



Ministry of Health

# National Policy Guidelines on TB/HIV Collaborative Activities

January 2015

Swaziland

MOHSW



Swaziland National Tuberculosis  
Control Programme





Ministry of Health

# National Policy Guidelines on TB/HIV Collaborative Activities

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JANUARY 2015

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SWAZILAND

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# FOREWORD

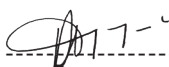
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The Human Immunodeficiency Virus (HIV) pandemic presents a massive challenge to the control of tuberculosis (TB) at all levels. In Swaziland, the interaction of TB and HIV is increasing the burden of both diseases. At present, an estimated 74% of TB patients are also co-infected with HIV. TB is a common, treatable HIV-related disease and the leading cause of death among people living with HIV (PLHIV). TB control will not make much headway in HIV prevalent settings unless HIV control is achieved. This calls for close collaboration between HIV and TB control programs so as to address the dual epidemic.

In 2004, the World Health Organization (WHO) published an interim policy on collaborative TB/HIV activities in response to demand from countries for immediate guidance on actions to decrease the dual burden of TB and HIV. Based on this, in 2007, the first edition of the Swaziland national policy guidelines on TB/HIV collaborative activities was also published. Both policies were based on incomplete evidence, but with the availability of additional evidence generated from randomized controlled trials, observational studies, operational research and best practices from programmatic implementation of the collaborative TB/HIV activities, an update to the national policy document was necessary. This is also in keeping with the process done to the WHO policy in 2012. This updated policy document remains complementary to and in synergy with the established core activities of National TB control program (NTCP) and the Swaziland National AIDS Program (SNAP).

The process of updating the policy was overseen by a core team within the TB/HIV National Coordinating Committee (TB/HIV NCC), with the advice of all relevant program specific Technical Working Groups (TWGs). This policy document overrides previous recommendations with respect to guidance on actions related to TB/HIV collaboration. It provides a framework and guidance on implementation of TB/HIV collaborative activities so as to improve care for TB and HIV patients.

The gratitude of the Ministry of Health and Social Welfare is expressed to all the people and institutions listed in the acknowledgment for the selfless work they did to develop these excellent guidelines.



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Dr. Musi Magagula  
**Director of Health Services**  
**Ministry of Health**

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# ACRONYMS

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<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>ART</b>	Anti-Retroviral Therapy
<b>ARV</b>	Antirétroviral Drug
<b>CBO</b>	Community Based Organization
<b>DOTS</b>	Directly Observed Therapy Short Course
<b>FDC</b>	Fixed Dose Combination
<b>HTC</b>	HIV Testing and Counseling (Initiated by Provider)
<b>HIV</b>	Human Immunodeficiency Virus
<b>ICF</b>	Intensified Case Finding
<b>IEC</b>	Information, Education, Communication
<b>INH</b>	Isoniazid
<b>IPT</b>	Isoniazid Preventive Therapy
<b>MDR-TB</b>	Multi-Drug Resistant Tuberculosis
<b>NCC</b>	National TB/HIV Coordination Committee
<b>NGO</b>	Non-Governmental Organization
<b>NTCP</b>	National Tuberculosis Control Program
<b>PLHIV</b>	People Living with HIV
<b>RHM</b>	Rural Health Motivators
<b>SNAP</b>	Swaziland National AIDS Program
<b>SOPs</b>	Standard Operating Procedures
<b>TB</b>	Tuberculosis
<b>URC</b>	University Research Co., LLC
<b>WHO</b>	World Health Organization
<b>-ve</b>	Negative
<b>+ve</b>	Positive

# SECTION 1:

## INTRODUCTION

The age group 15-49 years old is one of the highly affected age groups by TB and HIV co-infection. This is also the most economically active and productive group. Unless halted, the TB/HIV co-infection will lead to serious negative socio economic impact on the country. By implication, the situation dictates that TB and HIV be seriously considered not only as health issues but also as development agenda.

### 1.1 Background

#### 1.1.1 Geography, demography and health indicators

Swaziland has a population of about 1.231 million with an area of 17,373 Km<sup>2</sup> [1, 2]. The country is divided into 4 geographic regions, namely Hhohho, Lubombo, Shiselweni and Manzini. According to the 2007 Swaziland population census, 78.9% reside in rural areas [3]. The population is evenly distributed with the largest population of 31.4% in Manzini and the least 20.4% in Lubombo [3]. The population of the country is generally young, with 52% under the age of 20 years.

#### 1.1.2 Economic Indicators

The economy of Swaziland is fairly diversified, with agriculture, forestry and mining accounting for about 9% of GDP; manufacturing (textiles and sugar-related processing) representing 41% of GDP and services – with government services in the lead – constituting 46% percent of GDP [4]. While the country experienced high economic growth levels of 9% on average in the late 1980s, real GDP growth since 2001 has averaged 2.8 percent, nearly 2 percentage points lower than growth in other Southern African Customs Union (SACU) member countries. Swaziland had an economic output contraction of 0.7% in 2011 which was followed by a growth by 1.9% and 2.8% in 2012 and 2013 respectively [4, 5]. The World Bank classifies the country as a lower middle income country with a GDP per capita income of US\$3,136.70 in 2012, despite the majority of people (63%) in the country living below the poverty datum line [2, 4]. There is no doubt that economic achievements are being curtailed by the effects of the dual epidemic of HIV and TB.

#### 1.1.3 Health Services

The National Health System is made up of 8 Hospitals, 6 Public Health Units, 5 Health Centers, 215 Clinics, 47 Specialized Clinics and 6 Private Hospitals [6]. The newly opened Lubombo Referral Hospital is the 9th public hospital (Table 1). However, human resource constraints continue to be a challenge, negatively affecting the safety, quality, and coverage of health services to the public. This acute

shortage of human resources in the National health system at all levels severely affects TB and HIV services delivery as well laboratory support, program supervision, case management and health information system.

**Table 1:** Distribution of Public Hospitals and Health Centers by Regions

Region	Manzini	Lubombo	Hhohho	Shiselweni
Sites	1. National TB Hospital 2. RFM Hospital 3. Mankayane Hospital 4. National Psychiatric Hospital	5. Lubombo Referral Hospital 6. Good Shepherd Hospital 7. Sithobela Health Centre	8. Mbabane Government Hospital 9. Piggs Peak Government Hospital 10. Mkhuzweni Health Centre 11. Dvokolwako Health Centre	12. Hlathikulu Government Hospital 13. Nhlangano Health Centre 14. Matsanjeni Health Centre

Since the last policy document was published in 2007, TB and HIV treatment and care services have been integrated and decentralized to the primary health centre (PHC) level. There are 87 TB basic management units, and about 132 ART initiation and/or refill sites country wide. With a well-structured Task shifting framework and capacitating of Nurses through IMAI/NARTIS training, the burden of TB and HIV care has been shared between the few Medical doctors and Nurses in the health facilities. The availability of mini-laboratories at PHC level has also gone a long way to improve the laboratory support in this decentralized model of care.

#### 1.1.4 Burden of Tuberculosis

*Mycobacterium tuberculosis* (MTb) infects a third of the world’s population. In 2013 there were an estimated 9 million new cases of tuberculosis (TB) worldwide [7]. The majority of cases (56%) worldwide in 2013 were in the South-East Asia and Western Pacific Regions. The African Region had a quarter of the world’s cases but accounted for the highest rates of cases and deaths relative to population (280 new cases per 100000 on average) [7].

Tuberculosis in Swaziland accounts for more than 20% of all hospital admissions (MOH Annual Health Statistics Reports) and an estimated one in every four deaths of HIV infected patients attributable to TB. The Swaziland TB incidence rate is estimated

to be 1382 per 100 000 population per year according to WHO Global TB report 2014 [7]. There has been an increase in new TB diagnosed people from a total of 811 in 2010 to 1671 in 2012. In 2013, 7078 total cases of TB (including extrapulmonary) were notified in Swaziland and 3050 of these were bacteriologically confirmed [8]. This increase could be attributed to the six-fold increase in TB detection rates through increased implementation of TB screening and improved technologies in TB diagnostics. Men have been seen to have a slightly greater burden of TB compared to women, most likely due to the poor health seeking behavior of men in the country thus presenting late following HIV infection. Available evidence indicates that the current TB epidemic, both in terms of morbidity and mortality, is fuelled by the widespread of HIV infection in the general population.

According to the case notifications, all population segments are affected and susceptible to TB. According to the 2012 case notifications Hhohho region contributed 25.6%, Manzini region 40.7%, Lubombo 17.4% and Shiselweni region 16.3% of the national TB cases [9]. TB Notifications have been decreasing since 2011 [9]. The trends in TB notifications (all forms) are shown in Table 2.

**Table 2: TB Notification Trends: All Forms**

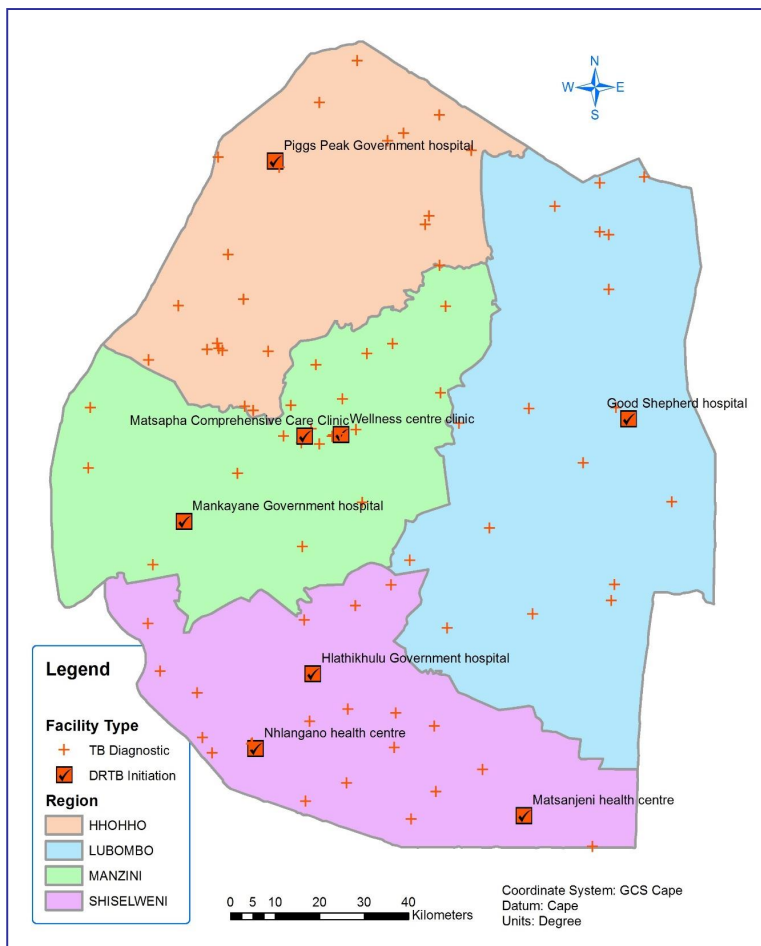
(Source: TB Program Annual Report-2012)

Region	2008	2009	2010	2011	2012
Hhohho	2 483	3186	2 939	2 537	1 986
Lubombo	1 975	1 887	1 801	1 339	1 344
Manzini	2 949	3 259	3 860	3 581	3 151
Shiselweni	2 249	2 700	2 457	1 723	1 260
<b>NATIONAL</b>	<b>9 656</b>	<b>11 032</b>	<b>11 057</b>	<b>9 180</b>	<b>7 741</b>

### 1.1.5 Control of Tuberculosis in Swaziland

Community based TB care (CBTBC) with direct observed therapy (DOTS) was adopted by the MOH in Swaziland as the best strategy for controlling TB. To date, this strategy has been expanded to all regions in the country. The distribution of TB diagnostic and treatment sites is shown in Figure 1. Swaziland implements a treatment regime according to the WHO recommended DOT Strategy. For the treatment of newly diagnosed drug-susceptible TB (DSTB) cases, the initial phase consists of a fixed dose combination (FDC) of Rifampicin (R), Isoniazid (H), Ethambutol (E) and Pyrazinamide (Z) a duration of 2 months, followed by a 4 month continuation phase of a FDC of R and H [10]. The duration of treatment for TB Meningitis, Miliary TB and TB of the Bones and Joints is 9 months. In the context of HIV, Central nervous system TB is treated for 9 – 12 months. The previous Category II regimen has been superseded by a re-treatment regimen in which streptomycin is now obsolete. All re-treatment cases of DSTB now receive 3 months of RHEZ in intensive phase and 5 month of

RHE [10]. For management of drug resistant forms of TB (Multi-drug resistant and Extensively-drug resistant TB), the country has national guidelines with standardized treatment regimen and duration of treatment.



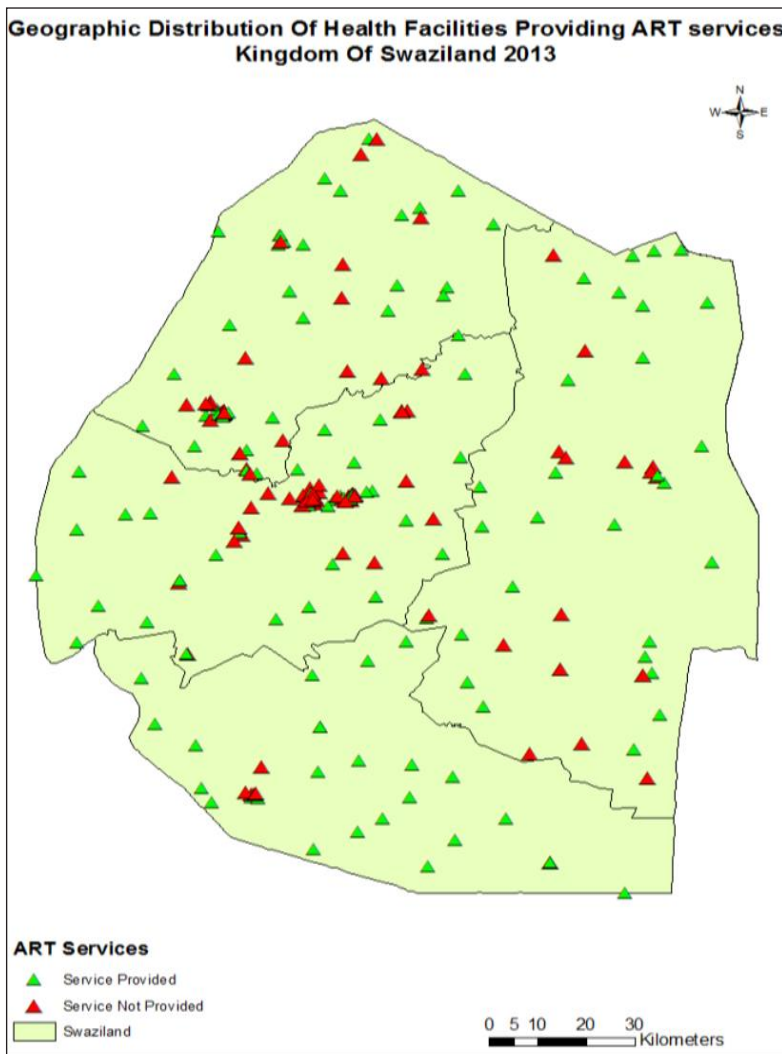
**Figure 1:** Health facilities providing TB diagnostic and DR-TB treatment initiation services in 2014

(Source: NTCP in collaboration with URC, 2014)

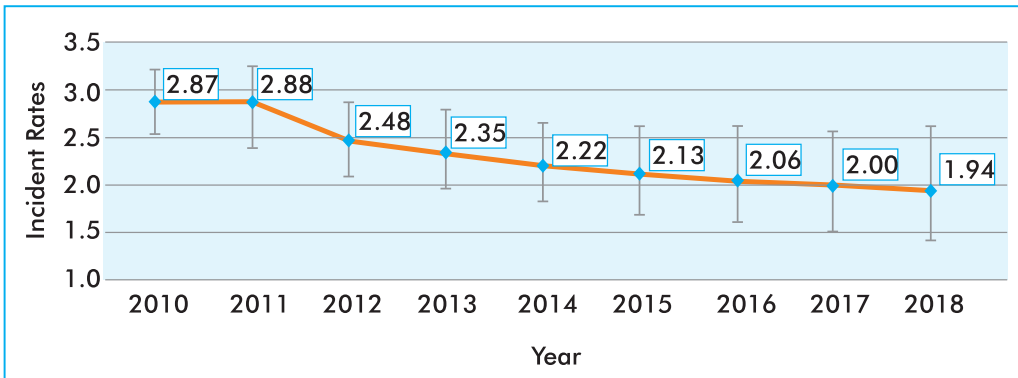
### 1.1.6 Burden of HIV

Globally, there are 35.2 million people living with HIV (PLHIV) and 71% are in sub-Saharan Africa [11]. Swaziland has succeeded in mounting a successful response to the HIV/AIDS epidemic. Figure 2 indicates the distribution of facilities providing ART services in Swaziland. According to the Swaziland HIV Incidence Measurement Survey (SHIMS), new HIV infections are on the decline although the HIV incidence

rate still remains high at 2.4% among adults aged 18-49 years (1.7% and 3.1% amongst men and women respectively) [12]. The peak incidence of HIV infections (4.1%) is in women aged 20-24 years and 35-39 years and incidence peaks among men aged 30-34 years at 3.1% [12, 13]. Both SHIMS and Estimates and Projections models support the evidence of declining new HIV infections. According to the preliminary report of the Swaziland HIV Estimates and Projections Models (2012), the annual incidence rate among 15-49 years is expected to continue to reduce from 2.9% in 2011 to 1.9% in 2018 [13]. Figure 3 shows the HIV incidence estimates among 15-49 year old in Swaziland.



**Figure 2:** Health facilities providing ART services in Swaziland in 2013 (Source: Annual HIV Programs Report, 2013)



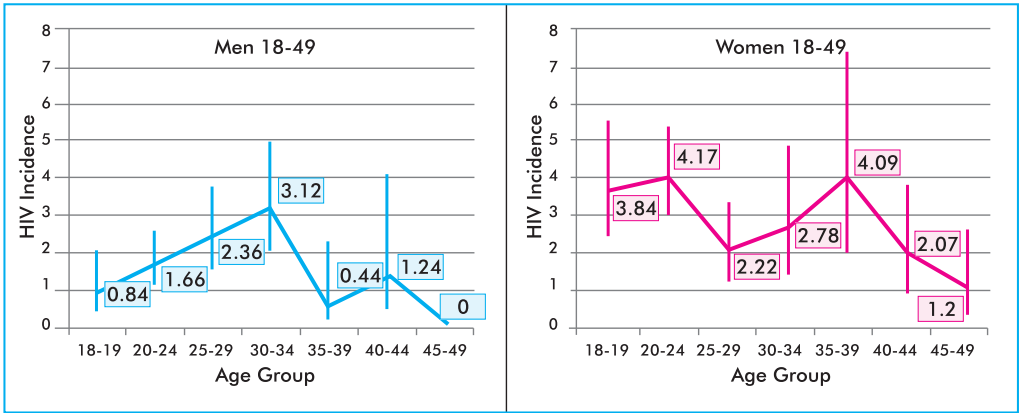
**Figure 3:** Graph of HIV incidence estimates among 15-49 year olds in Swaziland (2010-2018)

(Source: Spectrum HIV Estimates & Projections-2012)

The rate of new infections among HIV exposed children at 18 months of age is estimated to be 10.1% in 2013, a reduction from 17% in 2010 and 19.6% in 2009 [14]. However, the positivity rate for exposed children ages 6-8 weeks has reached a low of 2% and 3% in 2012 and 2013 respectively [14], which puts the country among those that are on track towards virtual elimination of mother to child transmission (MTCT). The incidence of HIV among men and women of different age groups is shown in Figure 4.

Although Swaziland has observed a decline in new HIV infections, the HIV prevalence rate still remains high at 26% among 15-49 year olds [15] and 31% among adults aged 18-49 [12, 16]. The HIV epidemic presents a gender bias, with prevalence being higher among women (38%) compared to men (23%) [12]. Recent data from the SHIMS reveal huge prevalence reductions among the 18-24 year olds, as evidenced by the 54% reduction among males and 20% reduction among females. Further analysis of SDHS (2006/07) and SHIMS (2011) shows that the HIV epidemic is stabilizing and shifting to older populations due to long survival on ART. The peak prevalence of HIV has shifted to older age groups, from women in the 25-29 year old bracket in 2006 to the 30-34 year olds in 2011 and from men between 30-35 years in 2006 to men between 35-39 years in 2011 [14].





**Figure 4:** Incidence of HIV among men and women categorized by age groups (Source: SHIMS report, 2012)

### 1.1.7 Burden of TB-HIV co-infection

The human immunodeficiency virus (HIV) pandemic presents a massive challenge to the control of tuberculosis (TB) at all levels. Tuberculosis (TB) is a leading preventable cause of death among PLHIV. Globally HIV positive patients are 29 times more likely to develop TB than their HIV negative counterparts. In 2013, 25% of all HIV related deaths were due to TB [7]. The African region contributed 78% of the HIV positive TB cases globally. In Swaziland, 74% of TB patients are co-infected with HIV [7].

Swaziland is one of the countries severely impacted by the high rate of TB and HIV co-infection among its population. In 2013, Swaziland reported 6416 TB patients (91% testing for HIV [8]. Eighty percent of these were initiated on ART [7, 8]. With a general upward trend of TB incidence in Swaziland since 1994 [8], TB control remains way off the minimum global targets. It is not strange that the dual epidemics of TB fuel each other, providing a huge task for the TB and HIV control programs. There has been success on the offering of HTC for TB patients, with 91% of TB patients and suspects having been tested for HIV and received their results. Isoniazid preventive therapy (IPT) uptake among HIV positive patient screening negative for TB remain low in Swaziland. Notably, TB remains the single most common preventable cause of death among PLHIV. Integration of TB and HIV services at national, regional and facility level remains a priority in order to decrease the TB/HIV burden in the country.

### 1.1.8 Control of HIV in Swaziland

Since HIV was declared a national emergency in 1999, the government has made considerable strides in mainstreaming HIV care and treatment into all sectors. The reduction in new infections and AIDS related deaths have occurred because of the implementation of strategies in the HSRP 2009-2014. The intervention areas that might have contributed greatly to the successes seen in the country include Medical

male circumcision, HIV testing and counselling, HIV care and treatment, PMTCT, and TB/HIV co-infection management. Cross cutting interventions that have improved efficiencies include Quality improvement, Psychological Care for health workers and Community based HIV/AIDS interventions.

The provision of ART services has expanded rapidly over the past ten years to reach most of the rural clinics in the country. Decentralization of ART services to lower level clinics has been a very important strategy in the HIV response in the country. This has ensured that the majority of the population living in the rural areas (70%) has access to the HIV treatment services. Currently, more than 80% of the public facilities are already accredited to provide ART services and more than 60% of the ART initiations in the country are done by nurses who have been trained on ART initiation. The decentralized services have been facilitated by the introduction of point of care CD4 tests that have been deployed in rural clinics and minimized the dependence on the National Sample Transport System, which is already overwhelmed by the demands for sample pick-ups. Decentralization of HIV care and treatment services has also resulted in improving retention in care at 6, 12, 24 and 36 months over the years.

### **1.1.9 Collaborative TB and HIV Program Activities**

Since the 2007 WHO-led external evaluation, a lot has been done by the national HIV and TB-control programs, including partners in other line ministries, NGOs and the civil society, to provide access to integrated services, at the same time and location, for the prevention, diagnosis, treatment and care of TB/HIV. This multisectoral response to TB and HIV has been steered by the TB/HIV National Coordinating Committee (NCC), which has continued to provide programmatic and operational guidance on the recommended TB/HIV collaborative activities [17].

The TB/HIV NCC is co-chaired by the Program Managers for the NTCP and SNAP. It is comprised of representatives from NTCP, SNAP, WHO, NGOs, development agencies, Civil Society Organizations (CSO), academic institutions, special groups (army, police etc), PLHIV, activists, patient-support groups and regional representatives. The NCC is divided into three working groups;

- Policy, Guidelines and implementation
- Advocacy, Communication and Social mobilization
- Monitoring and Evaluation.

For the day to day function of the NCC the chair person is nominated from SNAP and NTCP. Similarly, working groups are chaired by representatives of either of the two programs, vice chairs or other position maybe created and any member of the working group is nominated by the group to take up the position.

Collaboration between SNAP and the NTCP has solidified to the extent of streamlining cross-cutting activities during planning by the individual disease-specific programs.

The new approach will foster synergy, avoid duplication and maximize resource utilization. The ultimate strategies for collaboration will be scaled up for a nationwide coverage and reduction of HIV-associated TB mortality and morbidity.

## 1.2 Achievements of TB/HIV collaborative policy guidelines.

- **2007:** National TB/HIV coordinating committee (NCC) was formed with representation from the Swaziland National AIDS Program, the National Tuberculosis Control Program, implementing partners of both programs, civil society and community partners. Collaborative activities are agreed upon and annual work plans were developed. The NCC meets quarterly to deliberate on progress and discuss new actions or continued way forward. However, this body has not been duplicated at the regional level as yet, some facilities though have a TB/HIV multidisciplinary team to address the TB/HIV collaborative activities at facility level. There is no research agenda developed and implementation research is carried out in an ad hoc manner.
- **2008:** Evaluation of the TB symptom screening questionnaire for use among people living with HIV was conducted and findings showed that the questionnaire was sensitive and specific enough for use in the intensified case finding (ICF).
- **2009:** Isoniazid Preventive therapy (IPT) pilot among 13 facilities was conducted. The pilot showed that the provision of IPT was feasible and there were very few adverse effects noted making the provision of IPT at clinic level possible and safe.
- **2009:** Roll-out of the TB screening questionnaire to all HIV clinical care settings was supported. The questionnaire was revised in 2010 to cater for the increased sensitivity for tuberculosis to allow for increased IPT uptake. The ICF currently takes place in all HIV care settings and is reported by both the National AIDS Program and the National Tuberculosis Control Program. Scale up to community TB screening is happening at a small scale and is supported by implementing partners.
- **2009:** Integration of HIV services within TB treatment clinics: HIV testing and counseling, Provision of cotrimoxazole preventive therapy (CTX) and antiretroviral therapy (ART) has been integrated into **all** the TB treatment sites and these services are offered under a “one stop shop” model. There are currently 82 integrated TB/HIV treatment facilities.
- **2011:** National guidelines on 3I’s produced and disseminated. National trainings as well as facility trainings were conducted to sensitise health care

workers. These trainings were supported by clinical mentoring to improve their implementation.

- **2011:** Introduction of IPT to 11 HIV care clinics. A national training was conducted specifically to address the roll-out of IPT to 11 ART clinics with a roll-out planned to other facilities. The roll-out of IPT has been plagued with poor uptake that has been attributed to drug availability, poor communication between the facilities and the programs, lack of patient awareness and little or no knowledge on IPT amongst the health care workers. These issues have been addressed through the development of an IPT framework, conducting a national IPT Indaba as well as focus group discussions to inform IPT delivery models and the information and educational materials for both patients and health care workers. The IPT uptake increased from 2% in 2012 to 10% in 2014. However there is need for targeted interventions to assure all those eligible for IPT are offered IPT.
- **2011:** Introduction and scale up of the GeneXpert MTB Rif for use in diagnosis of TB among PLHIV. There are currently 22 sites with Xpert testing ability and 114 clinics serviced by the National Sample Transportation System so that the Xpert testing is accessible for all. The country guidelines were revised in 2013 to incorporate Xpert testing as the first line diagnostic test for tuberculosis in the country regardless of HIV status.
- **2012:** Introduction of TB screening among Maternal and Child health units (PHUs): With coverage of PMTCT at 92% in the country, the NCC introduced the intensified case finding among pregnant women and infants with adaptation of the ANC and Well Child cards to capture this information. The provision of IPT and assurance of infection control still lags behind.

### 1.3 Updating the TB/HIV Collaborative Activities Policy

This update is a revision of the 2007 policy Guidelines for the TB/HIV Collaborative Activities.

#### 1.3.1 Process of updating the Policy

The process of updating the policy was to keep pace with upcoming evidence generated from randomized controlled trials, observational studies, best practices from programmatic implementation of TB/HIV collaborative activities and operational research. This policy update is also an extraction from the 2012 WHO policy on collaborative TB/HIV activities [18]. It builds on the basic framework of the first WHO interim policy document that structured collaborative TB/HIV activities

under three distinct objectives (establishing and strengthening the mechanisms for delivering integrated TB and HIV services; reducing the burden of TB among PLHIV; and reducing the burden of HIV among people diagnosed with or presumed to have TB). The process was over seen by the Policy, guidelines and Implementation working group within the TB/HIV NCC. The final draft was reviewed by the TB/HIV NCC members before it was send for printing.

### **1.3.2 Rationale**

These policy guidelines on TB/HIV collaborative activities are based on the existing WHO recommendations on HIV-related TB [18]. They follow the same framework described in the national document published in 2007, and continue to emphasize that HIV prevention and care will be a priority concern of the NTCP and TB prevention and care will be a priority concern of SNAP. The updated policy also emphasizes the need to establish mechanisms for delivering integrated TB and HIV services, preferably at the same time and location. In addition, mechanisms for delivering the integrated services shall be established as part of other health programs such as maternal, neonatal and child health (MNCH), harm reduction services and correctional facilities' health services. It is designed to be used in conjunction with other existing national policies on TB and HIV prevention, treatment and care.

### **1.3.3 Purpose**

These updated policy guideline aim at providing the structures within SNAP, the NTCP and stakeholders with guidance on how to implement and scale-up collaborative TB/ HIV activities. It is complementary to and in synergy with established core activities of TB and HIV prevention, diagnosis, treatment and care programs. Implementing the interventions recommended in the Stop TB strategy is the core function of the NTCP. Similarly, the delivery of priority interventions – to provide knowledge of HIV status, prevent transmission of HIV and other sexually-transmitted infections, and provide diagnosis, treatment and care for HIV – forms the basis of the health-sector response to HIV and is the core function of SNAP. However, NTCP must do something about HIV to reduce the impact of HIV on TB patients. Conversely, SNAP must do something about TB to minimize its impact on PLHIV.

The purpose of this TB/HIV policy, therefore, is to delineate the roles and responsibilities of all stakeholders at every level of the provision of health, and to provide guidance on which collaborative TB/HIV activities are to be implemented in the country. These updated policies emphasize the provision of quality-assured, comprehensive and integrated services to prevent, diagnose and treat HIV and TB, and provide care to people living with or at risk of HIV and/or TB, their families and communities.

### 1.3.4 Target Audience

These policy guidelines are intended for decision-makers in the field of health, managers of the NTCP and SNAP working at all levels in the health sector, health workers, donors, development agencies, NGOs and other civil society organizations supporting HIV and TB programs, and people living with, at risk of or affected by HIV and/or TB.

### 1.3.5 Policy Framework

These policy guidelines are in support of, and help to operationalize the principles outlined in the following legal and policy documents:

- Swaziland Constitution, 1995.
- The Workers' Compensation Act.
- National Health Policy (2006)
- The Health Sector Response Plan to HIV/AIDS (HSRP), 2014 –2018
- Poverty Eradication Action Plan
- Expanded National Multisectoral Strategic Framework for HIV/AIDS in Swaziland (eNSF), 2014-2018
- National Tuberculosis Strategic Plan (TB NSP), 2015-2019
- National Tuberculosis Control Policy guidelines
- Swaziland Integrated HIV Management Guidelines, 2014

# SECTION 2:

## GOAL AND OBJECTIVES OF COLLABORATIVE TB/HIV ACTIVITIES

The overall goal of the policy is to decrease the burden of TB and HIV in people at risk of or affected by both diseases in Swaziland through improved TB and HIV collaborative interventions.

The policy objectives are to:

1. Establish and strengthen the mechanisms of collaboration and joint management (information sharing, planning, implementation and monitoring and evaluation) between SNAP and NTCP to deliver integrated TB and HIV services preferably at the same time and locations.
2. To reduce the burden of TB in PLHIV, their families and communities by ensuring the implementation of the *Three I's* strategies for HIV/TB and early initiation of ART in line with the National guidelines.
3. To reduce the burden of HIV in patients with presumptive and diagnosed TB, their families and communities by providing comprehensive HIV prevention, diagnosis and treatment services.

### 2.1 Specific Objectives

Based on the eNSF (2014-2018) and the revised TB NSP (2015-2019), the objectives to achieve under TB/HIV collaborative activities:

1. Fewer people living with HIV are co-infected with TB – Percentage of incident TB cases among PLHIV who have successfully completed their TB treatment has increased from 62% in 2011 to 75% in 2015 and 85% in 2018;
2. Co-infection is diagnosed – percentage of registered patients diagnosed with TB who test for HIV is maintained at 95% from 2011 to 2015 and 2018, percentage of PLHIV enrolled in care who are tested for TB is increased to 70% in 2015 and 90% in 2018, percentage of PLHIV screened TB negative who are given INH is increased to 50% in 2015 and 70% in 2018;

3. Co-infected people receive treatment – percentage of estimated HIV positive incident TB cases that receive treatment for both TB and HIV has increased from 29% in 2012 to 50% in 2015 and 80% in 2018

## 2.2 Strategic Framework

In order to achieve the above objectives and goals, the NTCP and SNAP shall retain and continue their primary responsibilities for their respective program areas, while collaborating in agreed areas of joint activity. In other words, the overall strategic framework consists of three linked sets of activities:

- (i) Effective implementation of the WHO STOP TB Strategy for TB control [NTCP has primary responsibility].
- (ii) Improved HIV prevention and treatment [SNAP has primary responsibility].
- (iii) Implementation of a set of additional collaborative TB/HIV activities as outlined below. [Joint responsibility of NTCP and SNAP].



# SECTION 3:

## TB/HIV COLLABORATIVE ACTIVITIES

This section focuses on collaborative activities that address the interface of the HIV and TB epidemics and that shall be carried out as part of the national response to HIV/AIDS and Tuberculosis. It provides guidance for SNAP and NTCP to carry out, as agreed-upon, a set of collaborative TB/HIV activities which are to be pursued jointly and in collaboration with their partners.

A summary of the TB/HIV collaborative activities to be carried out at various levels of health services are represented by the Figure 5 overleaf.

**A. Establish and strengthen the mechanisms of collaboration and joint management (information sharing, planning, implementation and monitoring and evaluation) between SNAP and NTCP to deliver integrated TB and HIV services preferably at the same time and locations**

**A.1** Set up and strengthen a coordinating body for TB/HIV activities functional at national, regional and facility level.

**A.2** Determine HIV prevalence among TB patients and TB prevalence among PLHIV.

**A.3** Carry out joint TB/HIV planning (resource mobilization, capacity building, advocacy, communication & social mobilization) to integrate the delivery of TB and HIV services

**A.4** Conduct monitoring and evaluation for TB/ HIV collaborative activities

**A.5** Coordinate research activities on HIV and TB.

**B. Reduce the burden of TB in PLHIV and initiate early ART (the Three I's for HIV/TB)**

**B.1** Intensify tuberculosis case-finding.

**B.2** Initiate TB prevention with isoniazid preventive therapy and ensure early initiations of ART.

**B.3** Ensure high quality anti-TB treatment for TB/HIV co-infected patients with active TB.

**B.4** Ensure tuberculosis infection control in health care facilities and congregate settings.

**C. Decrease the burden of HIV in patients with presumptive and diagnosed TB**

**C.1** Provide HIV testing and counseling to patients with presumptive and diagnosed TB.

**C.2** Provide HIV prevention interventions for patients with presumptive and diagnosed TB.

**C.3** Provide Cotrimoxazole preventive therapy to TB patients living with HIV

**C.4** Ensure HIV secondary prevention interventions, treatment and care for TB patients living with HIV.

**C.5** Provide early antiretroviral therapy for TB patients living with HIV.

**Figure 5:** The TB/HIV Collaborative Activities

### **3.1 A. Establish and strengthen the mechanisms for delivering integrated TB and HIV services**

#### **A.1 Set up and strengthen coordinating bodies for collaborative TB/HIV activities functional at all levels.**

SNAP and the NTCP will create and maintain a joint TB/HIV Coordinating Committee, functional at national, regional and facility levels, with reasonable representation of the two programs including people at risk of or affected by both diseases, and other line ministries. (e.g. prisons, defence).

#### **Responsibilities for the National coordinating body include:**

- Governance and coordination at national and sub-national levels
- Developing, reviewing, and updating policy and guidelines on TB/HIV collaboration.
- Capacity-building, including training
- Planning, monitoring and evaluation of interventions
- Mobilization of resources for TB/HIV activities
- Ensuring the coherence of communications about TB and HIV
- Ensuring the involvement of key stakeholders (NGOs, civil society, CBOs and individuals) in TB/HIV collaborative activities.
- Ensure that evidence from research and best practices is used to provide policy and programmatic direction.

#### **A.2 Identify TB and HIV focal persons at regional levels**

Ministry of Health (NTCP and SNAP) supervision teams shall be responsible for supervising and guiding regions on TB/HIV collaborative activities. The Facility Management team will be responsible for appointing focal persons to ensure collaboration between TB and HIV/AIDS programs within their hospitals. However, the Regional TB and HIV coordinators shall complement the regions in supervising and guiding on TB/HIV collaborative activities. The focal persons shall articulate TB/HIV collaborative issues within the Regional Health Management Team (RHMT) meetings.

#### **Responsibilities for the focal persons at facility level include:**

- Planning, monitoring and evaluation of interventions
- Mobilization of resources for TB/HIV activities
- Advocacy and social mobilization for collaboration
- Coordination of stakeholder efforts on TB/HIV.
- Ensure that evidence from research and best practices is used to guide policy development and implementation of TB/HIV activities.
- Coordination of TB/HIV capacity-building in community including training of PLHIV as “expert clients”
- Ensuring coherence of communications about TB/HIV
- Ensuring the participation of the community in joint TB/HIV activities

### **A.3 Develop TB/HIV multidisciplinary teams at health facility level**

The chronic care of HIV positive patients requires a concerted effort from different cadres of health care workers. As TB is the commonest opportunistic infection found in HIV positive patients, the inclusion of healthcare workers dealing directly with TB patients is paramount in the formation of multidisciplinary teams (MDTs) in health facilities. This is to ensure that the care of the TB/HIV co-infected patients is provided in a holistic manner. A practical approach to the formation of MDTs is to include the TB clinic healthcare workers within the ART committees. The MDTs are responsible for the overall planning and implementation of the TB/HIV activities in the facilities.

### **A.4 Determine HIV prevalence among TB patients and TB prevalence among PLHIV**

Surveillance is essential to inform program planning and implementation. There are three key methods for surveillance of HIV among tuberculosis patients: periodic surveys (cross-sectional HIV seroprevalence surveys among a small representative group of tuberculosis patients within a country); sentinel surveys (using TB patients as a sentinel group within the general HIV sentinel surveillance system); and data from the routine HIV testing and counselling (HTC) for patients with presumptive or diagnosed TB.

In Swaziland, HTC for all tuberculosis patients will form the basis of surveillance because of the generalized epidemic state. Evidence has shown that HIV surveillance among TB patients is a critical activity in understanding the trends of the epidemic and in the development of sound strategies to address the dual TB/HIV epidemic.

### **Recommendations**

- 1. Surveillance of HIV shall be conducted among TB patients and surveillance of active TB disease among PLHIV in all regions, irrespective of regional adult HIV and TB prevalence rates.**
- 2. Regions with unknown HIV prevalence rates among tuberculosis patients will analyse routine HTC data to estimate prevalence.**
- 3. All health facilities shall offer HIV testing and counseling to all patients with presumptive or diagnosed TB. Information on HIV testing and counseling for TB patients will be incorporated into the existing health information management systems.**

## **A.5 Carry out joint TB/HIV planning to integrate the delivery of TB and HIV services**

Medium and long-term joint strategic planning to successfully and systematically scale up collaborative TB/HIV activities nationwide and deliver integrated TB and HIV services, preferably at the same time and location with due consideration to prevention of TB transmission, shall be developed. Already, SNAP and NTCP have harmonized the collaborative components of their individual 2014-2018 National Strategic Plans (NSP). Such joint planning shall clearly define the roles and responsibilities of the HIV and TB control programs in implementing, scaling-up monitoring and evaluating collaborative TB/HIV activities at all levels of the health system. At the regional level, TB/HIV collaborative activities will be included in the regional annual plans, in line with the strategic guidance from the TB/HIV NCC.

Key areas to be covered in joint planning include, quality-assured health services; a well-performing health workforce; well-functioning information systems; equitable access to essential medicinal products, vaccines and technologies; adequate health financing; and leadership and governance. In addition to the elements detailed in objectives A, B and C of this document, other important aspects are included such as resource mobilization, capacity-building and training, TB/HIV advocacy, program communication, enhanced community involvement, and operational research.

### **A.5.1 Models of Integrated TB and HIV Service Delivery**

Globally, there are five models for delivering integrated TB and HIV services:

- (i) Entry via TB service and referral for HIV testing and care
- (ii) Entry via TB service and referral for HIV care after HIV testing
- (iii) Entry via HIV service and referral for screening, diagnosis and treatment of TB
- (iv) Entry via HIV service and referral for TB treatment after TB screening and TB diagnosis
- (v) TB and HIV services provided at a single facility (at the same time and location).

Currently in Swaziland, all accredited TB basic management units with NARTIS-trained nurses or doctors use model (v), while HIV clinics are using the fourth model. The ideal model is however a 'one-stop service' i.e, model (v), which provides patient-centred care for TB and HIV. It should be noted that, even with the concern of nosocomial spread of TB, fully-integrated care supports early detection and treatment of undiagnosed TB, and may result in a reduction of TB risk compared with separate services. This model also supports timely initiation of ART in TB patients living with HIV without the necessity to refer.

### **A.5.2 Resource Mobilization and Capacity-building**

Collaborative TB/HIV activities, which build on well-resourced strategies, may not require much additional financial input. If either or both programs are under-resourced in funds or human capacity, additional resources shall first be mobilized to strengthen each program. Joint proposals to solicit resources for implementing collaborative TB/HIV activities shall be prepared, within the framework of the TB/HIV NCC, building on the comparative strengths of both SNAP and the NTCP, and the specific needs of the nation and the regions.

Joint capacity building for collaborative activities shall include training of HIV, TB and primary health-care workers (HCW) in TB/HIV issues. The two programs shall ensure continued competency-based education of HCW's through clinical mentoring, regular supportive supervision and the availability of standard operating procedures (SOPs) and job aids, reference materials and up-to-date national guidelines. Capacity building will include laboratory, supply management, health information, and referral and integrated service delivery systems.

### **A.5.3 Advocacy, Communication and Social Mobilization**

SNAP and NTCP shall engage in advocacy targeted at influencing policy, program implementation and resource mobilization to accelerate the implementation of collaborative TB/HIV activities at all levels. A two-way communication between the programs and the general public, as well as affected populations shall be strengthened to inform and create awareness about both diseases in order to ensure that patients actively seek out and demand services. The programs shall work collaboratively to strengthen social mobilization to generate public will and secure broad consensus and social commitment among all stakeholders to mitigate stigma and promote prevention of HIV and TB, as well as encourage participation in collaborative TB/HIV activities. Joint TB/HIV communication strategies shall ensure the mainstreaming of HIV components in TB communication and of TB components in HIV communication. These will guide implementation of these activities and link the public to the program areas. The special needs of people with disability (for example the deaf) shall not be forgotten.

### **A.5.4 Enhance Community involvement in TB/HIV collaborative activities**

The programs will expand collaborative TB/HIV activities beyond the health sector through meaningful involvement with communities, NGOs and the civil society and individuals in the planning, implementation and monitoring of TB/HIV activities at all levels. Through support groups for PLHIV Community based care and support groups and community-based organizations, TB prevention, diagnosis, treatment and care will be integrated with those for HIV and vice versa. Communities will be effectively mobilized to advocate for resources and opportunities to implement TB/HIV collaborative activities.

As part of the collaborative TB/HIV activities, civil society organizations including NGOs and CBOs will advocate, promote and follow national TB and HIV guidelines, including monitoring and evaluation of TB/HIV activities using nationally recommended indicators.

#### **A.5.5 Engaging the private-for-profit sector**

The private-for-profit health sector will be engaged in implementing collaborative TB/HIV activities through coordination and collaboration between SNAP, NTCP and the private service providers and their professional associations. This collaboration will be at the national level as a starting point. Private-for-profit sector representation shall be included in the TB/HIV NCC, and shall be encouraged to initiate and implement collaborative activities in accordance with national norms and guidelines.

#### **A.5.6 Addressing the needs of key populations: women, children, people who use drugs and correctional facilities**

Active TB is 10 times more common in pregnant women living with HIV relative to women without HIV. Maternal TB is associated with a 2.5-fold increased risk of vertical transmission of HIV to the unborn child. HIV infection is still a risk factor for active TB disease in infants and children, with more severe forms of the disease and a higher mortality rate. SNAP and NTCP will ensure that TB prevention, screening, diagnosis and treatment as well as HIV prevention, diagnosis, treatment and care services are integrated with those for MNCH and prevention of mother-to-child transmission of HIV (PMTCT).

PLHIV in congregate settings such as correctional facilities and people who use drugs have a higher risk of and incidence of TB and HIV infection. People who inject drugs and use alcohol hazardously have a higher risk of co-infection with HIV, TB and hepatitis. The joint plans shall therefore ensure that services for prevention, diagnosis, treatment and care of TB are combined with harm reduction measures. Correctional services will ensure that integrated services are available to deliver effective prevention, including TB infection control measures, diagnosis and treatment of HIV, TB and hepatitis as well as harm reduction services.

#### **A.5.7 Operational research to scale up collaborative TB/HIV activities**

SNAP and NTCP, in collaboration with its partners, shall undertake operational research to help inform national policy and strategies and define best approaches to provide high-quality integrated TB and HIV interventions at facility and community levels.

### **Recommendations**

1. Joint planning will be conducted to clearly define the roles and responsibilities of SNAP and the NTCP in implementing, scaling up and monitoring and evaluate collaborative TB/HIV activities at all levels of the health system.
2. SNAP and NTCP will describe models to deliver client and family-centred integrated TB and HIV services at facility and community levels compatible with national and local contexts.
3. The Ministry of Health through SNAP and the NTCP, shall ensure resource mobilization and adequate deployment of qualified human resources to implement collaborative TB/HIV activities in accordance with specific situations.
4. The NTCP and SNAP shall formulate a joint training plan to provide pre-service and in-service training, and continuing competence-based education on collaborative TB/HIV activities for all categories of HCWs.
5. SNAP and NTCP shall ensure that there is sufficient human and institutional capacity to deliver health care (e.g. laboratory, drug and referral capacity) and effectively implement and scale up collaborative TB/HIV activities.
6. Well-designed TB/HIV advocacy activities, (jointly planned to ensure coherence between their messages) targeted at key stakeholders and decision-makers, shall be carried out at national and regional levels.
7. The joint communication strategy shall ensure the mainstreaming of HIV components in TB communication and of TB components in HIV communication. The special needs of people with disability for example the deaf will be taken into consideration when developing a communication strategy.
8. All stakeholders of collaborative TB/HIV activities, including both SNAP and NTCP, shall support, budget and mobilize resources for TB/HIV operational research to develop the evidence base for efficient and effective implementation of collaborative activities. The academic institutions (UNISWA, SANU and other nursing colleges) and individuals shall support and disseminate research findings that could improve implementation of TB/HIV collaborative activities.
9. SNAP and NTCP shall develop specific strategies to enhance the involvement of NGOs and other civil society organizations and individuals affected by or at risk of HIV and TB in developing and implementing policy and programs, and the monitoring and evaluation of collaborative TB/HIV activities at all levels.



## 3.2 B. Reduce the burden of TB in PLHIV and initiate ART early (the Three I's for HIV/TB)

### B.1 Intensify Tuberculosis Case-Finding

Intensified tuberculosis case-finding comprises screening for symptoms and signs of tuberculosis in settings where HIV-infected people are concentrated. Early identification of signs and symptoms of tuberculosis, followed by diagnosis and prompt initiation of treatment in PLHIV, their household contacts, groups at high risk for HIV and those in congregate settings (e.g. correctional facilities, police, military barracks, HIV clinics, inpatient wards, schools, large scale factory settings, mine and plantation workers, slums and others), increases the chances of survival, improves quality of life and reduces transmission of TB in the community.

#### Recommendations

1. Adults and adolescents living with HIV shall be screened for TB using the National TB screening tool at every contact with the health facility; those who report any one of the symptoms of current cough, fever, weight loss or night sweats may have active TB and will be evaluated for TB and other diseases. The clinical algorithm will be administered by the first contact health workers and counselors. If the evaluation shows no symptoms of active TB, the client shall be offered IPT.
2. Children living with HIV who have any of the following symptoms – poor weight gain, fever or current cough or close contact history with an adult TB case – may have TB and shall be evaluated for TB and other conditions. If the evaluation shows no TB, children will be offered IPT regardless of their age.
3. A referral system shall be established between HIV and TB diagnostic, treatment, and support services.
4. Tuberculosis case-finding in PLHIV attending care and support services shall be intensified, by increasing the awareness and knowledge of interactions between TB and HIV among health care workers and the populations they serve.

## **B.2 Initiate TB prevention with isoniazid preventive therapy (IPT), and early ART initiation**

Isoniazid is given to individuals with latent infection with *Mycobacterium tuberculosis* (MTb) in order to prevent progression to active disease. Exclusion of active TB is critically important before IPT is started. The absence of all of current cough, night sweats, fevers or weight loss can identify a subset of adolescents and adults living with HIV who have a very low probability of having TB disease they can reliably be initiated on IPT. In children the absence of poor weight gain, fever and current cough can identify children who are unlikely to have TB. Isoniazid is given daily as self-administered therapy for six months, as part of a comprehensive package of HIV care for eligible PLHIV after ruling out contraindications to INH prophylaxis irrespective of degree of immunosuppression, ART use, previous TB treatment and pregnancy. Information about IPT shall be made available to all PLHIV.

Providing IPT as a core component of TB preventive care shall be the responsibility of HIV service providers, under the stewardship of SNAP.

ART is a powerful strategy to reduce TB incidence among PLHIV across a broad range of immune-competency. ART reduces the individual risk of TB by 54-92% and the population-based risk by 27-80% among PLHIV. ART also reduces the risk of TB recurrence rates by 50%. The combination of ART and IPT has been shown to reduce the risk of TB among HIV-infected patients by up to 90%. Early ART initiation for PLHIV will be provided in accordance with the national guidelines, to help in reducing HIV-related TB.

### **Recommendations**

- 1. Systematic accreditation of health care facilities for the provision of IPT in accordance with National guidelines.**
- 2. Emphasis on IPT provision as part of a comprehensive package of HIV care for all eligible PLHIV irrespective of degree of immunosuppression, ART use, previous TB treatment and pregnancy.**
- 3. Adults and adolescents living with HIV will be screened for TB using the National TB screening tool; those who screen negative are unlikely to have TB disease and will be offered a six-month course of IPT.**
- 4. Children living with HIV who screen negative for TB using the National TB screening tool are unlikely to have active TB and will receive six months of IPT, regardless of age or the absence of a TB contact.**

### **B.3 Ensure high quality anti-TB treatment for TB/HIV co-infected patients with active TB.**

In people with a positive TB screen, the diagnostic workup for TB will be done in accordance with the National guidelines and principles of sound clinical practice to identify either active TB or an alternative diagnosis. In Swaziland, Expert/MTB/RIF shall be the primary diagnostic test for TB in PLHIV. If a diagnosis of TB is made, bacteriologically or clinically, the patient will be initiated on TB treatment as soon as possible. Depending on the drug-susceptibility profile of the MTB strain causing the disease, all patients shall receive the TB regimens specified in the National guidelines. Treatment must be given to every patient confirmed as having TB and shall be given free of charge to the patients. All TB-HIV co-infected patients will be started on ART regardless of CD4 count as soon as possible within the first 8 weeks of starting anti-tuberculosis treatment.

#### **Recommendations**

- 1. All persons diagnosed with TB (including PLHIV) shall be treated with anti-tuberculosis medications according to the national TB guidelines.**
- 2. All patients on TB treatment shall be supported to complete their medications under Directly Observed Therapy (DOT).**
- 3. All PLHIV with active TB will be started on ART regardless of the CD4 count as per the national guidelines.**

### **B.4 Ensure tuberculosis infection control in health care and congregate settings**

In health care and congregate settings (e.g. correctional facilities, police, military barracks, schools and living quarters for workers especially in the Agricultural sector), where people with TB and HIV are frequently crowded together, the probability of infection with TB is increased. SNAP and NTCP shall therefore make sure there is access to HIV and TB prevention, treatment, care and support services for HCWs, as well as of workers in congregate settings.

Implementation of TB infection control measures requires managerial activities at national, regional and facility levels, which include establishing coordinating bodies at all levels; developing an infection control plan; appropriate health facility design and use; surveillance of TB disease among HCWs; advocacy and communication strategy; M&E; and operational research. At facility level, measures shall be taken to reduce TB transmission. These measures will include administrative, environmental and personal protection measures which are aimed at generally reducing exposure

of HCWs to MTb. Administrative controls shall consist of triage (to identify people with TB symptoms), separation of infectious or suspected cases, control of the spread of pathogens (cough etiquette and respiratory hygiene), rapid diagnosis and prompt initiation of treatment (FAST strategy – Find TB cases Actively; Separate patients safely; Treat promptly). Environmental controls shall include maximizing natural ventilation and ultraviolet irradiation. Personal protective interventions shall include use of respirators and prevention, treatment and care packages for HCWs including HIV prevention interventions, and ART and IPT for workers who are living with HIV. HCWs living with HIV shall have access to acceptable, confidential and quality-assured HIV testing.

## **Recommendations**

- 1. SNAP and NTCP shall provide managerial direction at national and regional levels for the implementation of TB infection control in health-care facilities and congregate settings.**
- 2. Each health-care and congregate setting shall have a TB infection control plan supported by all stakeholders, which includes administrative, environmental and personal protection measures to reduce transmission of TB in health-care and congregate settings, and surveillance of TB disease among workers.**
- 3. HCWs, community health workers and care providers living with HIV will be provided with ART and IPT if eligible. Furthermore, they shall be offered an opportunity for transfer to work in clinical sites that have the least risk of TB transmission.**

### **3.3 C. Reduce the burden of HIV in patients with presumptive and diagnosed TB**

#### **C.1 Provide HIV testing and counseling to patients with presumptive and diagnosed TB.**

The majorities of PLHIV are not aware of their HIV status and seek health care from general service providers. HIV testing and counseling for people with diagnosed or presumptive TB offers an entry point for a continuum of prevention, care, support and treatment for HIV and TB. Benefits accrue to the patient, the family and the community at large. HTC services shall be made readily available in accordance with National HTC guidelines at all TB service delivery points.

## Recommendations

1. Routine HIV testing and counseling will be offered to all patients with presumptive and diagnosed TB.
2. NTCP shall collaborate with SNAP to mainstream provision of HIV testing and counseling in their operations and routine services.

### **C.2 Provide HIV prevention interventions for patients with presumptive and diagnosed TB.**

Prevention of HIV includes interventions to:

- (i) prevent sexual transmission such as male and female condoms, male circumcision, HIV testing and counselling including couples counselling and testing, and treatment as prevention using ART
- (ii) prevent parenteral transmission through contaminated injecting equipment and blood products, including ensuring the safety of the blood supply and use of sterilized injection and surgical equipment in medical, traditional and cultural settings
- (iii) prevent hazardous alcohol use and use of other psychostimulants through behavioral interventions

HIV prevention services also include prevention of vertical transmission of HIV through the provision of lifelong ART for all HIV positive pregnant and lactating women (LLAPLa) attending antenatal and post-natal care, regardless of the CD4 count (latest National recommendation). Evidence also supports the use of ART for HIV prevention in HIV sero-discordant heterosexual couples.

Health education shall form a basis for preventive measures more especially in special groups like prisons. However, positive living among those already infected shall be emphasized to prevent spread within the community.

## Recommendations

1. NTCP shall collaborate with SNAP to strengthen the implementation of comprehensive HIV prevention strategies for their patients and their partners, targeting sexual, parenteral or vertical transmission.
2. All clients attending tuberculosis clinics shall be screened for sexually transmitted infections (STIs) using a simple questionnaire or other recommended approaches. Those with symptoms of STI will be treated or referred to relevant services according to need.
3. SNAP and NTCP shall facilitate the implementation of procedures for voluntary, acceptable and confidential HTC for health-care providers and for reduction of occupational and nosocomial exposure to HIV infection in their services.
4. SNAP shall ensure that vertical transmission is prevented through prevention of mother-to-child transmission.
5. Healthcare workers shall provide HIV prevention messages to all TB patients.
6. VMMC shall be integrated as part of HIV prevention strategy in the TB and HIV clinics and thus HIV negative clients will be counseled and referred to access the service.

### **C.3 Provide Cotrimoxazole preventive therapy (CPT) to TB patients living with HIV**

In line with the recommendations from the Swaziland Integrated HIV Management Guidelines (2014) [19], all co HIV co-infected TB patients are eligible for CPT. In all TB clinical settings, the provision of CPT for co-infected TB patients shall be implemented as an integral component of the HIV chronic care package.

### **C.4 Ensure HIV prevention interventions, treatment and care for TB patients living with HIV.**

A comprehensive package of prevention, diagnosis, treatment and care interventions (continuum of care) shall be provided to all PLHIV. HIV care services include regular assessment of the clinical and immunological stages of infection, prevention of illness, care for opportunistic infections, preparation for ART, nutritional assessment

and counseling support, provision of safe drinking water, sanitation and hygiene, psychosocial support and prevention and management of mental health disorders. PLHIV who are receiving or who have completed their anti-tuberculosis treatment will be provided the continuum of care and support package through integrated services or strengthened referral systems. Particular attention will be paid to seriously ill patients (e.g. patients with MDR and XDR TB). Palliative care, both chronic and terminal as needed, shall be offered to ensure that patients and their families live out their lives with minimal suffering and loss of dignity, even when all available curative treatments have been exhausted.

### Recommendations

1. All TB patients who are diagnosed with HIV shall receive integrated services for prevention, treatment and care for the two conditions.
2. SNAP and NTCP shall strengthen referral and linkages to provide the continuum of comprehensive and integrated prevention, care and treatment for PLHIV who are receiving or who have completed their anti-tuberculosis treatment.

### **C.5 Provide Antiretroviral Therapy (ART) for TB patients living with HIV.**

Antiretroviral therapy (ART) improves the quality of life and greatly improves survival for PLHIV. ART prevents HIV transmission and reduces the incidence of TB thus shall be considered an integral part of the HIV and TB prevention and control program in Swaziland. Availability of ART can serve as an incentive for people to be tested for HIV. It also transforms HIV infection into a chronic condition through its positive effect on life expectancy. It is a lifelong treatment requiring a high adherence rate to achieve long-term benefits and minimize the development of drug resistance.

### Recommendations

1. ART shall be started in all HIV-positive TB patients irrespective of their CD4 counts.
2. Efavirenz shall be used as the preferred non-nucleoside reverse transcriptase inhibitor in patients starting ART while on anti-tuberculosis treatment.

# SECTION 4:

## MONITORING AND EVALUATION OF TB/HIV COLLABORATIVE ACTIVITIES

### 4.1 Targets for TB/HIV Collaborative Activities

The Millennium Development Goals (MDGs) embrace the WHO Tuberculosis targets and also aim to decrease the prevalence and death rates of TB by 50% of the estimates of the year 1990 by 2015.

Under the eNSF 2014-2018 [13], the Health Sector Response to HIV/AIDS Plan 2014-2018 [17] specific targets for TB/HIV collaborative activities have been clearly identified:

1. To increase the % of registered patients diagnosed with TB, who test for HIV, from 60% in 2007 to 95% in 2015 and 100% in 2018
2. To increase the % of incident TB cases among PLHIV who successfully completed their TB treatment from 62% in 2011 to 75% in 2015 and 85% in 2018
3. To increase the % of PLHIV enrolled in care who are tested for TB to 70% in 2015 and 90% in 2018.
4. To increase the % of HIV-positive patients screening TB-negative who are given IPT to 50% in 2015 and 70% in 2018.
5. To increase the % of estimated HIV-positive incident TB cases that received treatment for both TB and HIV from 29% in 2012 to 50% in 2015 and 85% in 2018

To achieve these preset national targets requires effective implementation of collaborative TB/HIV activities. To assure universal access to quality HIV and TB services in the country, stakeholders involved in the implementation of collaborative TB/HIV activities need to set targets and track progress towards their achievement over time. Emphasis is on strong monitoring and evaluation systems to accurately track the progress towards achieving the above targets.

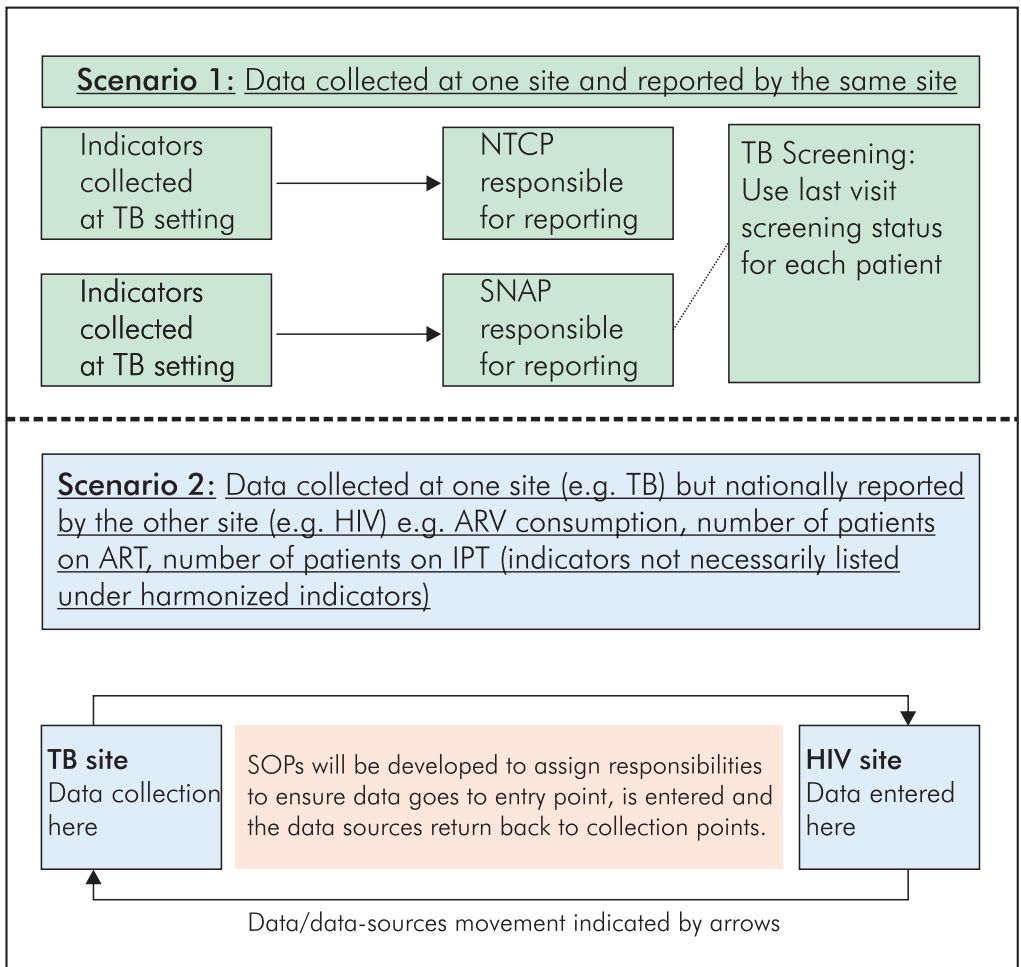
### 4.2 Monitoring and Evaluating TB/HIV Collaborative Activities

Monitoring and evaluation (M&E) provide the means to assess quality, effectiveness, coverage and delivery of collaborative TB/HIV activities. It promotes a learning culture within and across the programs and ensures continuous improvement of



individual and joint program performance. M&E involves collaboration between SNAP, the NTCP and the general healthcare system, the development of referral linkages between different services and organizations, and joint supervision. These linkages will be integrated with existing M&E systems and shall ensure confidentiality.

Harmonized indicators have been developed in line with the eNSF and the goals and objectives of TB/HIV collaborative activities contained within this document. The NTCP shall be responsible for reporting on those collected at the TB clinics while SNAP shall be responsible for those collected at HIV care, HTC, and PMTCT centers (Scenario 1 in Figure 6).



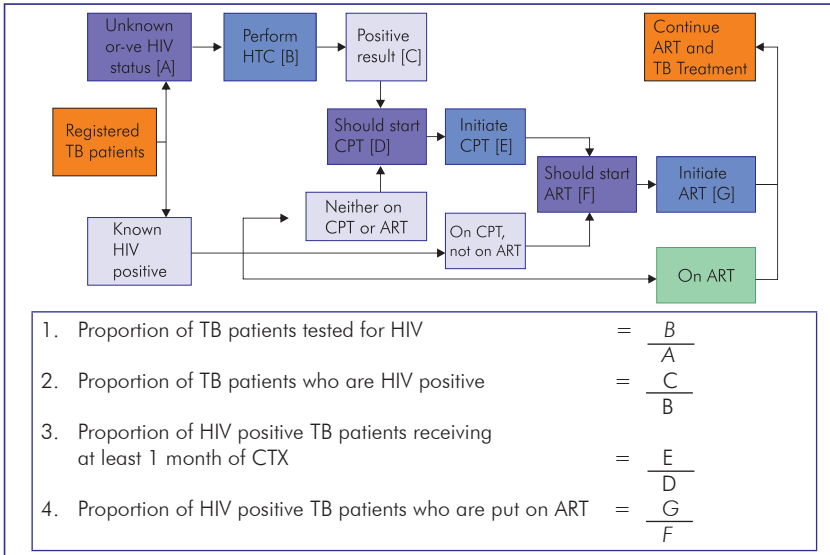
**Figure 6:** Scenarios to be considered for monitoring and evaluation of collaborative activities

It is therefore the responsibility of each national program to modify recording and reporting forms, guide regions on collection of data, analyze and disseminate information on selected indicators. Both programs will share information at national and regional level.

In addition to SNAP and NTCP's responsibilities on data collected at their respective sites, there will be a seamless flow of data between the two programmes. This is critical in scenarios where data is collected on both settings but, for planning purposes, is reported by one programme. Examples include scenarios where SNAP reports on number of patients receiving ART (including TB patients), number of patients started IPT (including those started at TB clinics- contacts under 5 years and those who completed anti-TB treatment). These data have implications on national quantification and forecasting of ARVs and INH. Pharmacy electronic systems require patients to be registered at ART clinics for them to be recorded and reported through the electronic systems. SOPs to identify the methods and responsible persons in the flow of this data that are applicable to health facilities will be developed through the collaboration of SNAP, NTCP and SID. The two scenarios considered are represented in Figure 7. The 2014 HIV care and treatment data management SOPs will provide the foundation for the development of SOPs that address the reporting of TB screening, IPT uptake as well as IPT outcomes. The last visit will be used to count a screening episodes. The denominator for proportion initiated on IPT excludes those not eligible for IPT even if they screen negative. Electronic systems shall be able to capture contraindications to IPT.

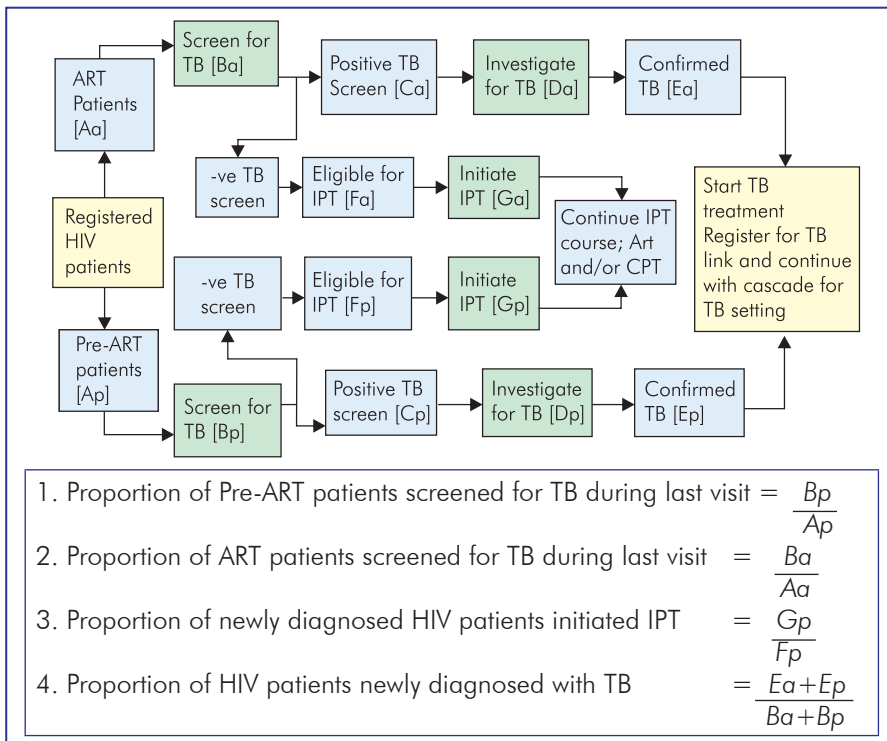
### **4.3 TB/HIV Collaboration Cascades**

Understanding the TB/HIV collaborative cascades in clinical settings provides an insight on how relevant data is collected and how the indicators arise. With the integration of TB/HIV activities ART shall offer TB-related services and TB Clinics shall also offer HIV related services to all their respective patients. Figure 8 represents the HIV cascade in TB setting.



**Figure 7: The HIV cascade in TB setting**

Figure 8 illustrates the TB cascade to be followed in HIV settings. Service providers are guided by national guidelines for such services. A summary of applicable indicators is shown in each cascade.



**Figure 8: The TB cascade in HIV setting**

## Recommendations

1. SNAP and NTCP will establish and strengthen the use of harmonized indicators and standard reporting and recording templates to collect data for monitoring and evaluation of collaborative TB/HIV activities.
2. Organizations implementing collaborative TB/HIV activities shall embrace harmonized indicators and establish a reporting mechanism to ensure that the data are captured by the national M&E system.
3. The national guidelines for monitoring and evaluation of TB/HIV collaborative activities shall be used as a basis for standardizing monitoring and evaluation of activities.

### 4.4 Description of Indicators for Monitoring

The following indicators shall be used to monitor and evaluate TB/HIV collaborative activities in Swaziland.

#### Indicator 1: Proportion of registered TB patients tested for HIV.

**Numerator:** Total number of TB patients, registered over a given time period, who are tested for HIV during their TB treatment.

**Denominator:** Total number of TB patients registered over the same given time period.

**Purpose:** To assess the uptake of HIV testing by TB patients.

**Source of data:**

1. TB unit register
2. TB treatment cards (manual)

#### Indicator 2: Proportion of TB patients who are HIV positive.

**Numerator:** Total number of newly registered TB patients (registered over a given period e.g. over a quarter) who are HIV-positive.

**Denominator:** Total number of newly registered TB patients (registered over the same given period) who were tested for HIV and included in the surveillance system.

**Purpose:** The indicator measures the burden of HIV in TB patients in any given setting. It gives an indication of the contribution that HIV is making to the TB epidemic.

**Source of data:**

1. TB diagnostic unit registers.

**Indicator 3: Proportion of HIV-positive clients, screened for TB symptoms (for the purpose of this document screening refers to the provider asking the client /patient for symptoms of TB disease, namely: cough of any duration, fever, excessive night sweats, weight loss).**

**Numerator:** Number of HIV-positive clients who were screened for TB symptoms, over a given time period.

**Denominator:** Total number of HIV-positive clients seen, over the given time period.

**Purpose:** This is a process indicator for an activity intended to reduce the impact of TB among PLHIV.

**Source of data:**

1. Pre-ART register
2. ART register
3. Chronic care files
4. APMR (Electronic Data management system)

**Indicator 4: Proportion of newly diagnosed HIV positive clients given treatment for latent TB infection.**

**Numerator:** Total number of newly diagnosed HIV-positive clients in whom active TB has been excluded, who start (given at least the first dose) treatment for latent TB infection (IPT).

**Denominator:** Total number of newly diagnosed HIV-positive clients, eligible for treatment of latent TB (IPT).

**Purpose:** To ensure that eligible HIV positive individuals are given treatment for latent TB infection and thus reduce the incidence of TB in PLHIV.

**Note:** This indicator applies to only those centers that qualify to treat latent TB infection according to the National Policy.

**Source of data:**

1. APMR (Electronic Data management system)
2. Chronic care files
3. IPT logbook

**Indicator 5: Proportion of new bacteriologically confirmed pulmonary tuberculosis co-infected with HIV registered in a specified period that are successfully treated for TB**

**Numerator:** Number of bacteriologically confirmed pulmonary tuberculosis patients who are co-infected with HIV registered during a specific quarter that is successfully treated for TB.

**Denominator:** Total number of new bacteriologically confirmed pulmonary tuberculosis patients who are co-infected with HIV that are registered in the same period

**Purpose:** evaluation of the treatment outcomes of HIV infected TB patients is used to determine the quality and effectiveness of the national TB program in reducing the burden of TB among HIV infected patients

**Sources of data:**

1. TB register
2. Quarterly reports

**Indicator 6: Proportion of PLHIV on ART, screened for TB symptoms during their last visit (for the purpose of this document screening refers to the provider asking the client /patient for symptoms of TB disease, namely: cough of any duration, fever, excessive night sweats, weight loss)**

**Numerator:** Number of PLHIV attending HIV treatment and care services who were screened for TB symptoms, during their last visit

**Denominator:** Total number of PLHIV attending ART treatment and care services during their last visit.

**Purpose:** This is a process indicator for an activity intended to reduce the impact of TB among PLHIV.

**Source of data:**

1. APMR (Electronic Data management system)
2. Chronic care files (manual)

**Indicator 7: Proportion of PLHIV attending HIV treatment and care services, newly diagnosed with TB.**

**Numerator:** Number of cases of newly diagnosed TB identified in PLHIV attending HIV treatment and care services, over a given time period.

**Denominator:** Total number of PLHIV attending HIV treatment and care services (who were screened for TB symptoms), over the same given time period.

**Purpose:** To provide information on the output of intensified TB case finding

**Source of data:**

1. APMR (Electronic Data management system )
2. Chronic care files (manual)

**Indicator 8: Proportion of HIV-positive TB patients who receive at least one month dose of co-trimoxazole preventive therapy during their TB treatment.**

**Numerator:** Number of HIV-positive TB patients, registered over a given time period, who receive (at least one dose of) CPT during their TB treatment.

**Denominator:** Total number of HIV-positive TB patients registered over the same given time period.

**Purpose:** To monitor commitment and capacity of programs to provide CPT to HIV-positive TB patients.

**Source of data:**

1. TB treatment register
2. TB patient treatment card
3. APMR (Electronic Data management system )
4. Chronic care files (manual)
5. Pharmacy refills

## Indicator 9: Proportion of HIV-positive registered TB patients given ART during TB treatment.

**Numerator:** All HIV-positive TB patients, registered over a given time period, who receive ART (are started on or continue previously initiated ART)

**Denominator:** All HIV-positive TB patients registered over the same given time period.

**Purpose:** To measure commitment and capacity of TB service to ensure that HIV positive TB patients are able to access ART.

### Source of data:

1. TB treatment register
2. APMR (Electronic Data management system)
3. TB patient treatment card
4. Chronic care files
5. ART register

## Indicator 10: Presence of TB/HIV IEC materials in TB and HIV services

**Numerator:** Total number health facilities where IEC materials on both HIV and TB, are available.

**Denominator:** Total number of TB and HIV health facilities evaluated.\*

**Purpose:** To demonstrate the commitment and capacity at National and Regional level to creating HIV awareness among people with TB, and TB awareness among PLHIV, and to promote prevention of HIV and TB.

### Source of data:

Health Facilities



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