



2015 - 2020

National Strategic Plan for HIV and



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DEFINITION OF TERMS AND CONCEPTS

Adherence
Adverse drug events
Community Systems
Health System
Health System Strengthening
Key Population
Mentoring
Public Health Approach
Task-shifting
Vulnerable Population

ABBREVIATIONS AND ACRONYMS

AIDS: Acquired Immune-Deficiency Syndrome
ART: Antiretroviral Therapy
CHAM: Christian Health Association of Malawi
CSO: Civil Society Organization
CSS: Community Systems Strengthening
DAC: District AIDS Committee
EHP: Essential Health Package
EID: Early Infant Diagnosis
EMHS: Essential Medicines and Health Supplies
EWI: Early Warning Indicators
FBO: Faith Based Organization
FTE: Full Time Equivalent
HIV: Human Immune Deficiency Virus
HSA: Health Surveillance Assistant
HSS: Health Systems Strengthening
HTC: HIV Testing and Counselling
Ihris: Human Resources Information System
KP: Key Population
KVP: Key and Vulnerable Populations
MoH: Ministry of Health
MTCT: Mother to Child Transmission
M&E: Monitoring and Evaluation
NAC: National AIDS Commission
NGO: Non-Governmental Organization
NSP: National Strategic Plan
OVC: Orphan and Vulnerable Children
PHDP: Positive Health, Dignity and Prevention
PLHIV: People Living with HIV
PMTCT: Prevention of Mother to Child Transmission
POC: Point of Care
PSM: Procurement and Supply Chain Management
QI: Quality Improvement
SBCC: Social Behavioural Change Communication
TMA: Total Market Approach
TWG: Technical Working Group
VHC: Village Health Committee
VMMC: Voluntary Medical Male Circumcision

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1 INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

HIV prevalence in Malawi is declining overall with new infections reducing from 55,000 in 2011 to 34,000 in 2013. Implementation of effective prevention, treatment, care and support interventions in the national response need to take into consideration certain realities. These realities include the fact that at least half of these infections are occurring among young people aged 15-24 years; and the majority of people being infected are those who were previously considered to be at low risk, for example, couples and partners in stable sexual relationships; the lessons the country has learned through a successful public health approach treatment program, HIV testing and treatment not only improves the lives of those infected but contribute substantially to prevention and the changing legal and social landscape for key populations such as men having sex with men and sex workers.

Early Antiretroviral treatment (ART) is the most powerful intervention available to prevent HIV morbidity and mortality, particularly in the context of Malawi's health services with limited capacity to diagnose and manage HIV-related diseases. There is overwhelming evidence, including from Malawi, that early ART reduces TB risk by 51%, AIDS-defining clinical events by 51%, and primarily clinical events by 27%¹.

Malawi's rapid and successful Antiretroviral Therapy (ARV) scale-up from 2004 to 2014 has critically influenced the HIV epidemic, reducing mortality, morbidity, and transmission. In the one decade since starting the national treatment program:

- 1 out of every 20 Malawi adults is now on ART
- 275,000 deaths have been averted
- 1.4 million life-years have been gained, primarily among young adults in their peak productive life period.

In 2011, Malawi started implementing Prevention of Mother to Child Transmission (PMTCT) *Option B+* policy, making life-long ART available for all HIV infected pregnant and breastfeeding women, regardless of clinical stage or CD4 count. This has resulted in a 66% reduction of vertical transmission within 3 years. This Malawi-pioneered strategy has since been included in global guidance by World Health Organisation (WHO). As of February 2014, 12 other African countries were implementing Option B+.

Based on Malawi's proven ability to sustain a rapid ART scale-up in spite of severe health system constraints, this 5 year strategic plan aims to meet the **Ambitious 90-90-90 Treatment Targets** released by UNAIDS in 2014, preparing to control the HIV epidemic by 2030. By the end of 2020, Malawi will have:

- Diagnosed **90%** of all people living with HIV (PLHIV)
- Started and retained **90%** of those diagnosed on ART
- Achieved viral suppression for **90%** of patients on ART

Reaching these **90-90-90 goals** in 2020 will result in 760,000 (**73%**) of the projected 1,042,000 PLHIV being virally suppressed, leading to a dramatic reduction in sexual and vertical transmission at the population level.

¹ Cohen MS, Chen YQ, McCauley M, et al. Prevention of HIV-1 infection with early antiretroviral therapy. N Engl J Med 2012;365(6):493-505.

By 2020, this strategic plan aims to:

- Reduce adult (15-49 years) HIV incidence to 0.2, equivalent to 17,000 new infections annually
- Reduce the number of children infected by their mothers to 3,900 annually

Within the 5 year period covered by this plan, Malawi will have:

- Prevented an **additional 78,000** new adult (15-49 years) infections, compared with a scenario of maintaining the ART cohort at the 2014 level
- Prevented **75,000** child infections through Option B+

This 2015-2020 National Strategic Plan (NSP) for HIV will focus on meeting the 90-90-90 targets through identifying critical program and system gaps and ensuring those gaps are closed within the next five years. The NSP cuts across multiple sectors including health, and creates a common understanding for all HIV and AIDS stakeholders: government, civil society, the private sector, and development partners to work together towards achieving the expected results. The NSP is not intended to replace or duplicate other strategies; rather, the NSP provides the guiding or leading document and context within which other sectoral strategic plans and budgets should be formulated, monitored, and coordinated.

Given the aim of extending survival of PLHIV through early treatment, HIV prevalence targets have been replaced by a dynamic target ratio, relating incidence to treatment coverage. Treatment targets have been elaborated through the adoption of improved guidelines and programme scale-up; stigma and discrimination targets are set on the basis of routinely conducted nationally representative studies. The NSP also includes a focus on strengthening the management and coordination of the HIV response, and will be complemented by a costed action plan and other tools (e.g. the National M & E Framework) for its implementation and monitoring.

1.2 VISION AND MISSION

The Vision of the NSP is to have a healthy and prosperous nation free from HIV and AIDS.

The Mission of this NSP is to provide high-quality HIV prevention, treatment and care services for all Malawians.

1.3 REGIONAL AND GLOBAL COMMITMENTS

The Government of Malawi is a signatory to several recent regional and global commitments regarding HIV and AIDS, some of which are the following:

- The 2012 Tunis Declaration on Value for Money, Sustainability and Accountability in Health aimed to increase domestic funding through cooperation between Ministries of Health, Ministries of Finance, technical and financial partners
- The 2012 African Union Roadmap on Shared Responsibility and Global Solidarity for AIDS, TB and Malaria in Africa
- The 2011 UN Political Declaration on HIV AIDS of June, 2011
- The 2011 Global Plan towards elimination of new HIV infections among children and keeping their mothers alive
- Global Response of three-zeros (zero infection, zero death and zero discrimination).
- The Maputo Plan of Action on Sexual and Reproductive Health and Rights (2007 to 2010)
- The Maseru Declaration of SADC Heads of State

Translation of these regional and global commitments demonstrated through political leadership and government's fiscal investment in the national response will ensure the achievement of sustainable results.

1.4 THE NSP REVISION RATIONALE

The last ten years have witnessed significant progress in the delivery of efficacious HIV prevention, care, treatment, and programme strengthening interventions, leading to the decline in new HIV infections in much of sub-Saharan Africa. In

June 2014, a review of the Malawi National HIV and AIDS Strategic Plan 2011-2016 was commissioned by the National AIDS Commission to identify key achievements, challenges, and emerging issues in the management and implementation of the national HIV and AIDS response, and to create the opportunity to redefine the national response to focus on the global response of the three zeros (zero infections, zero deaths and zero discrimination).

Since 2011 when the implementation of the NSP began, Malawi has developed several policies and guidelines that are supportive of the national response. Key policies and guidelines include, among others, the National HIV and AIDS Policy (2011); the updated National ART Policy Guidelines, the draft HIV and AIDS (Prevention and Management) Bill, 2008, the National Prevention Strategy, the National Sexual Reproductive Health Strategy, the new National integrated ART/PMTCT Guidelines that include Option B+ and the results from the Modes of Transmission study. A revised NSP was, therefore required not only to help in translation of these national policies and guidelines into action, but also to take advantage of the enabling and conducive policy and planning environment in the response.

Another critical factor in the timing of the NSP review and revision process was the increasing emphasis on fiscal efficiency and responsibility and on using an investment approach to drive the planning of national strategic plans for HIV. These 3rd generation NSPs must first foster a national planning paradigm shift in response to the new environment for investment in HIV and AIDS and second, ensure country ownership and leadership is a primary consideration, requiring broad base consultation in all phases. The re-planning of Malawi's NSP, therefore, offers an opportunity for all stakeholders to engage in a process designed to allow for thinking differently about the national strategic response to HIV and AIDS.

Finally, important new evidence in HIV treatment and prevention indicate for the first time the opportunity to end AIDS. These interventions are high impact and cost effective—very appropriate for least developed countries with generalized epidemics such as Malawi. These developments require revision of the current strategic plan and approach to ensure Malawi fully operationalizes these evidence-based, high impact interventions. The NSP revision process provides a critical opportunity to assess, strengthen, and correct the response.

1.4.1 THE NSP REVISION PROCESS

A highly participatory and consultative approach in which all the relevant stakeholders participated was adopted in revising the NSP. The process of revising the NSP was preceded by a light midterm review of the implementation of the NSP during the previous two-and-half years. A multi-disciplinary Steering Committee (SC) was formed to provide overall guidance to the review and revision process of the NSP. A team of four consultants was recruited to facilitate the review and revision process. Four thematic technical working groups (TWGs) were constituted to review the reports and plans prepared by consultants.

Both the Steering Committee and technical working groups endorsed the results of the light review of the NSP, and subsequently the revised 2015-2020 NSP before its launch. The specific process undertaken during the review that provided input into the revised 2015-2020 NSP included an extensive desk review, consultations at national, district and community levels, and engagement with the TWGs and SC.

1.4.2 DESK REVIEW

A desk review was undertaken for each of the thematic areas. The review followed a systematic process of abstracting relevant information to address the tasks under the terms of reference (ToR). Particular emphasis was put on reviewing available literature to document progress of implementation of the NSP against set targets during the years 2011/2012 and 2012/2013 for the first two years of the Plan. Information on the indicators under each thematic area was sought from programme reports, annual performance reviews and from annual surveys.

In parallel to this process, the revision of the National HIV Prevention Strategy took place for which a symposium was organized in Lilongwe in June 2014. International and national experts in HIV Prevention, as well as programme managers, development partners and relevant stakeholders participated in this three-day think tank meeting. The outcomes of this symposium formed the foundations of the new HIV Prevention Strategy (2015-2020) on which some sections of this NSP are grounded.

1.4.3 CONSULTATIONS

Consultations with key primary and secondary stakeholders were conducted at national and district levels. At the district level, consultations were held with District Health Offices (DHOs), District AIDS Coordinating Committees (DACCs), Civil Society Organizations (CSOs), MOH and NAC Programme Officers, and other selected staff. Individual in-depth interviews were conducted with key informants from public and private organizations at national level, including informants from civil society and networks of PLHIV, as well as representatives of the Men who have sex with Men (MSM) and Female Sex Worker (FSW) populations.

1.4.4 TECHNICAL WORKING GROUPS (TWGs)

Three TWGs were duly consulted during the Inception Phase. Each TWG comprised stakeholders with expertise in the respective theme area either as implementers, policy-makers, civil society, or donors. These TWGs worked with the Consultants throughout the review and revision of the NSP. The following TWGs participated in the NSP:

- HIV Prevention
- Integrated ART/PMTCT and Care
- Impact Mitigation

Further the Gender Advisory Team was consulted to ensure that gender issues were adequately addressed. The HIV and AIDS Donor Group (HADG), NAC and other sectoral coordinating bodies were consulted on issues of management and coordination of the response.

Each TWG had a Convener or Chairperson from the line ministry or a key implementing agency. A series of TWG meetings were held to review and provide input into desk review reports, review the tools, individual thematic Mid Term Review (MTR) Reports, and finally to discuss and agree on the Revised NSP results, indicators and targets for each theme area. TWGs did not only provide technical guidance and input, but were an important source for data.

1.4.5 STEERING COMMITTEE (SC)

The NAC provided the secretariat support to the NSP review and revision processes in close collaboration with the Steering Committee overseeing the overall exercise. From the TWGs, the Steering Committee received all key deliverables of the review and revision. The steering committee and the expanded TWG commented on the revised NSP.

2 GUIDING PRINCIPLES OF THE 2015-2020 NSP

2.1 APPLICATION OF AN INVESTMENT APPROACH

The investment framework aims to maximise the benefit of the HIV interventions, support more rational resource allocation based on country epidemiology and context, encourage Malawi to prioritize and implement the most (cost)-effective programmatic activities, and increase efficiency in HIV prevention, treatment, and care and support programming.

The 2015-2020 NSP was informed by two analyses: A 'GOALS' modelling analysis, comparing the net impact and cost of multiple concurrent interventions; and an analysis of the HIV interventions financial sustainability. The GOALS analysis showed diminishing returns from all other prevention interventions in a national context of universal ART, as population level viral load was reduced and incidence declined. The financial sustainability analysis highlighted the need for a realistic funding assumption which prioritizes allocative efficiency. Based on these findings, the 2015-20 NSP followed a robust process of prioritizing interventions and rational resource allocation while maintaining a feasible budget:

- Targeted evidence-based interventions which are deemed relevant and feasible to implement by the national TWGs (programmatic efficiency)
- Selection of efficient service delivery modes (technical efficiency)
- Streamlining and integration of activities to reduce duplication and maximise outputs related to impact-level indicators (technical efficiency)
- Optimisation of program impact through informed target setting and scenario analysis resulting from different funding envelope models (allocative efficiency).

2.2 FOCUS ON EVIDENCE-BASED INTERVENTIONS FOR MAXIMUM IMPACT

The development of the 2015-2020 NSP, in alignment with global guidance and shrinking funding, has been drastically refocused around impact. The interventions which have the highest impact are those which take highest priority in this NSP. In order to virtually eliminate HIV in Malawi, it is imperative that all funding, interventions and activities rally around the 90-90-90 targets, in an effort to reduce transmission through population level reduction of viral load.

2.3 IMPROVED TARGETING OF CRITICAL INTERVENTIONS TO KEY AND VULNERABLE POPULATIONS

It is not enough that Malawi implement the most effective HIV prevention interventions; these efforts must additionally be carefully targeted at those populations most at risk of either becoming infected with HIV or of infecting others. This means that HIV testing will be focused around the settings and populations where the *most HIV-positive individuals can be identified* and linked to treatment. In health facilities, routine testing for HIV will be massively scaled up, and in community settings, the key populations (KP) e.g. men who have sex with men (MSM), and female sex workers (FSW) as well as vulnerable populations such as prisoners, male and female adolescents and youth, estate workers, and other highly mobile groups (truckers, fish buyers and sellers) will be prioritized.

2.4 QUALITY IMPROVEMENT (QI)

Creating and ensuring high demand for effective HIV services necessitates an increased emphasis on quality improvement. The rationale for Quality improvement (QI) and programme monitoring and evaluation (M&E) methods is to determine whether prevention services for persons with HIV are acceptable, are implemented as intended and are yielding the expected improvement in outcomes. The focus of the QI efforts will be on improving adherence to clinical

practice guidelines; on increasing efficiency, lowering costs, and utilizing staff and health information more efficiently; and on improving care coordination or patient flow.

2.5 SERVICE INTEGRATION

TB and HIV: The NSP prioritises high impact interventions for TB and HIV integration with an emphasis on gaining efficiency from aligning programme management and consistent collaboration and coordination of TB and HIV services through joint planning, budgeting, supervision and monitoring.

Family Planning and HIV: Rapid population growth is a threat to all health and development goals in Malawi. Family Planning (FP) is the second prong of PMTCT; widely accessible and consistently available FP services through multiple points of contact with patients and clients are critical components to controlling the HIV epidemic.

Sexual and Reproductive Health and HIV: Stronger integration between Sexual and Reproductive Health (SRH) and HIV and AIDS interventions lead to a number of health outcomes and benefits which include among others: (1) improved access to, and uptake of key services; (2) better access of PLHIV to services tailored to their needs; (3) reduced AIDS-related stigma and discrimination; (4) improved coverage of underserved and key populations such as sex workers or men who have sex with men; (5) greater support for triple protection against unintended pregnancy, HIV, and STIs especially for young people; (6) improved quality of care; (7) enhanced effectiveness and efficiency of the response.

2.6 MULTI-SECTORAL INCLUSION

The national response to HIV and AIDS covers health sector programmes such as TB, nutrition, and reproductive and child health services, as well as non-biomedical (non-health) sectors of society because of the diversity of HIV transmission and the varying impacts of the epidemic on the population. The revised NSP therefore includes non-health based interventions and partners to ensure multi-sectoral response to the epidemic. These efforts will aim to positively influence and utilise critical social and programme enablers and development synergies.

2.7 COMMUNITY ENGAGEMENT

Active participation of community, cultural and religious leaders, the formal and informal segments of the private sector, Community Based Organisations, PLHIV and community groups is needed to complement the efforts of the public sector. Community activities will support the efforts to realize the 90-90-90 targets and keep those who are negative HIV free. Primary prevention activities will target adolescent girls and young women, young men who want to protect themselves through VMMC, and those who are tested negative through prioritised testing efforts. Community engagement will include demand creation for services, knowledge sharing on services, mobilizing communities to access prevention services conducting referrals of HIV positive individuals to health facilities, conducting follow ups for ART clients to ensure treatment adherence, and providing psychosocial support to PLHIV. These efforts will focus primarily on positively affecting and utilising critical social and programme enablers.

2.8 HUMAN RIGHTS

Strategies to address the HIV epidemic are hampered by an environment where human rights are not respected. For example, stigmatization and discrimination against marginalized groups such as sex workers, and MSM drive these populations underground. This impedes efforts to reach these populations with prevention initiatives, thereby increasing their vulnerability to HIV. Similarly, failure to provide access to appropriate information about HIV, or treatment, and care and support services further fuels the AIDS epidemic.² Human rights will therefore be safe-guarded through promoting gender equity and equality in HIV services along with ensuring a stigma-free environment and protection of patient-rights in facilities. The strategy which encompasses protection and promotion of human rights will be essential in preventing the spread of HIV and to mitigate the social and economic impact of the pandemic.

2.9 GENDER

According to UNAIDS 2013³, HIV continues to be driven by gender inequalities and harmful norms that promote unsafe sex and reduce access to HIV as well as SRH services for men, women and transgender persons. The pervasive social, legal and economic disadvantages faced by girls and women reduce their ability to protect themselves from HIV infection.

There are several factors which predispose women and girls to HIV. Women and girls have greater biological vulnerability to HIV. Gender based violence and inequalities include vulnerability to rape, sex with older men, unequal access to education and economic opportunities. These make HIV related risks especially acute for girls and young women. In comparison to men, women are more likely to acquire HIV at an earlier age, resulting in a global HIV prevalence among girls and young women that is double or greater than that among males of the same age (UNAIDS 2013).

The NSP promotes comprehensive sexuality and gender transformative interventions to prevent new HIV infections through safer sex through support service utilisation, retention in care and adherence. Ethnographic and qualitative studies indicate a clear role of socio-cultural, gender, and community norms in perpetuating HIV transmission through high risk sexual behaviours, such as multiple and concurrent partners, lack of condom use, and through insufficient health-seeking behaviours.⁴ The NSP will build on positive efforts made to promote couples communication, modification of harmful cultural practices, and stigma reduction through effective community mobilisation efforts in collaboration with traditional and faith leaders.

²OHCHR, (2014). HIV/AIDS and Human Rights

³UNAIDS (2013). UNAIDS Report on Global AIDS epidemic

⁴ Desk review of HIV determinants in Malawi. Lilongwe, University of Pennsylvania and BRIDGE-II Project. USAID/Malawi (2012). Gender Assessment 2012. Lilongwe, USAID/Malawi.

3 COUNTRY CONTEXT AND EPIDEMIOLOGY

3.1 HIV PREVALENCE

Malawi is among the countries worst affected by the HIV epidemic, with 10.6% prevalence in the 15-49 year old population⁵. New data is expected from the 2014 Biological and Behavioural Surveillance Survey (BBSS). In the interim, the most recent epidemic modelling estimates 10.3% prevalence, indicating a slight reduction since 2010. SPECTRUM modelling also estimates that 26,000-34,000 new infections will occur in 2014⁶.

Projections suggest that in the absence of significant programmatic shifts, HIV prevalence will continue a slow decline to about 9.3% in 2016. Declines in prevalence may be the result of decreased incidence or continued mortality among unidentified or untreated PLHIV, though people are now living longer with HIV and AIDS due to the successful ART programme. Current estimates put the number of people living with HIV and AIDS (PLHIV) at about 1,000,000 and it is anticipated that this number will increase to about 1,040,000 in 2016, largely as a result of increased survival as a result of the scaled up and integrated ART and PMTCT programme.

National sample survey data (Malawi Demographic and Health Survey (MDHS) and BBSS) and antenatal surveillance data indicate some heterogeneity in the epidemic. HIV prevalence in Malawi varies substantially by sex, age, urban-rural, geographic and socio-economic characteristics. As Figure 2 illustrates, women are disproportionately affected by HIV, particularly under the age of 40 years. In addition, HIV prevalence is almost twice as high in urban (17.4%) as in rural communities (9%).

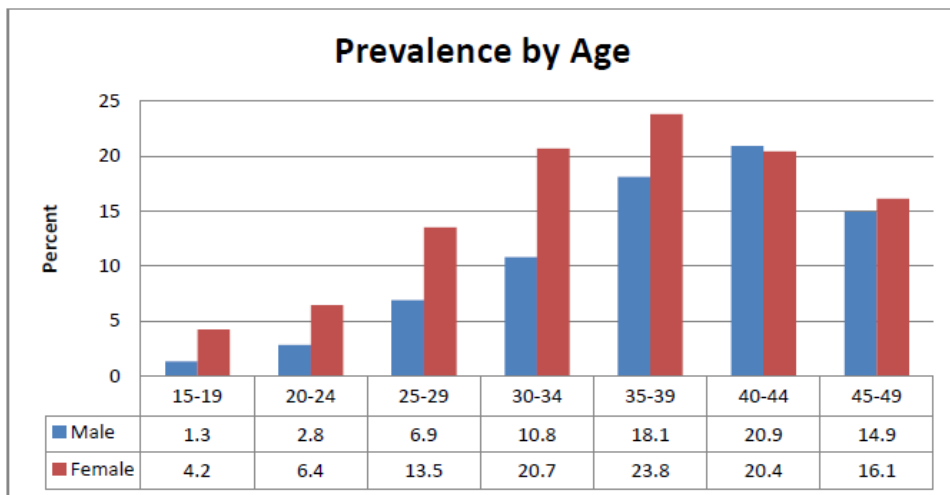
The 2006 BBSS reported considerable variation in HIV prevalence across occupations, with truck drivers, male vendors, fishermen, male and female school teachers, male and female police officers, female border traders, and FSWs all having higher than average prevalence⁷. The survey also revealed high-risk behaviour in these populations, including multiple concurrent sex partners and low condom usage. HIV prevalence in these populations also differs by geographic location (Northern, Central, and Southern Regions).

⁵ National Statistical Office (NSO) and ICF Macro. 2011. *Malawi Demographic and Health Survey 2010*. Zomba, Malawi, and Calverton, Maryland, USA: NSO and ICF Macro

⁶ Joint United Nations Program on HIV/AIDS (UNAIDS) Malawi, May 2014 HIV estimates.

⁷ National AIDS Commission. Biological and Behavioural Surveillance Survey 2006 & Comparative Analysis of 2004 BSS and 2006 BSS.

Figure 1. Distribution of HIV Prevalence among 15–49-year-old adults (MDHS 2010)



Recent modelling work indicates high geographical variability of HIV prevalence on a relatively small spatial level in Malawi, as can be seen in Figure 2. This detailed strategic information will be triangulated with HIV program coverage data to target interventions in those areas with the highest absolute number of PLHIV who are not yet diagnosed, started on ART and/or virally suppressed. HIV prevalence in the Southern region is 14.5%, twice as high as the Northern or Central regions⁸. Within these broad geographical regions, significant prevalence variation exists between urban and rural, district and sub-district, and between socio-demographic groupings. The map clearly shows high HIV prevalence in areas correlated with high economic activity such as road networks, rural estates, borders, and urban manufacturing and marketing zones. It is theorized that these ‘hotspots’ are created as a result of increased mobility and economic inequality, with associated high levels of transactional sex and non-cohabitating partners.

The MDHS and antenatal clinic (ANC) surveillance have both confirmed a decreasing trend in HIV prevalence and HIV-related deaths in both men and women, which peaked in 1999. The decrease in mortality is largely attributable to the scale-up of ART – about 67% of those in need were on ART by 2011 (UNGASS, 2012). The decrease in prevalence is most likely explained by the natural course of the epidemic and behaviour change resulting in declining incidence. However, between the 2004 and 2010 MDHS, HIV prevalence increased among adolescents aged 15–19 years, from 0.4% to 2.7% in boys, and from 3.7% to 4.2% in girls.

3.2 HIV INCIDENCE

HIV incidence is usually estimated from epidemiological models (e.g. SPECTRUM) based on prevalence trends measured in ANC or population surveys. The most recent modelling suggests a national average HIV incidence rate of 0.41 per 100 person-years amongst people aged 15 – 49 years⁹ in 2012, a decline of 35% from 0.74 in 2009.

However, the most significant decline in new HIV infections started in the late 1990’s, before the scale up of prevention interventions. HIV incidence in adults (15–49 years) peaked at 2.2 per 100 adults in 1999 and was estimated at 1.4 per year at the beginning of the ART program in 2004. This early decline follows the natural course of the epidemic and was probably also driven by a reduction of risky sexual behaviour as the population became aware of HIV as the cause for

⁸National Statistical Office (NSO) and ICF Macro. 2011. *Malawi Demographic and Health Survey 2010*. Zomba,

**Malawi, and Calverton, Maryland, USA: NSO and ICF Macro.

⁹Joint United Nations Program on HIV/AIDS (UNAIDS) Malawi, May 2014 HIV estimates.

the massive death wave that peaked at over 90,000 death in 2004.¹⁰ By mid-2014 – 10 years after the start of ART roll-out – half of the 1 million HIV positive Malawians were on ART and incidence had declined further to 0.4. This decline in the new infection rate may not result in reduction in lower absolute number of people newly infected due to the rapid population growth in Malawi. Presently however, there has been a sustained reduction of the absolute number of people newly infected each year from 120,000 in 1999 to 33,000 in 2014. Significant gains have also been made in reducing paediatric infections through implementation of Option B+ in 2011: In just 3 years, the number of children infected by their mothers (including during the breastfeeding period) has declined by 66% (from 30,000 in 2010 to 10,000 in 2014).

The HIV incidence model estimates have recently been corroborated by a high quality, population-based survey in a large household sample in Chiradzulu district (2013)¹¹. This survey directly measured HIV incidence and prevalence, ART coverage and viral suppression rates among the HIV population. HIV prevalence among adults (15-59 years) was **17%** and incidence was **0.4** (0.6 in women and 0.2 in men). This low incidence in spite of high HIV prevalence was consistent with excellent coverage along the treatment cascade in the population. To date, these are one of **the best treatment outcomes at the population level to be documented anywhere in the world.** Out of *all* HIV positive adults:

- **78%** had been previously diagnosed
- **73%** were in care
- **65%** were on ART
- **62%** were virally suppressed

Long term viral suppression rates were excellent with 90% of patients achieving viral loads of <1,000 after 7 or more years on ART. Although this cross-sectional survey was unable to prove the causal link between high ART coverage and the low rate of new infections, this is a logical conclusion given the ground-breaking results from the HPTN052 trial which was conducted in Malawi and 8 other countries in 2010/11, showing that early ART reduces HIV transmission between sexual partners by 96%¹².

Low circumcision rates in Chiradzulu give further weight to the successful ART program as the main agent of change to the low HIV transmission rates (only 1.7% of men were medically circumcised and another 27% self-reported full traditional circumcision).

¹⁰ Article ¹⁰Bello, G., B. Simwaka, T. Ndhlovu, F. Salaniponi and T. Hallett (2011). "Evidence for changes in behaviour leading to reductions in HIV prevalence in urban Malawi." *Sexually Transmitted Infections* **87**(4): 296-300 states that behavior changes (e.g. increases in condom use, decreases in the proportion of men having sex with more than one woman) contributed significantly to decreases in HIV between 2000 and 2004.^{10,10}

¹¹ Maman D, Etard J-F, Zolowere D, et al. Chiradzulu HIV Impact in Population Survey. In: Epicentre, ed. Paris: Medecins Sans Frontieres, 2014.

¹² Cohen MS, Chen YQ, McCauley M, et al. Prevention of HIV-1 infection with early antiretroviral therapy. *N Engl J Med* 2012;365(6):493-505.

Figure 2: Geographic distribution of HIV based on geospatial modelling of 2010 MDHS data (UNAIDS)

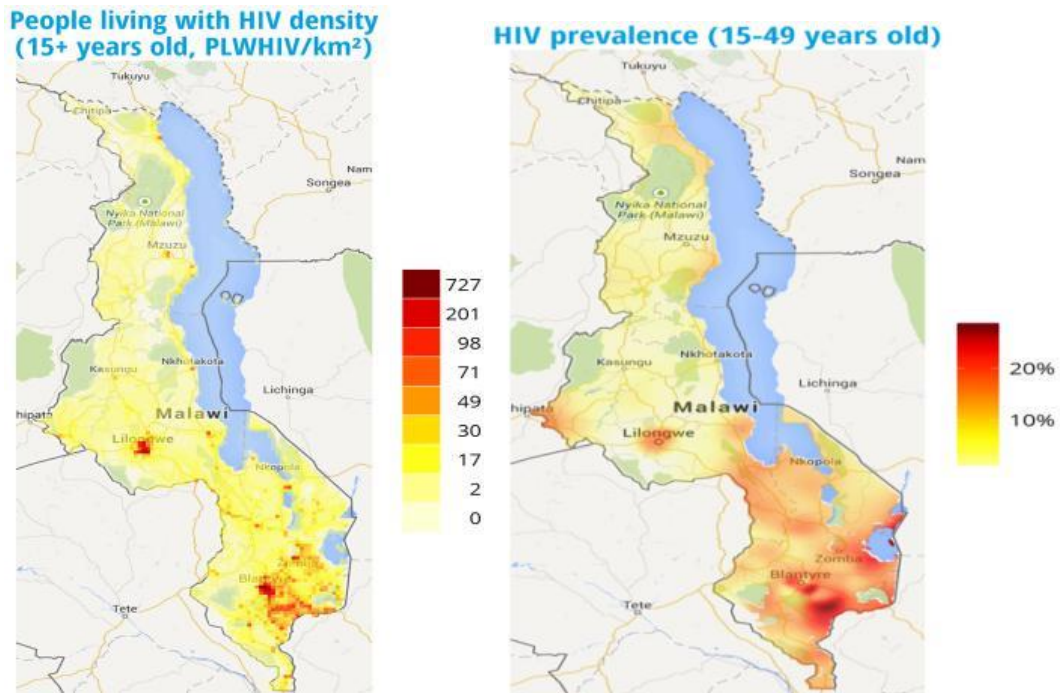
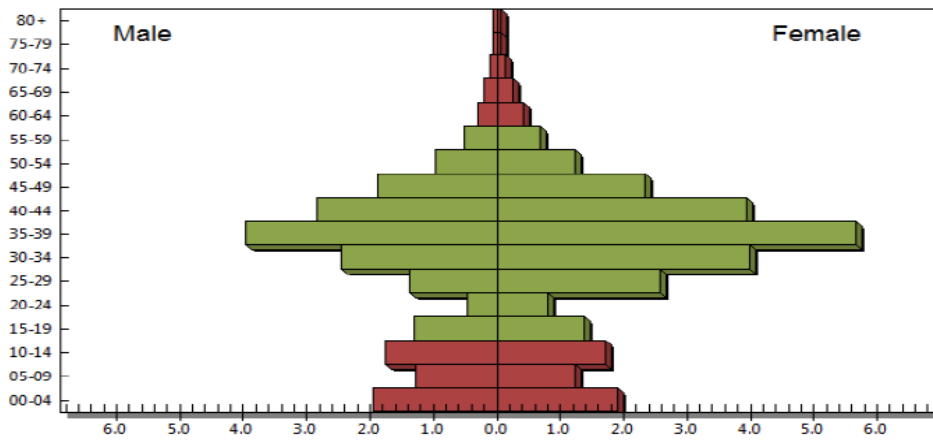


Figure 3: Distribution of HIV/AIDS deaths among 15–49-year-old adults. The x-axis represents percentage and the y-axis age. (Source: Spectrum AIM, EPP)



3.3 FACTORS INFLUENCING HIV TRANSMISSION IN MALAWI

HIV transmission in Malawi, like most other countries, is influenced by an interaction of structural, economic, social, biological and cultural factors. Several studies have sought to identify key determinants of HIV infection in sub-Saharan Africa. An analysis of the determinants of HIV infection presents background factors (such as age, education, region of residence, circumcision, wealth/poverty, religion and exposure to media), proximate HIV and AIDS factors (HIV and AIDS awareness, stigma and discrimination) and sexual behaviour factors (such as condom use, number of sex partners, marital status) as underlying factors to HIV infection within the region.¹³ inequalities which increase susceptibility of women, girls, transgender and key population groups to HIV.¹⁴ Most of these determinants relate to Malawi and are discussed below.

Malawi is one of the poorest countries in the world with an economy primarily dependent on rainfall agriculture, which accounts for 30% of GDP. More than 80% of the labour force is employed in the agriculture sector. Malawi's heavy dependency on agriculture creates economic vulnerabilities to factors like poor rains or fluctuating prices of agricultural commodities on the international market. GDP growth in 2013 was estimated at 4.3%, which is a drop from about 6.5% in 2010 (Mundi, 2013). About 39% of the population lives in poverty (MGDS II, 2010). High levels of unemployment, poverty and low earnings often lead to transactional sex, and condom use has been noted to be low and inconsistent in casual relationships (BBSS, 2006).

HIV and AIDS awareness is almost universal (99%) in Malawi, although comprehensive knowledge is around 41%¹⁵. About 75% of men and women aged 15–49 years know that consistent condom use prevents the spread of HIV. Eighty seven percent (87%) of women and 85% of men know that limiting sexual intercourse to one uninfected HIV negative partner reduces the chances of contracting HIV. Seventy nine percent (79%) of women and 77% of men know that abstinence reduces the risk of HIV infection.

Women remain vulnerable to HIV infection due to socio-cultural practices. This includes widow inheritance, initiation ceremonies, and agreeing to dry sex to please the male partner. The overall male dominance around issues of sexuality has also been noted to propel the spread of HIV in Malawi. Women generally have a lower socio-economic status and are oriented from childhood to be submissive to males. This results in an expectation that women should impress their spouses/partners at all costs, even at the expense of their health. Situations where women are unable to negotiate safer sex are well documented (MOH, 2006) , for instance: abusive and significantly age-disparate relationships.

Multiple concurrent partnerships combined with low or inconsistent condom use have also been noted to play a role in the transmission of HIV. The MDHS,2010 reported that 46% of women and 80% of men aged 15–49 years who reported two or more sex partners in the 12 months prior to the survey had concurrent partners. Women in the highest wealth quintile constitute the majority of women reporting having multiple sex partnership (MDHS, 2010). Consistent condom use is below 20% among who? (NAC 2010). Unavailability of condoms, particularly in rural areas, entertainment places and commercial accommodation facilities, has been observed and argued to contribute to low and/or inconsistent condom use. The perception that condoms reduce sexual pleasure is also believed to be a contributing factor to low and/or inconsistent condom use.

¹³Magadi, 2011; see also Fox, 2012

¹⁴Gender Assessment of the Malawi National HIV Response, 2014

¹⁵Knowing that consistent condom use, having one uninfected faithful sex partner reduces chances of contracting HIV and that a healthy looking person can have HIV plus rejecting the two most common transmission misconceptions about HIV transmission (that HIV can be transmitted by mosquito bites or supernatural powers)

Voluntary medical male circumcision has been demonstrated to reduce the acquisition of HIV among men engaging in penetrative vaginal sex by over 60%.¹⁶ In Malawi, however, only 22% of men aged 15–49 years are circumcised either traditionally or medically.

Self-reporting may over estimate circumcision prevalence by up to 50% and the actual proportion of Malawian men fully circumcised may be only 11%. Uptake of VMMC in Malawi has been initially slow but has picked up with over 70,000 circumcisions conducted by the end of 2013. The national response has been to provide VMMC services in high prevalence districts to ensure maximum impact. The main challenges have been demand creation, inadequate qualified providers to conduct the circumcision and issues with supplies of commodities/consumables for male circumcision.

MSM are considered a key population in HIV epidemics, based on the increased risk of HIV transmission from unprotected anal intercourse, generally higher levels of sexual partnering within relatively closely connected partnership networks, and the ability of MSM to serve as both the insertive and receptive partner in acts of anal intercourse. While MSM show higher levels of HIV prevalence than members of the general population in every region of the world, MSM in sub-Saharan Africa continue to be an understudied population. A recent survey assessing HIV risk and prevalence, along with human rights indicators, among MSM in Botswana, Malawi and Namibia shows considerable levels of sexual risk behaviour, HIV prevalence and human rights violations.¹⁷ Some 42% of respondents across all sites reported experiencing at least one indicator for stigmatization and marginalization, including fear of seeking health services or moving freely in their communities. These findings are not surprising for Malawi, given that same-sex relations are criminalized in Malawi under the Penal Code.

Figure 4 shows recent MSM population size and HIV prevalence estimates for MSM in Blantyre, Lilongwe and Mzuzu, combined with general adult male HIV prevalence estimates for these cities for 2013. Estimating the MSM population size is fraught with difficulties and may be subject to bias due to the criminalization and marginalization of this group in Malawi. The 7-site survey used indirect methods (unique object multiplier and ‘wisdom of the crowd’) to estimate total MSM population sizes.¹⁸ These absolute estimates are surrounded by wide confidence intervals that are shown as prevalence ranges in the figure (using the total adult male population in the 3 cities as the denominator). Some 3-4% of men in urban Lilongwe and Blantyre can be estimated to be MSM (excluding the very low precision estimate from

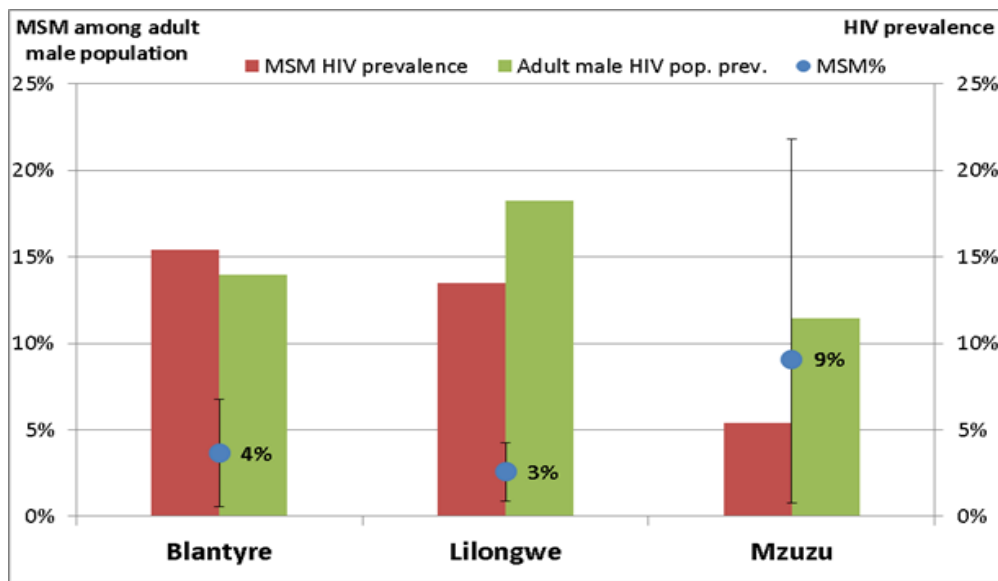
¹⁶Gray, 2007, 2013

¹⁷Baral, S., et al. (2009). "HIV prevalence, risks for HIV infection, and human rights among men who have sex with men (MSM) in Malawi, Namibia, and Botswana." *PLoS Medicine*4(3): e4997.

¹⁸ AL Wirtz, G Trapence, V Gama, D Kamba, R Chalera, L Klein, R Kumwenda, T Chikoko, M Mangochi, S Baral. *Final report to UN Joint Team on HIV&AIDS in Malawi through UNDP: HIV Prevalence and Sociobehavioral Characteristics among Men Who Have Sex with Across Seven Sites in Malawi*. Johns Hopkins University and the Center for Development of People. 01 December 2014

Mzuzu), which is consistent with results from larger surveys in Europe and the US.¹⁹ HIV prevalence among MSM was very similar to that of men in the general population in the 3 cities. The situation was generally similar for the other 4 sites in the survey.

Figure 4: Estimated prevalence of MSM among adult males in Blantyre, Lilongwe and Mzuzu and comparison of HIV prevalence among MSM and the general adult male populations in these 3 cities (2013).²⁰



This finding shows that MSM are not disproportionately affected by HIV, nor do they appear to be a key driver of HIV transmission in Malawi. They however have potential to become a key driver of HIV transmission if not given due

¹⁹Sell RL, Wells JA, Wypij D. The prevalence of homosexual behavior and attraction in the United States, the United Kingdom and France: results of national population-based samples. Arch Sex Behav 1995;24(3):235-48.

²⁰Prevalence of MSM and HIV prevalence among MSM based on: 1. Wirtz, AL, et al. (2014). HIV prevalence estimates for the male adult population in the 3 cities based on 2010 MDHS and NSO 2008 census projections

attention considering the multiple concurrent partnerships and high risk behaviours practiced by this group. Similar to other studies in the region, in the 7-site study around 50 - 60% of MSM participants reported consistent condom use; self-reported use of water-based lubricants was low; and, about half reported multiple concurrent partners in the last year (Wirtz, 2014). Over 50% reported their first homosexual contact below the age of 21 years. There was low awareness of the increased risk of HIV transmission associated with anal sex. The majority of participants identified as homosexual, but substantial proportions said they were married, cohabitating, and/or in sexual relationships with women. A 2010 study also found that among surveyed MSM in Malawi, 63% reported having both male and female partners in the last six months".²¹ This confirms that exclusive heterosexual behaviour should not be assumed for all married men, and risk reduction counselling should cover the specific risk associated with anal sex and specific protective measures.

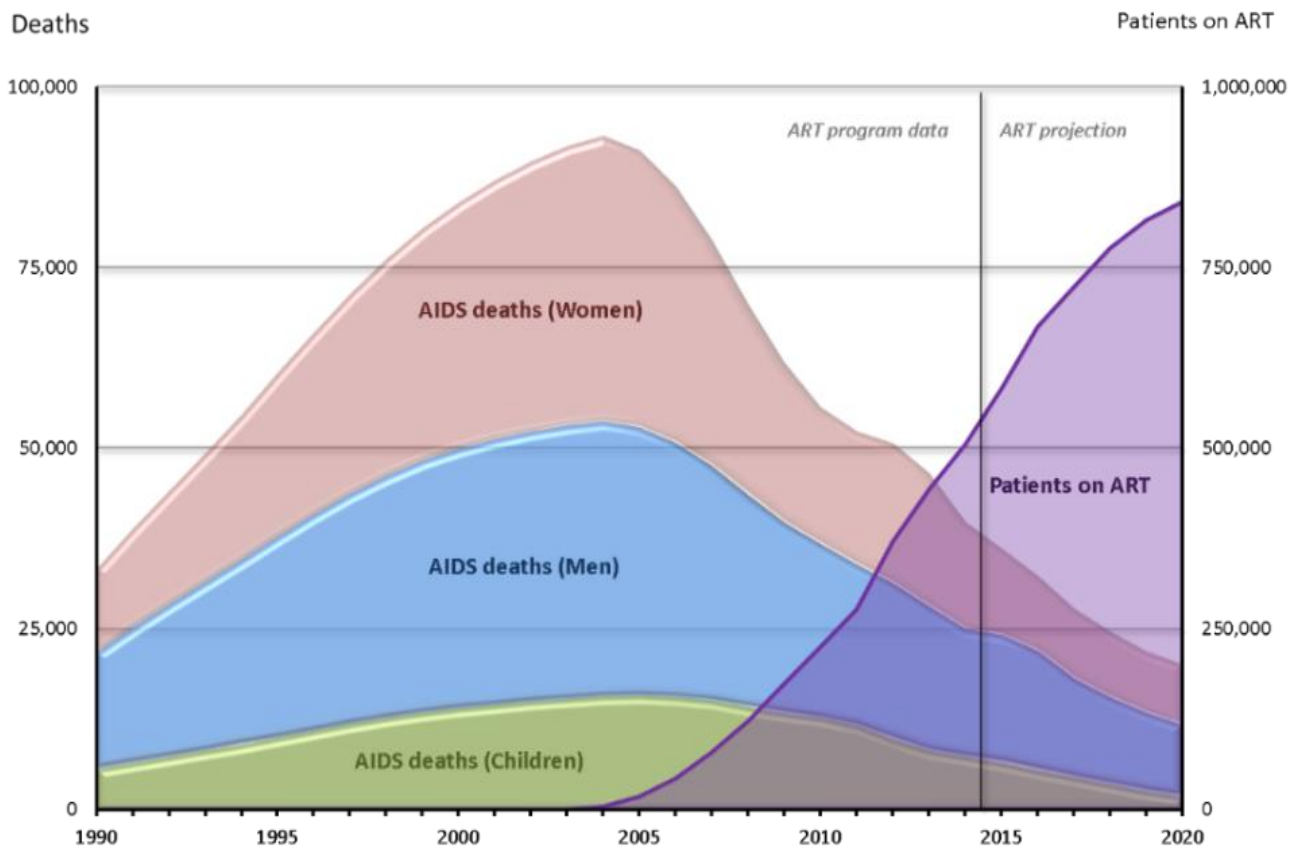
Only slightly over half of the MSM study participants reported ever being tested for HIV. With respect to structural risk, some 8-22% of MSM reported a history of jail/prison. This was associated with HIV infection in both Lilongwe and Blantyre; not a surprising finding, as a 2012 Malawi prison survey revealed HIV prevalence exceeding 40% in some prisons in Malawi.²²

Sex workers face visible forms of stigma within their communities (Chizimba, FPAM, 2011). Once identified as sex workers, they are actively denied access to alternative income-generating opportunities. Sex work is also criminalized under the law relating to rogue and vagabond, resulting in sex workers operating clandestinely in major urban areas, transport routes, tourist destinations, and all sites of potential economic activity which poses a threat to HIV transmission. Despite FSW representing a relatively small proportion of the general population (as is the case with MSM), FSW still remain the highest at risk group. In addition to the clients of sex workers, partners of clients of female sex workers pose a big challenge in the control of the epidemic. As with MSM, sex workers frequently do not disclose their sexual risk behaviours while accessing health services because of real or perceived stigma from health providers. This limits opportunities for the health system to provide additional high impact interventions targeting sex workers, including routine HIV and STI screening and testing, and consistent access to condoms and other modern family planning methods.

Figure 5: Estimated AIDS deaths (2014 Spectrum model) and ART scale-up (MOH program data up to mid-2014)

²¹Beyrer, C., et al. (2010). "Bisexual concurrency, bisexual partnerships, and HIV among Southern African men who have sex with men (MSM)." *Sexually Transmitted Infections* **86**: 323-327.

²² Mwapasa, V. et al (2012). Prevalence and Risk Factors for HIV, Sexually-Transmitted Infections and Tuberculosis in Malawian Prisons. Malawi Prison Services.



An estimated **834,000** Malawians have died of AIDS since the start of the epidemic in 1985. This finding shows that MSM are not disproportionately affected by HIV, nor do they appear to be a key driver of HIV transmission in Malawi. They however have potential to become a key driver of HIV transmission if not given due attention considering the multiple concurrent partnerships and high risk behaviours practiced by this group. Similar to other studies in the region, in the 7-site study around 50 - 60% of MSM participants reported consistent condom use; self-reported use of water-based lubricants was low; and, about half reported multiple concurrent partners in the last year (Wirtz, 2014). Over 50% reported their first homosexual contact below the age of 21 years. There was low awareness of the increased risk of HIV transmission associated with anal sex. The majority of participants identified as homosexual, but substantial proportions said they were married, cohabitating, and/or in sexual relationships with women. A 2010 study also found that among surveyed MSM in Malawi, 63% reported having both male and female partners in the last six months". This confirms that exclusive heterosexual behaviour should not be assumed for all married men, and risk reduction counselling should cover the specific risk associated with anal sex and specific protective measures.

Figure 5 shows the estimated number of annual AIDS deaths among men, women and children between 1990 and the end of this NSP in 2020. The AIDS death wave is thought to have peaked at 93,000 in 2004 and started to decline rapidly with introduction of free ART later that year. Although AIDS mortality has decreased dramatically in the course of scaling up ART to cover 50% of the HIV positive population in 2014, HIV remains the leading cause of death in adults (15-49 years) and a significant cause of child mortality: in 2013, an estimated 38,000 (66%) of a total of 56,500 adult (15-49 years) deaths in the population were HIV-related and 10,000 (10%) of 104,000 child deaths (0-14) were attributed to HIV.

Almost 80% of estimated pregnant women living with HIV are on ART through the implementation of Option B+ in 2011. This has led to significant gains in reduction of paediatric infections: in just 4 years, the number of children infected by their mothers (including during the breastfeeding period) has declined by 66% (from 30,000 in 2010 to 10,000 in 2014). It is envisaged, with the 90-90-90 targets, that new mother to child paediatric infections will be reduced to less than 3900 by 2020.

3.4 COMBINATION PREVENTION

Evidence informed and human rights based combination prevention recognizes the importance of biomedical, behavioural and structural interventions working together to achieve prevention and care outcomes.²³ A mixed approach addressing both immediate risks and underlying causes of vulnerability of key and vulnerable populations is both possible and necessary.

Behavioural and structural interventions support the continuum of prevention, treatment, care and support through mobilization for HIV related services and commodities, linkages, and community based interventions to prevent primary and secondary transmission. Based on epidemiological analysis, targeted and tailored interventions are designed and delivered for each of the key and vulnerable populations to ensure that approaches to reach them address critical barriers impacting their adoption of positive health behaviours, including condom use and demand for services; facilitate access to biomedical prevention services (ie. Condoms, HTC, VMMC) and encourage utilisation of HIV treatment and care services for known PLHIV. Behavioural and structural programs continue to address critical barriers to service utilisation including disclosure, adherence and long-term retention by (i) addressing damaging gender norms and practices, (ii) stigma and discrimination, and (iii) strengthening community based service delivery including condom distribution, targeted community HTC, care and support groups, and robust bi-directional referral systems. Behavioural and structural elements also need to include access to economic strengthening interventions, cash transfer and other emerging evidence-based interventions.

The National Strategic Plan will adopt a combination prevention approach for each targeted vulnerable population, appropriately tailoring comprehensive interventions and minimum packages of mutually reinforcing interventions. Together, these services and interventions will have the potential to significantly reduce HIV transmission and improve care outcomes. Since rarely one institution or system provides every element within a defined package, these packages are underpinned by effective referral systems and, where appropriate, community-based case management. Implementation approaches will require innovative population-targeted interventions. While most services will be delivered within facility settings, other interventions recognize that marginalized populations face barriers and may rely on different types of outreach and mobile models to be reached.

²³Catherine A. Hankins and Barbara O. de Zalduondo AIDS 2010, 24 (suppl 4):S70–S80). Core biomedical prevention interventions include condoms, VMMC, PMTCT/ART.

4 KEY CHANGES IN THE NSP 2015-2020

4.1 ELIMINATION OF HIV: REFOCUSING THE NSP AROUND THE 90-90-90 TARGETS

Based on Malawi's proven ability to sustain a rapid ART scale-up using a public health approach, this 5 year strategic plan aims to meet the **Ambitious 90-90-90 Treatment Targets** released by UNAIDS in 2014, preparing to end the HIV epidemic by 2030.

Early ART has by far the most substantial effect on HIV incidence among all scientifically tested interventions.²⁴ The ground-breaking results from the HPTN052 trial which was conducted in Malawi and 8 other countries in 2010/11, showed that early ART reduces HIV transmission between sexual partners by 96%.²⁵ Interim findings from the PARTNER study indicate that among 767 sero-discordant couples, no case of HIV transmission occurred when the person living with HIV had achieved viral suppression— after an estimated 40,000 instances of sexual intercourse.

By the end of 2020, Malawi will have:

- Diagnosed 90% of all PLHIV
- Started and retained 90% of those diagnosed on ART
- Achieved viral suppression for 90% of patients on ART

Reaching these **90-90-90 goals** in 2020 will result in 760,000 (**73%**) of the projected 1,042,000 PLHIV being virally suppressed, leading to a dramatic reduction in sexual and vertical transmission at the population level.

By 2020, this strategic plan aims to:

- Reduce adult (15-49 years) HIV incidence to 0.2, equivalent to 17,000 new infections
- Reduce the number of children infected by their mothers to 3,900

Within the 5 year period covered by this plan, Malawi will have:

- Prevented an **additional 78,000** new adult (15-49 years) infections, compared with a scenario of maintaining the ART cohort at the 2014 level
- Prevented **75,000** child infections through Option B+

These results will be achieved by a continued scale-up of ART, with a focus on maximum coverage of Option B+, and targeting geographical areas with lower coverage. Key and vulnerable populations that account for a disproportionate amount of transmission will be prioritized. This strategy is supported by a strong body of evidence from clinical trials, population based studies and programmatic data from Malawi and is consistent with Malawi's international declarations and commitments.

A substantial strategic investment of funding, human resource, infrastructure and community systems strengthening is required to support this scale-up, backed up by focused interventions to support the **3 goals** of this strategy

- A. **90% of PLHIV will know their status.** This will require re-focusing the HTC program to high-yield settings, addressing negative social norms regarding HIV testing, generating service demand and facilitating testing for key and vulnerable populations and targeting testing geographically, boosting provider-initiated testing, family referrals for testing, nutrition screening and referral to clinical services/HTC of adults and children and increasing demand for HTC.

²⁴UNAIDS. Ambitious treatment targets: writing the final chapter of the AIDS epidemic. In: UNAIDS, ed. Geneva: UNAIDS, 2014.

²⁵ Cohen MS, Chen YQ, McCauley M, et al. Prevention of HIV-1 infection with early antiretroviral therapy. N Engl J Med 2012;365(6):493-505.

- B. **90% of people diagnosed will be on ART.** This will require expansion of peripheral ART services to balance the patient burden between sites; a concerted public education campaign to galvanize the population behind the 90-90-90 targets and motivate early ART uptake; Social and Behavioural Change Communication, expansion of patient support to enhance retention in care and nutrition counselling on adherence to clinical care and treatment.
- C. **90% of people on ART will be virally suppressed.** This will require maintaining adherence to current, even higher levels of ART regimens and retention in ART programs through group- and individual-level support; continued scale-up of viral load monitoring to ensure timely switch to second line ART for patients failing first line therapy.

4.2 TARGETED HIV PREVENTION ACTIVITIES IN KEY AND VULNERABLE POPULATIONS

As described above, the community activities in this NSP period will focus heavily on supporting the achievement of the 90-90-90 targets. The community is an under-utilized resource in this fight to eliminate HIV, and the need to more closely coordinate facility and community activities and interactions has never been more apparent. Communities have a key role to play in identifying, promoting and facilitating service uptake among members of key and vulnerable populations. Increasingly specific tasks (such as HIV screening and adherence support) can be shifted away from overburdened healthcare service providers to community- and home-based service delivery models which have been demonstrated effective in Malawi and other settings. Communities and civil society organizations play an additional role in working to ensure key enablers are in place so that service delivery achieves maximum impact. Therefore, strengthening social networks and community organizations will have a positive impact on the ability of populations including the key and vulnerable populations to engage in health care and effectively contribute to the achievement of the NSP's 90-90-90 goals by 2020.

4.3 NATIONAL LEVEL COORDINATION AND PROGRAM MANAGEMENT

Since the last NSP was drafted, Malawi has integrated the PMTCT and ART technical working groups (TWGs). This reflected and supported the integration of ART into ANC settings as Option B+ was rolled out. As Malawi moves into 2015-2020, the quarterly supportive site supervision visits by the HIV Department to all ART sites will take on a more integrated approach, including Laboratory Supervisors to monitor HTC services and TB officers to review the TB treatment site activities and also ensure that TB case detection and treatment services in all HIV clinics are maximized.

5 NSP OBJECTIVE 1: 90% OF PLHIV KNOW THEIR STATUS

HIV testing and counselling (HTC) is the gateway to accessing HIV treatment and care and a successful public health response to HIV requires robust HTC services. By mid-2014, well over half of the estimated 1 million PLHIV in Malawi were aware of their status; almost 550,000 of whom were enrolled in ART or pre-ART care. Malawi will re-focus its HTC program to meet the goal of having 90% of PLHIV know their status by 2020. With increasing HTC and ART coverage, finding the remaining undiagnosed PLHIV becomes increasingly challenging. Following the law of diminishing returns, HTC program projections in this NSP are based on the assumption that the number of tests required will need to increase dramatically towards the end of the 5-year period in order to identify sufficient numbers of previously undiagnosed PLHIV to sustain the targeted ART scale-up. HTC will be delivered through a strategic mix of facility and outreach-based models such as community systems to reach the right populations, achieve the best efficiency, and realize the highest yield.

The 2014 Malawi Clinical HIV Guidelines stipulate the main HTC Program goals as follows:

- Identify as **many** HIV infected people as possible
- Identify them as **early** as possible after getting infected
- **Link HIV positives** to pre-ART or **ART** care as soon as possible
- **Link HIV negatives** to appropriate prevention services

5.1 ROUTINE TESTING FOR HIV

5.1.1 PRIORITY SETTINGS

Routine opt-out HIV-testing in health facilities, also known as Provider-initiated testing and counselling (PITC), has not been successfully scaled up in facilities except for in ANC and TB clinical settings. Within ANC, PITC has become a bottleneck to services primarily because of the retention of extended counselling in the PITC protocol, and because of the long cure time for each test. Quality of PITC services have also become compromised as a result of minimal supervision and virtually non-existent implementation of quality assurance protocols. Another critical challenge to the PITC implementation was the perception of clinical officers and nurses that HIV testing is the responsibility of a lower level cadre than themselves; as a result, the national effort to 'reverse task-shift' PITC to all health care providers has not been very successful.

The 2015-2020 NSP focuses on HIV testing as the gateway to reaching the 90-90-90 targets, ensuring early identification and initiation on ART. This shift requires a renewed focus on the implementation of PITC, as it is in the health facilities where the highest yield of HIV-positives is realized. The 2014 National HTC Guidelines (currently under revision) emphasize PITC as the primary testing model to be implemented in Malawi. The highest priority settings for PITC where Malawi aims to increase coverage of HIV testing to consistently exceed 90%, therefore minimising lost opportunities include:

- Adult and paediatric inpatient wards
- Nutritional Rehabilitation Units (NRU)
- Antenatal Care (ANC)
- TB clinics
- STI clinics
- Family planning clinics
- Couples
- Female Sex Workers (FSW)
- Men who have sex with Men (MSM)
- Young women ages 15-24
- Fisher folk
- Estate workers
- Prisoners

- Children

For all of the above populations, disaggregated data will be generated in terms of age, sex and location.

5.1.2 ADDITIONAL STAFF TO CONDUCT PROVIDER INITIATED TESTING AND COUNSELING (PITC)

In order to reach the ambitious PITC targets, additional staff will be needed to provide services. To this end, a new cadre of dedicated “HIV Diagnostic Assistants” will be established and posted to all health facilities (static and mobile). About 3,000 will be trained and annually recertified to take charge of these services across the country. This strategy is borne out of long-standing challenges with the reliance on a large number of part-time and overcommitted cadres (commonly Health Surveillance Assistants) and lay people who were trained as HTC counsellors. This made it difficult to implement proper supervision and produced inconsistent HTC program outputs, raising concerns over the availability and accuracy of HTC services in some settings. The new cadre’s primary responsibilities will be:

- Perform rapid HIV and syphilis testing and counselling in all priority PITC settings
- Collect blood samples for early infant diagnosis, viral load testing and tie-breaker testing for HIV diagnosis
- Coordinate and track sample transportation and return test results
- Comply with and carry out all routine quality assurance and quality control measures for HIV and syphilis rapid testing

If successful, additional services including Family Planning, patient escorting, and other HIV-relevant activities will be included in their scope of work, after discussion with the relevant TWGs, CSOs and approval from Ministry of Health.

5.1.3 DIAGNOSING AND TREATING HIV IN PEOPLE WITH PRESUMPTIVE AND DIAGNOSED TB, INCLUDING DRUG-RESISTANT TB

Good progress has been made in the HIV testing of TB patients, with 89% of TB patients having their HIV status ascertained. These targets will remain over the duration of the 2015-2020 NSP. In addition, moving HIV testing upstream to include patients with suspected TB and ensuring that those who are smear-negative can be referred for HIV care and consideration of ART will be effected. This will result in improved outcomes for patients with suspected TB, and their partners and family members, were HIV tested if done routinely and those found HIV-positive will be immediately linked to structured HIV care and treatment that included TB screening.

ART is an essential intervention for the management of HIV-associated TB. The issue of optimal timing of ART in relation to start of anti-TB treatment is imperative. All TB patients who are HIV+ will begin ART within 2 week of TB treatment initiation.

5.2 TARGETED OUTREACH TESTING FOR KEY AND VULNERABLE POPULATIONS

Malawi has done well in the last decade to raise overall awareness and acceptability of HIV testing and counselling, and HIV awareness is universal. There were several successful HTC campaigns which significantly increased the total number of annual tests conducted; however, such campaigns are conducted at significantly higher programmatic cost when compared with facility-based testing and with only a fraction of the yield. In addition, there is no evidence to show that the high-risk populations who are less likely to access HTC services at facilities were accessing the community-based HTC campaigns. While project reports demonstrate that men and couples are being reached through community testing events in high prevalence geographic areas and hotspots of the country (BRIDGE, IMPACT, PSI) community testing needs to be more targeted for a higher yield .

With this in mind, Malawi is shifting the community-based testing model which focuses on general population access, to a more focused, targeted approach on those key and vulnerable and populations, and in which the highest incidence and prevalence of HIV are noted. This includes but is not limited to:

- Female Sex Workers (FSW) and clients

- Men who have sex with Men (MSM)
- Fishermen
- Estate workers
- Discordant couples in high prevalence geographic areas and hotspots
- Family members of known PLHIV
- Young women ages 15-24 years
- Children, including OVC
- Prisoners

Key and vulnerable populations face barriers to HIV testing and service utilisation due to age, gender, marginalisation, and stigma. Community settings provide an important entry point for case finding of HIV+ at risk individuals within high prevalence areas or groups. Moving forward, community mobilization and community testing reaching at-risk men, couples, adolescents, OVC households, PLHIV family members, sex workers, MSM and individuals within high risk settings through targeted approaches will be implemented. The aim is to increase the number of people who test positive who are linked/retained in services. Increased emphasis will be made through community mobilization, and communication designed for PLHIV support and mother groups, and OVC settings, to facilitate partner testing, early infant diagnosis and paediatric treatment for family members. Leveraging impact mitigation and community care activities, targeted mobilization of OVC and PLHIV families will provide accessible HTC within the community setting or household. Mobile populations will also be reached through hotspot testing. Community wide mobilization to reach at risk men and couples will integrate demand for HTC services with formalized referrals to facility-based HTC, and close the loop on retention, care and support services through community care volunteers. Increased collaboration with facilities is important. Routine meetings will highlight at-risk communities and support case finding through facility-based (e.g. expert clients, mentor mothers, peer educators) and community lay workers.

Expansion of a closed referral system between community and clinical sites will increase uptake and measurement of service uptake. Frontline health workers, community based structures, and Community Based Organizations will manage trained lay referral agents and volunteers. Community wide-referrals will work in partnership with facilities to ensure that bi-directional referrals are supported for community case management.

Due to the extremely high risk of HIV transmission and HIV-related morbidity and mortality in prisons, the MOH and implementing partners have started piloting a combination PITC-outreach model for HIV case identification and enrolment in care for prisoners. Further, quarterly PITC will be included in targeted outreach models for MSM and FSW as part of their comprehensive service delivery package. Adolescent friendly testing opportunities will be facilitated through linkages with Youth Friendly Health Services and Voluntary Medial Male Circumcision.

Comprehensive HIV prevention efforts in key and vulnerable populations have potential to slow down the seroconversion rates not only in these groups but in the rest of the community as well. HTC will promote that HIV-negatives continue to be negative, while those who are infected are afforded the treatment, care and support that they need. Peer-led approaches and normative change facilitate risk reduction, condom and lubricant utilisation, uptake of VMMC services for males, and other routine preventive service utilisation for key populations (ie. STI screening and treatment, and post GBV services including emergency contraception and post exposure prophylaxis).

Malawi is a country with a high population growth rate and a young population; 56% of estimated 15 million Malawians are children under the age of 18 years. With increased HIV prevalence among adolescent boys and girls noted in section 3, priority must be given to preventing new infections among vulnerable girls and boys through empowerment strategies targeting individual risk factors, damaging community norms that promote early sexual initiation, fertility, marriage, and gender based violence, and facilitate access to youth friendly health services including condoms and family planning for sexually active youth and VMMC for adolescent males. Increased synergy with structural interventions that strengthen household economic empowerment through village savings and loans schemes, cash transfer, and food security are particularly important in reaching adolescent OVC to reduce risks of transactional sex and early marriage.

5.3 SELF-TESTING

Achieving increased uptake of HIV testing will require exploring a range of service delivery models to best meet the needs of disparate client populations. HIV self-screening using a high-quality oral fluid test kit with appropriate confirmation shows promise as a strategy for reaching individuals (particularly from marginalized and stigmatized populations) who are reluctant to access traditional health services.

While questions have been raised regarding the accuracy of self-testing in comparison to facility-based services, two recent studies which used current-generation oral fluid tests found 99.6% and 99.2% concordance between results of participants and trained healthcare professionals, respectively. In the 2015-2020 period, Malawi will undertake activities to better understand the feasibility and potential impact of self-testing using oral fluid tests. Encouraging results were found in a preliminary study in Blantyre District, where 95% of adults selected for study were seen, of whom 92% opted for self-testing. Activities will clarify and delineate referral mechanisms to ensure that patients who test HIV-positive are linked to services for confirmatory testing, provision of counselling and treatment

5.4 PEDIATRIC TESTING

As a result of Option B+, the majority of HIV-infected infants will not be found through testing known-exposed infants, but in ensuring that children in paediatric wards and Nutrition Rehabilitation Units (NRUs) are routinely tested and initiated on ART if found HIV positive. The prompt initiation of ART in hospital will be accompanied by stronger referral systems to ART services closer to home, and follow-up of the mother and child after the child is discharged. The MOH is currently reviewing various options for improving early infant treatment coverage, including moving DNA-PCR testing to the labour ward or post-natal ward and introduction of point-of-care devices for infant HIV diagnosis.

Since Option B+ was implemented in 2011, infant follow-up, diagnosis and care have improved tremendously. However, as PITC has been slow to scale up, there are many missed opportunities for identifying HIV-infected children whose mothers were either not provided with PMTCT, or who became infected despite PMTCT interventions. All service delivery points that have contact with children should offer routine HTC so that all positives are captured and put on ART.

Approximately 1,000,000 OVC, have lost one or both parents to AIDS. These children are at increased risk of undiagnosed HIV infections and face increased vulnerability to becoming infected. Health-seeking behaviour is low. Orphaned children aged 0-4 years are reportedly less likely to have a health passport or receive the required immunisations and Vitamin A supplements. Orphaned and vulnerable children are less likely to attend school, have higher school drop-out rates, work underage, and be at increased risk for sexual abuse, transactional sex and early marriage. Female OVC, in particular, are more likely to drop out of school compared to boys primarily due to pregnancy and early (sometimes forced) marriages²⁶. While current impact mitigation efforts provide care and support services, including social protection, household economic strengthening and food security, paediatric HIV services have not been adequately integrated into OVC settings, and the HIV prevention needs for adolescents, in particular, remain largely unaddressed.

Impact mitigation interventions targeting OVCs provide an important opportunity to identify unknown positives among vulnerable children through community mobilisation, family HIV testing and targeted community testing events. Targeted demand generation within communities, OVC settings and in schools will increase awareness of the need and benefits for HTC among high risk children and adolescents. HIV+ children will be linked to age appropriate treatment,

²⁶ FY13 Annual Report of the USAID-supported IMPACT Project

care and support services delivered in facility and community settings. OVCs, particularly adolescents, found negative, will be reached through targeted SBCC and linkages to economic strengthening, nutrition, and SRH services. Adolescent OVC found HIV-, in particular, will be provided age-appropriate prevention services.

While the majority of female sex workers are single, some report being married, living with someone, and/or have children (21%) (FPAM 2011). High Female Sex Worker HIV prevalence, coupled with high fertility, creates unique vulnerabilities for vertical transmission of HIV to their children. Interventions targeting FSW should integrate paediatric case finding through index testing, and link HIV+ children into treatment and care services.

5.5 CONFIRMATORY TESTING

Confirmatory HIV testing was introduced in 2011 for all patients enrolling into pre-ART or ART to improve diagnostic accuracy of test results or fraudulent access to ART. This policy became particularly relevant since the introduction of Option B+ in 2011 as it involves universal initiation of life-long ART for all HIV infected pregnant and breastfeeding women. Universal ART eligibility for asymptomatic patients based on a positive rapid antibody test alone increases the risk of starting HIV negative persons on lifelong treatment due to a testing or documentation error. Confirmatory testing coverage has remained unsatisfactory until 2014, partly due to human resource constraints at many facilities, partly due to poor management of HIV test kit supplies at many sites in 2012/2013, and partly because some health workers 'don't see the point'.²⁷ There is evidence from recent HTC program reports that confirmatory testing has identified considerable numbers of potential false positives and the MOH is currently actively strengthening the full implementation of this policy through refresher trainings and during supportive site supervision. The fact that confirmatory HIV testing is already established policy in Malawi will pave the way for the switch to **Universal ART Eligibility for all PLHIV** which is planned for **2016** in order to reach the 90-90-90 treatment goals by 2020.

²⁷MOH Quarterly Reports, March 2014

6 NSP OBJECTIVE 2: 90% OF KNOWN HIV-POSITIVES ARE INITIATED ON ART

Early ART is the most powerful intervention available to prevent HIV morbidity and mortality. There is overwhelming evidence, including from Malawi, that early ART reduces TB risk by 51%, AIDS-defining clinical events by 51%, and primarily clinical events by 27%²⁸.

6.1 IMPROVE LINKAGES BETWEEN HIV TESTING TO ART

Patients may be lost at various stages in the care continuum. To reduce morbidity and mortality early identification of HIV positive people and enrolment in care would support the 90-90-90 UNAIDS goal and maximize the effectiveness of existing program strategies to virtually eliminate progression to AIDS, premature death and HIV transmission. Retention on patients on ART and Option B+ at 24 months ranges between 70% – 78%. Earlier initiation on ART may have implications on retention and adherence, and examples of sub-populations include adolescent girls on Option B+. The highest loss to follow up is within the first six months of ART initiation in adults and also for young mothers in PMTCT. HIV exposed infants.

Strategies to strengthen retention in care include decentralizing services and making full use of community-based resources to support PLHIV. Malawi has made major strides to scale up ART and PMTCT services at the primary care level, doubling the number of PMTCT sites. Another strategy to increase the linkages between HIV testing and care and treatment services is to utilize community platforms to support newly diagnosed PLHIV. In addition retention in pre-ART services is noted to be influenced by reliable supply chain for cotrimoxazole prophylaxis (CPT) and other comprehensive prevention and care interventions, such as TB screening, isoniazid prophylaxis (IPT), adherence counselling, family planning, access to CD4 count services. A standard package of prevention with positive (PHDP) services is provided at the majority of sites.

The retention rate in Malawi is challenged by health system constraints represented by chronic health worker shortages, a fragile health infrastructure that is highly donor dependent, and limited scale of facility- and community-level interventions. This is in the face of a growing cohort of patients on ART which almost doubled from 250,987 in 2010 to 505,123 as of June 2014. Models of integrated HIV service delivery need to be provided where feasible, given the human resources for health (HRH) and infrastructure constraints. Options include using community outreach services, use of peer educators, and CSOs working and servicing key populations directly. Hence, task-shifting for healthcare service delivery also is going to be continue to be promoted. This would involve identification and training of clinic navigators or expert patients. Trained peer educators would also be instrumental in conducting accompanied referrals to healthcare facilities particularly for key populations.

Where integrated HIV services cannot be provided, service providers should be supported to strengthen linkage to care and monitor linkage efficacy between health facilities and community based services. This can be achieved through supportive supervision, periodic service quality assessments and clinical mentoring. Systems to support active patient tracing, prioritizing patients on ART who miss appointments and mother infant pairs should be scaled up. To relieve the burden on healthcare providers, some non-clinical tasks relating to patient follow-up and adherence support can also be shifted to community-based lay health workers, as has been demonstrated feasible in several countries.

²⁸Cohen MS, Chen YQ, McCauley M, et al. Prevention of HIV-1 infection with early antiretroviral therapy. *N Engl J Med* 2012;365(6):493-505.

In 2015-2020, implementing partners will provide more intensive facility-and community - based support for strengthening the link between a positive test result and ART initiation. This will be done through provision of expert patients or lay workers (clinic navigators) to support the movement of patients between services, through supporting implementation of paper-based referral systems, and through supervision and clinical mentoring activities for quality improvement.

6.2 ELIMINATE DIAGNOSTIC HURDLES FOR EARLY ART

The beneficial effects of early ART on HIV transmission and morbidity have been observed in clinical trials. There is natural variability of CD4 counts, especially in the higher ranges, and the relatively short interval of decline from 500 to 350, infrequent, erratic CD4 testing commonly leads to late ART initiation with advanced immunosuppression. Regular and reliable CD4 monitoring is a challenge for many patients in Malawi due to decentralized nature of treatment services but centralized CD4 testing services with weak staffing and infrastructure. Investments into decentralized diagnostic services (using point of care machines and/or swift sample transportation) come at a huge expense for procurement, maintenance and quality assurance of equipment; and require considerable amounts of staff time for collecting, handling and processing the samples.

In late-2014, a global access program was established, which significantly reduced the price of viral load testing. Over the 2014-2020 period, Malawi will consider the viability of utilizing viral load testing as one tool to monitor patient progress towards undetectable viral loads.

Malawi has just revised its 2014 Clinical Management of HIV in Children and Adults (Malawi Integrated Guidelines), which went into effect starting April 2014. These include increasing CD4 threshold from 350 to 500 and increasing universal access to ART for HIV infected children from 0-2 years to 0-5 years. Some 5,000 current providers have been trained in the new guidelines and implementation is under way. Revising the new guidelines in order to accelerate ART scale-up through universal ART eligibility and enhanced identification of HIV positives will require significant preparations including:

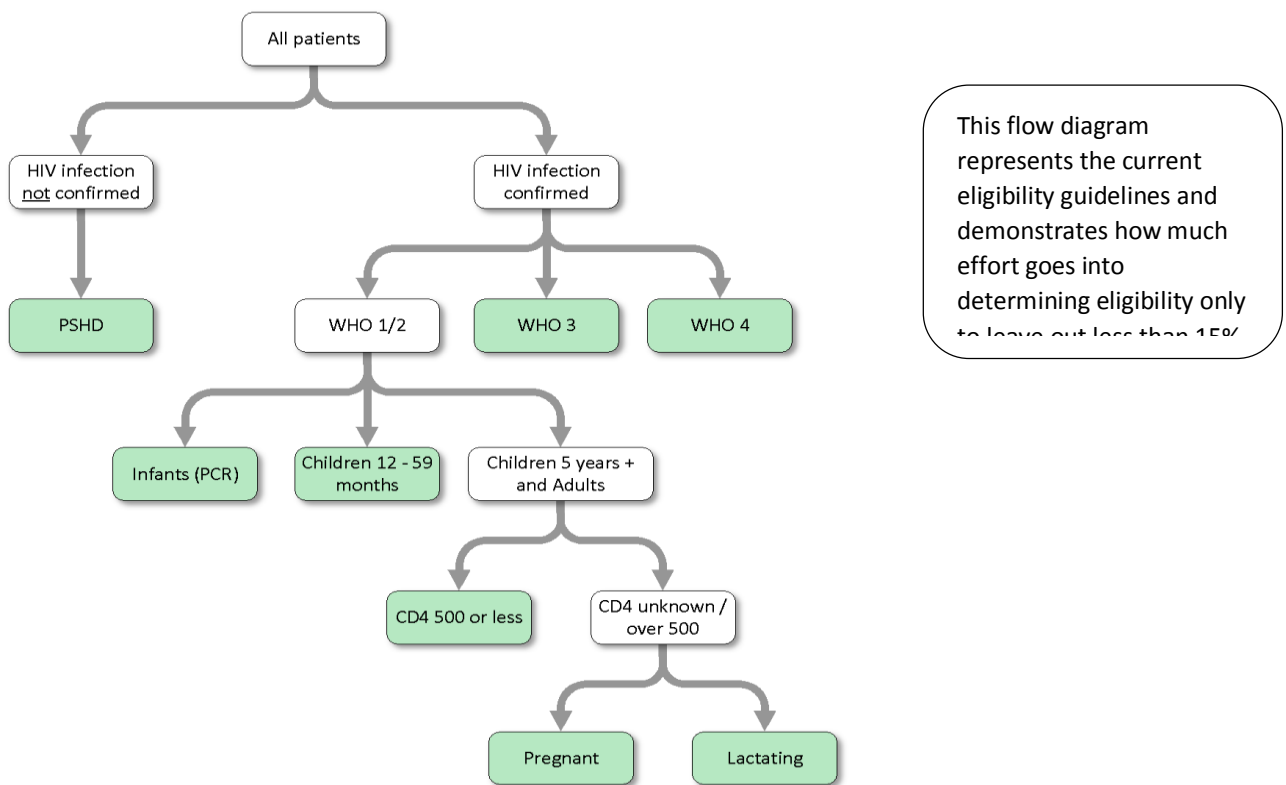
- Revision of national policies and guidelines by TWG and endorsement by MOH
- Stakeholder consultation in an all-inclusive process involving CSO's, PLWA, development partners
- Development/revision of training materials for participants and facilitators
- Commitment from government and donors on resources required for implementation
- Consideration for incorporation of the new WHO recommendations that will be released in 2015/2016

Malawi took into consideration the above factors in determining the 2016 date for implementation of universal ART eligibility for all HIV infected individuals as a strategy for reaching the 90-90-90 targets. *Therefore from 2016, all HIV infected Malawians will be universally eligible for ART.* Based on the 2014 Malawi PMTCT/ART guidelines (adapted from 2013 WHO guidelines), an estimated 89% of all HIV infected adults and 76% of all HIV infected children (0-14 years) in the population are eligible for ART in 2014. Inclusion of clinical, immunological and reproductive criteria for determining when to start ART has resulted in a cumbersome decision tree for health workers (see

Figure 6 below) and this has undoubtedly widened the gap between policy and implementation.

Extending eligibility to all discordant couples – where there is clear and strong evidence that universal ART eliminates the transmission risk almost entirely²⁹ – would make an estimated 93% of all HIV positive Malawian adults eligible for ART. This reveals the minimal usefulness and potential harm of the current approach for defining ART eligibility, which requires negotiating a complex set of clinical, immunological and behavioural conditions for the sake of identifying a small minority of patients not yet eligible to start ART.

Figure 6: Hierarchy of criteria used to determine eligibility for ART (2014 Malawi PMTCT/ART guidelines)



A well tolerated, once daily ART regimen (TLE) is now standard first line in Malawi and frequency of side effects has plummeted to 0.7% among patients on ART. A convenient and well tolerated ART regimen is a key prerequisite for good long-term adherence. Malawi will continue to implement the public health approach to ART, selecting the most appropriate ART regimens for children and adults, based on the combined considerations of WHO recommendations, cost and practical feasibility of implementation.

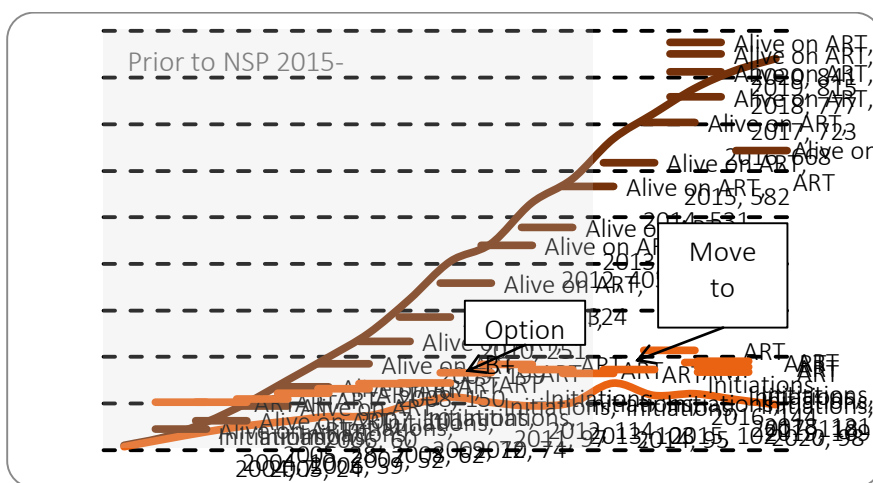
6.3 CONTINUE ART SCALE-UP

²⁹Rodger A et al. HIV transmission risk through condomless sex if HIV+ partner on suppressive ART: PARTNER study. 21st Conference on Retroviruses and Opportunistic Infections, Abstract 153LB, Boston, USA, 2014.

Malawi pioneered the public health approach to ART delivery.³⁰ The public health approach involves decentralisation of ART delivery to primary health care clinics, task-shifting from clinicians to nurses and counsellors, and a reporting system based on collection of facility-level aggregate statistics that allow clear analysis of trends in HIV testing data, uptake of ART and outcomes of ART initiators.³¹ By June 2014, **505,123 (48%)** of the estimated 1,056,000 HIV-infected Malawians were already on ART through the National Treatment Program.³²

Based on the proven ability to sustain a rapid ART scale-up for over one decade – in spite of significant health system constraints – and based on the overwhelming impact on incidence, morbidity and mortality, Malawi aims to continue an aggressive ART scale up to reach **81%** of all PLHIV by 2020. Figure 7 shows that this scale-up will not require a further acceleration but a mere continuation of the past trajectory of new ART initiations to sustain the projected growth of the ART cohort. However, in order to maintain the current trajectory of new ART initiations, the importance of scaling up the PITC and targeted outreach testing to identify HIV-positive individuals cannot be emphasized enough.

Figure 7: Historical and Projected ART cohort and ART initiations



6.4 PREVENT MOTHER-TO-CHILD TRANSMISSION OF HIV

With a generalized HIV epidemic and one of the highest fertility rates in the world, controlling mother to child transmission of HIV is a key priority and a major challenge for Malawi. In 2011, UNAIDS announced a call to eliminate new paediatric HIV infections among children by 2015.³³ While this goal will be impossible for Malawi to attain, huge strides have been made and Malawi has led the world with development and implementation of the **Option B+** policy. This approach greatly simplifies access to life-long ART for all pregnant and lactating women living with HIV, regardless of clinical or immunological stage. With the introduction of Option B+, ART access has increased over 7-fold and infant infection rates have decreased by 66%.

³⁰ World Health Organization: Antiretroviral therapy for HIV infection in adults and adolescents: recommendations for a public health approach. Geneva, Switzerland: World Health Organization; 2010.

³¹ Harries AD, Makombe SD, Libamba E, Schouten EJ. Why did the scale-up of hiv treatment work?: a case example from Malawi. J Acquir Immune Defic Syndr 2011, 57(Suppl 2):S64–67.

³² 2013 MOH Programme Report

³³ UNAIDS. Countdown to zero: global plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive, 2011_2015. Geneva: UNAIDS; 2011.

6.4.1 PMTCT PRONG 1: REDUCE HIV INCIDENCE AND PREVALENCE IN WOMEN OF CHILDBEARING AGE

Adolescents and new mothers (15-24 years) contribute half of new infections, have high fertility rates, and face increased risks for gender based violence³⁴. Reducing HIV incidence among women of childbearing age remains the first – and most difficult – prong of the PMTCT strategy to implement. Through implementation of **Option B+**, ART coverage levels among **known HIV positive** pregnant and breastfeeding women have increased to over **80%** in 2014. With such high coverage levels reached, most of the remaining MTCT events are thought to occur among women **newly infected during the pregnancy or breastfeeding period**. This is based on an ANC cohort study in Lilongwe that found much elevated HIV incidence rates in pregnancy, possibly due to increased biological susceptibility of the female genital tract in pregnancy and related to the custom of sexual abstinence in the late pregnancy and post-partum period in Malawi which may be associated with an increased frequency of extramarital relations among male partners.³⁵ MTCT rates through new maternal infection are fuelled by the extremely high risk of transmission in the acute phase of infection. Even frequent testing of women during pregnancy or breastfeeding is unlikely to have a significant impact on this mode of transmission as the initiation of ART and infant prophylaxis would almost inevitably come too late.

Sexually active adolescents may be involved in transactional or intergeneration relationships. HIV transmission and early or unplanned pregnancy is often a result of low family planning access, including condoms and YFHS. Linkages to OVC related interventions for child protection, economic strengthening, and social support are needed. Married adolescents and young mothers are at high risk of becoming infected through marriage. Services need to focus on keeping young women negative, spacing subsequent births and linking HIV+ adolescents into age appropriate Positive Health, Dignity and Prevention care and support services.

The most powerful intervention to address this challenge is the reduction of HIV incidence from sexual transmission in the general adult population, particularly during the pregnancy and post-partum periods and among adolescent girls and youth. This population level reduction in incidence will be achieved by reducing the population's viral load through ART scale-up to reach the 90-90-90 targets, , complemented by targeted interventions to prevent new infections among most at risk females (15-24 years).

6.4.2 PMTCT PRONG 2: REDUCE UNPLANNED OR UNINTENDED PREGNANCIES AMONG HIV+ WOMEN

Family planning offers many benefits for all women who want it, regardless of their HIV status. By delaying first births, lengthening birth intervals, reducing the total number of children born to a woman, preventing unintended pregnancies, and reducing the number of abortions (particularly in places where abortion is more likely to be unsafe), contraception can have a major impact on improving the overall health of a woman as well as that of her children. Nearly one-third of maternal deaths could be prevented by meeting unmet need for family planning. Reducing morbidity and mortality in women, in turn, has far-reaching consequences for the health and survival of their children.

For PLHIV, access to contraception has the added public health benefit of reducing the number of infants who may acquire HIV and, by extension, the number of children who need HIV-related services. Malawi has spearheaded the integration of Provider-Initiated Family Planning in HIV clinics since 2011 and by 2014, about one third of women in HIV care received Depo-Provera conveniently as a 'one-stop-shop' from ART and pre-ART clinics.

Between 2015-2020, Malawi aims to increase contraceptive uptake which is expecting to increase from 31% in 2009 to 57% in 2015 in order to eliminate the 26% unmet need for family planning among married women in Malawi. Making informed reproductive choices is a right for all women, including those living with HIV and family planning counselling and service provision will be grounded in these rights.

³⁴Malawi DHS 2010

³⁵Ministry of Health, Cohort Analysis, March 2014

Potential service delivery models include integration of family planning into HTC, pre-ART and ART and PMTCT services. HIV and FP integrated activities should respect the client's rights to make informed decisions³⁶. In addition, this should include promotion of LAM – lactational amenorrhea method – including exclusive breastfeeding in the first six months and transition to a modern birth control method at first menses or before 6 months postpartum. There is need to evaluate the efficiency and effectiveness of integrated FP and HIV service delivery, including assessing integration of services for early post-partum visits, effectiveness of linkages to community based FP service providers and addressing barriers that may be experienced by key and vulnerable populations, such as adolescents^{37,38} and sex workers. Family Planning commodity security is needed to ensure that integration efforts are not undermined and is recognized as a key component of essential HIV commodity security in the national program. Technical assistance is needed to address capacity gaps at national level for monitoring and evaluation, logistics and supply chain management to improve access to integrated FP-HIV services.

6.4.3 PMTCT PRONG 3: INCREASE ART COVERAGE AMONG HIV INFECTED PREGNANT AND BREASTFEEDING WOMEN

Over 95% ANC attendance rates in Malawi greatly facilitate HIV screening and implementation of Option B+ in Malawi. A further increase in ART population coverage will lead to an ever increasing proportion of HIV infected women who are already on ART when getting pregnant, which provides the best protection from MTCT – Quarter I: 50% of pregnant women on ART started before the current pregnancy in 2014. The HIV ascertainment rate amongst pregnant women will increase from 67% in 2013 to 85% by 2020 and ART uptake by HIV positive pregnant women from 81% in 2013 to 85% by 2020.

6.4.4 PMTCT PRONG 3: INCREASE INFANT NVP PROPHYLAXIS COVERAGE

Other critical elements for the PMTCT strategy in this NSP include the increased uptake of infant niverapine (NVP) prophylaxis through supervision and mentorship of health workers in both ANC and maternity settings. Improved identification of infants as HIV-exposed infants will be accomplished routine re-testing at maternity and at the 9-month measles vaccination visit (for all women previously negative or never tested). This will allow prevention of additional transmissions by ART initiation for previously undiagnosed mothers.

6.4.5 PMTCT PRONG 4: CARE AND SUPPORT FOR HIV-INFECTED WOMEN AND THEIR FAMILIES

These activities are included under the third objective of the NSP, which is to retain 90% of ART patients in care.

6.5 PEDIATRIC ART

Following the WHO guidelines, the Malawi PMTCT/ART guidelines stipulate that infants born to HIV-infected mothers should receive a DNA-PCR test for early diagnosis of infection and immediate initiation of ART. Disease progression in HIV-positive infants is particularly rapid in the first few months of life, and early ART initiation has been shown to significantly reduce the risk of mortality.³⁹ Infants and children who present with more advanced disease have a far worse prognosis even if ART is initiated.⁴⁰

³⁶PEPFAR COP 14 Technical Considerations

³⁷Munthali A., Chimbiri A., Zulu E. 2004. Adolescent Sexual and Reproductive Health in Malawi: A Synthesis of Research Evidence. Occasional Report No 15, The Alan Guttmacher Institute, New York

³⁸Wittenberg J, Munthali A., Moore A., Zulu E., Madise N., Mkandawire M., Limbani F., Darabi L., Konyani S. 2007. Protecting the Next Generation in Malawi: New Evidence on Adolescent Sexual and Reproductive Health Needs. Washington DC: Guttmacher Institute.

³⁹Violari et al. for the CHER Study Team. N Engl J Med 2008; 359:2233-2244

⁴⁰KIDA-ART-LINK Collaboration. Low risk of death but substantial program attrition, in pediatric HIV treatment cohorts in sub-Saharan Africa. JAIDS. 2008. 49(5):p523-31

As a result of Option B+, the majority of HIV-infected infants will not be found through testing known-exposed infants, but in ensuring that children in paediatric wards and NRUs are routinely tested and initiated on ART. The prompt initiation of ART in hospital will require stronger referral systems to ART services closer to home, and follow-up of the mother and child after the child is discharged in order to minimize loss-to-follow-up.

ART coverage among HIV infected infants' remains low at 18%.⁴¹ HIV in infants is primarily due to transmission from women who did not receive ART in pregnancy, and who are not in the health system for ready facilitation of infant follow-up. Additional challenges to the scale up of paediatric ART, particularly in infants, include collection of blood samples for DNA-PCR from infants requires special skills and supervision, and that the DNA-PCR testing is performed in central laboratories, requiring well-coordinated logistics for sample transportation and communication of results.

This is a critical area of the 2015-2020 NSP and the strategies will include the following:

- Finding the positives i.e. exposed infants of women who have fallen through the PMTCT cascade, these are currently accounting for most of the remaining new infections in children
- PITC for pregnant women (who may have been missed in ANC or may have seroconverted late in pregnancy) during delivery & postnatal as well as at Expanded Program for Immunization-EPI (up to 9 months when measles vaccine is given)
- PITC for children at points of care i.e. OPD, paediatric wards, NRU, under 5 & under 1 clinics, ORT clinics etc.
- PITC for vulnerable children including children of HIV infected/affected parents, OVC's, targeting both in school and out of school children
- Strengthen Early Infant Diagnosis (EID) and Early Infant Treatment (EIT) through a well-established exposed infant follow up program ensuring infants are tested at 6 weeks (DNA-PCR, 12 and 24 months (rapid test), including improving access to HTC by appointing HTC dedicated cadres as well as improving sample transportation and Turn around Time (TAT)
- Strengthening Clinical Mentoring to improve provider skills for managing paediatric patients at all health facilities
- Scale up the mother –infant pair model utilizing community systems such as expert clients, M2M, CSOs to enhance retention in care as well as defaulter tracing
- Scale up routine viral load monitoring in children to monitor ART failure and adherence
- Step up community awareness campaigns to improve awareness, linkage to and retention in care through community structures

⁴¹MOH Programme Data 2012/2013

7 NSP OBJECTIVE 3: 90% OF PATIENTS ON ART ARE RETAINED IN CARE

7.1 PUBLIC EDUCATION

Evidence shows that Social and Behaviour Change Communication plays an important role in supporting HIV prevention and care outcomes.⁴² A number of activities have been undertaken to educate the public on the availability of HIV treatment, how it works, its effectiveness and where to get further advice. Materials endorsed by the Ministry of Health are distributed by health facilities. With the scale up of ARVs, continued and expanded effort is required to make the public aware of the new ART coverage goals and the anticipated impact on the HIV epidemic in Malawi. In addition, information on the availability of facility and community-based care and support services will need to be widely disseminated involving community led initiatives. Coupled with this is the development and production of targeted messages and communication materials for the different segments of the population that includes key and vulnerable populations. Additionally, community efforts are needed to not only increase awareness of ART, but to establish community norms that are accepting and supportive of ART adherence. Community and civil-society groups will play a major role in this effort to disseminate targeted information, facilitate and support treatment uptake and retention, and encourage supportive community norms around ART adherence.

To improve adherence and ensure good treatment outcomes, explicit support systems for users and community mobilisation and advocacy processes that promote the rights of people living with HIV and AIDS will be established. The responsibility for adherence is given to the clients themselves, but occurs within a clear framework of support, a period of treatment preparedness and the building of trusting relationships with providers. This is very different to the traditional paternalistic and passive relationship between health care workers and patients - changing this represents the key innovation challenge of the Malawi ARV programme. Central to this relationship are the front-line providers, expert clients and community mobilisers who have to champion the purpose and process of adherence to ART. However, for sustained realisation of good treatment outcomes, community systems strengthening for support, advocacy and kinship remains crucial.

7.2 OPPORTUNISTIC INFECTIONS (OIs)

This result is designed to ensure that specific important co-infections and morbidities are adequately addressed within the 2015-2020 NSP. During this NSP Cotrimoxazole Preventive Therapy (CPT) coverage amongst HIV positive patients will be maintained at a minimum of 95%. A similar plan for children aged 2 months and above will have a CPT coverage of at least 95%. The main intervention to increase access to prophylaxis and treatment of opportunistic infections is the availability of the drugs. The main challenge in Malawi is the stock out of OI related drugs. In addition, re-training of health care providers according to the guidelines and support to laboratory capacity for all health facilities will be effected.

7.3 ADDRESS HIV/TB CO-INFECTION

⁴² Journal of AIDS 2014 <http://www.healthcommcapacity.org/jaids-health-communication-plays-hiv-prevention-care>

Tuberculosis remains the most common cause of death in PLHIV, with an estimated mortality rate of 22/ 100,000 population. In 2013, 17,820 notified TB patients had a known HIV status and 9,998 (56%) were found to be HIV positive. In addition, 88% of notified HIV-positive TB patients were on ART and 59% of HIV-positive incident-TB patients were initiated on ART⁴³. To achieve the UNAIDS goal of having 90% of PLHIV on ART by 2020, there is need to increase the proportion of TB/HIV co-infected patients on ART.

In high HIV prevalence settings, such as sub-Saharan Africa, TB is reported to cause up to 15% of all maternal mortality⁴⁴. HIV-infected pregnant women with TB disease are at increased risk of transmitting both TB and HIV to their infants^{45,46}. With Option B+, universal eligibility of pregnant and breastfeeding women is anticipated to reduce the incidence of maternal TB⁴⁷ and the risk of TB transmission to her baby and young children. Prisons are high TB transmission risk settings and some prisons have a higher prevalence of HIV than the general population⁴⁸. There is a higher burden of TB and HIV in urban settings. As stated in the TB NSP groups at higher risk of acquiring TB include contacts of sputum positive cases, children under five, health workers and people in correctional facilities. Patients with diabetes and malnutrition are also at higher risk of developing active TB, with between 10-16% of PLHIV having diabetes.

The TB NSP gap analysis indicates the following challenges: delayed diagnosis due to health seeking behaviour, low case finding especially for children with TB-HIV, limited TB HIV integration; weak linkages between TB HIV services. Preliminary findings from the TB prevalence study indicate that over half of TB cases are being missed in the community, especially men and people aged over 55 years. This suggests the need for better targeting of active case finding activities. The programmatic priorities for TB HIV are the three I's (intensified case finding co-infected patients, infection control and isoniazid preventive therapy) and early initiation of ART for TB/HIV. With the universal eligibility for ART of HIV positive pregnant and breastfeeding women (Option B+) and HIV positive children under 5 years, the incidence of TB is expected to reduce in these populations groups with early initiation. TB incidence may still be high in patients on ART for the first few months, partly attributed to the unmasking of TB with immune reconstitution⁴⁹ this further emphasizes the need for early ART initiation and the 3 I's.

7.3.1 INTENSIFIED CASE FINDING

The national integrated HIV guidelines recommend routine screening for TB at every visit, with provision of IPT for patients who screen negative for TB and are not yet eligible for ART. Patients with presumptive TB need to be evaluated further to diagnose TB disease using appropriate TB diagnostic tools including Xpert MTB/RIF, and if found to have active TB, should be initiated on TB treatment⁵⁰. TB screening also facilitates initiation of ART among PLHIV diagnosed with TB disease who might not have been eligible for ART based on their CD4 counts. Identification of PLHIV with cough through TB screening also allows for implementation of basic TB infection control measures such as separation of coughers and fast tracking for clinical assessment to reduce potential TB transmission⁵¹.

⁴³ WHO Global TB Report, 2014 (Unpublished).

⁴⁴Getahun H, Sculier D, Sismanidis C, Grzemska M, Raviglione M. Prevention, Diagnosis, and Treatment of Tuberculosis in Children and Mothers: Evidence for Action for Maternal, Neonatal, and Child Health Services. *The Journal of Infectious Diseases*, 2012; 205 (supplement 2):S216-S227.

⁴⁵Gupta A, Bhosale R, Kinikar A, et. al. Maternal Tuberculosis: A Risk Factor for Mother-to-Child Transmission of Human Immunodeficiency Virus. *The Journal of Infectious Diseases*. 2011; 203:358-363.

⁴⁶Gupta A, Nayak U, Ram M, et. al. Postpartum Tuberculosis Incidence and Mortality among HIV-infected Women and Their Infants in Pune, India, 2002-2005. *Clinical Infectious Diseases*. 2007; 45:241-249.

⁴⁷Schouten EJ, Jahn A, Midiani D, Makombe SD, Mnthambala A, Chirwa Z, et al. Prevention of mother-to-child transmission of HIV and the health-related Millennium Development Goals: time for a public health approach. *Lancet*. 2011;378(9787):282-4. Epub 2011/07/19. doi: 10.1016/S0140-6736(10)62303-3. PubMed PMID: 21763940.

⁴⁸Mwapatsa, V. et al. 2012, Prevalence and risks factors for HIV, Sexually-Transmitted Infections and Tuberculosis in Malawian Prisons, UNODC, UNFPA

⁴⁹Lawn SD, Wilkinson RJ, Lipman MC, Wood R. Immune reconstitution and "unmasking" of tuberculosis during antiretroviral therapy. *Am J Respir Crit Care Med*. 2008 Apr 1; 177(7):680-685. [PubMed: 18202347]

⁵⁰ World Health Organization. Guidelines for Intensified TB Case-finding and Isoniazid Preventive Therapy for People Living with HIV in Resource-Constrained Settings. Geneva, Switzerland: World Health Organization, 2011. Available at http://whqlibdoc.who.int/publications/2011/9789241500708_eng.pdf.

⁵¹PEPFAR COP14 Care and Support evidence summaries

7.3.2 ISONIAZID PREVENTIVE THERAPY (IPT)

Isoniazid Preventive Therapy is another essential intervention for TB prevention. Given daily for six months, it reduces the overall risk of TB in PLHIV by about 33%. In addition, if given to children aged 5 years and below, it protects them from developing active TB. To this effect, all children less than 5 years of age who are household or close contacts of TB index cases and who have active TB ruled out, should be offered IPT for not less than six months irrespective of their HIV/ART status. All other age groups (above 5 years) who are in contact with a TB index case and who have active TB ruled out and who are also HIV positive, should be offered IPT for a period of not less than 6 months irrespective of their ART status. Thus in Malawi the criteria for starting IPT is: Contact with known TB index with age under five years and HIV positive status where active TB has been ruled out. IPT should be given with pyridoxine to prevent neuropathy.

7.3.3 TB INFECTION CONTROL

The scale up of TB infection control will be prioritized and coordinated with infection prevention and control activities in other programs. In addition prisons and other congregate settings pose a higher TB transmission risk⁵². All HIV service delivery sites should have basic administrative and environmental infection control measures in place.

7.3.4 TB/HIV integration

Given the strong evidence base for population impact, the scale up of integrated TB/HIV services and interventions is an important area of focus^{53, 54}. HIV testing and counselling are the first opportunity for TB-HIV integration. As the scale-up of ART services has progressed at a more rapid rate than the decentralization TB registration sites, linkages between services should be strengthened, ideally through implementation of integrated TB-HIV service delivery at more sites. To reduce the gap between decentralization of ART services and the significantly less decentralized TB treatment services, the national HIV and TB programs will implement a strategy to increase the number of health facilities with co-location or integration of TB and ART services.

7.4 FACILITY-BASED ADHERENCE SUPPORT

Sustaining a programme of universal ARV access also requires facilitating patient adherence to ART; ensuring that people take their medication every day for the rest of their lives. Poor adherence rapidly leads to the emergence of drug resistance and treatment failure at the individual level. If resistance develops on a wide scale, this will have broader public health implications, including the cost of maintaining a large number of people on 2nd and 3rd line regimens. Obligations on the part of individuals to adhere have to be matched by obligations on the part of the health system to ensure continuous access to uninterrupted supplies of drugs, skilled providers and laboratory support able to maximise the safety and efficacy of drugs, and a supportive environment and community norms for adherence.

Routine patient education on ART and adherence has been provided since the inception of the ART programme. In coming years, the use of low level cadres, expert patients, lay workers, peer educators will increase to ensure this important intervention is maintained as the number of patients outpaces the growth of the professional cadres. In addition, the standard practice of conducting pill counts for patients coming to get ARV refills will continue.

7.5 COMMUNITY-BASED CARE AND SUPPORT

⁵² World Health Organization. WHO Policy on TB Infection Control in Health-Care Facilities, Congregate Settings and Households. Geneva, Switzerland: World Health Organization, 2009. Available at: <http://www.who.int/tb/publications/2009/9789241598323/en/>

⁵³PEPFAR COP 2014 technical considerations

⁵⁴Kranzer K, Houben RMGJ, Bekker LG, Wood R, Lawn SD. Yield of HIV associated tuberculosis during intensified case finding in resource-limited settings: a systematic review and meta-analysis. *Lancet Infect Dis.* 2010;2: 93_102.

Community based care and support is an integral part of comprehensive treatment and care for PLHIV, and should be standardised and integrated into the wider care and support system. This NSP will scale up the provision of community-based care and support services in support of the Pre-ART and ART programmes, ensuring increased emphasis in catchment areas of high-burden facilities, where the absolute number of patients requiring community support is highest.

Community based Services provided in Malawi include Positive Health, Dignity and Prevention(PHDP), palliative care, nursing care, counselling and psychosocial support, spiritual support, and nutrition and referral services. Provision of these services is premised on the partnership between government, civil society organizations, PLHIV support groups and the communities themselves through Community Based Organisations (CBOs). Support groups of PLHIV have been shown to be effective in providing care and support services and in particular in addressing stigma and discrimination through promotion of PHDP and human rights education, ART adherence and side effects management. Within the context of positive living, support groups have focused on addressing dietary and health promotion practices that improve quality of life in areas such as psychological wellbeing, understanding the effects of alcohol and smoking, and improving nutritional quality of the household diet. Condom distribution and use, family planning, and adherence issues are also discussed. Vulnerable households have also been linked to economic strengthening and food security initiatives.

In addition to general PLHIV support groups, palliative care will continue to be emphasised, particularly with regards to pain and symptom management, as well as clinical, psychological, spiritual, social and prevention services. Although ART extends life expectancy and improve the quality of life, there will still come a point where palliative and home-based care services are needed for those on ART.

The growing bi-directional referral system between health facilities and communities will continue to be strengthened, improved and consolidated. In addition, the quality of Community Based Care services will be improved by establishing and strengthening technical and institutional capacities of PLHIV and community based organisations at national level, particularly in adherence monitoring and palliative care. This includes support for hospice facilities in providing medical and emotional care and support to terminally ill patients, as well as community outreach and educational activities for PLHIV. The training of community care providers, including peer educators, family members, community leaders and volunteers, will complement services by professional staff. Special attention will be given to prevention of burnout and ‘caring for carers’, as well as close collaboration between professional and community caregivers. Over the 2015-2020 NSP period PLHIVs who will be followed-up in the community will increase from 24,248 in 2013 to 90,000 by 2020.

The Livelihoods and Food Security Technical Assistance II (LIFT II) project is one of the community based care and support programmes. The primary goal is to support evidence-based, gender-sensitive programming to improve household (Livelihoods and Food security (ES/L/FS) support as a component of a continuum of nutrition and health care and support for vulnerable individuals and families. It connects clients accessing clinical HIV and nutrition services to a continuum of care and support, focusing on links to economic strengthening, livelihood, and food security opportunities that can improve their overall health and social outcomes. The creation of a viable continuum of HIV care requires that functional, systematic referrals are established between health facilities and community-based services. Males will be mobilized and trained to provide gender sensitive and rights based care in order to lessen the burden of care for women and girls.

7.6 HIV-EXPOSED INFANT CARE AND FOLLOW UP

Malawi has achieved 92% coverage for infant NVP prophylaxis among known HIV-exposed infants born at health facilities and 88% start cotrimoxazole prophylaxis (CPT) within two months of birth.

7.7 COMMUNITY-BASED ACTIVITIES

During the 2015-2020 NSP, all HIV-related community-based activities will focus on supporting the achievement of the 90-90-90 targets, with particular emphasis on uptake of and retention in ART as the key intervention for ultimately controlling the HIV epidemic in Malawi. Developing and re-energizing the existing community strengths and structures to facilitate the movement of information and resulting action throughout communities will be a critical focus of this approach. However, provision of HIV prevention and treatment services (including universal access to ART) cannot achieve maximum impact without the presence of key enablers, including a supportive community, legal and policy environment and the removal of structural barriers that otherwise limit potential clients' ability (and desire) to access these services.

Leaders and community-based and civil society organizations are well-placed to contribute to an enabling environment and to advocate for the removal of barriers to service uptake including legal constraints, restrictive gender and cultural norms, and economic vulnerability. Strong monitoring and evaluation measures should be put in place for all community based activities in order to ensure impact is well documented.

7.7.1 MOBILISING AND ENGAGING COMMUNITY LEADERS

Community and religious leaders will be equipped with comprehensive information for them to do the advocacy and also follow-ups. Included in the mobilisation and sensitisation programme for these leaders will be community- and facility-based HIV and AIDS interventions as well as issues related to gender and human rights. It is anticipated that these leaders will play a critical role in advocating for timely health seeking behaviours including condom promotion, HTC, PMTCT, ART and VMMC, and in encouraging retention in care for those on ART. They will also play a critical role in leading community dialogue around damaging gender and cultural norms and practices that impact on adolescent girls' vulnerability, service utilisation, disclosure, and adherence.

7.7.2 REVITALIZING OF THE VILLAGE HEALTH COMMITTEES

An important and under-utilized structure for strengthening the link between facility and community is the Village Health Committee (VHC). In the coming years, MOH and partners will work to reactivate the Village Health Committee structure in the effort to increase demand for HIV services, raise awareness of the 90-90-90 targets in communities, and support ART retention and adherence. In addition, efforts will be made to achieve equitable representation of men and women and having women occupying decision making positions in the committees.

7.7.3 COMMUNITY NETWORKS, LINKAGES, PARTNERSHIPS AND COORDINATION

Existing strategic partnerships and alliances between will be consolidated and new ones established in direct support of the NSP targets. Networking mechanisms will be improved and expanded. Community based organizations (CBOs), Faith-based organizations (FBOs), and non-governmental organizations (NGOs) will be strengthened to implement interventions to support the 90-90-90 targets and the nationally prioritized and targeted HIV prevention activities.

7.7.4 STRENGTHENING DISTRICT, REGIONAL AND NATIONAL LEVEL PLANNING AND COORDINATION MECHANISMS

The Government of Malawi has a comprehensive national decentralisation plan which ensures central government and community participation in the development agenda. To ensure establishment of effective coordination mechanisms and sustainability of community networks, linkages and partnerships will be established and strengthened the NSP implementation will use these already established decentralisation structures. Information flow between the various organisations will be facilitated. The District AIDS Coordinators (DACs), which are part of the District/Local Councils and Village AIDS Committees (VACs) will be expected to provide technical assistance to grassroots and community structures.

7.7.5 IMPROVE AVAILABILITY, USE AND QUALITY OF COMMUNITY-BASED HIV SERVICES

Community based HIV services are meant to complement the social and health facility based HIV services and to provide additional service delivery options for individuals (including members of key and vulnerable populations) who face barriers to accessing services delivered through the traditional healthcare system. Recognising the critical role played by communities in provision of care, and the weak linkages that are evident between these systems, the aim of the 2015-2020 NSP is to strengthen and improve linkage and referral between health facilities and community level service

providers. Under this NSP, quality standards and guidelines will be developed for community-based services and these guidelines with mainstream gender and human rights. Linkages will be consolidated between community initiatives with CBC and orphan and vulnerable children (OVC) programmes, and bi-directionally to and from health facilities. Community-based partners and programs will focus on:

- Ensure that family members of known HIV-positive individuals receive HIV testing, ideally in a facility setting,
- Encourage male involvement in care to lessen the burden of women and girls on care, and
- Assessment of additional health needs and appropriate referrals made.

7.7.6 IMPROVE MONITORING AND REPORTING ON COMMUNITY-BASED HIV SERVICES

To ensure monitoring and quality of services provided, the system for reporting community-based HIV services developed during the previous NSP will be strengthened. This will include adapting and/or updating clear quality standards for delivery of community-based services and designing a framework to ensure quality improvement in instances where quality issues are identified. by developing tools, training and conducting community based monitoring and tracking; documentation of good practices and monitoring the performance of all providers servicing the TB/HIV programme. In addition, the monitoring and reporting tools will be gender sensitive and capture information on key populations and other vulnerable groups for both TB and HIV. Staff at the local council level will facilitate monitoring of community-based HIV services, with technical support from other district level personnel and by civil society organisations.

7.8 NUTRITION

According to WHO guidelines, adequate nutrition, which is best achieved through consumption of a balanced health diet, is vital for health and survival for all individuals regardless of HIV status. Energy requirement increases by 10% to maintain body weight and physical activity in asymptomatic HIV infected adults. During symptomatic HIV and subsequently during AIDS, energy requirements increase by approximately 20-30% to maintain adult body weight. Nutrition care and support, therefore, prevents malnutrition and wasting, enhances the body's ability to fight opportunistic infections and contributes to the reduction of morbidity and mortality in PLWH.

As malnutrition is a widely acknowledged problem in Malawi, particularly in children, and as there is a lack of strong evidence to promote RUTF specifically in HIV-positive patients, the decision was made by the HIV program stakeholders to strengthen the existing guidelines for nutrition:

- The national clinical protocol requires that routine nutritional assessments are conducted on pre-ART and ART patients at every clinical visit
- Patients who are categorized as having moderate or severe malnutrition should be referred for nutritional supplementation
- Nutrition counselling and education for clients who are not malnourished so as to avoid malnutrition.
- Nutrition counselling and education on nutrition for PLWH. In PMTCT; early initiation of breastfeeding, exclusive breastfeeding should be encouraged for the first 6 months of life, and continued breastfeeding with appropriate complementary feeding as stipulated in the PMTCT guidelines.
- Referral/Linking vulnerable PLHIV to community-based economic strengthening, livelihoods and food security support in their areas for a continuum of care.
- Other interventions include reinforcing clinical decision-making on the basis of anthropometric assessments and assuring appropriate linkages and referral for nutritional support.

7.9 SOCIAL AND ECONOMIC PROTECTION FOR ORPHANS AND VULNERABLE CHILDREN

The HIV and AIDS epidemic is a major catastrophe which threatens Malawi's ability to meet its commitments to the realization of children's rights. The epidemic exacerbates the difficult circumstances of many children in Malawi which

result from poverty, lack of access to resources and services, minimal infrastructure, fragmented families, and violence and abuse against women and children. There are a considerable number of children who care for terminally ill parents or caregivers, which negatively affects the psychosocial wellbeing of children. These circumstances compel many children, particularly girls, to withdraw from school as they take on adult responsibilities at a very young age. They are then even more vulnerable to acquiring HIV themselves as a result of increased risk of transactional sex and an inability to negotiate condom use.

Violence against Children (VAC) has also recently become one of the key child protection issues in Malawi. The 2013 Ministry of Gender Survey on VACs shows that 2 in every 3 children experience some form of physical or emotional violence before the age of 18 years. Orphans are among the victims of violence, particularly in schools and homes.

Finally, eleven percent of children live outside the care of their immediate family. These children are fostered, adopted or placed in institutional care. However, there are no national standards for fostering, adoption or institutional care for children living in alternative care settings. Where focused guidelines exist, for example, on management of Child Care Institutions (CCI), there is no regulatory body to enforce them. The Adoption Act (1949) is outdated and does not adequately promote in-country adoption. Currently a draft bill is ready to undergo processes for enactment. According to the Malawi Human Rights Commission Child Care Institutions Mapping Report of 2013, the number of children living in Child Care Institutions has grown from 6,000 in 2009 to over 10,000 in 2013, while the institutions have increased from 104 to 168. Only 40 percent of institutions are registered; most children are unnecessarily placed in institutions because of poverty and education opportunities; only 9 percent of children have care plans; 89 per cent of institutions cannot generate income to sustain the provision of care and support for children.

The Ministry of Gender, Children and Social Welfare (MoGCSW) has led activities to protect the rights of orphans and vulnerable children, and to reduce their vulnerability and the impact of HIV and TB. Interventions need further strengthening and additional initiatives at community level to protect the rights of orphans and, in particular, child- and youth-headed households. Mental health services must also be part of the package of services provided to support orphans and vulnerable children.

8 REDUCE NEW INFECTIONS AMONG KEY AND VULNERABLE POPULATIONS

A total of 1,060,000 PLHIV are estimated to live in Malawi in 2014, of which 147,000 (14%) are children under 15 years of age and 913,000 are adults. Malawi's rapid and successful ART scale-up between 2004 and 2014 has critically influenced the HIV epidemic in the country and has mitigated its impact. However, the number of new HIV infections already started to decline in the late 1990's, 15 years before ART became widely available. HIV incidence in adults (15-49 years) peaked at around 2.5 per 100 adults per year in the mid-1990s and was estimated at 1.6 at the beginning of the ART program in 2004. This early decline follows the natural course of the epidemic and was probably also driven by a reduction of risky sexual behaviour as the population became aware of HIV as the cause for the massive death wave that peaked at over 90,000 deaths in 2004. By mid-2014 – 10 years after the start of ART roll-out – 506,000 (48%) of all HIV positive Malawians were on ART and incidence had declined to 0.4. This massive decline in the new infection rate has outpaced the rapid population growth in Malawi, which is threatening to offset any reduction in new infection rates. Reduced incidence has led to a sustained reduction of the absolute number of people newly infected each year from 120,000 in 1999 to 33,000 in 2014. This important reduction in the HIV transmission rate can also be explained by the fact that effective early ART provides the greatest prevention effect. As it has been proven globally, early ART reduces the HIV transmission by 96% and is now considered as one of the best biomedical prevention tools evaluated to date. Significant gains have also been made for paediatric infections through implementation of Option B+ in 2011: in just 4 years, the number of children infected by their mothers (including during the breastfeeding period) has declined by 66% (from 30,000 in 2010 to 10,000 in 2014).

Comprehensive prevention strategies must be in place to keep key and vulnerable populations identified as negative, HIV free. Other biomedical prevention interventions, including condoms and VMMC, will be scaled up. Targeted behavioural and structural interventions must address individual sexual behaviour among key and vulnerable populations, and community gender and cultural norms and practices which contribute to risk behaviour based on known drivers of the epidemic and evidence based responses. Structural interventions which address legal, economic, and access barriers need to be implemented to address marginalization and criminalization of key population's behaviours, as well as unique vulnerabilities of adolescents (particularly OVC), and PLHIV. Community systems strengthening support efforts across the continuum- to ensure an enabling environment is in place to achieve prevention and care outcomes. The 2015-2020 National Prevention Strategy outlines comprehensive packages of combination prevention activities which need to be in place for each key and vulnerable population to ensure prevention responses are targeted based on drivers of the epidemic and prioritised geographic locations. Impact of efforts will be measured through measurable referrals, services provided and robust monitoring of behaviour change.

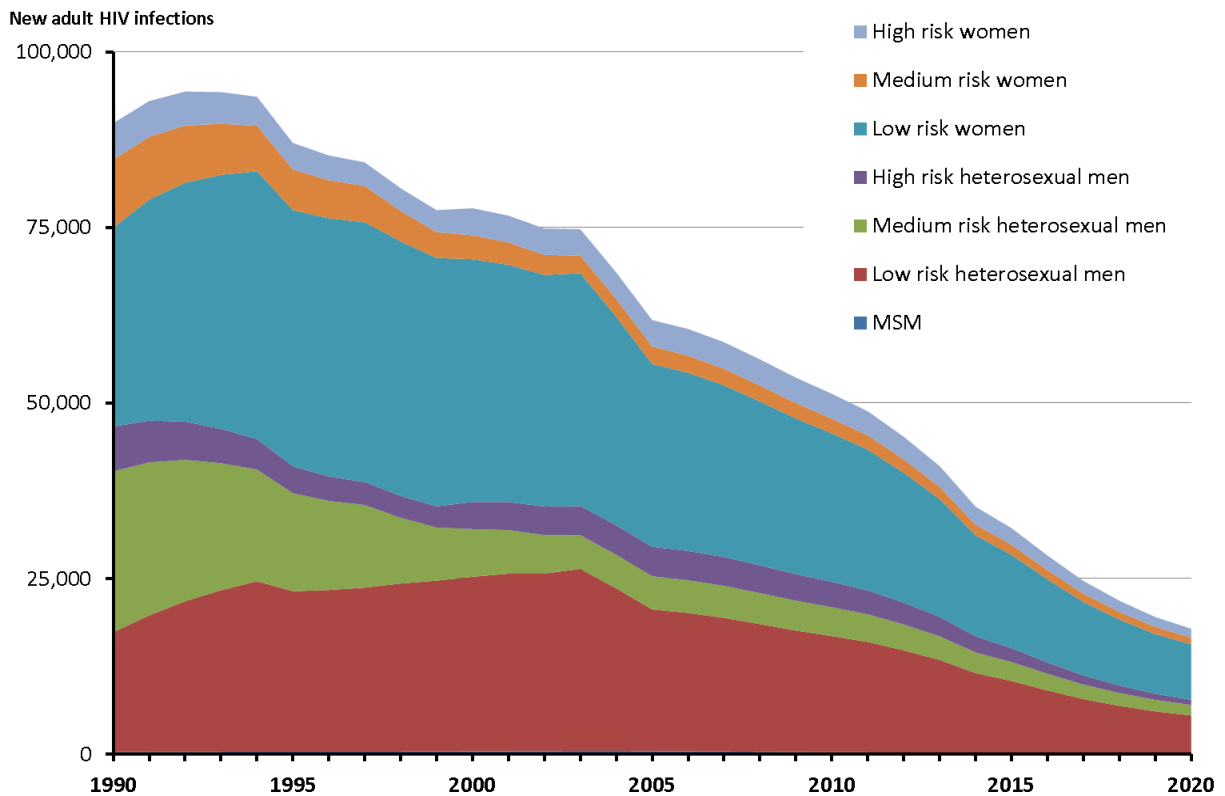
Throughout the HIV epidemic in Malawi, most new infections have occurred among young adults (15-49 years). In this age group, the 2013 *Modes of Transmission* study suggested high incidence rates among MSM, FSW and among the clients and partners of FSW⁵⁵. However, 85-90% of new infections are thought to occur in women and heterosexual men classified as low or medium risk (see 2014 Goals model estimates shown in Figure 8 below). Recognizing that different populations within Malawi have specific HIV prevention needs, and that resources are limited, the focus will be on the following key and vulnerable populations as agreed during the HIV Prevention Symposium held in Lilongwe in June 2014:

- Key populations (MSM and FSW)
- Young women, ages 10-14 years and 15-24 years
- Couples (married /cohabitating) and discordant

⁵⁵Joint United Nations Program on HIV/AIDS (UNAIDS) Malawi and National AIDS Commission Malawi. Modes of Transmission Analysis and HIV prevention Response. Distribution of new infections in Malawi 2013 and Recommendations for prevention strategies. 2014.

- PLHIV (including YPLHIV)
- Targeted geographic areas – “Hot Zones”

Figure 8: Goals Model estimates for the number of new HIV infections among adults (15-49 years) by sex and risk category (1990-2020). The model assumes continued ART scale-up to cover 81% of all PLHIV by 2020, leading to a dramatic and sustained reduction in new HIV infections among adults.



In order to reduce the annual number of new infections by 90% by 2030, massive scale up of combination prevention interventions targeting key and vulnerable populations as stated in the HIV Prevention Strategy (2015-2020) is required. The overall impact is to reduce new HIV infections by 70% by 2020 from the 2010 baseline. In addition to the HTC and ART scale-up, the following evidence based interventions will be prioritized:

- Voluntary Medical Male Circumcision (VMMC),
- Treatment of Sexually Transmitted Infections (STIs),
- Male and Female Condoms

These combination prevention programmes have been prioritized as they are expected to achieve maximum returns on investments if they are adequately targeted to the right populations and the right geographical locations as proposed in the HIV Prevention Strategy (2015-2020)⁵⁶.

These targeted interventions will be combined with social and behavioural change interventions and messaging in order to create demand and ensure uptake of services. With this plan, Malawi will reduce its new HIV infections in adults (15-49 years) from 58,000 in 2010 to 17,000 in 2020. Similarly, efforts will be made to reduce HIV infections in children (0-14 years) from 4900 in 2013 to 1900 in 2020.

8.1 VOLUNTARY MEDICAL MALE CIRCUMCISION

The National Voluntary Medical Male Circumcision (VMMC) program was formally launched in 2012 and the National Policy on Voluntary Medical Male Circumcision, VMMC Standard Operating Procedures for Service Providers and Malawi VMMC Communication Strategy elevated male circumcision as a core intervention in Malawi's previous National HIV Prevention Strategy.

In order to achieve the maximum benefit of medical male circumcision in reducing new HIV infections, the country has to achieve VMMC coverage of 80% among men aged 10-34 years by 2020 which is approximately 2,101,566 circumcisions to be undertaken in the whole country and 1,888,847 in the priority districts. However, VMMC scale-up has been significantly hampered by the lack of human resources to implement these services without seriously undermining primary health care services. Between the start of the program in 2011 and the end of September 2014, a total of 150,000 male circumcisions had been performed. Taking into account the pace of scale up, the VMMC program coverage targets have been reduced from 80% to 60%. During 2015-2020, a more aggressive approach will be used to achieve at least 60% coverage of male circumcisions across the country. The GOM now estimates a target of 1,300,568 circumcisions in 14 priority districts from 2015-2020.⁵⁷

In the 2015-2020 NSP, the Joint Strategic Action Framework to Accelerate the Scale-Up of Voluntary Medical Male Circumcision for HIV Prevention in Eastern and Southern Africa: 2012–2016 will be used to guide the implementation of the VMMC programme. Additionally, Malawi's VMMC TWG has developed a National Operational Plan which highlights high impact geographic districts and specified age groups to be reached for VMMC based on modelling. The modelling exercise took into consideration the 90-90-90 targets and long term impact.

8.1.1 COUNTRY IMPLEMENTATION

As VMMC is one of the newest of all core HIV prevention activities, bringing this approach to scale requires, among other things, innovative methods of service delivery and demand creation. To accelerate scale-up of VMMC, human resource innovations are required. A policy on task shifting is in place and it allows state-registered nurses to provide surgery to male clients. This applies to the forceps-guided method that has been adopted for efficiency. Trained nurses are able to perform any task relating to VMMC client care management, including the actual surgery and administration of local anaesthesia. Another innovative staffing model involves using both nurse counsellors and HTC lay counsellors to provide health education and administer testing prior to the procedure. Other lower cadres are oriented to VMMC

⁵⁶See Annex 1 of the HIV Prevention Strategy for the prevention packages which will be implemented at varying intensity depending on local epidemiology.

⁵⁷The determination of targets for each district was informed by the VMMC modelling that showed circumcising 80% of males aged 10-34 year olds would result to a huge impact of preventing 128,819 new HIV infections by 2050. Several key indicators were used in order to guide the Malawi MC target setting process and identification of priority zones/districts including MC prevalence rates, HIV incidence rates and how fast incidence rate is reduced, the number of VMMCs per HIV infection averted, the Rural - urban incidence and the cost of VMMC program. The priority geographical areas include all districts in South Eastern and South Western Zones, Ntcheu, Dedza and Lilongwe districts.

so that they are able to review clients and attend to some minor adverse events (AEs) as has been the case with other surgeries. Medical assistants screen and review patients post VMMC. These innovations will be accelerated to increase VMMC scale up.

In addition to human resource innovations, there are multiple circumcision devices available on today's market. Malawi is in the process of completing a safety and acceptability study for the PrePex circumcision device, which is in final approval stage with WHO. If successful, this device could assist in rapidly scaling up VMMC as it requires less staff, less time, and a less sterile environment for use.

- **Demand for VMMC created in priority districts (Targeted campaigns)** - VMMC in Malawi touches largely on religious and cultural sensitivities which can easily act as barriers to the uptake of this intervention. As a result, three behavioural interventions have been identified to address these sensitivities : (i) Advocacy with traditional and religious leaders to build political will for VMMC; (ii) social change interventions such as theatre for development, radio spots, and other multi-media activities to increase public understanding of VMMC and its benefits to create supportive community norms around circumcision; and (iii) targeted social mobilization for increased service uptake among the target populations. Implementers will adopt a minimum package of community mobilisation activities developed under Bridge II: road shows, community radio, peer-to-peer communication, service provider to client promotion; support groups; interactive drama/audio shows.
- Building capacity of various cadres of health and lay workers to support VMMC service delivery. Training on key components of VMMC service provision, including community mobilization, post-operative care and demand creation will continue. Malawi will integrate training in pre-service education in health training institutions and in refresher courses for those in practice
- Continuing to prioritize the scale-up of VMMC for males between ages 10 and 34 years,
- Laying the foundation for long-term sustainability by introducing early infant male circumcision (EIMC) in combination with behavioural change interventions targeting parents
- Introducing innovative ways for service delivery and demand creation activities.
- Strengthening the supply chain management for VMMC supplies ensuring an uninterrupted supply of VMMC commodities. Effective scale-up and sustainability of VMMC services depend on an efficient national procurement system for essential VMMC commodities. To ensure access to essential supplies, Malawi will quantify commodity needs, identify gaps and develop measures to address gaps and mobilize needed resources.
- Quality Assurance - Maintaining high standards of services requires a quality assurance strategy and plan that provides for regular quality audits and ongoing feedback to inform efforts to improve service quality. During the NSP period Malawi will develop a quality assurance plan and systematically carry out quality assurance at site level.

8.2 BLOOD SAFETY

Transfusing blood that has not been screened against HIV virus infection puts the recipient at an increased risk of blood-borne infections. Malawi has not yet achieved universal (100%) screening of donated blood for HIV infection due to the need for supplementing supply of blood products from the Malawi Blood Transfusion Services with ad-hoc collection of blood from replacement donors at some hospitals. Mechanisms to ensure quality and continuity in screening are still inadequate, particularly at the lower levels of the health system. So far, 93% of the donated blood in the country is screened for markers of key infectious diseases (HIV, Hepatitis B and Syphilis) in a quality-assured manner. The 2015-2020 NSP aims to screen 99% of the donated blood in the country for markers of key infectious diseases (HIV, Hepatitis B and Syphilis) in a quality-assured manner.

8.3 TREAT SEXUALLY TRANSMITTED INFECTIONS

Despite the well-documented biological pathways by which sexually transmitted infections (STIs) facilitate HIV transmission, efforts to link STI treatment to improved biological outcomes for HIV prevention at the population level have yielded limited results. STI services remain, however, a recommended component of a comprehensive HIV prevention package with core recommendations that these services focus on key and vulnerable populations with high STI prevalence, people who present with symptomatic STIs, and sexually active adolescents and HIV-positive persons.

⁵⁸ To improve the service delivery for STI the following interventions will be effected during the 2015-2020 NSP.

8.3.1 NATIONAL LEVEL INTERVENTION

At national level, the national STI guidelines will be revised, with an emphasis on ensuring alignment with global recommendations for STI screening and treatment in resource-limited settings. The training curricula will be revised and all relevant providers trained in the updates. In addition, STI service supervision will become a component of the quarterly supportive site supervision visits to all facilities.

8.3.2 TARGETED COMMUNITY INTERVENTIONS

STI prevention and treatment approaches will be directed at key and vulnerable populations including FSWs, MSM, sexually active adolescents and youth, and mobile populations. The goal of targeted interventions is to expand the numbers of STI-infected individuals who receive high-quality STI management services. These interventions will include:

- Peer-to-peer education among key populations on STI screening, diagnostics and management – It was documented through community consultations with MSM and FSWs that health care workers are often not receptive to these groups. This deters health-seeking behaviours (especially for STIs) and discourages KPs who do access services from reporting fully on their sexual activities, which may result in them being provided with incomplete or inappropriate services. The following are proposed:
 - STI content to be added to existing peer-to-peer interventions, focusing on treatment literacy, encouraging regular sexual health check-ups with or without potential symptoms, and facilitated referrals to qualified and (where possible) KP-friendly clinical services.
 - Reorientation of existing “safe spaces” – including community centres – to include targeted and appropriate IEC and (where possible) one-stop shopping for integrated health services including HTC and STI syndromic and etiological management.
 - Creation of referral networks of pre-identified healthcare providers, who will be trained in syndromic management approaches, appropriate clinical skills for working with key populations, and provider attitudes (using the CEDEP minimum package-see Appendix)
 - Interventions for sexual partners of STI clients
 - Strengthened referral between HTC and STI service providers so that all individuals with STIs are proactively referred to HIV counselling and testing (and vice versa)
 - Targeted STI screening and treatment will be provided for key populations on a quarterly basis and within YFHS. While STIs can be integrated within targeted HIV packages, it will not be provided for the general population. As noted, no general adult population prevention activities will be supported under the new NSP.
 - Promote access to Youth Friendly Health Services (YFHS) amongst youth 10 – 24 years - Most youth have cited lack of privacy as the main deterrent for seeking STI treatment. In addition, young people are often

⁵⁸ US President's Emergency Plan for AIDS Relief - Guidance for the Prevention of Sexually Transmitted HIV Infections (2011) and Hayes, R., Watson-Jones, D., Celum, C., et al. AIDS (2010), Vol. 24 Supp 4, pp. S15-S26

stigmatized and discriminated against by health workers when seeking sexual or reproductive health services. This will be addressed through the STI refresher trainings.

8.4 MALE AND FEMALE CONDOMS

Malawi's condom distribution per capita is estimated at a low of about 4 per person per year in the sexually active population. Less than a third of males (23.5%) and females (27.5%) report using condoms with non-spousal non regular partners (DHS, 2010). Condom use in high risk sexual encounters among key populations is estimated to be low (e.g. 10% in female sex workers). Chronic stock-outs of condoms at health facility level remain a challenge, as do myths around the female condom; negative community attitudes especially toward unmarried youth – which hinders uptake; and general programming. Gender norms leave women disempowered in negotiating safer sex including condom use.

As a result, the Total Market Approach (TMA), a system in which all market sectors – public, social market and commercial work - together to deliver health choices for all population segments is proposed for comprehensive condom programming. TMA focuses on creating a healthy market such that: (1) There is sufficient demand for condoms, condoms are sought and used by consumers; (2) There is a robust supply, specifically a diversity of brands are available and distributed to all sectors of the population with the poorest communities receiving free products, those with slightly greater resources accessing partially subsidized products, and those with greater ability to pay purchasing products from commercial sector. In this way, the market becomes more efficient which leads to greater sustainability by better targeting public and social sector subsidies. (3) Supportive market functions, such as measurement, information sharing, quality assurance, and encouraging policy and regulation, are shared among sectors to strengthen the overall functioning of the market; (4) Subsidies are appropriately targeted to ensure the most vulnerable have access to a quality product. By implementing TMA, bottlenecks and challenges across the condom market will be identified and stakeholders can work collaboratively to address such bottlenecks for the benefit of the total market. A total of approximately 280 million condoms per annum are expected to be delivered using traditional and non-traditional platforms targeting all sexually active men and women, youths and key and vulnerable populations. Additionally as local studies indicate high incidence of dry sex which may facilitate HIV transmission, the current strategy includes distribution of condoms and lubricants packaged together, initially to MSM and FSW.

Messaging to the general public will focus on demystifying male and female condoms, and strengthen distribution and uptake of these commodities. A total of approximately 280 million condoms are therefore expected to be delivered using traditional and non-traditional platforms targeting all sexually active men and women and especially those in short-term relationships, key populations, youths and other vulnerable groups, and double the per capita condom availability in country. Additionally as local studies indicate high incidence of dry sex which may facilitate HIV transmission, the current strategy has included distribution of lubricants to both MSM as well as sex workers. These activities will be complemented by scaling up of sexuality education among in and out of school children and pre-adolescents, provision of targeted SRH and HIV information as well as well as tailored demand models for adolescent girls and young women in order to increase the use of condoms by these key and vulnerable populations. At this stage in the AIDS response, efforts to increase condom use and knowledge about HIV transmission will have to be prioritized over the intention to procure more condoms.

8.4.1 STRENGTHEN CAPACITY OF CONDOM PROVIDERS IN COMPREHENSIVE CONDOM PROGRAMMING (CCP)

As one way of increasing access and uptake of condoms and lubricants, service providers need to be equipped to be able to ably demystify condoms and ably demonstrate how to wear both male and female condoms. Therefore training of providers in workplaces will be done in an attempt to reach employers and employees 15- 49 years. Special effort will be made to train CBOs to reach key and vulnerable populations at community level. Community based condom distribution has been demonstrated to increase uptake of condoms among targeted populations (BRIDGE II). These efforts need to be continued and expanded so that condoms are available beyond health facilities within communities, hotspots, and for PLHIV support groups.

8.4.2 GENERAL POPULATION REACHED BY COMPREHENSIVE HIV PREVENTION PROGRAMS ESPECIALLY CONDOM USE (DISAGGREGATE BY AGE, SEX, WORKPLACE)

Similar to the campaigns for HTC and VMMC, two 'major' (countrywide) and two 'minor' (localized) Condomise campaigns will be carried out through the five years. These deliberate campaigns will aim at strengthening political will and buy-in from traditional, religious, and other opinion leaders. Through sensitization meetings at traditional authority (TA) level meetings (with traditional, religious, and other opinion leaders) it is foreseen that they will become more accepting of condoms for prevention among all populations (especially youth) and provide some messaging of HTC to their constituents. In addition, five CBO clusters (including youth organisations) per TA level will be trained to ensure further advocacy for male and female condoms. It should be noted, that in all this, the intensity and delivery of these messages will be done at community level. Implementers will adopt the Community Mobilisation - Minimum package of Bridge II which include: road shows, community radio, peer-to-peer, service provider to client; support group; interactive drama/audio shows. An alternative package used will be the UNFPA condomise minimum- package. To ensure that this campaign reaches all Malawian, special messages will be developed for MSMs and delivered using the peer-to-peer approach. Messaging on condom use will be linked to the 90-90-90 targets in order to help the general population understand the available means to avoid getting and or spreading HIV.

8.4.3 PEER-TO-PEER EDUCATION ON USE OF LUBRICANTS FOR MSM AND FSW

To ensure that condom campaigns reach all Malawians, targeted messages will be developed for MSM, FSWs, youth and vulnerable groups and delivered using the peer-to-peer approach and via appropriate platforms such as websites and social media. Messages for key populations will focus on accurate information regarding HIV risks associated with different sexual activities, will target specific attitudinal and belief-based barriers to condom use, and will promote condom use within a risk reduction framework offering a menu of options for preventing infection.

Ideally, lubricant would be made universally available. However, given resource constraints, the scale-up of lubricant use will initially focus on key populations. Additional messaging for MSM and FSWs will be needed to promote appropriate use of condom-safe lubricant to discourage breakage. Leaflets will be developed in multiple languages on lubricant use amongst MSM and FSWs. Training of peer educators will be done. Peer educators will be identified to conduct STI education. Refresher trainers will be conducted. These interventions will mainly be implemented by communities, such as the Sex Workers Alliance.

8.4.4 COMMUNITY AND LEADERS' ENGAGEMENT IN SRH AND HIV PREVENTION

Community and religious leaders will be mobilised and sensitised on the importance of the 90-90-90 targets and condom use. These leaders will be encouraged to promote health seeking behaviours among men, advocate for the reduction of number of sexual partners, address age of sexual debut of young people, in particular young women and girls. These efforts will be combined with structural interventions, such as human rights protection of young girls (raise age of marriage), community protection mobilization for legal action against sexual offenders, GBV reduction programmes and social cash transfer programmes.

8.4.5 INTEGRATION OF COMPREHENSIVE SEXUAL AND REPRODUCTIVE HEALTH (SRH) AND HIV PREVENTION COMPONENT INTO SCHOOL CURRICULA

Evidence suggests that sex education for young people encourages safer sexual practices and delays sexual debut. As outlined elsewhere in this document,, where possible the school and faith based education and outreach services should include comprehensive sex education for young people. Advocacy for comprehensive sexual education for youth will be done at national and community levels. Implementation will be overseen by the Ministry of Education.

8.4.6 INSTITUTE TOTAL MARKET APPROACH FOR COMPREHENSIVE CONDOM PROGRAMMING FOR EFFECTIVE AND EFFICIENT SUPPLY CHAIN

Malawi has recently reviewed the 2007 - 2011 National Condom Policy and a notable area requiring strengthening is the supply chain for condoms. In response to this, a Total Market Approach, outlined above, is proposed to ensure that all sectors – private, social marketing and public – work in partnership to address bottlenecks and thereby provide for an efficient and effective supply chain. Planning and coordination of this mechanism will be done at national level with a TMA assessment undertaken, the findings of which will be presented to stakeholders. Through this process,

bottlenecks and challenges across all sectors will be identified by stakeholders and shared recommendations developed. The National Condom Coordinating Committee will be revived to take such recommendations forward and will work closely with district level counterparts to ensure district-level challenges are also addressed and fed into proposed solutions. TMA will also need advocacy in particular to the private sector and larger government departments to enable all stakeholders to better appreciate the advantages of TMA. This structural intervention will apply to all distribution mechanisms for comprehensive condom programming in Malawi.

8.5 SOCIAL BEHAVIOUR CHANGE COMMUNICATOIN

As Malawi transitions to a point where the majority of ART patients have been initiated early, and may never have experienced the debilitating effects of HIV-related illnesses, extra attention needs to be paid to promoting and maintaining adherence and retention in care. Despite the simplicity of the ART regimen, the importance of ensuring the single daily tablet is taken on schedule remains critical to the success of the overall ART programme.

Behaviour change underpins the entire prevention, treatment and care continuum. Individual behaviour is driven by the interplay of individual, community and structural factors which either support or impede timely uptake of HIV related services, risk reduction and long-term adherence. These factors include comprehensive knowledge, risk perception, attitudes, self-efficacy, social norms, cultural practices, service access and legal environment. Social and behaviour change communication (SBCC) incorporates evidence based strategies, based on proven behavioural theories, to positively influence these factors to achieve prevention and care outcomes. Such strategies are continually monitored to ensure progress towards project goals and make course corrections if necessary; an essential part of ensuring that relevant evidence informs the strategy. Evidence-based decision-making is crucial to the success of SBCC programs, and public health interventions in general; it builds on the best available research evidence, practitioner expertise and best practices from other resources, and incorporate characteristics, needs, values, and preferences of the audience in order to guide implementation and inform mid-course corrections. It also ensures best use of resources, as funds are used on strategies that are proven to work^{59,60}.

In this context communication goes beyond the delivery of a simple message or slogan to encompass the full range of ways in which people individually and collectively convey or derive meaning. Among the powerful tools employed by SBCC programs are mass media, community mobilization, interpersonal communication, information and communication technologies, and new media. Communication approaches which use role models to build self-efficacy, and encourage problem solving and community action have been shown to be effective in having impact (Bandura 1997, 2006).

Evidence around both the importance and effectiveness of SBCC within combination prevention programs is growing. Ethnographic and qualitative studies indicate a clear role of socio-cultural, gender, and community norms in perpetuating HIV transmission through sexual risk behaviours, such as multiple partners and concurrent partners, lack of condom use, and through insufficient health-seeking behaviours.^{61,62,63} Between 2000-2004, evidence suggests that behaviour changes (e.g. increases in condom use, decreases in the proportion of men having sex with more than one partner) contributed significantly to decreases in HIV in Malawi's epidemic.^{64,65} Health Communication Capacity

⁵⁹Jacobs JA, Jones E, Gabella BA, Spring B, Brownson RC. Tools for Implementing an Evidence-Based Approach in Public Health Practice. *Prev Chronic Dis* 2012;9:110324.

⁶⁰Fielding, Jonathan E and Peter A Briss. 2006. Promoting Evidence Based Public Health Policy: Can we Have Better Evidence and More Action? *Health Affairs*, Volume 24, No 4.

⁶¹Watkins, S. (2010). Desk review of HIV determinants in Malawi. Lilongwe, University of Pennsylvania and BRIDGE-II Project.

⁶²USAID/Malawi (2012). Gender Assessment 2012. Lilongwe, USAID/Malawi.

⁶³Limaye, R. J., Babalola, S., Kennedy, C., & Kerrigan, D. (2013). Descriptive and Injunctive Norms related to Concurrent Sexual Partnerships in Malawi: Implications for HIV Prevention Research and Programming. *Health Education Research*, 28 (4), 563-573.

⁶⁴Bello, G., B. Simwaka, T. Ndhlovu, F. Salaniponi and T. Hallett (2011). "Evidence for changes in behaviour leading to reductions in HIV prevalence in urban Malawi." *Sexually Transmitted Infections* 87(4): 296-300.

⁶⁵National AIDS Commission, UNAIDS/Malawi and Futures Institute (2013). Malawi - Prevention response and modes of transmission analysis. Lilongwe, National AIDS Commission, UNAIDS, and Futures Institute.

Collaborative (HC3), funded by the USAID, sponsored a special supplement in the Journal of Acquired Immune Deficiency Syndromes (JAIDS), devoted entirely to health communication and its role in HIV prevention and treatment. The supplement included a series of articles, synthesizing evidence on the impact of Community-Level Factors on HIV Prevention Outcomes (2013), health communication on treatment outcomes, condom use, and HTC – available online (www.healthcommcapacity.org/technical-areas/hiv-and-aids/impact-community-level-factors-hiv-prevention-outcomes) and in the JAIDS supplement. Meta-analyses on the effect of condom social marketing further showed a positive and statistically significant effect on increasing condom use, and all individual studies showed positive trends with a substantial effect over years.⁶⁶

Within Malawi, evidence around impact of SBCC and community engaged responses is increasing. Robust evaluation design in USAID’s BRIDGE project, has also provided compelling evidence of the impact of their SBCC activities^{67,68,69,70,71,72}. Results from the midterm evaluation demonstrated that high exposure to interventions yielded positive changes in behavioural determinants of service uptake including self-efficacy, behavioural intention around couples’ communication, condom use, and HIV testing. There were significant increases in self-reported HIV testing and reductions in HIV and AIDS related stigma. Community referral agents played a key role in referrals with more men, women and couples accessing HIV testing and treatment and other health services, and service delivery improvements.

9 STIGMA, DISCRIMINATION AND PATIENT RIGHTS

More than three decades into the HIV epidemic in Malawi, stigma and discrimination continue to hamper efforts to prevent new infections and engage people in HIV treatment, care and support programmes. Numerous studies have linked HIV related stigma with refusal of HIV testing, non-disclosure to partners and uptake of biomedical prevention services and commodities, including condoms, VMMC, pre- and post-exposure prophylaxis and ART.^{73,74} Similarly, internalized stigma, which refers to the negative consequences that result when people believe that stigmatizing public attitudes apply to them⁷⁵ is a well-established barrier to medication adherence.⁷⁶ In response to this evidence, stigma reduction is a priority area PEPFAR’s Blueprint for Achieving AIDS-Free Generation⁷⁷ and UNAIDS’ HIV investment framework.⁷⁸

⁶⁶(Effects of condom social marketing on condom use in developing countries: a systematic review and meta-analysis, 1990–2010 Michael D SweatI,*, Julie DenisonII; Caitlin KennedyIII; Virginia TedrowIII; Kevin O’ReillyIV, Bull World Health Organ vol.90 n.8 Geneva Aug. 2012) .

⁶⁷Kaufman, Michelle R., et al. 2014. Using Social and Behavior Change Communication to Increase HIV Testing and Condom Use: the Malawi BRIDGE Project. AIDS Care, 2014.

⁶⁸Berendes, Sima and Rajiv N Rimal. 2011. Addressing the Slow Uptake of HIV Testing in Malawi: The Role of Stigma, Self-Efficacy, and Knowledge in the Malawi BRIDGE Project. Journal of the Association of Nurses in AIDS Care, 22, 215-228.

⁶⁹Limaye, R. J., Brown, J., & Mkandawire, G. (2013). Using Entertainment Education to Promote Self-efficacy and Aspirations among Young Malawians: the Tisankhenji Radio Program. Cases in Public Health Communication and Marketing, 7, 16-34

⁷⁰Rimal, R.N., Limaye, R. J., Roberts, P., Brown, J., & Mkandawire, G. (2013). Reduction of Structural Disparities and Psychosocial Deficiencies through Discussion: Experience from the BRIDGE Project in Malawi. Journal of Communication, 63 (1), 51-71.

⁷¹Limaye, R. J., Rimal, R., Roberts, P., Mkandawire, G., Dothi, W., Brown, J. (2012). Talking about Sex in Malawi: Toward a Better Understanding of Interpersonal Communication for HIV Prevention. Journal of Public Health Research, 1(2).

⁷²Rimal, R. & Limaye, R. J. (2012). Socio-cognitive Approaches for AIDS Prevention in Malawi: Explicating the Role of Risk Perceptions and Efficacy Beliefs. In R. Rice & C. Atkin (Eds.), Public Communication Campaigns. Thousand Oaks, CA: Sage.

⁷³Abdool Karim Q, Meyer-Weitz A, Mboyi L, Carrara H, Mahlase G, Frohlich JA, et al. The influence of AIDS stigma and discrimination and social cohesion on HIV testing and willingness to disclose HIV in rural KwaZulu-Natal, South Africa. Glob Public Health. 2008;3(4):351_65.

⁷⁴Turan JM, Bukusi EA, Onono M, Holzemer WL, Miller S, Cohen CR. HIV/AIDS stigma and refusal of HIV testing among pregnant women in rural Kenya: results from the MAMAS study. AIDS Behav. 2011;15(6):1111_20.

⁷⁵Corrigan PW, Penn DL. Lessons from social psychology on discrediting psychiatric stigma. Am Psychol. 1999;54(9):765.

⁷⁶Corrigan PW, Watson AC. The paradox of self-stigma and mental illness. ClinPsychol: SciPract. 2002;9(1):35_53.

⁷⁷Rintamaki LS, Davis TC, Skripkauskas S, Bennett CL, Wolf MS. Social stigma concerns and HIV medication adherence. AIDS Patient Care STDs. 2006;20: 359_68.

⁷⁸PEPFAR. PEPFAR blueprint: creating an AIDS-Free generation. Washington, DC: The Office of the Global AIDS Coordinator; 2012.

⁷⁹Schwartzlander B, Stover J, Hallett T, Atun R, Avila C, Gouws E, et al. Towards an improved investment approach for an effective response to HIV/ AIDS. Lancet. 2011;377(9782):2031_41.

The recent shift in the global AIDS response to biomedical prevention will require acceptance and uptake of prevention approaches, such as voluntary medical male circumcision, pre-exposure prophylaxis and universal testing and treatment, at the population level.⁷⁹ Effective interventions to reduce stigma and discrimination are crucial to the success of biomedical prevention.⁸⁰ Such interventions need to be integrated into national responses and address the stigmatization process.⁸¹ Stigma and discrimination interferes with HIV prevention, diagnosis and treatment, and can become internalised by people living with HIV and AIDS.⁸² Importantly, stigma and discrimination is often enacted through discrimination (defined as the rejection or prejudicial treatment of different categories of people or things, especially on the grounds of race, age, health status or gender), hostility and prejudice against PLHIV (as well as their partners and families), denying them equal access to essential services in many cases.⁸³

Stigmatisation associated with HIV and AIDS is underpinned by many factors, such as lack of understanding of the disease (including misconceptions about modes of transmission), lack of access to treatment, irresponsible media reporting, and the incurability of AIDS. Stigmatization is additionally conflated with widespread prejudice and fears relating to socially sensitive issues (including sexuality, sex work) which themselves contribute to HIV risks and vulnerability among members of key populations.⁸⁴ HIV and AIDS-related discrimination a human rights violation. It is necessary to address such discrimination and stigma in order for public health goals related to HIV and AIDS prevention and management to be achieved.⁸⁵

Malawi's response to HIV and TB recognises the centrality of globally accepted human rights, including the rights to equality, dignity, life, freedom and security and privacy of the person. This approach is based on the understanding that public interest is best served when the rights of those living with HIV and/or TB – or who are at risk of infection – are respected, protected and promoted. The 2015-2020 NSP takes as a starting point the constitutional recognition that access to healthcare and other social services – which includes reproductive healthcare – is a human right. In this regard, each result – where appropriate – addresses the specific access needs of particular groups, , including, but not limited to, women, men, adolescents, children, people with disabilities, and other key and vulnerable populations.

Ensuring access to social services requires that interventions be planned and implemented in a manner that recognises the specific needs of these groups and the social, cultural, legal, economic and other possible barriers to accessing services. While the focus of this outcome is forward-looking, largely containing a set of interventions to be implemented over the course of the NSP, considerations of human rights and access to justice are ever-present. Recognising that the legal framework for respecting, protecting, promoting and fulfilling rights in the context of HIV and TB needs to be strengthened, this NSP will give special attention to groups that are at higher risk in particular key populations and youth. Women and young girls must also be supported and enabled to access a comprehensive package of services including sexual and reproductive health services. Where such services are not available, referral mechanisms must be put in place to facilitate access within a reasonable timeframe and limited costs to those seeking care.

9.1 CREATING AN ENABLING LEGAL AND HEALTH SERVICES ENVIRONMENT

MSM,FSW, prisoners, and other vulnerable populations are in need of appropriate HIV and TB prevention, treatment, care and support services. Overall, there is limited data available to assist in fully understanding the size of most of

⁷⁹Dai JY, Gilbert PB, Hughes JP, Brown ER. Estimating the efficacy of preexposure prophylaxis for HIV prevention among participants with a threshold level of drug concentration. *Am J Epidemiol.* 2013;177(3):256-63.

⁸⁰Earnshaw VA, Bogart LM, Dovidio JF, Williams DR. Stigma and racial/ethnic HIV disparities: moving toward resilience. *Am Psychol.* 2013;68(4):225-36.

⁸¹Stangl A, Go V, Zelaya C, Brady L, Nyblade L, Stackpool-Moore L, et al. Enabling the scale-up of efforts to reduce HIV stigma and discrimination: a new framework to inform program implementation and measurement. XVIII International AIDS Conference, July 18-23. Vienna; 2010.

⁸²Alonzo AA, Reynolds NR: Stigma, HIV and AIDS: an exploration and elaboration of a stigma trajectory. *SocSci Med* 1995, 41(3):303-315.

⁸³Link BG, Phelan JC: Stigma and its public health implications. *Lancet* 2006, 367(9509):528-529.

⁸⁴Herek M: Thinking about AIDS and stigma: a psychologist's perspective. *J Law Med Ethics* 2002, 30(4):594.

⁸⁵Aggleton P, Wood K, Malcolm A: HIV-related stigma, discrimination and human rights violation: case studies on successful programmes. Geneva:UNAIDS best practice collection; 2005. http://data.unaids.org/publications/irc-pub06/jc999-humrightsviol_en.pdf.

these populations in Malawi and the impact that HIV has within these populations though, as discussed above, available information suggests that the epidemic continues to expand among some groups. The importance of addressing gender inequality, discrimination, other human rights violations and other inequities as well as providing tailored HIV interventions is highlighted in the 2015-2020 NSP.

There are multiple barriers that limit access to HIV prevention, treatment, care and support services among all of the key and vulnerable populations mentioned. Several influences have been associated with increased vulnerability to HIV among individuals from these populations, and can be broadly classified as structural, social or individual risk factors. To mitigate these barriers the following will be reviewed during the 2015-2020 NSP:

9.1.1 Social and legal protection for persons living with HIV and AIDS and Key and Vulnerable Populations

- **Advocate for legal reform**—Laws, regulations and policies relating to HIV can negatively or positively impact the HIV epidemic, as well as the lives and human rights of those living with and affected by HIV. It is thus essential to monitor and reform laws, regulations and policies so they support, and not hinder, access to HIV and health services. Persons infected and/or affected by HIV and AIDS should have the same access to services as the rest of the community. Being infected and/or affected by HIV should not constitute a barrier or obstacle to accessing services such as socioeconomic, and psychosocial support. Strengthening the provision of non-discriminatory services (police, health care, legal) and creation of and/or scale-up safe spaces/drop in centres is the focus of this output. This strategy will be strengthened at all levels of the community nationwide to reach members of key populations, PLHIV and their families, and also those who may not be HIV positive but who are affected by the virus, particularly OVC.

Advocacy for legal reviews will be conducted to formalize the rights of PLHIV and key populations, including advocacy for the adoption of the Rights-based HIV Bill. Attention will also be paid to the Penal code with sections that discriminate against KPs. Awareness of the rights of people living with HIV and AIDS will also be used to sensitise the general public, including Parliamentarians, government Ministers, religious and traditional leaders. For key and vulnerable populations, efforts are required of everyone including the KP organizations, human rights groups, healthcare institutions and other civil society organizations to improve the legal and policy contexts so that all persons, regardless of sexual orientation or behaviour have access to the necessary health services and support to deal with HIV and AIDS.

- **Advocacy and sensitisation on PLHIV rights** - The Constitution and the other law in Malawi does not discriminate against PLHIV on the grounds of HIV status in terms of employment, in society, in health services access. However, most people remain ignorant of the rights of PLHIV (including YPLHIV). This is even more critical for women living with HIV and YPLHIV. Education of PLHIV on their rights is the main activity for this output and this can be implemented through access to justice programmes so PLHIV can claim their rights. Education programmes will be implemented broadly through social behaviour change interventions, interpersonal communication, and mass media for hard-to reach areas (community radios). Advocacy for implementation of these rights will be conducted at all levels, including awareness-raising campaigns that provide information about rights and laws related to HIV through media (e.g. TV, radio, print, Internet) and Community mobilization and education.
- **Responsiveness of the social legal environment** to the health needs of PLHIV and KPs. PLHIV are becoming increasingly aware of their rights, but few have access. This output aims to influencing change in the social and legal arenas mainly through advocacy for building capacity around legal literacy and access to justice; finalization and dissemination of the HIV Management Bill, ; gender related bills and promotion of the enactment and implementation of laws, regulations and guidelines that prohibit discrimination and support access to HIV prevention, treatment, care and support; workplace policies; policies (young PLHIV); and review of the interpretation and application of laws that affect FSW and MSM (including vagrancy laws and criminalization of homosexual activities). Activities will also extend to strengthening the Sex Workers' Alliance, Coalition for Women Living with HIV (COWLHA) and other similar bodies deal with HIV and AIDS related issues that affect key and vulnerable populations. Advocacy work will mainly be done at national level; however, dissemination will be done at all levels including communities and service providers as well as the legal fraternity and law enforcement institutions to ensure the protection of all key populations and PLHIV.

- **Reducing discrimination in access to services** - Programmes aimed at reducing stigma and discrimination against people living with HIV or people at risk of HIV infection should address the actionable causes of stigma and discrimination and empower people living with and vulnerable to HIV. This result address unfair discrimination. In this case, the focus is on a range of grounds on the basis of which people may be denied access to the HIV and TB services set out in the NSP. Among others, these grounds include age, race, gender, sexual orientation and other grounds inconsistent with the laws of Malawi. In addition to respecting and protecting people’s rights to have access to services, this result seeks to facilitate the achievement of broader public health goals by ensuring that no person eligible for the identified services is denied access on an arbitrary basis. Denial of access may take place in a number of ways, including by way of services being provided in a manner that fails to address or understand a person’s specific needs. This may include staff attitudes that discourage people from accessing social services. The following examples are either reflective of discrimination or incompetence from these services:
 - Failure on the part of clinic staff to distinguish between gay men, transgender women and heterosexually identified men who have sex with men, leading to provision of inappropriate HIV counselling services
 - Judgemental attitudes of health staff towards young people who attempt to access SRH services
 - Failing to recognise and address factors contributing to treatment non-adherence, such as excessive use of alcohol or depression, which may undermine access to ART or TB treatment.

Programmes aimed at reducing stigma and discrimination can involve a variety of approaches, including: Community interaction and focus group discussions involving people living with HIV and members of populations vulnerable to HIV infection; Use of media, including advertising campaigns, entertainment designed to educate as well as to amuse (“edutainment”), and integration of non-stigmatizing messages into TV and radio shows; Engagement with religious and community leaders, and celebrities; Inclusion of non-discrimination as part of institutional and workplace policies in employment and educational settings; Peer mobilization and support developed for and by people living with HIV aimed at promoting health, well-being and human rights.

- **Increased capacity training to prevent unfair discrimination** - While it is important to hold all social service providers to account through professional disciplinary mechanisms, it is also vital that such professionals have access to dedicated human rights training programmes designed to equip them with the necessary skills to respect, protect and promote equality in the provision of social services and be sensitized on the needs of KPS. This intervention is, therefore, aimed at all bodies that train social service providers in HIV and TB care, as well as dedicated services for pregnant women, children and adolescents. In particular, this intervention seeks to ensure that all public and private bodies providing training in HIV and/or TB include modules dealing with discrimination, with a focus on key and vulnerable populations that includes people with disabilities.

9.1.2 HUMAN RIGHTS

- **Advocacy and sensitisation on PLHIV rights** - The Malawian Constitution and law in Malawi does not discriminate against PLHIV on the grounds of HIV status in terms of employment, in society, in health services access. However, most people remain ignorant of the rights of PLHIV (including YPLHIV). This is even more critical to YPLHIV and key and vulnerable populations. Knowing your rights education programmes for PLHIV is the main activity for this output. Education will be implemented broadly through social behaviour change interventions, interpersonal communication, and mass media for hard-to reach areas (community radios). Advocacy for implementation of these rights will be conducted at all levels. NAPHAM and other Civil Society Organisations can aid in ensuring that PLHIV are accepted without stigma or discrimination; members of these support groups can help to normalize HIV in areas where they are active through community gatherings and one on one discussions.
- **Sensitization on PLHIV rights** - Empowerment of PLHIV will be addressed by improving education and skills so that they can competently access economic opportunities. Support under this Output will consist of literacy training, entrepreneurship and management training. To promote economic opportunities for people living with HIV, awareness campaigns on stigma and discrimination and the rights of PLHIV will be conducted in communities as well as workplaces.

- **Mainstreaming and ensuring the** rights of key populations are protected and to ensure access to critical HIV prevention, treatment and care and services will be implemented through these complementary programmes: stigma and discrimination reduction; provision of HIV related legal services; monitoring and reforming laws, regulations and policies relating to HIV; provision of legal Literacy (“know your rights”) services; sensitization of law-makers and law enforcement agents; training for health care providers on human rights and medical ethics related to HIV and; reducing discrimination against women in the context of HIV.

9.1.3 KEY POPULATION VULNERABILITY

Sensitization on mainstreaming KPs into all sectors - MSM are criminalized in Malawi and FSW remain marginalized and subject to significant legal penalties under existing regulations. In consultations with both groups, it was evident that these groups feel stigmatized and discriminated against by the general public as well as by healthcare and social service providers. Stigmatizing attitudes and discriminatory behaviours serve as a significant disincentive to access necessary services for the prevention, care and treatment of HIV. This output aims at culturally sensitive advocacy campaigns in hotspot areas, and social behaviour change communications for a positive shift in social attitudes and practices more especially with Faith Based Leaders. At the same time, alternative service delivery models for key populations will be considered, including through task-shifting of certain services to trained, community-based volunteers, reorientation of existing service centres as “safe spaces” for KPs, dedicated and/or mobile service delivery through drop-in centres and other community venues, and in some cases promotion of self-service models (such as rapid HIV oral fluid testing).

9.2 GENDER

9.2.1 INCREASED PROTECTION OF WOMEN AND GIRLS

Implementing interventions to address gender inequalities and gender-based violence as drivers of HIV in which girls and women are particularly vulnerable to HIV infection will be prioritized. Women and girls are at higher risk (compared to men) because of their biological vulnerability and due to gender norms, roles and practices which increase their risks while reducing their agency to protect themselves. Acknowledging the fact that gender inequality hinders social and economic development, the achievement of gender equality remains one of the critical components of the HIV agenda. Malawi is grappling with violence against women, with sexual assault and intimate partner violence contributing to increased risks for HIV infection. Within targeted geographic settings, CSOs, CBOs, OVC committees, and communities are critical players in the delivery of comprehensive community packages which address gender barriers across continuum.

Additionally, a package of clinical and social services will be promoted and provided to survivors to mitigate the harms associated with GBV. This will include timely and appropriate provision of healthcare screening and medical documentation for individuals wishing to pursue legal redress (as well as assistance and referral in seeking police and legal services), trauma counselling and shelter services where available, access to sexual and reproductive health services including emergency contraception, and timely provision of post-exposure prophylaxis as appropriate. Patient intake at appropriate healthcare services (including STI and HTC providers) will include screening questions to identify GBV survivors, and training and sensitization for healthcare providers will include content on appropriate management of GBV survivors. SBCC activities and promotional materials will increase awareness and acceptability of these services among target audiences.

9.2.2 INCREASED UPTAKE OF HEALTH SERVICES WITH RESPECT TO SRH BY FSWs AND WOMEN MADE VULNERABLE BY POVERTY

Consultations with FSW highlight vulnerability such as discrimination in access to services (especially health); stigma in the community; violence (amongst themselves, law-enforcers and by clients); and high numbers of sexual partners. This output, will strive to conduct advocacy for FSW to carry out participatory assessments with their peers in order to assess what puts them at risk for HIV infection and the obstacles they face when trying to protect themselves from HIV. These assessments will form the basis for developing a range of communication, education, skills building, and condom distribution intervention. Sensitization of health provider attitudes will be done concurrently with all the other HIV prevention communication interventions targeting them.

In addition, young girls (10 – 14 years; 15-19 years; and 20 -24 years) including OVCs will separately be appraised of their SRHR to better understand and demand these rights. The peer-to-peer approach will be used to help women educate each other on these rights and impress risk reduction behaviours. Finally, recognizing that the vulnerability of this population group is closely linked to behaviours and attitudes of their sex partners and community norms, deliberate effort will be to engage community leaders to modify harmful cultural practices (ie. early marriage, sexual cleansing rituals, etc.) increase male involvement campaigns; gender-based violence reduction programmes, and psycho-social support. Integration of messaging in areas of family planning and all other HIV prevention interventions and barriers to uptake will be included. Programs with this population group will be carried out mainly in the high incidence areas and played out thinly in the other two incidence areas but increasing depending on the epidemiology.

9.2.3 Mitigating the harms of associated with gender-based violence among MSM

Gender-based violence is often (reasonably) construed as primarily an issue affecting women and girls; however, there is growing evidence for the existence of violence targeting men and boys who have sex with men, both from members

of the general population (including friends and family) as well as in the context of intimate partner relationships.^{86 87} MSM survivors may face additional barriers to accessing medical and social services as well as legal redress due to cultural constructs of masculinity as well as the current criminalization of MSM behaviour in Malawi. Trainings for GBV clinical care providers should include appropriate content for working with male GBV survivors, and promotional activities and materials will include targeted messages for men and boys to inform them of available services (including timely provision of HIV post-exposure prophylaxis).

⁸⁶Wirtz AL et al. HIV among men who have sex with men in Malawi: elucidating HIV prevalence and correlates of infection to inform HIV prevention *Journal of the International AIDS Society* 2013, 16(Suppl 3):18742

⁸⁷Fay H, Baral S, Trapence G, Motimedi F, Umar E, Lipinge S, et al. Stigma, health care access, and HIV knowledge among men who have sex with men in Malawi, Namibia, and Botswana. *AIDS Behav.* 2011;15(6):1088-97.

10 HEALTH AND COMMUNITY SYSTEMS STRENGTHENING

Successful implementation of the national HIV response relies upon strong and functional health systems to achieve more equitable and sustained improvements across health services and health outcomes⁸⁸. The six building blocks described by World Health Organization (WHO) will be used as a framework for Health System Strengthening (HSS) in the NSP: human resources; strategic information; products, commodities and technology; finance, and leadership and governance. In the case of Community Systems Strengthening, the process will be modelled around six blocks that include enabling environment, community networks and partnerships, resources and capacity development, community activities, organizational and leadership development, and finally M&E.⁸⁹ Collectively, these blocks contribute to improved health and social outcomes, improved efficiency and effectiveness in services delivery, use of financial and human resources.

10.1 QUALITY IMPROVEMENT

The successes in scaling up the coverage of treatment and care services in Malawi can be attributed to a standardized national treatment program with a basic minimum package of services, a generic training curriculum for service providers and a centralized procurement and distribution system for HIV commodities which builds efficiency in rolling out and sustaining services. Decentralization in services delivery has occurred to primary care level, enabled by task sharing ART initiation to paramedic and nurse technician cadres, the use of simplified fixed dose combination ARV regimens, and minimal reliance on laboratory investigations to determine ART eligibility. The standardized M and E system includes program monitoring indicators to track coverage and quality of care with quarterly reporting on treatment outcomes, including early warning indicators (EWI) for drug resistance. Routine reports inform drug quantification and forecasting and has improved the reliability of logistics and supply chain systems for the national program.

Some of the service quality challenges include high patient burden; late ART initiation; variation in retention and adherence; variation in provider competency and practice (which has not been formally evaluated) and limited use of data for decision-making. More broadly, the public health system faces chronic HRH shortage, high staff turnover at HIV sites, sub-optimal deployment and retention strategies and inadequate infrastructure for service delivery.

At national level the HIV program has introduced quality assurance activities to assure compliance with clinical standards of care, however there is need to define national standards more formally, for service delivery in addition to clinical algorithms. Quality improvement activities have been introduced to varying degrees, but require more active interventions at site level to address service delivery bottlenecks.

10.2 SUPERVISION AND CLINICAL MENTORING

A programme that is so heavily based on task shifting needs a strong supervision and monitoring system to maintain high quality care. So Malawi has developed a system of quarterly supervisory and monitoring visits with feedback on quality of service provided. The supervision protocol includes a systematic review and verification of primary records (patient cards and registers) at all sites. This effectively provides a quality quarterly audit for M&E records, which has resulted in exceptional accuracy and completeness of HIV Program data in Malawi. At the same time, the systematic chart review helps to identify complex cases or deviations from clinical protocol, allowing the supervision team to provide targeted mentoring and clinical advice. The quarterly supervision exercise also aims to boost staff morale and motivation through Certificates of Excellence that are awarded by MOH to sites with an excellent score on the quality

⁸⁸WHO. Everybody's Business: Strengthening Health Systems to Improve Health Outcomes; WHO's Framework for Action: Geneva: WHO 2007

⁸⁹GFATM (May 2010): Community Systems Strengthening Framework

of service checklist. The involvement of a growing number of health workers from sites all over the country who participate in the quarterly supervision exercise has helped to build a strong identity for the national HIV Program and has greatly facilitated communication between program staff at the national, zonal, district and facility level. It is imperative that the investment in quarterly supervision activities continue.

10.3 PROCUREMENT AND SUPPLY CHAIN MANAGEMENT

Due to the existing constraints of the Central Medical Stores Trust (CMST) system, disease control programs have established parallel procurement, storage and distribution systems. The MOH/HTSS Pharmaceuticals together with its disease programs co-ordinate key PSM functions such as the quantification, procurement planning and monitoring for EMHS, HIV, Malaria and TB program commodities. Other PSM functions such as Procurement, central level warehousing and national distribution are currently being outsourced to third party procurement agents. GOM acknowledges that procurement and supply chain management systems need special attention to ensure no stock out of important medicines and other commodities. This would entail strengthening the supply chain management system for HIV commodities, and the Central Medical Stores (CMS) Capacity in forecasting, quantification, consumption monitoring and ordering; and also consideration for additional capacity for storage at district level on need basis.

In 2012, GOM and development partners developed a joint strategy for integrating the parallel supply chains into one supply chain managed by CMST. Reforms at CMST are ongoing to create the necessary capacity and expertise to procure, store and distribute essential medicines however the benchmarks for the required capacity in all areas including financial management have not been fully met. As such the Ministry of Health as had to maintain outsourced service providers for procurement and warehousing & distribution services. A CMST Reform Monitoring Committee was constituted to monitor the implementation of the CMST reforms and implementation of the integration strategy.

To ensure 100% uninterrupted availability of ARVs and test kits at all service delivery points, CMST established a dedicated well-managed central warehouse for all HIV commodities that manages receipt, inventory, and dispatches directly to all ART sites on a 2 monthly schedule. Site level HIV inventory data are verified each quarter at all ART sites through the integrated HIV Program supervision exercise. Significant investments have been made to integrate program commodities into the national LMIS. Recent initiatives include SMS and web-based LMIS reporting so distribution of commodities can be the most efficient possible.

The 2015-2020 NSP will support (1) the harmonization and further Integration of supply chain management functions for efficient and optimal utilization of resources whilst maximizing commodity availability at all levels; (2) capacity building strategies to ensure that PSM capacity is institutionalized within the MOH for forecasting, quantification, pipeline monitoring and distribution planning of Essential Medicines and Health Supplies (EMHS) including HIV commodities; (3) development of physical infrastructure and refurbishment of existing warehousing infrastructure at central and health facility level given the critical storage capacity constraints; (4) harmonization of the pharmaceutical management information system at both central and health facility levels; (5) MOH advocates for pharmacy inventory management electronic platforms that are key in strengthening inventory management of primary health facility data (critical for high volume health facilities such as Central and District Hospitals); and (6) strengthening commodity tracking and accountability for the high value commodities being sourced to support scale up of all program areas.

10.4 HUMAN RESOURCES FOR HEALTH

The 2015-2020 NSP will support the development of a comprehensive human development plan, given the importance of human resources in the health sector and HIV and AIDS service delivery. The plan will include among others, retention strategies for experienced and qualified staff, institutionalisation of task shifting, mentorship, and recruitment process.

A well performing health workforce for the HIV program requires sufficient numbers and skills mix for service delivery and program management. Malawi has a chronic shortage of skilled health care personnel. Evidence-based planning for HRH remains elusive due in part to weak capacity by MoH to generate real time data to forecast future HRH needs and costs. These gaps need to be closed. The National ART Program relies almost entirely on clinical officers and nurses for treatment initiation and follow-up prescribing. Continued ART scale-up will require at least a moderate increase of HR allocation to ART services while clinical protocols will need to remain simple and streamlined. Increasing pre-service training outputs, in-service training through clinical mentoring, task shifting through training and placement of lay

counsellors, expert patients and other volunteers to increase the health workforce will improve linkage, retention and adherence to treatment.

Malawi has achieved success in decentralizing ART initiation to primary care level through task shifting to medical officers, clinical officers and nurse technician cadres, the use of fixed dose combination therapy and simplified empirical clinical guidelines, with minimal reliance on laboratory services to determine clinical eligibility. Similarly, HIV testing has been expanded by shifting to Health Surveillance Assistants (HSAs). The success of this approach is tenuous, since it relies on task shifting to cadres who have multiple other responsibilities, potentially compromising the quality of care.. Primary drivers of the HRH shortage include insufficient production of health workers and the need to strengthen retention interventions. In Malawi there are 3.54 healthcare staff per 1,000 ART patients. The WHO recommended ratio of staff to patients is 7/1000. Fewer than 2,000 FTE are currently actively providing ART for half a million patients. With the implementation of the WHO 2013 recommendations the numbers of patients initiating ART is expected to increase by up to 25%. Continued ART scale-up will require increased numbers of frontline health workers to retain patients along the care continuum and provide quality services. A dedicated cadre of 3,000 HIV diagnostic assistants is required to completely scale up provider initiated testing and counselling (PITC), the gateway to care and treatment.

The HRH Strategic Plan (2012-2016) for the Health Sector identifies increasing production of the health workforce by focusing on 11 priority health cadres; fostering stakeholder coordination to achieve synergy in effective HR planning, management, and training/development; and strengthening HR information system and research as key priorities. MoH is adopting a web-based integrated Human Resources Information System (iHRIS). If successfully implemented, the system will enable MoH to effectively plan and monitor the recruitment, development and deployment of healthcare workers based on real time data. CHAM colleges have also deployed Trainsmart system in all its colleges to track students in pre-service education. These HRH systems if interfaced have potential to improve management of both pre and in-service trainings by providing real time data for decision making.

The government and its partners need to invest in capacity building for pre- and In-service training. Training institutions and professional organizations are collaborating to enhance pre-service modules to include core HIV competencies so that newly graduated frontline health workers are certified ART service providers. They will need to periodically conduct curricula review and revisions to reflect current WHO recommendations and Malawi Treatment Guideline.

Many students who enrol in pre-service healthcare training receive some bursary support or stipend from the government, private organizations, or external donors. Most of these students are bound by a commitment to serve the public sector, often in a particular location, for a period of time after graduation. The exact terms of this bonding vary considerably depending on the source of funds and enforcement of the repayment through service is very inconsistent. Review and standardization of the pre-service support and bonding system will allow for a more regular and predictable cost/benefit for training investments.

The development of an HR information system will facilitate better tracking of healthcare personnel from pre-service training through deployment and in-service training. iHRIS has been developed to assist in HR forecasting and tracking pre-service training, and TrainSmart is used by some partners to track in-service training. Integration and expansion of these systems combined with data from the national HIV and AIDS supervision visits will inform HRH projections required for appropriate deployment of staff and sustained HIV service delivery.

HRH policy review and a supportive regulatory environment is essential to formalize task sharing for HIV service delivery through endorsement of revised scopes of practice and pre-service syllabus for frontline service providers⁹⁰. To further support task sharing and assure quality standards of treatment and care, the national HIV program conducts quarterly

⁹⁰Global Recommendations and Guidelines for task Shifting for HIV/AIDS, WHO, 2007

supportive supervision to every ART site. The supervision protocol includes a systematic review and verification of primary records (patient cards and registers) at all sites, serving as a quarterly data quality audit to ensure accuracy and completeness of HIV program data. Systematic chart reviews are conducted to assure compliance with clinical guidelines and facilitates on-the-job training and targeted clinical mentoring. As part of the national program's quality management activities, sites are scored on key standard quality indicators and good performance is recognized by awarding certificates of excellence by MOH, (a non-financial incentive). Sites identified during the quarterly supportive supervision visits as requiring more intensive support are prioritized by implementing partners for clinical mentoring. As the national supervisory teams include district level HIV service providers, this enables skills transfer, reinforcement of the clinical and health systems strengthening competencies, and team-building through collaboration between program staff at the national, zonal, district and facility level. The investment in quarterly supervision activities is pivotal for quality clinical case management, monitoring and evaluation and supply chain systems. Funding for this activity will be continued. The national clinical mentoring program is being scaled up and includes service quality assessments for clinical care and health system strengthening.

Staffing levels have struggled to keep pace with the rapid expansion of the national HIV program. Interventions to support health workforce planning at site level and above site level include the provision of technical assistance and secondment of technical staff to the MOH. The 2015-2020 NSP will support the development of a comprehensive human development plan, which will include deployment and retention strategies for experienced and qualified staff, institutionalization of task shifting, mentorship, and recruitment processes.

10.5 LABORATORY

The availability of quality-driven, state-of-the-art laboratory services at all levels of care are critical to the diagnosis, treatment and surveillance of HIV and AIDS and, more broadly, to the delivery of Essential Health Package (EHP) services under the 2011-2016 Malawi Health Sector Strategic Plan. With the scale-up of pre-ART and ART, PMTCT including Option B+, HIV counselling and testing (HCT), TB/HIV and malaria services, the demand for laboratory services have increased in scope and complexity; particularly at the referral and district health facilities. Moreover, strengthening network linkages between laboratory services and care and treatment at the community and urban health facilities calls for expansion of point of care (POC) testing and a coordinated sample transportation system for more efficient implementation of the EHP and other health services. To maintain capacity and enhance laboratory infrastructure in order to provide high quality HIV-specific as well as broader health services at the community, district and central health facilities levels as defined in the Malawi National Laboratory Strategy Plan.

This will be accomplished through human resource and infrastructure development; building strong quality systems; increasing laboratory capacity to provide quality HIV diagnosis and disease monitoring; and establishing an effective sample transportation mechanism. This enhanced infrastructure will provide a critical foundation on which to build high-performing laboratory services to support the provision of the essential health package (EHP) through the implementation of the National Laboratory Strategic Plans (NLSP) as well as the scale-up and success of the Ministry of Health's PMTCT, Early Infant Diagnosis (EID), and ART programs. The Lab capacity will be increased by expanding coverage of sample transportation systems for viral load and early infant diagnosis (EID) ensuring timely communication of laboratory results for clinical management and treatment monitoring.

The diagnostic platform and infrastructure will be strengthened in line with the National laboratory Strategic Plan, including the establishment of high-throughput PCR testing at central hospitals; advanced new technologies to improve screening and diagnostic for TB, including high-quality LED microscopy and molecular based diagnosis (GeneXpert), and other point-of-care as they become available.

During the NSP 2015-2020, Malawi will build the capacity of broad laboratory services to improve the availability and quality of HIV diagnosis and disease monitoring and general health care. In addition, laboratory networks for CD4 testing, scaling up Early Infant Diagnosis (EID) and Viral Load (VL) monitoring, and sample transportation services to improve the referral network and fully transition viral load testing from plasma to DBS will make services more accessible.

Implementation of the Laboratory Information Management System (LIMS) at all laboratories in central hospital and other molecular (PCR) testing facilities will improve results turnaround time, forecasting and reliable supply chain management for reagents, supplies and consumables with the aim of eliminating stock-outs and testing interruption.

10.6 INFRASTRUCTURE

Infrastructure has the potential to become the most significant limiting factor in the effort to achieve the 90-90-90 treatment targets. In health facilities built between twenty and a hundred years ago, with little consideration to the burgeoning population, there is inadequate space for more patients, storage for all the HIV-related commodities, housing for health workers assigned to rural facilities, and the existing infrastructure is crumbling as a result of limited district funding for the health sector. Health workers already refuse assignments at some sites because of inadequate or non-existent housing. Some health facilities do not have electricity and running water; the basic necessities for ensuring good hygiene practices. Physical infrastructure is perhaps the single largest challenge after human resources that Malawi faces during the continued scale-up of ART and prevention activities.

There is some support from PEPFAR and other donors to renovate existing space, and to provide portable units for pharmaceutical storage and clinic space. However, funding from any sources to construct larger facilities or significantly overhaul health centres is limited and inadequate. During the 2015-2020 period, Malawi will mobilize resources internally and from other donor sources to address the sites with the biggest infrastructure challenges. With particular reference to disability friendly infrastructure and infrastructure that is male friendly e.g. labour wards and youth friendly e.g. STI clinics.

10.7 HEALTH INFORMATION SYSTEMS

Individual medical records of about 40% of patients ever registered on National ART Program are currently managed using electronic data system (EDS). However, EDS is deployed in only 56 of the 650 ART sites nationwide. Manual management of patient records is a challenge to balance; benefits of acceleration of ART scale-up with the need for adequate quality of services and increasing burden for the National Health System. In addition, manual systems bring about challenges in rapid decision making, management of patient profiles and surveillance. There are difficulties in management of patient radiographs, laboratory samples and drug logistics. According to the eHealth assessment conducted by MOH in 2013, referral laboratories samples are taking up to 21 days to get results.

In general, the health sector is challenged by the following: lack of adequate ICT infrastructure, lack of maintenance for ICT equipment in health facilities, presence of multiple systems with no standards for integration and interoperability, lack of policies to support governance of the ICT infrastructure, major gaps in ICT knowledge and lack of sustainability strategies for implemented or proposed systems.

MOH developed and eHealth Strategy to guide implementation of electronic solutions. In 2013, the Malawi government passed the National ICT Policy, which prioritizes utilization of ICT to increase access to healthcare, education and training facilities among other areas. In addition to the national ICT Policy, the MoH has developed an eHealth Strategy to guide implementation of electronic solutions, and recently finalized the development of a national Health Information Systems (HIS) strategy, with the objectives creating the necessary and enabling legal, policy and regulatory framework for National Health Information System (NHIS), mobilizing resources for a financially sustainable National Health Information System, and developing the necessary ICT infrastructure and the adoption and promotion of use of ICT in the health sector. EHealth opportunities include availability of the National ICT Policy, HIS Strategy, HMIS/DHIS 2, mHealth Projects, Tele HealthCare initiatives, EMRs developed by partners such as Baobab & Luke International Norway, and mobile projects being implemented at community, facility and national levels by partners such as John Snow Inc., D-Tree, and the Clinton Health Access Initiative.

11 STRATEGIC INFORMATION MANAGEMENT

11.1 OVERVIEW

An effective strategic information management (SIM) approach is necessary to ensure consistent review of the programs, and to ensure constant progress towards the 90-90-90 goals. Data collection, analysis and reporting constitute the basis for Strategic Information Management (SIM). Strategic information is necessary for decision-making, planning and resource mobilisation and allocation.

Malawi has developed a national M&E plan which will be updated and used for purposes of tracking the implementation of the 2015-2020 NSP. The updated M&E plan will ensure effective and efficient research, monitoring and evaluation of the 2015-2020 NSP, based on the agreed national priority areas. These results are articulated in the NSP Results Framework. The plan will also be used to guide, track and monitor Malawi's performance towards achieving its international commitments.

11.2 M&E COORDINATION

M&E of the multi-sector response will require greater coordination of all sectors (public, private, civil society and development partners) to ensure optimal use of the available resources and continuous learning through sharing of experiences. NAC is responsible for monitoring the epidemic and the national response, analysing this information and disseminating it to policy makers and programme planners. The monitoring and evaluation of health facility based responses is coordinated and managed by the MOH in collaboration with private sector institutions and civil society organisations that run health facilities. Data is reported through the Health Information System. The monitoring of non-health related interventions are monitored by the NAC through the different partnerships, i.e. with donor group, the civil society organisations, faith based organisations, organisations supporting key populations, traditional leaders and local government to name a few. These coordinating structures will oversee capacity development, data quality assurance, resource mobilisation for M&E and data archiving.

11.3 RESEARCH & SURVEILLANCE

Surveillance surveys and research activities critical to generating information that will facilitate evidence based planning of the National Response will be conducted. The country will continue to monitor HIV prevalence and incidence in general and in key populations by conducting regular surveys including HIV impact Assessments/AIDS Indicator Surveys, ANC sentinel surveillance etc. Malawi has planned its first AIDS indicator survey to be conducted in 2015 and this will measure HIV incidence, population viral load, population CD4, ARV metabolites, and paediatric HIV prevalence among others. These will help to determine Malawi's program coverage as well as measuring impact of the national response and to target interventions where there is critical need. Surveys to monitor development and transmission of HIV drug resistant strains will also be conducted regularly.

Recently the National AIDS Commission coordinated the development of an HIV Research Strategy and identified research priorities that can aid effective planning of the national response these are summarized in the Table 1 below and will be conducted during period of this NSP.

Table 1. National Research Priorities

Technical Area	Key Research Topics
Epidemiology	Evaluating factors affecting HIV/AIDS service coverage including unmet need for ART Determining trends and impact of HIV and AIDS on productivity of the private and public sector Evaluating trends in ART uptake Understanding the determinants of defaulting on Option B+ programs Assessing the impact of HIV and AIDS on cultural perceptions on disease, death and the dying Understanding factors affecting early infant diagnostic programmes
Prevention	Assessing the role of ART as a means of preventing HIV infection Evaluating unique vulnerability for youth and other KVPs in urban and semi-urban areas Assessing gender related vulnerability amongst the youth and other KVPs Exploring HIV and AIDS information needs for the youth and other KVPs Investigating factors affecting low uptake of preventive measures such as condom use
Diagnostics	Validating CD4 count and viral load point of care tests kits Evaluation of new candidates of Whole Blood for rapid and ELISA test kits for HIV Assessing alternative models of HIV self-testing such as oral test kits
Treatment	Evaluating the effect of early ART initiation on patient outcomes Investigating clinical management options of patients with TB/HIV co-infection Monitoring ART resistance emergence in children and adults Determining and monitoring side effects of new ART regimen Assessing the effectiveness of Option B+ on HIV transmission
Care and Support	Investigating models on how to integrate HIV and SRH Evaluating determinants of acceptance of a positive HIV test result Assessing the extent and degree of stigma and discrimination Assessing the influence of gender in accessing HIV/AIDS services Evaluating factors that influence cervical cancer screening amongst HIV+ women

11.4 NSP REVIEWS

Over the duration of the 2015-2020 three main reviews will take place. These include:

- (i) Joint reviews of progress on implementation of the Operational Plan. This will continue taking place quarterly with the executive committee of the Malawi HIV and AIDS Partnership Forum. The complete MPF meets bi-annually to review progress. The independent assessment/review of the operational plan by an independent team acts as an accountability process. Additionally, NAC and pooled donors have quarterly meetings to review progress towards agreed milestones.
- (ii) Mid-term Review - The midterm evaluation will focus on achievements, challenges, emerging issues and recommendations for the remaining half of the NSP, and will take place in 2017.
- (iii) End of term review - The final NSP evaluation will be conducted in 2019 to provide the evidence base for the next NSP. Independent evaluators will carry out the midterm and end-term evaluations.

12 COORDINATION AND MANAGEMENT OF THE NATIONAL RESPONSE

12.1 GUIDING PRINCIPLES

The adoption of the multi-sectoral and decentralised approaches in the coordination and management of the national response have created more opportunities for many and diverse stakeholders' involvement. With increased number of stakeholders, coordination has increasingly become complex, challenging and dynamic. The process demands innovation, clarity of roles and responsibilities linked to institutional mandates and comparative advantages. The national response coordination and management is premised on the three ones principle. The initial guiding principles to formulating the revised structures are summarised below:

- *Access to relevant information:* Information and its use in effective M&E is key to NAC being able to fulfil its coordination and monitoring mandate. Accurately recorded information must be made available 'bottom-up' from all stakeholders involved with the implementation and must adhere to standard formats. Furthermore, it must be made available and shared regularly through NAC structures to be fully reviewed and used in implementing M&E.
- *'Bottom-up' approach:* Governance and reporting arrangements will start at the lowest level through district AIDS councils and finally to NAC. There will be a clear guiding framework to support implementation and set out expected roles and responsibilities.
- *Accountability and Responsibility:* Accountability and responsibility for implementation and coordination activities will be strengthened at all levels with a step-up process for feedback and reporting at the next level of governance. Appropriate ownership for reporting and implementation outcomes will be established.
- *Reporting:* A standard framework of reporting will guide the regular monitoring and tracking of NSP implementation at all levels. Reporting will be completed at each level of implementation coordination, and verified and passed upwards through formal reporting channels to NAC. As already indicated, governance arrangements will require direct ownership of all reports, their content and outcomes.
- *Transparency:* The entire NSP implementation and coordination process will be based on clear and open communication that leads to a common understanding and discussion of relevant facts. There will be no ambiguity in decision-making and there will be a common understanding of expectations and requirements among everyone involved.
- *Meaningful involvement of people living with HIV and affected by TB:* Governance structures will recognise the important role to be played by people living with HIV and TB and will involve them in governance structures.

12.2 GOVERNANCE AND COORDINATION OF THE NATIONAL RESPONSE

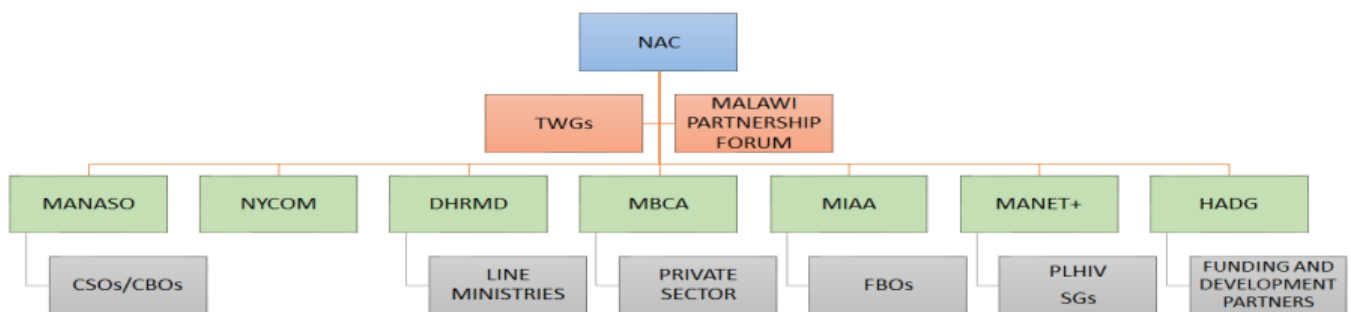
The Office of the President and Cabinet (OPC) provides overall leadership on matters of HIV and AIDS for Malawi. The President is the Minister Responsible for HIV and AIDS. The National AIDS Commission (NAC) established by the Malawi Government under a trust deed provides leadership and coordinates the national response to HIV and AIDS in Malawi. It is governed by a Board of Commissioners led by the Chairman who is appointed by the President. The other members are selected from all constituencies namely: private, public, faith, civil society, academia, youth and PLHIV. Major roles include reviewing and approving NAC policies and procedures, annual work programme and hiring of secretariat executive staff.

Specific roles of the Commission are to: (i) guide development and implementation of the national strategy; (ii) facilitate policy and strategic planning in sectors, including local government; (iii) advocate and conduct social mobilization in all sectors at all levels; (iv) mobilise, allocate and track resources; (v) build partnerships among all stakeholders in country, regionally and internationally; (vi) knowledge management through documentation, dissemination and promotion of best practices; (vii) map interventions to indicate coverage and scope; (viii) facilitate and support capacity building; (ix) overall monitoring and evaluation of the national response; and (x) facilitate HIV and AIDS research.

While NAC is at the heart of the institutional framework, there are several coordinating structures and mechanisms for the national response, some of which are managed by NAC whilst others are independent. These are organised as follows (see schematic):

- To strengthen the national and multi-sectoral coordination of the response amongst the stakeholders so that they effectively respond to HIV/AIDS and minimise wasteful duplication of efforts, NAC established the Malawi Partnership Forum (MPF) for HIV and AIDS in 2005. The forum provides a formal and representative forum for discussion, information sharing, consensus building, joint planning, and mutual support for all partners in the national response through the Joint Annual Review (JAR), Technical Working Groups and other structures such as the HIV and AIDS Development Group (HADG) and sectoral coordinating bodies. The HADG harmonises and coordinates development partner’s support to the NSP and align development partner’s support to the Integrated Annual Work Plan (IAWP)
- The sectoral coordination bodies include: (i) the Department of Human Resource Management (DHRMD) which coordinates the HIV and AIDS response, particularly workplace programmes, in the public sector including parastatal organisations. DHRMD also provides policy guidance on workplace programs in Local Councils; (ii) Malawi Business Coalition against AIDS (MBCA) coordinates the response for private companies and business institutions. It’s major roles are mobilisation of companies, development of workplace programmes, reporting and evaluation of the private sector response; (iii) Malawi Network of People Living with HIV (MANET+) coordinates all organisations for People Living with HIV and AIDS (PLHIV). These organisations serve and advocate for issues affecting PLHIV in order to improve their welfare; (iv) Malawi Network of AIDS Service Organisations (MANASO) coordinates local and international NGOs implementing various HIV and AIDS activities; (v) the Malawi Interfaith AIDS Association (MIAA) coordinates all faith based organisations implementing HIV and AIDS interventions; and (vi) National Youth Council of Malawi (NYCOM) coordinates all youth organisations implementing HIV and AIDS interventions. All these sectoral coordinating institutions are expected to collaborate with Local Councils when coordinating the national response in the districts through the District Executive Committee (DEC) and the District AIDS Coordinating Committee (DACC) who are responsible for coordinating the district response, as shown in Figure 9 below.

Figure 9: Roles of the main coordinating bodies in the National HIV response



- **Malawi Partnership Forum (MPF)** – This is an advisory body to the NAC Board of Commissioners, comprising of high profile decision makers drawn from the: public sector, private sector, PLHIV, CSOs, academia, research, national assembly and development partners. The MPF plays a critical role in planning and reviewing the national response to HIV and AIDS in Malawi. All the coordinating structures outlined below are represented on the MPF. NAC provides management support to the MPF.

- **Technical Working Groups (TWGs)** – These are HIV and AIDS thematic groups established by NAC to provide technical guidance and make recommendations on various technical issues in the national response. They report to the MPF.
- **HIV and AIDS Development Group (HADG)** - This is a grouping of HIV and AIDS development partners. The objectives of the HADG are to harmonise and coordinate development partners' support to the NAF and to align development partners' support to the integrated annual work plan.
- **Malawi Global Fund Coordinating Committee (MGFATMCC)** - The MGFATMCC provides overall guidance on Malawi's Global Fund supported programmes to fight HIV/AIDS, Tuberculosis and Malaria. It is accountable to the GoM and the Global Fund on the utilization of the Global Fund resources, and determines priorities for proposals to the Global Fund based on existing country frameworks and strategies. Membership of the MGFATMCC is composed of the public, private sectors, civil society including people living with HIV and AIDS and development partners. Every MGFATMCC member is nominated by the constituency he or she represents⁹¹.
- **Department of Human Resources Management and Development (DHRMD)** – Within the Office of the President and Cabinet (OPC), this department coordinates the HIV and AIDS response, particularly workplace programmes, in the public sector. These include all government ministries, departments, training institutions and parastatal organisations. There is also a public sector steering committee comprising principal secretaries and chief executives which provides policy leadership and guidance on the public sector response.
- **Malawi Business Coalition against AIDS (MBCA)** – MBCA coordinates the response for private companies and business institutions. Its major roles are mobilisation of companies, development of workplace programmes, reporting and evaluation of the private sector response.
- **Malawi Network of People Living with HIV (MANET +)** – his body coordinates all organisations for people living with HIV and AIDS (PLHIV). These member organisations serve and advocate for issues affecting PLHIV in order to improve their welfare.
- **Malawi Network of AIDS service organisations (MANASO)** – MANASO coordinates local and international NGOs implementing various HIV and AIDS activities.
- **The Malawi Interfaith AIDS Association (MIAA)** –This association coordinates all faith based organisations implementing HIV and AIDS interventions.
- **National Youth Council of Malawi (NYCOM)** – This council coordinates all youth organisations implementing HIV and AIDS interventions.

These mechanisms have been functioning for some years, are well-established, and are regularly reviewed and assessed.

12.3 IMPLEMENTING PARTNERS

Within these governance and institutional frameworks, actual implementation of the NSP is the responsibility of a wide range of implementing partners from the public and private sectors, and civil society. These include:

- **Ministry of Health** plays a key role in the multi-sectoral response, for technical direction and service delivery in biomedical areas of prevention, treatment and care. The specific roles of the MoH include: (a) developing Policies and Guidelines on biomedical HIV and AIDS interventions; (b) planning and implementing biomedical HIV and AIDS interventions; (c) coordinating health sector thematic areas; (d) providing technical support for HIV and AIDS policy development; (e) providing technical support in implementation of health related HIV and AIDS interventions; and (f) surveillance for HIV/AIDS/STI.

⁹¹Operational Manual for the Malawi Global Fund Coordinating Committee (MGFTATMCC)

- **Central and other line Ministries** such as Ministry of Finance, the Ministry of Economic Planning and Development, the Department of Public Sector Management, the Law Commission and the Human Rights Commission directly or indirectly support the national response. Line Ministries provide services up to the community level. Ministries, departments and parastatal organisations have established focal points for HIV and AIDS and are expected to mainstream HIV and AIDS into their sectoral work, provide technical support to the response, and organise workplace interventions for staff. All ministries have a budget line for HIV and AIDS activities.
- **Local Authorities** coordinate the implementation of the response at district, city level and community levels. They have the responsibility to mobilize resources for community programmes, implemented through CBOs, Support Groups, and Community AIDS Committees (CACs). District development committees (DDCs) and Area Development Committees (ADCs) complement the work of local NGOs.
- **NGOs, FBOs and CBOs** form the core of the implementing agencies and among others things carry out advocacy, assist communities to mobilise resources locally, document best community practices and support capacity building programmes in collaboration with NAC.
- **Private Sector** organisations under the coordination of the Malawi Business Coalition against AIDS (MBCA) have the responsibility to mainstream HIV and AIDS through workplace policies and programmes.
- **Development Partners** support national priorities; facilitate implementation by funding capacity building. The development partners assist the government's response in areas such as empowering leadership, mobilisation public, private and civil society, strategic information, and facilitating access to technical and financial resources at national level.

Although coordination and management remains essential, during the period of 2015-2020 NSP, the focus will be improving efficiency and effectiveness of the national response, governance and leadership, social and resources accountability, and more importantly ensuring that duty bearers and other service providers adhere to human rights such as the right to health, privacy, protection and the right to nutrition (food), while providing essential services, and that the rights holders (service beneficiaries) are able to access health and nutrition services without fear of being stigmatised or discriminated against. An environment that supports efficiency in service delivery is characterised by well-articulated mandates, roles and responsibilities, a functional joint programme review mechanism, planning and development process, and a strong monitoring and evaluation system.

NAC as the overall coordinating body will ensure that the strategic roles of communities, civil society, PLHIV and the private sector are clearly defined and communicated. It will also ensure that decisions in such an environment are evidence-based and focus on specific results; they are gender sensitive and anchored in a human rights framework. In an environment where resources for HIV and AIDS are declining, coordination of resource mobilisation, allocation and distribution is necessary to sustain availability of services. Systems for resource tracking from both the demand and supply side will be improved. NAC will spearhead the coordination, development and implementation of strategies for sustainable financing of the national response.

12.4 LEGAL AND POLICY ENVIRONMENT

The HIV and AIDS response in Malawi is guided by the HIV and AIDS Policy which is operationalised through the NSP. The National Policy on HIV and AIDS requires an enabling social and legal environment that is characterised by being free of stigma and discrimination. There is no specific law that deals with HIV issues but the Government is committed to addressing human rights, reflected in its growth and development strategy, the HIV Policy and NSP. Malawi has drafted an HIV and AIDS Bill which aims at strengthening the legal framework for implementing HIV and AIDS interventions. It provides information on best practices to address the criminalization of HIV, mandatory and compulsory testing for key and vulnerable populations. The Bill was informed by the findings of the Legal Environment Assessment (LEA) and the stigma index conducted in Malawi.

The HIV Policy and NSP are also linked to various laws and strategies which are not HIV-specific but provide the overall legal and policy framework. Key pieces of legislations and strategies which may directly and indirectly impact the prevention and management of HIV and AIDS include: The Constitution of Republic of Malawi, The Penal Code, The Public Health Act, The Child Care, Justice and Protection Act, The Marriage Act, The Prevention of Domestic Violence

Act, The Deceased Estate (Wills and Inheritance) Act, The Gender Equality Act, The Disability Act, The Occupational Safety, Health and Welfare Act, The Employment Act and The Labour Relations Act.

At international level Malawi is also a signatory of a number of conventions and declarations which form a further important guiding framework for national laws, policies and regulations relating to HIV. Key international and regional instruments signed and ratified by Malawi include the following: The Universal Declaration of Human Rights (UDHR) 1948, the 2000 UN Declaration of Commitment on HIV and AIDS, and the 2011 Political Declaration on HIV and AIDS. Malawi has since domesticated these international conventions and declarations in its policies and legislation.

12.5 PRIORITISING, COSTING AND FINANCING

12.5.1 OBJECTIVE AND PROCESS

Malawi would require almost 8% of GDP to maintain its entire HIV positive population on ART, which makes Malawi the most dependent country for outside funding for its treatment program in the world⁹². This, combined with the decline in resources and the ever-increasing number of ART patients, creates an environment in Malawi where investing for optimal results is the focus of HIV financing. The National AIDS Commission and the Government of Malawi is compelled to do more with less. This requires increased understanding the cost of achieving our goals and resources available, and ensuring that prioritization of interventions and specific activities through value for money analysis and stakeholder engagement is conducted. Malawi's NSP has been designed to maximize the reduction in new HIV infections and reduction in HIV-related mortality achievable given available financial and systems resources. The use of evidence to set targets for interventions and analyse technical efficiencies within activities ensures that we are setting aggressive, yet realistic targets and investing for results.

12.5.2 COSTING METHODOLOGY

A detailed costing exercise was carried out to determine the financial needs to achieve the core outcomes outlined in the HIV NSP for the period 2015-2020. This costing is conducted from the payer perspective (e.g., government, civil society, NGOs and the private sector), and excludes costs incurred by patients – such as traveling costs to and from facilities. The approach utilized was activity-based. An Excel-based budgeting tool was developed to assist in deriving detailed cost estimates for each Impact Area by identifying activities needed to achieve targets and breaking them down to the necessary ingredients and assigned costs (See box text). This approach was applied to program and intervention implementation, cross-cutting HSS and program management and coordination.

Through stakeholder consultation with national and technical experts, care providers, implementing partners, development partners, and community representatives, detailed activities were outlined for each of the Results Framework indicators to establish how programmatic and intervention targets would be achieved. The activities defined included project design and implementation activities, subsequent planned supervision and monitoring as well as additional research and review activities. This detailed approach allowed for efficiency gains to be identified during the prioritisation process

Activity-Based Planning and Budgeting Example:

Activity based costing involves outlining each activity associated with achieving a goal by cost category. For example, instead of taking an aggregated total cost per condom distributed or a population-based approach (e.g., cost per person reached), the condom

⁹²Williams, B.G. and E. Gouws. Affordability, cost and cost-effectiveness of universal anti-retroviral therapy for HIV. ARXIV 2012 [cited 2014 13/08/2014]; Available from: <http://arxiv.org/abs/1206.6774v2>.

Costs are then established based on current guidelines and unit costs, as well as historical financial records and budgets. Costs often varied between stakeholders and in those cases, there was a need to build consensus on the costs that would be used in the plan. For example, a series of standard meeting costs were established in line with government records and applied to all meetings, irrespective of whether they were government or donor implemented. The ingredient level costs were then applied to annual quantities informed by Results Framework targets and established through stakeholder consultation. These costs in turn informed further development of the Results Framework indicators during the prioritization process.

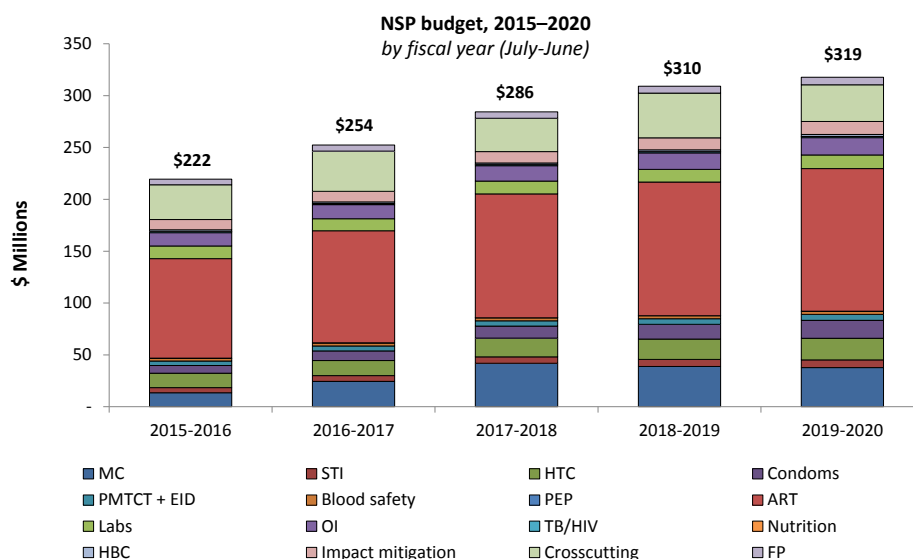
In regards to the cross-cutting health systems costs, existing cross-cutting activities performed by the Ministry of Health were not included in the costing as the proportion attributable to the HIV response could not be accurately captured. For instance, currently a health care worker may split his or her time to treat multiple patients during the course of one day, only one of which was HIV related. The extent to which the salary of the health care worker should fall under the HIV response is difficult to quantify.

While existing cross-cutting health systems costs were not included, the incremental systems implications of the scale up of the HIV response were costed, including cost of infrastructure, medical equipment and human resources for health. For example, the number of additional health care workers required to provide ART services was calculated in line with the number of new initiations. This was done through informed assumptions about HCW time per patient visit and number of visits per year⁹³. Costing these incremental requirements ensured that the HIV response outlined in the NSP was feasible from an implementation standpoint.

In addition to the cross-cutting health systems costs detailed above, program management and coordination activities were also costed. The operational costs of the National AIDS Commission and the Department of HIV and AIDS at the Ministry of Health were included. Additionally, coordination activities of the HIV response and collaboration to integrate the Tuberculosis program with the HIV response were also included. Total costs based on the above methodology come to US\$1.39billion over the 5-year plan. The categorized annual costs by program area are summarized in Figure 10.

Figure 10: Categorized annual costs

⁹³ CHAI HRH Optimisation work



12.5.3 PRIORITIZATION METHODOLOGY

In the development of the final NSP, the Results Framework and corresponding activities were designed to utilise available resources with a goal to maximise new infections averted and deaths averted compared to the current HIV response. The detailed costing outlined above provided a foundation from which to set targets and prioritize. The following areas were considered and deliberated prior to and throughout the prioritization workshop:

1. Efficiency: choosing the activities with the best value for money. Maxi-mixing the impact, outcome and outputs interventions at different levels
2. Clinical effectiveness/epidemiological impact: focusing on the interventions that yield the highest impact
3. Equity and values: ensuring balanced discussion with sensitivity to equity, human rights and gender
4. Funding constraints: evaluating the plan and targets given Malawi's historical funding envelope
5. Operational feasibility: considering Malawi's past performance and challenges to evaluate the feasibility of targets

With this backdrop, prioritization was primarily conducted at three levels:

1. **Prioritization *between* interventions** – identifying the relative cost-effectiveness of high level strategies, such as condoms and ART
2. **Prioritization *within* interventions** – designing more effective implementation strategies to reach a specific target
3. **Streamlining and consolidating complementary activities** – identifying duplications or synergies which can be harmonized to reduce costs

It was through these levels of revisions that the stakeholders were able to design an evidence-based and resource realistic NSP. Details about these processes are given below.

12.5.4 PRIORITISATION BETWEEN INTERVENTIONS

First, the prioritization process evaluated the high level epidemiological impact of various strategies to determine an ideal mix of interventions. This process was aimed at identifying opportunities to improve resource allocation to

increase cost-effectiveness. Through a two day participatory workshop⁹⁴, stakeholders were able to examine the relative effectiveness of high level strategies and revise the Results Framework.

During this workshop, evidence on impact was generated using the epidemiological modelling tools AIM and GOALS (part of the Spectrum software package developed by the Futures Institute). The model calculates new HIV infections by sex and risk group as a function of behaviours and epidemiological factors such as prevalence among partners and stage of infection. The risk of transmission is determined by behaviours (number of partners, contacts per partners, condom use) and biomedical factors (ART use, male circumcision, prevalence of other sexually transmitted infections). Interventions can change any of these factors and, thus, affect the future course of the epidemic.

The Goals model is linked to the AIM module in Spectrum that calculates the effects on children (0-14) and those above the age of 49. The AIM module also includes the effects of programs to prevent mother-to-child transmission on paediatric infections. Through this modelling software, the most effective strategies were identified as ART, MC and condoms, in terms of number of infections averted. In addition, the relative cost implications were provided for each intervention. Equipped with this evidence, stakeholder discussions were held around feasibility of scale up based on current systems capacity, historical uptake rates, local context and acceptability. For instance, scaling up ART to the global target, of 90% of those with known status on ART, was deemed feasible by the stakeholders and a vision that Malawi would aspire to (see section 4). On the other hand, the practicality of scaling up male circumcision to the same degree proved more challenging (example below). Within the scenarios was a resource constrained scenario – which fell within the funding envelop; the original NSP revised for operational feasibility; and a scenario aimed at reaching the global vision of 90% ART coverage amongst PLHIV who know their status.

A process of scenario development was used as a catalyst for generating meaningful stakeholder engagement. During the workshop, stakeholders were asked to develop three scenarios – defined by funding availability – in order to encourage people to make hard decisions. Within the scenarios was a resource constrained scenario – which fell within the funding envelop; the original NSP revised for operational feasibility; and a scenario aimed at reaching the global vision of 90% ART coverage amongst PLHIV who know their status.

Scenarios analysed are summarised below:

- A resource constraint scenario – prioritizing the revised NSP to fit within the existing resource envelope. Assumes a likelihood chance that the current commitments from domestic and external pool will remain the same during the lifespan of the NSP
- A moderate increase in resources - this assumes a 30% increase in the current resource envelope. The assumption is based on a likelihood of additional resources from current Health Financing efforts, possibility of succeeding with the GF unfunded quality demand and incentive funding. We also assume an optimistic increase in partner commitment.

Certain NSP strategic areas could not be modelled in GOALS and so epidemiological impact could not be accurately predicted. In the areas of psychosocial and nutritional support, revision of the targets was based on feasibility, expert opinion and available international evidence (e.g. published research from the region on the impact of nutritional supplementation on ART outcomes).

12.5.5 PRIORITISATION WITHIN STRATEGIES

The second stage of prioritization involved revising activities to improve technical efficiency, ensuring the activities funded achieved the most in terms of programmatic outputs and outcomes with the resources available.

⁹⁴ Annex with participants

It is pertinent to consider activities and models of delivery that have high yield rates if we are to maximise the reduction in new infections and HIV related deaths. It is also paramount to ensure proper targeting and avoid generalised programming. Therefore, the activity list was prioritized in this way with fair amount of debate over the efficacy of activities, correct level of targeting, feasibility given context and timeframe. Core group meetings were held and informed by targeted analyses to optimise the methods of delivering HIV services. As a result, activity implementers were able to develop a more efficient strategy based on their intimate knowledge within their target area.

Example of prioritisation decision: Revised HTC Methodology

The biggest challenge to scaling up ART coverage is finding and enrolling additional new patients. Under the current client-initiated HTC methodology, large numbers of tests would be required to achieve desired enrolment rates.

In a core team, different testing strategies were explored from an efficiency standpoint – considering the relative percentage of people testing positive and ability to link positive results to care. PITC was found to be the most efficient strategy, with the greatest number of positive people enrolled in care per dollar spent. The testing

12.5.6 STREAMLINING AND CONSOLIDATING COMPLEMENTARY ACTIVITIES

A final step to prioritisation was to ensure that implementation of the plan would be harmonized. The activity-based costing approach allowed identification and investigation into duplicative or complementary activities currently being implemented by different agencies. A key observation was that some interventions and activities were duplicated, and hence would benefit from a synchronised approach. In order to ensure meaningful harmonization, the consolidation was only incorporated into the plan if both implementing agents agreed to the efforts – this was usually done between Ministry of Health departments.

In conjunction with the Ministry of Health’s efforts to bring the National Tuberculosis Program together with the Department of HIV and AIDS, significant steps were taken to harmonize TB-HIV activities previously conducted by both departments. These included integration of national coordination meetings and events, IPT procurement, consolidated approach to infection control and joint M&E reporting.

Key decisions were also made to design more integrated training and supervision plans. The new and refresher health worker trainings on TB and STI treatment were folded into with the ART/PMTCT training, which will allow for more integrated service delivery, lower training costs and a reduction in HCW time lost to trainings. Similarly, the comprehensive HIV supervision and mentoring program will now take on TB M&E and mentoring activities as well, thus streamlining the plan further.

Finally, the fragmentation of trainings for healthcare workers arose as a key issue. Plans were made to set a maximum number of training days per healthcare worker and retain a consultant to review and integrate all training curriculums into an integrated program. This indicates a commitment to continue to find cost savings and synergies throughout the plan’s implementation and should be reflected in upcoming operational plans.

12.5.7 COSTING AND PRIORITIZATION RESULTS

As a result of comprehensive prioritization and streamlining, Malawi’s NSP is expected to prevent 78,000 new infections and avert 121,000 HIV-related deaths (when compared with a scenario of maintaining the ART cohort at the 2014 level). The 5-year total cost of the activities reported in the NSP is approximately **US\$1.39 billion**, as detailed in Table 2 below. Prior to the prioritization exercise, the plan was expected to prevent 72,000 new infections and prevent 104,000 HIV-related deaths, but at a cost of US\$1.72billion over the 5 years.

Table 2. Costing and Prioritization.

Scenario	Total costs (\$m)	Impact Infections, 000)	(New	ICER	Comment
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Revised NSP (before prioritisation)	1720	72	-	-
Prioritised Global vision with moderate funding	1383	78	-56	Un-prioritised scenario is dominated
Scenario	Total costs (\$m)	Impact (HIV deaths, 000)	ICER	Comment
Revised NSP (before prioritisation)	1720	121	-	Un-prioritised scenario is dominated -
Prioritised Global vision with moderate funding	1383	104	20	

The above assessment shows that the revised NSP (un-prioritised) is dominated by a prioritised strategy under a moderate resource constraint.

12.5.8 FINANCING OF THE NSP

The Ministry of Health's annual Resource Mapping exercise provides the opportunity to compare the projected costs of the NSP to the projected funding envelope for HIV in Malawi, as currently budgeted by the Government of Malawi, development partners, NGOs, and CHAM. Resource mapping provides a macro-level consolidated look at the health sector budget. It shows how much funding is budgeted across districts, disease programs, interventions, and cost categories. Comparing the funding needs from the NSP to Resource Mapping data will ultimately lead to improved resource allocation, increased coordination with the various stakeholders and harmonized HIV response priorities.

The most recent round of Resource Mapping collected budget information for the five-year period ending June 2018; therefore, projections must be made with regards to the funding available through 2020 for the duration of the NSP. For the years 2015-16 and 2016-17, \$87.6M and \$80.1M has been budgeted by donors and government. In addition, Malawi is in the process of applying to the Global Fund for an indicative amount of \$277M for HIV under the New Funding Model. When this value is considered, approximately \$222M is available for the first two years of the plan. Based on past trends in total funding and Global Fund allocation, the funding envelope for HIV is expected to remain around \$220 million per year over the course of the 2015-2020 NSP, as shown in Figure 11.

Figure 11: Historical and project HIV budget in Malawi⁹⁵

⁹⁵Malawi Ministry of Health Resource Mapping 2012, 2013, 2014

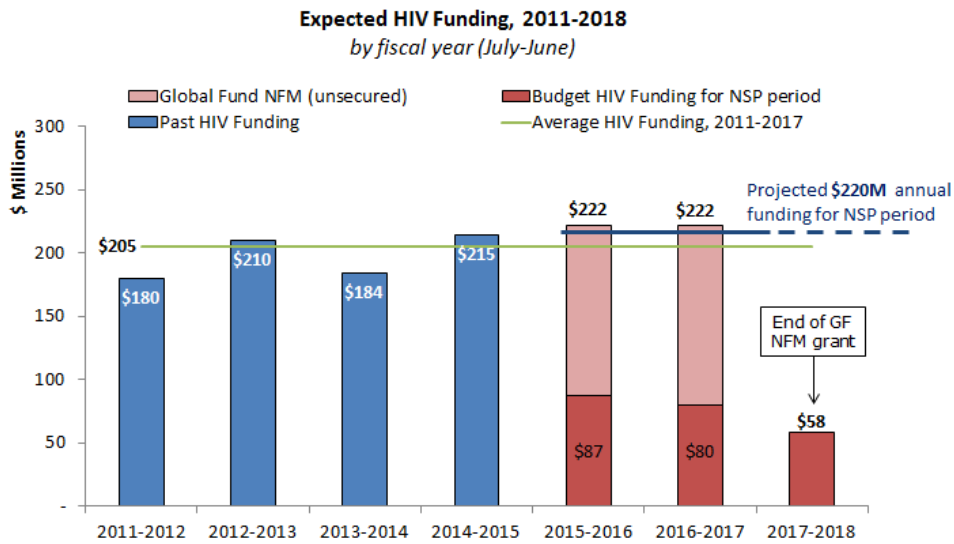
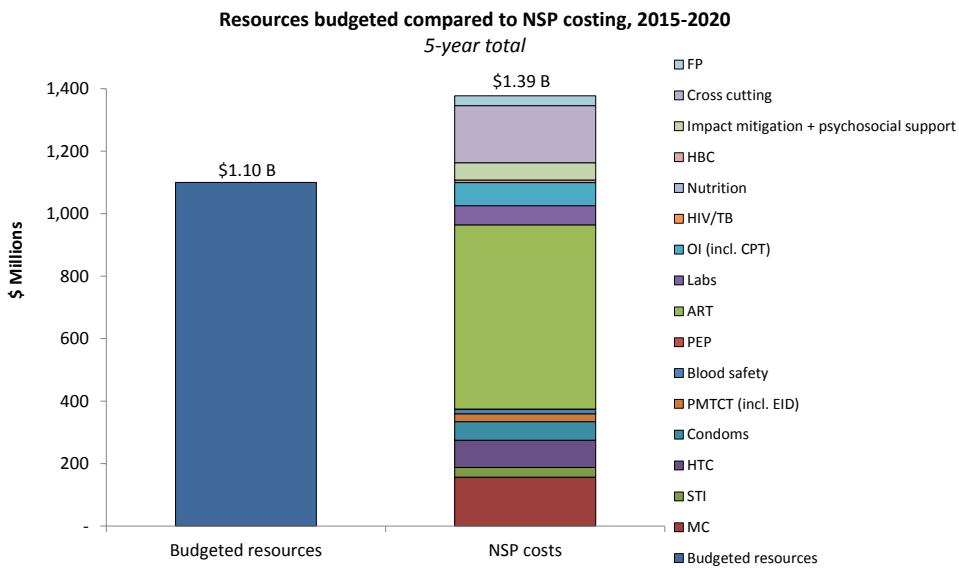


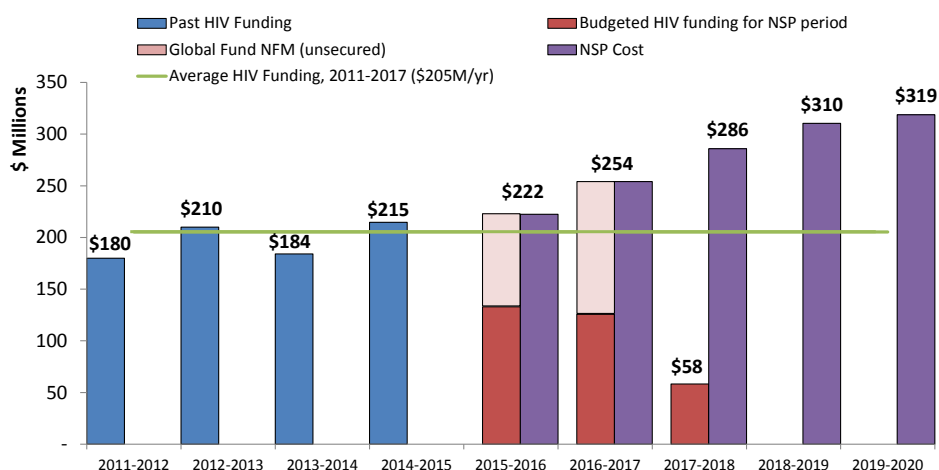
Figure 12: Total projected resources available for HIV versus the NSP costing over the 5-year period 2015-2020



Based on funding projections, the plan set forth in the NSP is above Malawi’s funding envelope for HIV. The total cost of the 2015-2020 NSP is estimated to be \$1.39 billion over the 5-year period, which compares to a projected funding envelope of approximately \$280M per year, or \$1.4B over five years.

Figure 13: Past and projected HIV budget versus the NSP costing

Expected HIV Funding versus NSP costs
by fiscal year (July-June)



12.5.9 HIV FINANCING SUSTAINABILITY

The funding gap depicted in the table above shows that there is an increasing trend in financial gap over years. Currently Malawi will be heavily donor dependent at least for this foreseeable future. Domestic investment data compiled for the year 2011 suggest a global median DIPI value of about 0.27. The calculated value for Malawi from the definition below is about 0.07 – approximately one-quarter of the global median⁹⁶. Priority Index (DIPI) developed by UNAIDS. The reasoning behind the DIPI index is based on two main assumptions:

1. A country's ability to pay for HIV from domestic public sources is dependent on the overall size of the government expenditure budget, which is a proxy for the available resources
2. A country's need to pay for HIV from domestic public sources is related to the number of people living with HIV, which is a proxy for the HIV-related disease burden

An analysis to increase the domestic resources for Malawi to approximate the global mean was done, as summarized in Table 3.

Table 3: Potential of alternative financing sources (\$ million)

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Income tax levy - 0.05% of GDP	23.8	25.8	27.7	29.8	32.2	34.7
Govt Integration - 2% of budgets	22.2	24.6	25.0	26.9	29.1	31.4
Alcohol Levy - 1 cent per 100 ml	18.1	19.5	20.9	22.2	23.8	25.5
Airtime Levy - 5 cents per call	13.9	15.5	17.1	18.8	20.7	22.9
Private sector - increased workplace programmes	4.0	4.7	5.5	6.2	6.9	7.6
Tobacco Levy - 2 cents per kg	4.6	4.8	5.1	5.1	5.5	5.8
Airline Levy - \$5 per flight	1.4	1.4	1.4	1.5	1.5	1.5
Sum of all alternative sources	88	96	103	110	120	129
% Govt Budget	5.9%	5.9%	6.2%	6.2%	6.2%	6.2%

There is an opportunity to move in this direction, however Ministry of Health have adopted the principle and would focus earmarking these alternative sources to the Health budget. It is therefore, paramount to ensure that HIV is prioritised in the allocations of the collections from these pools. In the interim, the prioritised NSP, benefits from marked reductions in new infections from a given set of mix of interventions proposed. The mix results in a greater relative

⁹⁶Oxford Policy Management paper on sustainability of HIV financing for Malawi

reduction in new infections. This results based budgeting approach would be beneficial in reducing the burden in subsequent year. Inherently, this can lead to reallocation of savings to strengthen the response.

Sustainability case for the HIV response

Sustainability of this plan is dependent on a number of factors, both demand and supplier side. The observed gap above can be explained by the same factors:

- Demand side is defined as the need for HIV-related services driven by the desire to maintain a relatively growing cohort on treatment. This is caused primarily by a) relatively increasing number of new patients, b) reduced mortality, and c) intensified efforts to reduce loss to follow up. These factors are expected to increase the demand on the already limited resources
- Supplier side is defined as the resources for available for HIV. Currently, the estimated resources from RM exercise show Malawi's heavy donor dependence. Despite the fundamental challenges of estimating future resources, we have limited foresight of what the future resources would be for the HIV sector in Malawi

Plausible options exist to manage the gap and sustain the HIV response. The current strategy is focused on interventions which maximize the impact in terms of new infections averted and mortality reduced. This subsequently reduces demand on the programme. In addition, there is potential to align existing resources to the priorities of this NSP. Current partner commitments are (to some degree) not fully aligned to the NSP and cause the misalignment and coordination of donor resources and implementation. The potential to thus align existing resources to the NSP priorities will result in efficiency gains. A more robust approach to efficiency analysis is warranted for this NSP henceforth. Finally, a resource mobilisation plan should be developed to enable more resources to be channelled for the response.

13 CONCLUSION

The 2015-2020 NSP offers Malawi's first glimpse of a light at the end of a three decade-long war against HIV. The focus of this strategy is to embrace the newly released UNAIDS global goal to minimize HIV transmission as much as possible through reducing population viral load by ensuring that **90 percent** of HIV-positive individuals are identified, **90 percent** of known HIV-positives are started on ART, and **90 percent** of ART patients are retained in care and adherent to ART. Malawi has the capability of accomplishing these objectives with support in the key areas described in this document, and a comprehensive national approach has been laid out which makes the most of both facility and community structures to maximize the realization of these ambitious but feasible objectives.

APPENDIX 1. INDICATORS AND TARGETS

IMPACT AREA 1: REDUCTION IN NEW HIV INFECTIONS AND PREVALENCE

Level of Results	Result Statement	Indicator	Baseline data 2013	Y1 Target	Y2 Target	Y3 Target	Y4 Target	Y5 Target
				2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Impact	Reduction in new HIV infections and prevalence	Incidence of new HIV infections in adults (15-49)	0.49	0.36	0.31	0.26	0.22	0.2
Medium term Outcome	Reduction in new HIV infections in adults and children	Number of new HIV infections in adults (15+)	37 209	29 835	25 977	22 997	20 516	18 741
		Number of new infections among children (0-14 years)	8 619	6 749	5 898	5 097	4 399	3 753
		Number of new infections among infants (0-11 months)	6 250	4 803	4 155	3 544	3 016	2 532
Outcome	Primary prevention of HIV/AIDS among women of childbearing age	HIV prevalence in reproductive age women (15-24 years)	8.2 (2010)		6.3		5.8	
Outcome	Reduce unplanned or unintended pregnancies among HIV+ women	Number of unplanned or unintended pregnancies among HIV+ women		42 645	41 962	41 213	40 410	39 565
Outcome	Reduced new HIV infections among children	Percentage of Infants born to HIV-Infected Mothers that are HIV positive at 6 weeks	3.4%	3.7%	2.8%	1.7%	1.1%	1%
		Percentage of Infants born to HIV-Infected Mothers that are HIV positive end of breastfeeding	13%	10%	8.2%	6.2%	5.1%	5%
		Percentage of infants born to HIV positive women who are alive at 12 months of age and HIV negative (i.e. 12 month Infant HIV-Free Survival)	82%	82%	83%	85%	87%	87%
Outcome	Improved HIV exposed infant follow up according to national guidelines	Percentage of HIV infected pregnant women who received antiretroviral to reduce the risk of mother to- child transmission in accordance with national protocols	75%	82%	83%	84%	85%	85%
Outcome	Increased uptake by exposed infants to Nevirapine at birth	Percentage of exposed infants given Nevirapine at birth (includes only women giving birth at facility)	92%	92%	93%	94%	95%	95%
		Percentage of infants born to HIV infected women started on cotrimoxazole prophylaxis within two months of birth	88%	90%	91%	92%	93%	94%
Outcome	Increased testing of HIV exposed infants	Percentage of infants born to HIV+ women receiving a virological test for HIV within 2 months of birth	40%	50%	55%	60%	65%	70%
		Infant Art coverage (Early infant treatment access)	18%	25%	30%	35%	37%	40%
Outcome	Maintain low level of blood-borne transmission	Percentage of donated blood units screened for markers of infectious diseases (HIV, Hepatitis B and Syphilis) in a quality-assured manner.	93%	99%	99%	99%	99%	99%
Outcome	Increased access to post exposure prophylaxis	Number of persons started on post-exposure prophylaxis (PEP)	2,300	2500	2600	2700	2800	2900

Level of Results	Result Statement	Indicator	Baseline data 2013	Y1 Target	Y2 Target	Y3 Target	Y4 Target	Y5 Target
			2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	
Medium term Outcome	Reduced sexual transmission of HIV	Prevalence (15-49)	10.3%	9.8%	9.5%	9.3%	9.0%	8.7%
		Percentage of sex workers living with HIV	23.1%					50.0%
		Percentage of men who have sex with men who are living with HIV	15.0%					50.0%
Outcome	Increased uptake of male circumcision services	Number of males aged 10-34 circumcised in targeted districts	18% (67 952)	214 524	237 530	259 186	282 271	307 057
Outcome	Management of STI syndromically	Percentage of STI cases treated according to national guidelines	41%	50%	60%	65%	70%	75%
Outcome	Increased universal and targeted HIV testing and counselling	% of expected new infection identified and linked to care and treatment per annum	80%	40%	50%	60%	70%	80%
Outcome	Increased universal and targeted HIV testing and counselling	Number of HIV tests per year	1 702 627	2 615 238	2 641 390	3 512 719	4 022 835	4 428 512
		Number of targeted tests for high risk populations (FSW, MSM)	N/A	26 123	25 971	33 484	37 043	39 566
Outcome	Increased use of male and female condoms	% of women and men aged 15-49 who reported using a condom the last time they had high risk sexual intercourse (non-married non-cohabitating partner) (disaggregated by age and sex)	M - 23.5% F - 27.3%	M - 30% F - 30%	M - 40% F - 40%	M - 50% F - 60%	M - 60% F - 60%	M - 70% F - 70%
Outcome	Scale up distribution of condoms (male and female)	Number of condoms distributed to KPs	38 922	1 000 000	1 000 000	1 000 000	1 000 000	1 000 000
Outcome	General population reached by comprehensive HIV prevention programs especially condom use (disaggregate by age, sex, workplace)	Percentage of women and men aged 15-49 years with more than one sexual partner in the past 12 months and who report the use of q condom during their last sexual intercourse	25.10%					
			F-27.3%	F: 35%				
			M-24.6%	M: 30.8%				
Outcome	Key populations reached by comprehensive HIV prevention programs especially condom use	Percentage of most at risk populations with more than one sexual partner in the past 12 months reporting the use of condoms during last sexual intercourse	11.7% BBSS					
		MSM						
		Female Sex Workers	91.80%					
Outcome	General population reached by comprehensive HIV prevention programs especially condom use (disaggregate by age, sex, workplace)	Percentage of population who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission (disaggregated by age and sex)	M - 65.4% F - 58.5%	M - 70% F - 65%	M - 75% F - 70%	M - 75% F - 70%	M - 75% F - 70%	M - 75% F - 70%

IMPACT AREA 2: REDUCE HIV MORTALITY AND MORBIDITY FOR ADULTS AND CHILDREN

Level of Results	Result Statement	Indicator	Baseline data	Y1 Target	Y2 Target	Y3 Target	Y4 Target	Y5 Target
			2013	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Impact	Reduce HIV mortality and morbidity for adults and children	Number (percentage) of HIV-related deaths adults (15+)	32 376	26 789	23 312	21 118	19 262	18 208
		Number (percentage) of HIV-related deaths children (0-14 years)	7 377	5 544	4 533	3 557	2 642	1 905
		Number (percentage) of HIV-related deaths infants death	1 142	785	651	519	403	310
		Total Retention in ART care after 5 years	59%	63%	65%	67%	69%	70%
Medium term Outcome	Increased provision of ARVs to all people living with HIV eligible for ART receive it	Total number alive and on ART	442,931 (48%)	656,343 (62%)	719,928 (68%)	769,928 (74%)	810,799 (78%)	839,830 (81%)
Outcome	Scale up availability of high quality ART services for adults and children	Number of HIV+ children age 14 and under were alive on ART treatment	40,019	60,072	66,899	72,540	77,320	79,025
		Number of HIV+ adults age 15+ were alive on ART treatment	402,912	596,271	652,303	697,388	733,480	760,805
Outcome	Increased retention on treatment at 12 months after initiation of ART	Percentage of Adult ART patients retained on treatment at 12 months after initiation of ART	78%	80.0%	81%	82.0%	83.0%	84.0%
		Percentage of ART patients retained on treatment at 24 months after initiation of ART	75%	77%	78%	79%	80%	81%
Outcome	Viral load suppression among PLHIV	Proportion of HIV+ population that is virally suppressed	41%	52%	57%	63%	65%	68%
Medium term Outcome	Increased access by People living with HIV to prophylaxis and treatment for OIs and other co-infections	Percentage of People living with HIV systematically receive prophylaxis and treatment for OIs and other co-infections	95%	95%	95%	95%	95%	95%
Outcome	Increased CPT coverage amongst HIV+ patients in care	CPT coverage amongst HIV+ patients	88% (518,308)	95%	95%	95%	95%	95%
Outcome	Increased uptake by HIV exposed children to CPT by age 2 months	Percent of HIV exposed children started on CPT by age 2 months	85% (48,561)	87%	89%	91%	93%	95%
Medium term Outcome	Improved management of HIV/TB Co-infection	Number of people started on TB treatment on the basis of presumptive treatment	1,473 (7.7%)					
		Number of people started on TB treatment on the basis of bacteriological diagnosis (smear positive, culture, genexpert)	1,065 (<1%)					
		Percentage of HIV positive TB patient on ART	81%	81%	81%	81%	81%	83%
		Proportion of TB/HIV co-infected patients						
Outcome	Increased screening for TB and HIV	Percent of HIV+ patients screened for TB	98%	98%	98%	98%	99%	99%
		Percent of TB patients with known HIV status	85%	85%	85%	85%	85%	85%
Medium term Outcome	People living with HIV receive care and support according to needs							
Outcome	People living with HIV receive care and support according to needs	Number of HIV positive people with severe malnutrition who have received nutritional/treatment support	7 772	11 313	34 540	46 895	47 688	48 359
Outcome	Individually focused but integrated community and facility based support programs for women, children, adolescents, adults, and KPs	Number of expert patients/volunteers trained to offer home based care	628	3000	3000	3000	3000	3000
		Number of expert patients/ volunteers provided with home based care kit	10	3000	3000	3000	3000	3000

Level of Results	Result Statement	Indicator	Baseline data 2013	Y1 Target	Y2 Target	Y3 Target	Y4 Target	Y5 Target
				2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Medium term Outcome	Social and economic protection are ensured for orphans and vulnerable children	Number of OVCs whose households receive social cash transfer	29 979 MoGCSW	30 000	35 000	40 000	60 000	60 000
Outcome	Increased school attendance among orphans made vulnerable by HIV and AIDS	Current school attendance among orphans and non-orphans aged 10-14 (a Ratio of % among orphans to % among non-orphans)	89.3/93.1=0.96 DHS,EMIS		90.3/93.1=0.97	-	92.3/93.1=0.99	93.1/93.1=1
Outcome	Strengthen the provision of comprehensive support to OVCs and other vulnerable children	OVCs whose households receive support	34982 MoGCSW	70 000	80 000	80 000	90 000	90 000

IMPACT AREA 3: REDUCED STIGMA AND DISCRIMINATION

Level of Results	Result Statement	Indicator	Baseline data 2013	Y1 Target	Y2 Target	Y3 Target	Y4 Target	Y5 Target
				2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Impact	Reduced Stigma and Discrimination							
Medium Term Outcome	Improved social and legal protection for persons living with HIV and AIDS and KPs	% of population expressing accepting attitudes in relation to PLHIV	19.7% F 35.7M	25% F 40%M	-	-	30% F 45%M	-
		% of population expressing accepting attitudes in relation to key and vulnerable populations	DHS	20% F 35%M	-	-	-	25% F 40%M
Outcome	Improved social and legal protection for persons living with HIV and AIDS and KPs)	Number of people reached who demonstrate increased public knowledge on rights of PLHIV and KPs	NAC	1100	1100	1100	1100	1100
Outcome	Increased capacity to prevent unfair discrimination	Number of people in major social sector organisations trained in gender programming	170 MoGCSW	240	240	240	240	240
Outcome	Conduct community mobilisation and empowerment activities will be held nationwide to address gender and rights issues and harmful cultural practices	Number of community mobilisation actives (campaigns) held to address gender and rights of KPs and PLHIVs	MoGCCD	135	135	135	135	135
Outcome	Advocacy and sensitisation on PLHIV rights	Number of Advocacy and sensitisation workshops		110	102	73	75	73
Medium Term Outcome	Increased promotion and protection of the rights of women, girls and sexual minorities in the context of HIV	Incidence of gender based violence						
Outcome	Women, girls and child protection (from gender inequality and violence) programs	Number of victim support units (VSU) equipped with standard equipment	483	710	982	1200		
Outcome	Guidelines for integrating rights based, gender transformative NCD management and HIV	Rights based, and gender transformative guidelines integrated in HIV guidelines	0	100%	-	-	-	-
Outcome	Gender transformative, and Rights based capacity development from HBC, psychosocial support, nutrition, NCDs, and HIV for health workers, community cadres, leaders, etc.	% of health workers in HIV and HTC clinics trained in gender and human rights	0	20%	25%	25%	25%	5%

APPENDIX 2. FINANCING - THE FINANCING TABLE WITH COSTING PER ACTIVITY

		2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	TOTAL
Impact	Reduction in new HIV infections and prevalence	55,425,060	70,572,849	95,051,224	97,662,063	102,486,081	421,197,277
	Adult MC	13,061,710	24,122,232	22,041,703	20,479,080	18,731,438	98,436,163
	Neonatal MC	408,216	392,397	19,937,841	18,428,278	18,992,883	58,159,615
	STI	5,103,777	5,554,873	6,119,024	6,803,548	7,455,756	31,036,978
	HTC	14,707,590	15,208,510	18,907,120	20,394,160	21,748,823	90,966,203
	Condoms	7,416,273	9,409,854	11,715,415	14,316,493	17,342,136	60,200,171
	PMTCT	6,611,361	6,936,726	7,248,184	7,568,235	7,907,080	36,271,586
	FP	5,406,318	5,835,741	6,154,915	6,670,180	7,220,297	31,287,451
	Blood safety	2,614,762	3,068,853	2,882,147	2,954,089	3,040,205	14,560,056
	PEP	95,055	43,662	44,874	48,001	47,462	279,054
Impact	Reduce HIV mortality and morbidity for adults and children	128,307,898	139,344,020	153,454,016	164,100,212	174,982,348	760,188,494
	ART	94,163,223	105,867,740	117,007,043	126,209,771	134,786,153	578,033,930
	Labs	12,852,122	11,415,237	12,218,456	11,960,139	12,650,780	61,096,734
	CPT	5,549,772	5,842,473	6,388,416	6,827,314	7,176,717	31,784,692
	OI	7,296,791	7,743,746	8,444,389	9,040,990	9,508,982	42,034,898
	TB/HIV	1,304,884	925,113	1,021,384	1,111,243	1,196,417	5,559,041
	Nutrition	5,178	3,017	3,958	2,495	2,624	17,272
	HBC	1,423,393	1,605,857	1,514,699	1,632,379	1,741,336	7,917,664
	Psychosocial support	5,712,536	5,940,837	6,855,670	7,315,881	7,919,339	33,744,263
Impact	Reduced Stigma and Discrimination	4,733,554	4,854,248	4,794,293	5,070,193	5,367,485	24,819,773
	OVC	104,741	109,639	114,304	120,248	126,616	575,548
	Socio-economic support	3,490,524	3,838,074	3,771,165	4,160,342	4,410,198	19,670,303
	Stigma & discrimination	1,138,290	906,535	908,825	789,604	830,671	4,573,925
Impact	Improved management and coordination of the HIV response in Malawi	33,972,773	39,367,584	32,574,655	43,598,815	35,990,387	185,504,214
	Infrastructure	6,577,361	3,454,047	3,650,267	3,833,400	4,044,846	21,559,921
	SCM	3,782,934	4,242,525	4,780,422	5,326,444	5,825,704	23,958,029
	Lab systems	2,881,136	3,047,366	3,205,502	3,360,681	3,535,403	16,030,088
	HRH	2,545,594	4,847,948	2,080,406	5,408,497	2,256,397	17,138,842
	Research & M&E	3,939,211	9,381,036	3,727,719	9,907,790	3,870,441	30,826,197
	Management & Coordination	14,246,536	14,394,662	15,130,339	15,762,003	16,457,596	75,991,136
GRAND TOTAL		222,439,285	254,138,701	285,874,188	310,431,283	318,826,301	1,391,709,758

APPENDIX 3. INVESTMENT FRAMEWORK TABLE

Investment Framework	2015-16	2016-17	2017-18	2018-19	2019-20	Total	% of Total
Basic Programme	155,097,383	186,878,125	215,582,331	234,499,641	239,509,256	1,031,566,735	74.12%
Key Populations	277,973	5,487,675	310,619	5,736,881	344,656	11,770,101	0.85%
Eliminate new HIV infections among children	1,114,563	1,123,368	1,143,925	1,152,537	1,157,829	5,692,222	0.41%
Condom promotion and distribution	6,390,308	8,330,279	10,641,149	13,187,418	16,154,361	54,703,515	3.93%
Treatment, care and support	138,710,576	153,344,522	166,513,159	181,524,899	190,137,908	830,618,766	59.68%
VMMC	8,603,963	18,592,281	36,973,479	32,897,906	31,714,502	128,782,131	9.25%
Behaviour change programmes*	-	-	-	-	-	-	0.00%
Critical enablers	43,501,965	41,917,253	44,146,332	47,921,266	49,388,644	226,875,461	16.30%
Programme enablers	37,772,185	35,548,469	36,014,914	39,373,393	40,469,825	189,178,785	13.59%
Social enablers	5,729,781	6,368,784	8,131,418	8,547,874	8,918,819	37,696,676	2.71%
Synergies	23,839,937	25,343,323	26,145,525	28,010,377	29,928,401	133,267,562	9.58%
Health systems	13,095,713	14,634,796	15,304,252	16,586,390	17,878,561	77,499,712	5.57%
Social protection	94,181	98,585	-	108,124	-	300,889	0.02%
Education	-	-	-	-	-	-	0.00%
Poverty reduction	-	-	-	-	-	-	0.00%
Gender based violence	1,050,419	1,110,913	1,166,503	1,226,018	1,289,759	5,843,612	0.42%
Legal reform	273,575	286,368	298,551	314,076	330,709	1,503,278	0.11%
Employer practices	1,225,077	1,480,530	1,410,425	1,569,497	1,796,801	7,482,331	0.54%
Community systems	8,100,972	7,732,132	7,965,794	8,206,272	8,632,570	40,637,740	2.92%
Total	222,439,285	254,138,702	285,874,187	310,431,284	318,826,300	1,391,709,758	

*Behaviour change programmes: Behaviour change interventions are integrated into each programme area rather than having a stand-alone behaviour change programme.