba ML. opinion on the covid-19 pandemic impact on the scientific writing and publication community: a case of the health press zambia . Health Press Zambia Bull. 2021; 05(02); pp 1-2.

The COVID-19 pandemic declared as a public health emergency of international concern on 30th January 2020 by the World Health Organisation has impacted negatively on the lives and livelihoods of populations across the globe. We note negative impact on businesses, individual and national economies, health systems, politics and governance.

This editorial focuses on the perceived negative impact non-COVID-19 public health research and publication in Zambia, a case in point of The Health Press Zambia. We recognize that this is not peculiar to Zambia as other publications indicate a dramatic rise in COVID-19 publications was accompanied by a substantial decrease of non-COVID-19 research (Marc Raynaud, 2021). Similarly, The Health Press Zambia (THP-Z) noted a decrease in receipts of non-COVID-19 articles.

Furthermore, THP-Z sustainable publication was affected by reduced numbers of hours spent by the managers on advocacy, article review and editorial management processes. This is against the backdrop of limited dedicated staff on THP-Z who have other critical responsibilities in the response to the COVID-19 along other tasks around securing Public Health Security in the country and region. THP-Z was established as a public health publication of the Zambia National Public Health Institute in December 2016 managed by an Editor-in-Chief and Managing editor, a part-time desktop publisher supported by a 6-member Editorial team and 2 technical representatives of the CDC Foundation. THP-Z with monthly issues published rose to be a high flying read among its peers supported by the Bloomberg Philanthropies through CDC Foundation. By 2019, THP-Z was embraced as a member of the Africa Journal Partnership Program. Prior to the COVID-19 pandemic THPZ published ## issues with ## Peer reviewed articles. In the last one and a half years, this has been challenging.

A review of how to survive as a publication going forward has been conducted. A renewed and sustainable THP-Z is envisioned from now onwards.

Policy Brief

By : M Chilufya, J Musonda, B H Mutale, V Kamanga

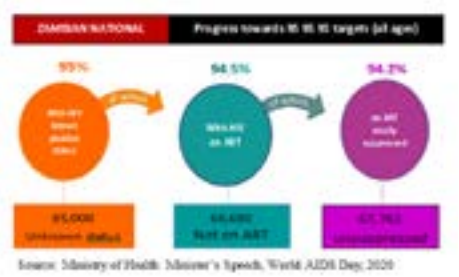
Citation Style For This Article: Chilufya M, Musonda J, Mutale BH, et al. An HIV Free Nation. Health Press Zambia Bull. 2021; 05(02); pp 3.

Key Messages

• Zambia National Health Strategic Plan 2017 – 2021 goal is to reduce new HIV infections and mortality by 75%.1
•The main aim was to reduce new HIV infections to less than 18,000 by 2020
•Causes of new HIV infections: unknown HIV status, known status not on ART and high viral load PLWHIV.

The Problem

Zambia has made great strides in attaining 95-95-95: HIV new case identification at 95%; of HIV infected people initiated on treatment at 94.5%; and of those initiated on ART 94.2% with viral load suppression.. However, despite these efforts, the country continues to record high number of new HIV infections (48,000) with 17,000 HIV related deaths attributed to high viral load2. There are approximately 67,762 patients on ART with high viral load in Zambia3.



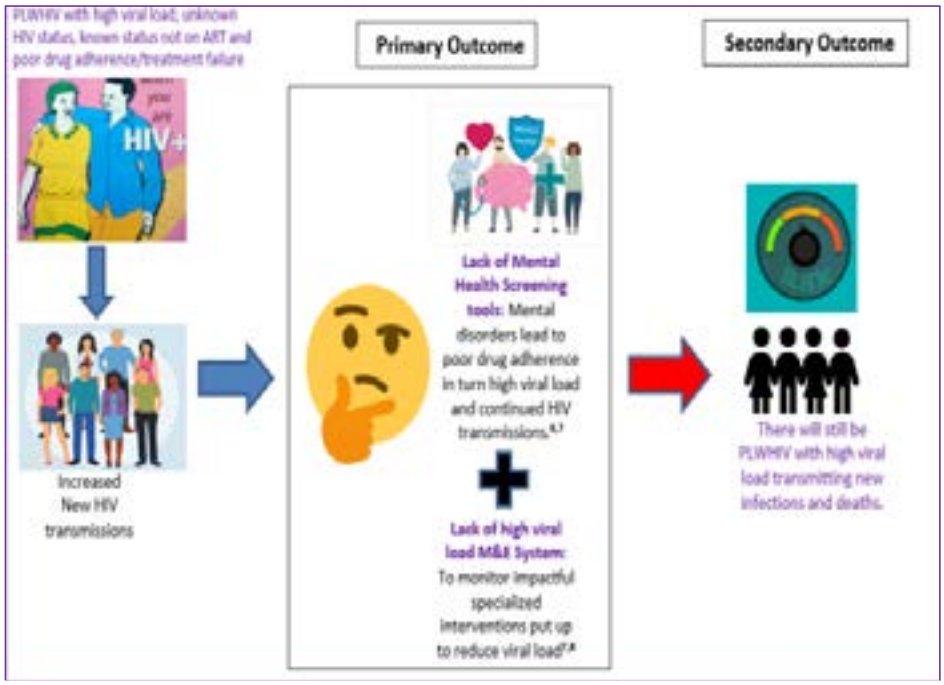
•A high viral load increases the risk of HIV transmission threefold to their sexual partner4:

-When viral load is exceptionally high the risk is sevenfold4

-Advanced HIV disease the risk is six fold4

Problem Visualization

Based on information from high viral load registers from selected facilities in Lusaka and Western Provinces of Zambia5,



illustrated that not all patients with high viral load were enrolled on Enhanced Adherence Counseling (EAC) i.e. 92% of which only 54% completed EAC giving an attrition of 3,328 not Completed EAC and while only 50% proceeded to have a repeat viral load done5.

April 13 2021: For more information contact: Justin Musonda, Mwelwa Chilufya, Bwalya Helena Mutale and Vikwato Kamanga on 0977849383 and 0974389250

*Unless specialized interventions to reduce new HIV Infections are made an integral part of HIV care, there will still be virally unsuppressed PLWHIV transmitting new infections and deaths resulting from poor management

Literature shows that.

•High viral load in patients is associated with decreased survival and increased HIV transmission
•HIV transmission is much higher among partners of patients with high viral load compared to those with suppressed viral load.6,7

Policy Options

For Zambia to avert new HIV infections and reduce mortality among patients with high viral load below are the proposed policy options

1.Maintain Status Quo (Standard of Care) of offering routine ART Services through use of already existing SOPs and guidelines on the management of High VL patients.

What: This option relies on the already existing service delivery based on the current Zambia Consolidated Guidelines (ZCGs).

Why: According to data for high viral load index testing in selected facilities in Lusaka, Chongwe and selected districts in western province it depicts 18% HIV positivity among contacts for index case with high viral load9

Feasibility: High.

2.Enhance high viral load clinics (Viremia Clinics)

What: Build on status quo according to the Zambia Consolidated Guidelines (ZCGs)

Leverage on existing ART infrastructure and incorporate viremia clinics

Integration of Peadiatric and Adult mental health screening tools including treatment of identified disorders

Why: In Zimbabwe, following the scale up of viremia clinics, the percentage of patients completing EAC increased from 46% to 78%, while patients having a repeat viral load after EAC also increased from 34% to 84%.10
Feasibility: High. This strategy is highlighted in the ZCG but requires reinforcement through capacity building and allocation of dedicated personnel.

3.Scale up Viremia clinics, strengthen Mental Health service provision alongside incorporating high viral load Monitoring and Evaluation (M&E) system in ART

What:
Build on status quo according to the Zambia Consolidated Guidelines (ZCGs)
Leverage on existing ART infrastructure and incorporate viremia clinics integration of Peadiatric and Adult mental health screening tools including treatment of identified disorders
Develop and standardize high viral load M&E system

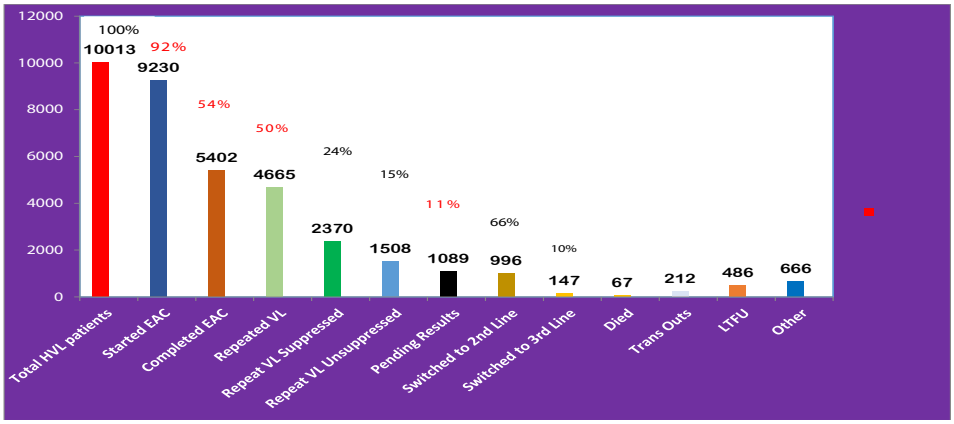
Why:
Common mental disorders is among the most prevalent condition with the prevalence of over 30% among PLHIV reported across studies in some Low to Medium Income Countries (LMIC), particularly for depression. 6,7
In Zambia there are no reporting tools for the unsuppressed cascade (including mental health assessments and treatment among PLWHIV), WHO 2019 highly recommends its adoption. 15
Feasibility: High.
This strategy will build on the current status quo by integrating mental health screening and treatment, creating a routine HVL surveillance system.

Recommendations

Scaling up routine Viraemia clinics with mental health incorporation; through introduction of Peadiatric and Adult mental health screening tools in EAC .
Enhanced care for patients with high viral load will reduce new HIV transmissions and AIDS related deaths

Action Required

Scale up Viremia clinics to all ART facilities; through
- Allocation of dedicated personnel, training and mentorship
- Develop Peadiatric and Adult mental health screening tools integrated in EAC
- Develop and adopt a monitoring and evaluation high viral load cascade framework.

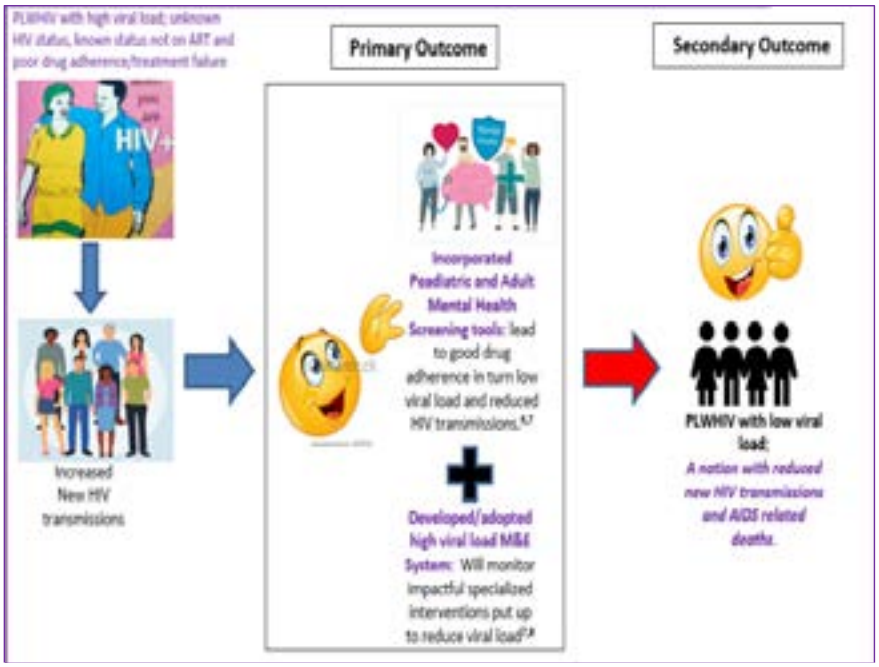


Policy Option		Option 1: SoC	Option 2: SoC + VMH	Option 3: SoC + V + HVL
New HIV Transmission	Total	21,515	16,006	16,006
	Incremental		5,508	5,508
Costs	Total	10,924,861	11,073,672	11,174,436
	Incremental		148,811	249,575
	Incremental Cost-effective Ratio		27.02	45.31
Feasibility	Political			
	Operational			

Standard of Care(SoC), Viremia + Mental Health(VMH), High Viral Load Surveillance (HVL SUR)

High impact Medium impact Low impact

Option 2 is the most cost-effective option as we would only need to spend 27 US Dollars to avert an additional HIV infection



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KNOCK OUT TB IN PLHIV: REINFORCING TB PREVENTION THERAPY COMPLETION IN ZAMBIA

Policy Brief

By : R Islam, E M Mulumba, B Chiyokoma

Citation Style For This Article: Islam R, Mulumba EM, Chiyokoma B, et al. Knock Out TB in PLHIV: Reinforcing TB Prevention Therapy Completion in Zambia . Health Press Zambia Bull. 2021; 05(02); pp 4.

Key Messages

• WHO estimates that 2-3 billion people have latent TB. Even though latent TB has no signs and symptoms of TB, people are at risk of progressing to Active TB

• The risk is 21 times higher among PLHIV than in the HIV Negative population

• Tuberculosis remains the leading cause of death among people living with HIV

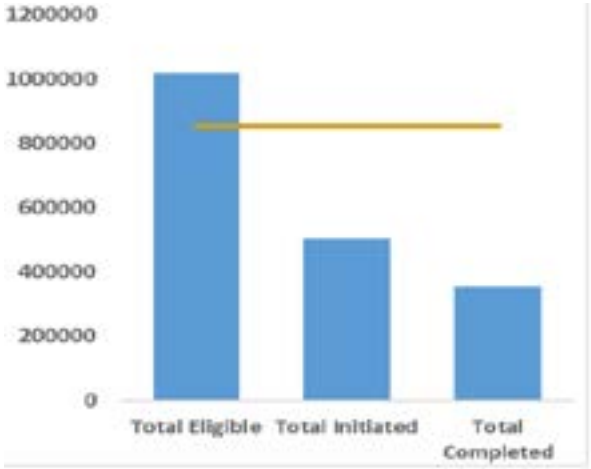
• TB Prevention Therapy (TPT) is critical to ending disease and death among PLHIV

Problem Statement

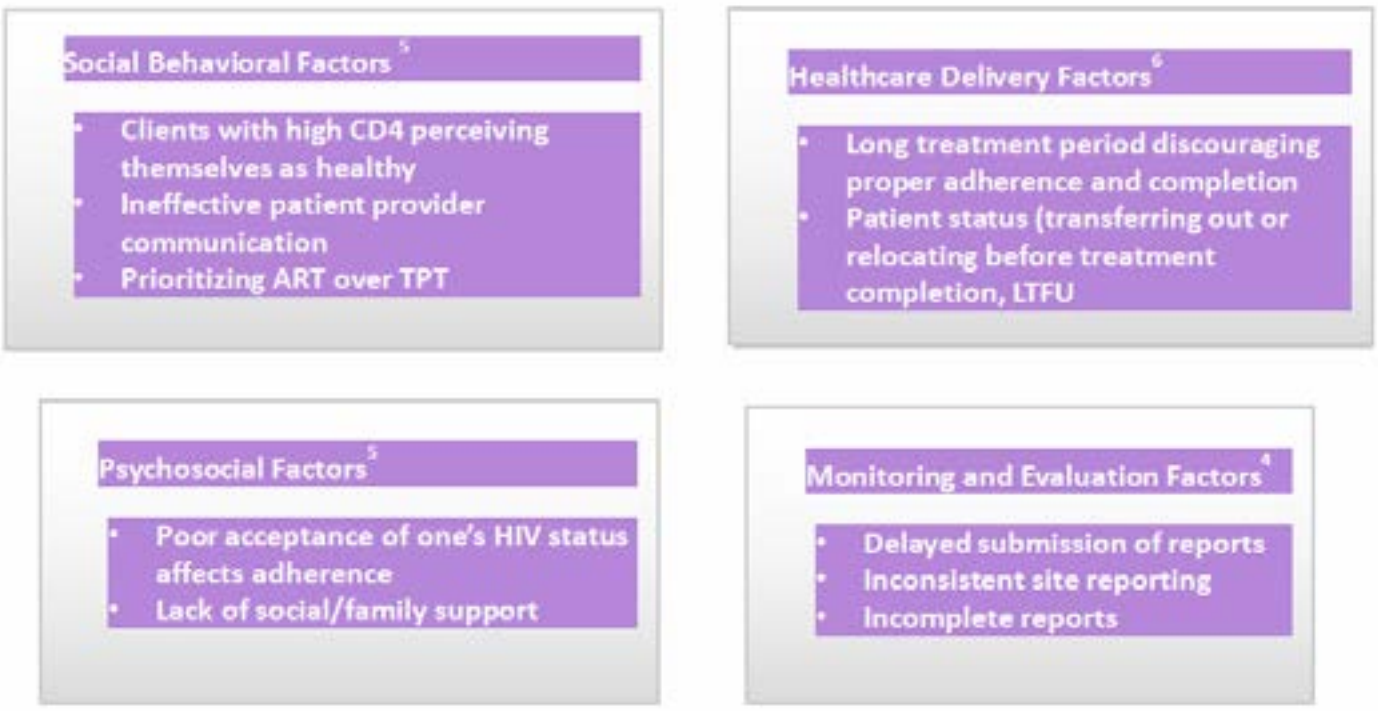
•Globally,10 million people developed TB, 8.2% were PLHIV. 14.8% of TB deaths were HIV positive deaths. In Zambia, 333 out of 100 000 people develop TB. 154 out of 100 000 people that develop TB are also HIV infected. 53 out of 100 000 people that die of TB are HIV infected.

•Anti-Retro Viral Therapy (ART) alone, does not prevent TB. In 2017, the MOH introduced TB Preventive therapy (TPT) in PLHIV. TPT in combination with ART is 60% to 90% effective in reducing risk of progression to active TB, offering immunity for 3-5 years after completion of treatment.

Globally, 30 million PLHIV are to be enrolled on TPT by 2022. So far, 21% of this target has been achieved. Zambia targets to enroll 95% of eligible population on TPT and ensure that 95% of those enrolled complete treatment. Recent statistics show that TPT enrolment reached 82.5% of intended target with a 70% completion rate.



Factors Affecting Completion of TB Preventive Therapy



Studies have shown significant difference on risk of progression to active TB on efficacious TB prevention treatment regimens between the time a client starts treatment to the time they complete treatment. The findings are summarised in the table below.

Risk of Progression to Active at Different Levels of Completion

Regimen	Before Completion	Completed Treatment
INH6	0.21 (3-5 months)	0.69 (6 months)
3HP	0.48 (2 months)	0.98 (3 months)
3HR	0.47 (2 months)	0.96 (3 months)

-Findings in the table above show that clients who complete TB preventive treatment, have a much reduced chance of developing active TB.

4 National TB and Leprosy Program Data-2020.

5 Jacobson K. B., et. Al

6 Robert M., et. Al

Policy Options

1.INH 6 + Communication Strategy + M&E

•Current standard of TB preventive therapy in Zambia
•Reduces risk for TB by 69% in PLHIV
•75% treatment completion rate
•Safe for pregnant & breastfeeding mothers, and children
•Limited by low treatment completion rates and adverse events when compared to other regimens

2. 3HP + Communication Strategy + M&E

•Better drug tolerability/lowest side effect profile
•Compatible with most ART Regimens used in Zambia
•Much higher treatment completion rate-78%
•Reduced risk to TB by 98% in PLHIV
•Easier to administer on a fixed dose combination
•Not proven safe in pregnant & breastfeeding mothers and children <2 years
•Requires barrier contraceptive in women of reproductive age

3. 3HR + Communication Strategy + M&E

•Alternative short course TPT regimen that combines INH and RIF
•Proven safe to be taken by pregnant & breastfeeding mothers and children
•Dosing adjustments required for Lopinar, Ritonavir and DTG
•Has the lowest completion rate-72% when compared to other policy options

Cost Effectiveness Results (Per 1000)

Drug Regimen	Costs	Incremental Costs	Effectiveness (Cases)	Incremental Effects	ICER
INH6	$384,130	-	510	-	
3HP	$357,230	($26,900)	330	180	$151.49
3HR	$372,780	($11,750)	360	150	$79.11

The economic analysis demonstrates that 3HR is likely to be most cost effective relative to the Standard of Care (IHN). Specifically, 3HR would cost an additional $79.1 per patient treated compared to 3HP that costs $151.5 to treat an additional patient.

Note: The calculations in the above table were based on the Zambia Tuberculosis National Operational Plan 2017-2021 Costing document and the MOH Data Quality Management System Budget. Included in the calculations are drug costs and all elements (freight, clearance, point of distribution to the health facility)

Economic Evaluation Analysis

•Migrate to 3HP with better drug tolerability, and higher completion rates for the eligible population
•Pregnant and breastfeeding mothers, and children to migrate from INH6 to 3HR which is proven safe with a much higher completion rate compared to INH6
•Recommendations above to be implemented along aside strengthened monitoring and evaluation systems and a robust communication strategy emphasizing the benefits of TB Prevention Therapy.

Required Actions

•Identify and work with relevant stakeholders to engage pharmaceutical companies to address the high drug (Rifapentine) costs
•Conduct research on the safety of 3HP for pregnant and breastfeeding women and children
•Update TB treatment guidelines to reflect proposed regimen change (from INH6 to 3HP)
•3HP treatment roll out plan developed and shared with relevant stakeholders
•Strengthen monitoring and evaluation systems to improve data quality for TPT indicators
•Develop a communication strategy on TB prevention targeting health workers, PLHIV and the general population

Note: These recommendations are based on the studies conducted in South Africa, Tanzania, and Uganda and the WHO Guidelines., consultations with CDC Zambia, USAID and MOH National TB Program and expert opinion.

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SAVE THE LIFE OF A BABY BORN TOO SOON: IMPROVING COVERAGE OF NEONATAL INTERVENTIONS IN ZAMBIA

Abstract

By : A Banda, N Banda, T Silweya

Citation Style For This Article: Silweya T, Banda N, Banda A, et al. Save the Life of a Baby Born Too Soon: Improving coverage of Neonatal Interventions in Zambia . Health Press Zambia Bull. 2021; 05(02); pp 5.

Key Message

Benefits of investing in newborn care countrywide justify the cost. The Zambian government calls for amplified investment to accelerate the reduction of deaths of newborn babies dying within 28 days of life.

The Problem

In the year, 2020 live births projection as of 2010 was 760,631 (CSO, 2010). The number of newborn deaths among the livebirths increased from 24/1000 to 27/1000 live births between 2013 and 2018 (ZDHS , 2018). In Zambia, death from severe birth asphyxia tops and currently stands at 30.2%, followed by prematurity at 27.2% and then sepsis or infections at 18.2%. It is estimated that 75% of babies born too soon die within the first week of life (WHO, 2012). The increase in newborn deaths has been attributed to among other factors, inadequate infrastructure, weak referral system, inadequate number of skilled staff, non-availability of Neonatal Intensive Care Units (NICU) and Kangaroo Mother Care (KMC). Currently Zambia has NICUs in the three tertiary hospitals out of the 1502 hospitals and delivery facilities representing 2% NICU coverage. Inadequate coverage of neonatal interventions has made it difficult to manage small and sick newborns at level one and level two continuum of care (Mubita, 2017).

Policy Options

To reduce chances of newborn babies dying within 0-7 days by at least 50% requires multiple approaches. The proposed policy options to achieve this goal include: (1) continue providing level three neonatal care in tertiary hospitals; (2) implement level two neonatal intensive care in general hospitals; and (3) implement level one Neonatal Intensive Care in all facilities that provide deliveries at district and primary health care levels.

Option 1 (Status quo): Continue providing level three Neonatal Intensive Care in tertiary hospitals.

WHAT: Tertiary hospitals in Zambia are the University Teaching Hospital and Levy Mwanawasa Teaching Hospital. These provide specialized care for the smallest, most premature, and most unwell babies who require surgical intervention referred from across the country.

Option 2: Implement level one Neonatal Intensive Care in general hospitals

WHAT: Implementing Neonatal Intensive Care at general hospitals located in provincial towns will provide care for newborn born who need more high dependence and short-term intensive care, have problems, which require to be resolved rapidly or are recovering from serious illness following treatment at tertiary hospitals.

WHY: Decentralizing NICUs from tertiary hospitals to provincial hospitals increases the level of medical care and decreases deaths of babies born too soon by 47.4% (Yuryev, 2019). In Mozambique with similar context to Zambia, introduced NICUs in provincial hospitals and observed a reduction in deaths due to asphyxia by 15%, sepsis by 11% and prematurity by 10% (Maria Elena Cavicchiolo, 2016).

FEASIBILITY:

-Implementing level one neonatal care in nine provincial general hospitals is feasible for Zambia.

-This option will be less expensive as it will utilize existing health care workers and equipping delivery facilities with basic equipment.

-High feasibility possibility to reach small babies than tertiary because of reduced referral distance. This option has potential to reduce newborn deaths by 47% (Yuryev, 2019).

-High feasibility of rolling out level one NICUs to provinces estimated at $9,204,439 compared to implementing in all facilities due to high cost.

-Higher benefits through saving lives of neonates will justify the investment costs in the end.

-In addition, University Teaching Hospital has opened a post graduate diploma training in neonatal care hence health care workers from provinces will acquire the needed skills.

-Roll out to provinces can be implemented in a phased approach prioritizing provinces with highest burden and scaling after an evaluation.

Option 3: Implement level one Neonatal Intensive Care in delivery facilities at district level.

WHAT: Level one neonatal care units (NICUs) provide basic care for the newborns. It comprises four sub levels: acute care provided at district hospitals, basic primary care at Health Centre (urban, rural or zonal), stepdown care (De-hospitalized care) and ambulatory care provided at community level.

WHY: Decentralizing neonatal care from tertiary hospitals to delivery facilities at district level increases the level of medical care and decreases deaths of babies born too soon by 40% (Yuryev, 2019). This care goes beyond primary care facilities to the household though Safe Motherhood Action Groups (SMAGs), Neighborhood Health Committees (NHCs) and other volunteers.

FEASIBILITY:

-High feasibility with larger reach to small babies, reduces referral distance to tertiary hospitals

-Potential to reduce death by about 47% of newborn deaths.

-High political will for primary health care with construction and opening of over 650 Health Posts countrywide.

-Though cost is of rolling out level one NICUs to delivery facilities across the country is high estimated at $117,612,280. However, benefits will justify costs in the long-term.

	Costs	Incremental Costs	Deaths	Incremental Deaths	Incremental Cost Effectiveness Ratio
Status Quo	$ 0		1,350		
District	$ 117,612,280.40	$ 110,612,280.40	743	-608	$ (182,024)
General Hospital	$ 9,204,439.34	$ 2,204,439.34	58	-1292	$ (1,7056.00)

The economic evaluation results indicate that the scaling up of the NICU at General hospital is the most cost-effective strategy in Zambia as it costs $1,706 to avert an additional neonatal death.

Recommendations and next steps

Scaling up interventions to manage small and sick babies is effective in reducing deaths of newborn babies. Bearing the high cost of implementing standard neonatal care to level three hospitals and delivery facilities, implementing option two policy to set up level one neonatal care units at general hospitals in provinces is the most cost effective and feasible. These will also be the provincial training hubs for districts.

Next steps

The Ministry of Health through the Child Health Unit will coordinate implementation of this policy brief by taking the following steps:

-Present the policy brief to the Child Health technical working group coordinated by the MOH Child Health Unit

-Present the policy brief to MOH senior management

-Present the policy brief to cooperating partners at forums organized by MOH or any other forums that present such opportunities

-Ensure all general hospitals include level three Neonatal intensive care units in the 2021 to 2023 MTEF action planning.

Investing in Neonatal Interventions Outweighs the cost Save the Life of a Baby Born Too Soon

Acknowledgements

This policy brief would not have been possible without the support of many people through the coordination of National Health Research Authority. In particular, the authors of this brief Ms. Nelia Banda, Mr. Aaron Banda Timothy Silweya for their dedication. This team further acknowledge Ms. Sandra Sakala and Dr. Musonda Simwinga who provided valuable guidance and mentorship throughout the writing process. Our gratitude also goes to Mr. Douglas

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"MEN'S HEALTH MATTERS TOO"
SCALING-UP HIV TESTING SERVICES THROUGH MALE-FRIENDLY CLINICS IN ZAMBIA

Abstract

By : B Phiri, T Mwamba , S Habtezgi

Citation Style For This Article: Phiri B, Mwamba T, Habtezgi S. "Men's Health Matters Too" Scaling-up HIV Testing Services through male-friendly clinics in Zambia . Health Press Zambia Bull. 2021; 05(02); pp 6.

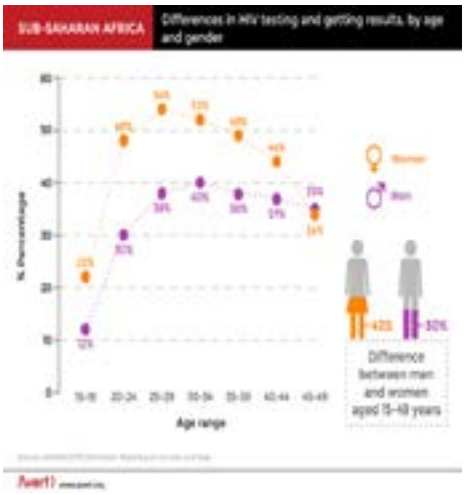
Key Messages

-25% of adult men have not been tested for HIV compared to only 15% of adult women in Zambia by 2018.

-Men's unawareness of their HIV status poses a major challenge across the HIV treatment cascade.

-Early identification of HIV infected men is one of the major steps to prevent new infections.

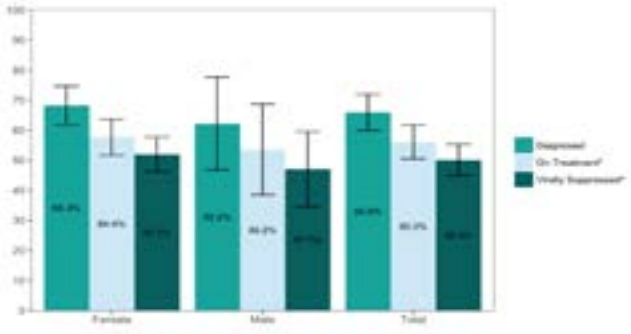
Scaling up HTS through male-friendly clinics will reach more than 90% of men who did not previously test.



Problem Statement

There is a discrepancy in testing between genders, with men less likely to test for HIV than women. Zambia is one of the top 10 countries with the highest HIV prevalence of 11.1% among adults aged 15–49 years old, with 14.3% and 7.5% HIV prevalence between women and men respectively (ZDHS, 2018). There exists gender variations in national testing rates with more women testing (93%) than men (87%) according to estimates (NAC 2015, ZDHS 2018). Several gender analysis studies highlight specific explanations for men's lower rates of testing. Many reported that men underestimate their risk of HIV infection compared to women, they fear a positive test, worry about disclosure, stigma and discrimination, and often feel shut out of the health system (Okal et. al).

Awareness of HIV status among men is substantially lower than among women, with 25% (120,000) of men having not been tested for HIV and received their results, compared to only 15% of adult women in Zambia by 2018 (ZDHS, 2018, UNAIDS, 2020). Men's uptake of HTS has increased over the past, but they are still not testing at a high enough rate to significantly reduce the number of men living with HIV who are unaware of their HIV status (ZDHS,2018). This unawareness of their HIV status poses a major challenge in the HIV care cascade, which leads to the late linkage, initiation to treatment, and low viral suppression, culminating into high HIV related mortality (Bhatia et. Al, 2017). Nationally, there are an estimated 480,000 men (above the age of 15) living with HIV, with only 78% of them receiving life-saving ART, leaving a 22% gap (UNAIDS, 2020). In addressing some of these challenges, intervention strategies in Zambia have been implemented such as VCT, Provider initiated testing and conselling (PITC), couple's testing during (ANC), and HIV self-testing and contact tracing (Lasry et al, 2016).



Policy Options to address low uptake of HTS amongst men in Zambia

Achieving the first-90 of the UNAIDS '90-90-90' target amongst men requires the use of innovative strategies to deliver HIV testing services to reach individuals previously not tested and encourage re-testing amongst those testing HIV-negative. Proposed policy option to achieve this include;

1.Conventional HTS at a facility (Status Quo)

2.Scaling up HTS through male-friendly clinics

3.Community based assisted self-testing (HIVST)

Option 1: Conventional HTS at facilities (Status quo)

What: Leave things the way they are and continue routine HIV testing for all women, men and children together. There is a poor outcome in reaching men due to an unfavourable environment at health facilities that is usually congested with women and children.

Why: 25% of men having not been tested for HIV and received their results, compared to only 15% of adult women in Zambia by 2018 (ZDHS, 2018).

Feasibility: High Health facilities already have health care workers to attend to men, women and children who visit the health facility, and the standards of care have already been established.

Option 2: Scaling up HTS through male-friendly clinics

Men's clinics provide a male-friendly environment that encourages men to get tested for HIV and therefore be identified as HIV positive and linked to HIV care and treatment services. This is an effort to improve service uptake among men, as currently there are 25% of HIV-positive males that do not know their status.

What: Identify space in existing government health facilities to establish male-friendly clinics, and recruit male nurses and counsellors who would provide services to men in an environment where they feel comfortable, and extended clinic hours and weekend clinics for men working longer day hours.

Why: Even though men are less likely to utilize existing health facility-based HIV services, they account for a significant proportion of new HIV infections and subsequent onward transmission (PEPFAR, 2018). The services in the men's clinics will offer benefits that include flexible appointment schedules, longer working hours, weekend clinics, service delivery by staff trained in providing male-friendly services, multi-disease consultations, one-stop-shop for consultation and drug dispensing (e.g. ARV drug refills), short waiting times, and focus on male health care needs. Studies have shown that more than 90% of men accept HTS in a male-friendly clinic (PEPFAR 2018).

Feasibility: High Male friendly clinics leverage on existing infrastructure and personnel to provide a separate space, or in some cases dedicated times, to allow only men to access primary health care services. This is intended to address sociocultural barriers impeding men from visiting health care facilities.

Option 3: Community based assisted self-testing (HIVST)

Targeted community distribution of HIV self-testing (HIVST) kits for men has the potential to increase uptake of HIV testing services.

What: Exapnd community based targeted assisted HIVST for men

Why: Studies show that HIVST delivered in people's communities/homes by community-based volunteers (CBVs) is acceptable, including to harder to reach individuals especially men (Bwalya et. al. 2020). The introduction of the HIVST in communities has the potential of improving men's uptake in HIV testing services, thereby contributing to addressing the first cascade of the 90–90-90. Evidence shows that 90% of men are comfortable with using HIVST (Hlongwa et. al).

Feasibility: Medium; The approach of offering Universal Routine HIV Testing, including HIVST, gives a window to provide immediate treatment and care to all HIV infected individuals through the "test and treat" strategy. However, this implementing this strategy will require training of additional CBVs on HIVST promotion and use, hence requiring more resources. In addition, individuals who test positive on the HIVST kit will still need to do a confirmatory test at the health facility.

Cost effectiveness comparison of policies

	Option 1	Option 2	Option 3
Effectiveness outcomes	Routine HTS in the facility	HTS through male friendly clinic in the facility	Community-based assisted HIVST
Effectiveness (Total Men Initiated on ART)	46,273	108,346	53,162
Incremental effect	-	62,073	6,889
Total Costs USD	12,558,573	29,627,750	15,317,950
Incremental Costs	-	17,069,177	2,759,377
Incremental Cost Effectiveness Ratio	-	275	401
Political Feasibility			
Operational Feasibility			

High Feasibility
Moderate Feasibility

Male friendly clinic HIV Testing Services in the facility are more cost-effective compared to HIV Self- Testing Services (HIVST) in the Community, and to Routine HIV Testing at the facility. The results show that HTS through male friendly clinics costs the least to initiate, which is $275 per an additional individual identified as HIV positive. These clinics provide a Differntiated Service Delivery (DSD) model for adult males who are less likely to be reached by provider-initiated and community-based HIV testing approaches that are widely used in Zambia.

Recommendations and next steps

Based on our analysis, scaling up HIV Testing Services (HTS) through male-friendly clinics in facilities is the most feasible option to increase uptake of HIV testing services among men. Male friendly clinics at health facilities make testing easier for men as they also provide flexible working hours and address confidentiality concerns. Studies have shown that more than 90% of men will accept HTS in a male-friendly environment.Scaling up HIV Testing Services through male-friendly clinics at the facilities to reach more men coupled with targeted testing through Index testing and social network testing will ensure case identification of more HIV positive men.

This intervention will need to introduce outreach activities in areas where men are more likely to be found e.g. busy city markets, taxi ranks, bus stops, and mines. With existing guidance on universal routine HIV testing and treatment in all public and private health facilities in Zambia, there is a need to design an implementation scale-up plan for expanding male-friendly clinics with relevant stakeholders.

There is a need for all health facilities to have designated spaces for male-friendly clinics offering HTS, with male HCWs trained on provision of male friendly services, away from spaces with women and children. MoH will also have to work closely with other stakeholders and implementing partners that have successfully worked on DSD models such as after-hour clinics. The sustainability of this model will be strengthened through the use of MoH staff to provide services in the male clinics.

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TITLE: REDUCING MATERNAL MORTALITY IN ZAMBIA THROUGH THE NON-PNEUMATIC ANTI-SHOCK GARMENT (NASG)AND STRENGTHENING COMMUNITY MORTALITY SURVEILLANCE

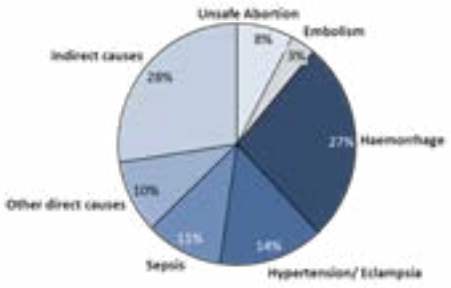
Abstract

By : R Zimba, L Mkandawire

Citation Style For This Article: Zimba R, Mkandawire L. Title: Reducing maternal mortality in Zambia through the non-pneumatic anti-shock garment (NASG)and strengthening community mortality surveillance. Health Press Zambia Bull. 2021; 05(02); pp 7-12.

Key Messages

-Every year over 300,000 mothers die from pregnancy complications and childbirth, with 99% of all maternal deaths occurring in the developing world.
-Globally, four maternal complications (hemorrhage, eclampsia, sepsis, and unsafe abortion) account for over half of all maternal deaths.
-In Zambia, maternal deaths account for 10% of all deaths among women aged 15-49.
-Obstetric hemorrhage (OH) is the leading cause of maternal mortality in Zambia, accounting for 38.7% of maternal deaths.
-The NASG controls bleeding, applies pressure to the lower body and abdomen, thereby stabilizing vital signs and resolving hypovolemic shock.
Applying the NASG helps clinicians buy time in case of delay before definitive care for managing OH is provided to a woman.



Problem Statement

Despite recent advances, Zambia continues to experience high maternal mortality with an MMR of 252 against the national target of an MMR of 100 per 100,000 live births by 2021. Globally, about 830 women die each day due to complications during pregnancy and childbirth. In Zambia, maternal associated causes were the fourth leading cause of death in women of childbearing age[][]. Women die due to complications that are preventable or treatable. According to WHO, the major complications that account for nearly 75% of all maternal deaths are severe bleeding, i.e., Obstetric hemorrhage (mostly bleeding after childbirth), infections (usually after childbirth), high blood pressure during pregnancy (pre-eclampsia and eclampsia), complications from delivery and unsafe abortion. The rest are chronic conditions like cardiac diseases or diabetes. According to the Zambia National Public Health Institute (2018), more than one-third of maternal deaths in Zambia are due to obstetric hemorrhage. This problem is further compounded by inadequate comprehensive surveillance for early detection of OH cases when they occur in the community. The campaign to accelerate the reduction of maternal mortality in Africa (CARMMA) launched in 2010, Identified three delays that make OH management challenging and significantly contribute to maternal deaths in Zambia. These are; delay in seeking care by individuals, delay in reaching care, and delay in receiving care. In the least developed countries and most developing countries, underprivileged women, particularly those in remote areas, are less likely to receive adequate and quality health care. Among the main factors that prevent women from accessing or seeking care during pregnancy and childbirth include poverty, distance to the facilities, lack of information, inadequate or poor quality of services, social, cultural beliefs and practices.

According to the ZNPHI, Zambia must continue comprehensive surveillance of maternal deaths as well as increase access to family planning services, quality antenatal care services, skilled birth attendants, and emergency obstetric care to actualize reduction of maternal mortality.

Policy Options to Address contribute to the reduction of maternal mortality in Zambia

Zambia desires to reduce maternal mortality to 100/100,000 by 2021. This calls of greater efforts and investments in strategies that will help accelerate the prevention measures. To address the high maternal mortality due obestrict hemorrhage exerbated by the three delays, two policy options proposed and evaluated in this policy brief.

1.Maintain the current standard of care for managing breeding in pregnancy (OH)
2.Scale-up the Non-Pneumatic Anti-Shock Garment (NASG) to all facilities to help health care workers buy time before definitive care is provided in the event of delay.

Option 1: Maintain Status quo (Current standard of care)

According to the ZDHS 2018, Zambia has made progress in reduction of maternal mortality i.e., 252/100,000 live births. This however remains high and may not likely achieve the target of 100/100,000 by 2021. The MoH continues to manage PPH through various interventions including the administration of Oxytosin and misoprostal. The delays are being addressed through community awareness, building mothers shelter and deployment of staff in addition to treatments at the service delivery points.

What: Continue with the status quo (Standard of Care) and ensure that maternal mortality deaths are reviewed, action points drawn and implement the recommendations hoping that the trend go down.

Why: Zambia has recorded a reduction in maternal mortality from 398/100,000 live births to 252/100000 over a period of 5 years i.e. 2013/2014 – 2018.

Feasibility: High: Some communities have community health workers (SMAGs) who are raising awareness on birth preparedness and the need for facility deliveries. About 84% of the births occur in health facilities in Zambia.

Option 2: Scaling up the use of the Non-Pneumatic Anti-Shock Garment (NASG)

In addition to the existing interventions in managing PPH e.g. administering of Oxytosin and misoplostal, The NASG is being suggested for starblizing, reversing shock and buying time for definitive care. The NASG is a lightweight neoprene garment that is made up of five segments that close tightly with Velcro. The NASG controls bleeding, applies pressure to the lower body and abdomen, thereby stabilizing vital signs a0nd resolving hypovolemic shock. When fitted correctly, the reusable NASG forces blood to the essential organs - heart, lungs, and brain. This also extends the opportunity for the patient to be transported to a higher level of definitive care.

What: Deploy the NASG at all levels of care to be applied to women with PPH to control bleeding and stabilizing women and resolve shock. Alongside strengthen the community surveillance systems to detect early signs of PPH. Universal health coverage and leaving no one behind.

Why: The NASG has been used on over 10,000 women in 33 countries. A pilot in Northern Province Zambia beginning in 2019 demonstrated local feasibility in the public sector and documented 74 NASG uses. The NASG costs $75 andcan be re-used the cost-effectiveness of NASG was estimated to be $22 per DALY averted in Zambia and Zimbabwe. Pooled data from 5 observational studies shows that the NASG resulted in a 48% reduction in mortality.

Feasibility: High NASG is an addition to the many existing intervention and is a stop gap measure to treatment of PPH. It allows for stabilization and management of shock. For communities that are far from facilities, it is ideal that efforts such as NASG and community surveillance are strengthened to curb maternal mortality. The NASG will leverage on other interventions available. This indeed will contribute to the reduction in maternal mortality in Zambia.

Cost effectiveness comparison of Policies

	Status Quo	NASG + Community Surveillance
Estimated number of OH related maternal deaths prevented annually	363	278
Total cost government (1-year) – Million ZMK/US$	102,104	173, 910
Incremental Cost – Million ZMK/US$	------	71806
Incremental Cost-Effective Ratio (ICER)	--------	-844.78
Operational feasibility	---	
Political Feasibility		

Based on this economic evaluation, the NASG and community has shown to be cost effective and can help to stabilize and reverse shock due to OH. The government will spend ~ USD 845 to avert one maternal death due to OH.

Recommendations and next steps

-MOH should consider scaling up the use of NASGs to all the facilities in the country

-MOH should consider making available NASGs guidelines at all primary level of care

-MOH should develop a costed implementation plan

-MOH should strengthen mortality surveillance system for early detection of OH by training CBV and ensuring that reporting tools are available and utilized correctly.

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PROTECT OUR YOUTHS: STRENGTHEN YOUTH FRIENDLY SERVICES IN HEALTH FACILITIES

Abstract

By : C Katamba, N Maambo

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Key Messages

-HIV-related deaths have more than tripled since 2000, making it the number 2 cause of death among adolescents worldwide1.

-Many young people, particularly those who are at risk for HIV and reproductive health-related problems, do not seek traditional facility-based health services.

-Nearly 35% of the global burden of HIV/AIDS has roots in adolescence2.

-In Zambia, only 6 in 10 adolescent girls and 5 in 10 adolescent boys aged 15-19 years have ever been tested for HIV and know their HIV status3.

-Strengthening youth-friendly HIV testing services (HTS) in health facilities will increase adolescent HIV testing to about 90% and foster the achievement of 95 95 95 target.

Problem Statement

HIV/AIDS poses a significant threat as public health problem and achieving HIV epidemic control by 2030 remains a challenge. The new HIV infections among adolescents and young people have not rapidly decreased to flatten the epidemic curve. The combination of the increasing number of young people between the age of 15 – 24 years and the slow HIV response for this age-group will affect the progress toward HIV epidemic control.

Zambia has one of the highest HIV incidences among adolescents and young people in Sub-Saharan Africa4. Particularly, because of their vulnerable social and economic status, adolescent girls and young women (AGYW) are the most affected group5. Young people are often forgotten in national HIV and AIDS plans, which typically focus on adults and children. Consequently, there is a lack of youth-friendly health services.

There were approximately 3.5 million young people between the age of 15 and 24 years living with HIV worldwide in 20166, most of these were in Sub-Saharan Africa. In the same year, around 140,000 young people (15-24 years) in Zambia were living with HIV and 1,900 of them died from an AIDS-related illnesses6. Young people between the ages 10-24 years are more likely to engage in risky sexual behaviour than older people.

The barriers to young people obtaining services include:

-The need for all adolescents under the age of 16 years to gain parental or guardian consent prior to testing in Zambia7,

-Fear of a positive test,

-Association of HIV testing with high-risk behaviour,

-Stigma,

-Perceived risk with respect to sexual exposure,

-Lack of information,

-Difficulty accessing testing services and poor attitudes of healthcare providers8-9.

In a widespread randomized trial, the HPTN 071 (PopART) study, conducted over 3 years in Zambia and South Africa; many challenges for ensuring Universal HIV testing and treatment, at population level were noted. These include:

-Unavailability of many men during home visits

-Slower linkage to care and ART initiation

-Lower overall coverage in young people

These obstacles often lead to underutilization of HIV testing services, which subsequently result in delayed diagnosis, late initiation of ART, poor health outcomes, and increased risk of HIV transmission.

Knowledge on HIV transmission is crucial to enable people avoid HIV infection. This is especially true for young people, who are more likely to acquire HIV because they may be involved in shorter relationships with more partners or may be engaged in other high-risk behaviours[4].

Furthermore, according to the latest

Zambia Demographic Health Survey (ZDHS, 2018), there is a disparity in annual HIV retest percent between female and male adolescents aged 15-24 years (72.2% females and 54.4% males).

Table 1: Recent HIV tests among young people

Background characteristic	Women age 15-24 who have had sexual intercourse in the past 12 months: Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women	Men age 15-24 who have had sexual intercourse in the past 12 months: Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
Age				
15-19	65.3	1,230	40.4	912
15-17	59.3	490	33.6	360
18-19	69.4	740	44.8	553
20-24	76.0	2,198	63.1	1,479
20-22	75.3	1,334	60.9	891
23-24	77.1	864	66.3	588
Marital status				
Never married	69.5	1,393	51.5	1,873
Ever married	74.0	2,035	64.9	518
Total 15-24	72.2	3,428	54.4	2,391

Zambia DHS 2018

Policy Options

In order to enhance the uptake of HIV testing among adolescents and young people in Zambia, improve ART initiation and improve VL suppression resulting in less transmission, the following policy options are proposed:

1.Routine adolescent HIV testing services (Status Quo)

What: Routine adolescent HIV testing simply entails maintaining the current status quo. This entails riding on the current government HTS strategy in health facilities as adolescents seek for medical care.

Why: Maintaining the status quo means that adolescents will only get a chance to access HTS as and when they go to the health facilities for healthcare.

Feasibility: High

2.Introduction of Youth-Friendly HIV testing services in healthcare facilities

What: Adolescent and young people living with HIV (AYLHIV) need additional support and understanding from caregivers, peers, as well as Health care workers to successfully ensure that AYLHIV thrive. There is urgent need to establish/ strengthen adolescent friendly health spaces at health facility, and to train healthcare workers to deliver youth friendly services.

Why: Youth-friendly HTS are designed to address the structural, socio-cultural and individual barriers faced by youth in accessing high quality sexual and reproductive health (SRH) services7. An Assessment of adolescent and youth friendly services in primary healthcare facilities in two provinces in South Africa yielded a 95% for HIV screen and test by adolescents12. Further, the assessment concluded that Youth friendly HIV testing at the facility is more cost-effective than youth friendly testing in the community. This is because most resources are already available at the facility12. In our model, Provision of streamlined and targeted youth-friendly approaches for different age bands and sex in healthcare settings would identify 1650 new HIV positive among adolescents annually, 1426 adolescents of them would be initiated on treatment, and 1024 adolescents would have their viral load suppressed.

Feasibility: MEDIUM to HIGH. This strategy builds on the government's decision to identify HIV positive adolescents through routine HIV testing services in health facilities. However, it will an increase in HIV test kits.

3.Introduction of routine adolescent testing in communities.

What: Out-of-facility services for this group need to be implemented/ strengthened in many different settings. Such services must aim to reach young people where they are, for example in schools, work places, youth centres, and on the street. For the assessment of this option, we used home based community testing approach.

Why: Community-based HIV testing services can contribute to increased testing coverage, early HIV diagnosis and treatment, and reduced HIV transmission and incidence6. Home-based HIV self-testing in rural Malawi increased testing by 20%, including in men and adolescents, compared to the percentage achieved by facility-based HTS. The addition, the distribution HIV self-testing kit to home-based HTS provided by community health workers (CHW) in urban Zambia further increased knowledge of status by 3% for all age groups. In our model, introduction of routine adolescent testing in communities would result in 779 new HIV positive adolescents identified annually of whom 708 would be initiated on treatment, and 527 adolescents would have their viral load suppressed.

Feasibility: Low. The cost of implementing this option is very high. This strategy will require community sensitization, funds, transport, and additional human resource. Furthermore, it will require a reinforced legal framework, placement of more trained counsellors, and an increase in HIV test kits.

Recommendations and next steps

-Strengthening Youth friendly HIV testing at the facility is more cost-effective and feasible option to increase the number of adolescents to undertake an HIV test. Implementation of this option will help identify the number of adolescents with HIV and ultimately will reduce transmission.

-Facilities that provide routine adolescent care and treatment should be assessed and improved to ensure the inclusion of adolescent friendly considerations, such as separate clinic space whenever possible or separate waiting areas within adult or pediatric clinics. Clinic staff and peers need to be trained in youth friendly

approaches.

HTS modality	Routine HTS	Facility youth friendly HTS	Community youth friendly HTS
Annual # New HIV positive identified	681	1650	779
Total costs (USD)	78,254	205,343	1,013,883
Cost per person tested positive	115	124	1302
Annual # New positive initiated on RX	213	1426	708
Total costs (USD)	134,699	583,233	265,874
Cost per person initiated on ART	632	409	376
Annual # of viral load suppression	68	1024	527
Total costs (USD)	136,734	598,552	1,217,271
Cost per person with VLS	642	420	1719
Political Feasibility			
Operational Feasibility			

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