



The Kingdom Of Lesotho

GOVERNMENT OF LESOTHO



Final Report for a Joint Review of HIV/Tuberculosis and Hepatitis Programmes

2nd December, 2017

Table of Contents

Contents

Table of Contents	2
List of Tables	5
List of Figures	6
Acknowledgements:	7
Abbreviations:	8
Executive Summary	12
Chapter 1. Country Context	19
Organization of the Report	20
Chapter 2: Background	21
Rationale:	21
Scope of the Review and Objectives	21
Review Methodology	22
Chapter 3: HIV/AIDS	24
Global Perspectives	24
National Context	25
Major Findings: Achievements, Challenges and Recommendations	29
HIV Testing Services	29
Elimination of Mother to Child Transmission of HIV	32
Voluntary Medical Male Circumcision	35
Condom Promotion and Distribution	36
HIV Prevention among Key Populations	39
Social and Behaviour Change Communication	40
Pre-exposure Prophylaxis	41
Adult ART	42
Paediatric and Adolescent HIV Care and Treatment	45
Enabling environment for the National HIV Response	47
Chapter 4. Tuberculosis	48
Global Perspectives	48
National Context:	48
Major Findings, Achievements and Challenges	51

Political Commitment	51
Case-detection	52
Treatment and Care	54
Management of Childhood TB	55
Integrated TB/HIV Collaborative activities	57
Programmatic Management of Drug-Resistant TB	59
Management of TB in High- risk groups and populations	62
Public-Private Partnership	63
Chapter 5: Situation Analysis of Viral Hepatitis Services in Lesotho	65
Background	65
Management and leadership	65
Current policies and practices	66
Hepatitis B Vaccination for Health Workers and other high Risk Groups	66
National Blood Transfusion Services	66
Viral Hepatitis testing, Treatment and Care	67
Integration of Viral Hepatitis Services	68
Hepatitis awareness, surveillance and monitoring	68
Strengths, challenges, opportunities and recommendations	68
Chapter 6: Health Systems, Community Systems and Cross-Cutting Issues	71
Financing the HIV and TB Programmes	71
Programme Governance, Coordination and Management Structures	77
Management of Human Resources for Health	80
Social Protection and Universal Health Coverage	83
Gender Equality, Human Rights and Gender Based Violence	84
Strategic Information	85
Laboratory Services	87
Procurement and Supply Chain Management	98
Community Systems	107
Annexes	113
Annex 7.1 : PSM Review Commodity Security Framework	113
Annex 7.2 : External and Internal Reviewers and Field Sites	114
Annex 7.3: List of People Interviewed	116
Annex 7.4 List of Documents Reviewed	118

Annex 7. 5 Performance Table for HIV Programme..... 119
Annex 7. 6 Performance Table for TB Programme..... 121

List of Tables

Table 1- Proportion of men and women tested in the past 12 months in Lesotho.....	30
Table 2 - TB treatment outcomes by district, 2015	55
Table 3 - Financial Flows for Public Health Sector	71
Table 4 - Trends in GOL Budget allocation to the Health Sector	71
Table 5 - Trends in recurrent health expenditures (2012 - 2016).....	72
Table 6 - Nominal overview of donor expenditure (LSL, million).....	73
Table 7 - Total health expenditure and absorptive capacity (LSL Millions).....	74
Table 8 - Recurrent allocations to health by level	74
Table 9 - Utilization of GFTAM funds over 5 years.....	75
Table 10 - HIV and Tb/DC budget utilisation	75
Table 11 - Global Fund burn rate by SRs.....	75
Table 12 - Burn rate for the New Funding Model Grant.....	76
Table 13 - Subventions to organisations in a PPP.....	78
Table 14 - MOH staffing per primary health facility.....	82
Table 15 - TB and HIV PSM performance indicator on proportion of health facilities reporting no stock out of products for HIV and TB	99
Table 16 – Rapid HIV testing kits stock status at the NSDO during the programme review period	99
Table 17 - Viral load & EID reagents stock status at the NSDO during the review period	100
Table 18 - CD4 reagent stock status at the NSDO during the review period	100
Table 19 - TB reagents & consumables stock status at the NSDO during the review period....	101
Table 20 - TB products at risk of expiry at the NSDO during the review period.....	102
Table 21 - TB products at risk of expiry during the programme review period, 2017.....	103
Table 22 - Possible types of mechanisms for monitoring PSM indicators	106
Table 23 - Recommendations for improvement of PSM indicators within programmes and for future National Strategic Plans.....	107
Table 24 - Roles of partners in community home-based care provision in Lesotho.....	109

List of Figures

Figure 1 - Map of the Kingdom of Lesotho.....	19
Figure 2 - HIV prevalence among high risk groups	25
Figure 3 - Lesotho HIV prevalence by district.....	26
Figure 4 - Trends in HIV incidence per 1,000 inhabitants (15-49 years) in selected countries in ESA (2010-2016) (UNAIDS, 2017).....	27
Figure 5 - Lesotho annual AIDS deaths, 2000-2016 Estimates.....	28
Figure 6 - Annual numbers of people tested for HIV in Lesotho, 2009-2015	30
Figure 7 - Lesotho PMTCT coverage, 2004-2016 estimates	33
Figure 8 - Lesotho MTCT rates, 2004-2016 estimates.....	33
Figure 9 - Trends in voluntary medical male circumcision, 2012-2016	35
Figure 10 - Percentage of men and women with 2+ partners using condoms, LDHS 2009/2014	37
Figure 11 - Percentage of women and men 15-49 years, with multiple partners and condom use LDHS 2014.....	37
Figure 12 - Number of PLHIV receiving ART, 2010-2016.....	43
Figure 13 - ART coverage in selected countries in the Eastern and Southern Africa region, 2010 - 2016	43
Figure 14 - Lesotho paediatric, adolescents and adult ART coverage.....	46
Figure 15 - Lesotho TB incidence, 2000-2015	49
Figure 16 - TB mortality in Lesotho, 2000-2015.....	50
Figure 17 - TB case notifications in Lesotho, 1980 - 2015	50
Figure 18 - Bacteriologically confirmed TB versus initiated on Treatment in 2016.....	53
Figure 19 - Annual numbers of PLHIV initiated on IPT in Lesotho, 2013-2016	57
Figure 20 - Lesotho TB/HIV indicators, 2011-2015	58
Figure 21 - Number of DR-TB patients enrolled under treatment, 2007-2016	61
Figure 22 - MDR-TB outcomes in Lesotho, 2009-2013	62
Figure 23 - Courtesy Mafeteng Occupational Health Service Centre	63
Figure 24 - Hepatitis B coverage in Lesotho, 2006-2016.....	66
Figure 25 - Prevalence of blood transfusion transmissible infections in Lesotho, 2007-2016	67
Figure 26 - Staffing levels for MOH, 2014-2016.....	81
Figure 27 - MOH staffing levels	82
Figure 28 - Laboratory support by partners in Lesotho divided into Scale-Up and Sustainable Districts	87
Figure 29 - Sample and report transport for scale up districts, October 2016-September 2017	88
Figure 30 - Sample and report within Maseru, October 2016-September 2017	88
Figure 31 - National sample transport coordinated by Riders 4 Health.....	90
Figure 32 - Number of viral load tests performed at the NRL versus target viral load tests as per the NSP & viral load scale-up plan.....	92
Figure 33 - Lesotho TB diagnostic algorithm	97
Figure 34 - Second-line TB medicine stock status using QuantTB software, September 2017	101
Figure 35 - First-line TB medicines using QuantTB software, September 2017	102

Acknowledgements:

The Lesotho Ministry of Health would like to acknowledge the exemplary leadership and commitment of its senior management in this Joint Review of the HIV, TB and Hepatitis Programmes. Special gratitude go to the World Health Organization and the Global Fund for providing the much needed resources for the review. To the team of External and Internal Reviewers; this work would not have been successful without your dedication, passion and commitment. We are so grateful to each one of you. MOH appreciates the support rendered by its numerous stakeholders and partners who gave their time, personnel and other resources towards this noble course. We would like to thank representatives from all districts and health facilities who provided valuable input that informed the review. Special mention and appreciation goes to all the patients and clients that sacrificed their time for the interviews.

Abbreviations:

ADR	Acquired Drug Resistance for HIV
AIDS	Acquired Immuno-Deficiency Syndrome
AIS	AIDS Indicator Survey
AJR	Annual Joint Review
ANC	Ante Natal Care
APSO	Adherence and Psychological Support Officer
ART	Antiretroviral Therapy
AYPLHIV	Adolescents and Young People Living with HIV
BCC	Behaviour Change Communication
BMI	Body Mass Index
BSS	Behavioural Surveillance Survey
CBO	Community Based Organisations
CCAC	Community Councils AIDS Committees
CCM	Country Coordinating Mechanism
CCP	Comprehensive Condom Programming
CGPU	Child and Gender Protection Unit
CGPU	Child and Gender Protection Units
CHAL	Christian Health Association of Lesotho
CHBC	Community Home Based Care
CITC	Client Initiated Testing and Counselling
CNR	Case Notification Rate
COAG	Cooperative Agreement
CSE	Comprehensive Sexuality Education
CSO	Civil Society Organizations
CSS	Community Systems Strengthening
DAC	District AIDS Committee
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DST	Drug Susceptibility Testing
EID	Early Infant Diagnosis
EMR	Electronic Medical Record
EPI	Expanded Programme on Immunization
EQA	External Quality Assurance
FBO	Faith Based Organizations
FDA	US Food and Drug Administration
FP	Family Planning
GDP	Gross Domestic Product
GF	Global Fund to Fight AIDS Tuberculosis and Malaria
GLI	Global laboratory Initiative
GOL	Government of Lesotho

HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HCWS	Health Care Workers
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
HIV DR	HIV Drug Resistance
HMIS	Health Management Information Systems
HRH	Human Resources for Health
HTS	HIV Testing Services
IBBS	Integrated Bio-behavioral Surveillance
IC	Infection Control
ICF	Intensified (TB) Case Finding
IEC	Information Education and Communication
INGO	International Non-Governmental Organization
IP	Implementing Partner
IPC	Interpersonal Communication
IPPA	Independent Private Practitioners Association
IPT	Isoniazid Preventive Therapy
IPV	Intimate Partner Violence
LBTS	Lesotho Blood Transfusion Services
LCS	Lesotho Correctional Services
LDHS	Lesotho Demographic and Health Survey
LENASO	Lesotho Network of AIDS service organizations
LEPHIA	Lesotho Population-based AIDS Indicator Assessment
LIS	Laboratory Information System
LMIS	Logistics Management Information System
LPA	Line Probe Assay
M&E	Monitoring and evaluation
MCHC	Maternal and Child Health Care
MCP	Multiple Concurrent Partners
MDG	Millennium Development Goals
MDR-TB	Multi-Drug Resistance Tuberculosis
MOET	Ministry of Education and Training
MOF	Ministry of Finance
MOH	Ministry of Health
MOHSW	Ministry of Health and Social Welfare
MOJCS	Ministry of Justice and Correctional Services
MOLE	Ministry of Labour and Employment
MOLGC	Ministry of Local Government and Chieftainship
MOP	Ministry of Police
MOSD	Ministry of Social Development
MOT	Modes of Transmission (study)

MSM	Men who have sex with Men
MTCT	Mother To Child Transmission
NAC	National AIDS Commission
NDSO	National Drug Service Organization
NGO	Non-Governmental Organization
NSDP	National Strategic Development Plan
NSP	National Strategic Plan
NSPVC	National Strategic Plan for Vulnerable Children
NTCP	National Tuberculosis Control Programme
NTP	National TB Programme
OI	Opportunistic Infections
OVC	Orphans and Vulnerable Children
PDR	Pre-Treatment Drug Resistance
PEP	Post Exposure Prophylaxis
PEPFAR	President's Emergency Programme for AIDS Relief
PHC	Primary Health Care
PHDP	Positive Health Dignity and Prevention
PITC	Provider-initiated Testing and Counselling
PLHIV	People Living with HIV and AIDS
PMTCT	Prevention of Mother to Child Transmission (of HIV)
PNC	Post Natal Clinic
POC	Point of Care
PPP	Public-Private Partnership
PreP	Pre-exposure Prophylaxis
PSI	Population Services International
PSM	Procurement and Supply Management
PWD	People With Disability
PWID	People who inject Drugs
RBM	Results Based Management
RH/FP	Reproductive health / Family planning
S&BC	Social and Behaviour Change
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAM	Services Availability Mapping
SBCC	Social and Behaviour Change Communication
SDGS	Sustainable Development Goals
SGBV	Sexual and Gender Based Violence
SLIPTA	Stepwise Laboratory Quality Improvement Process Towards Accreditation
SOA	Sexual Offences Act
SOA	Sexual Offences Act
SRH	Sexual and Reproductive Health

STI	Sexually Transmitted Infections
SW	Sex Worker
TasP	Treatment as Prevention
TAT	Turnaround Time
TB	Tuberculosis
TIMS	TB in Mines
TTI	Transfusion Transmissible Infections
TWG	Technical Working Group
UNAIDS	United Nations Joint Programme on HIV and AIDS
UNDP	United Nations Development Programme
UNGASS	United Nations General Assembly Special Session
USG	United States Government
VL	Viral Load
VMMC	Voluntary Medical Male Circumcision

Executive Summary

Background:

The Lesotho Ministry of Health commissioned a Joint Review of HIV, TB and Hepatitis Programmes that was carried out from 23rd October to 3rd November, 2017. Both the HIV and TB Programme National Strategic Plans are ending in 2018. The overall objective of this review was to inform the Ministry of Health and partners on progress made in implementing HIV and TB programmes with the view to providing strategic direction and focus for the next national strategic plan. A situational analysis for the Hepatitis programme was also conducted to assess the level of programme implementation.

The **specific objectives** of the review were:

- To review progress towards reaching national targets for HIV and TB as defined in the TB National Strategic Plan (2014 – 2018), the National HIV Strategic plan (2011/12 – 2017/18) and the National Sexual Reproductive Health Strategic Plan (2014 – 2018)
- To review the level of integration of management and services between HIV, TB and PMTCT Programmes at all levels
- To assess the level of decentralization of service delivery and synergies with other health programmes such as those for child, maternal, sexual and reproductive health as well as mainstreaming of HIV in the development sector
- To assess quality and effectiveness of HIV and TB services and the extent to which previous reviews findings and recommendations and emerging science are incorporated into delivery of HIV and TB services
- To assess existing capacities and challenges of cross-cutting systems for service delivery such as supply chain, information systems, laboratory and health workforce including community systems.
- To assess gender, equity and human rights considerations for the HIV and TB responses
- To analyze current investments, value for money and investment priorities for the short and medium term for the TB and HIV programmes.
- To conduct a baseline assessment of Viral Hepatitis burden and services and make recommendations for the development of a national control plan
- To evaluate arrangements and mechanisms for engaging / participation of other stakeholders, such as representatives from other sectors (e.g., justice, labour, social protection), NGOs, other civil society organizations and affected communities in programme activities
- To define steps to be taken to improve the programmes' performance, including changes in strategic direction and focus.

The review methods included data collection through desk review of strategic documents, interviews with key informants using semi-structured questionnaires, and direct observations at purposively selected health facilities across all the tiers of the health system covering both public and private entities, facilities in rural and urban settings spanning across all the ten districts.

Main Findings: HIV and AIDS

Lesotho is one of the countries in the world hardest hit by the HIV epidemic. The estimated HIV population in Lesotho has been increasing by 47% from 202,313 in 2000 to 327,427 in 2016. Globally, the country has the second highest **HIV prevalence** among adult men and women 15-49 years at 25% in 2016. Although the epidemic is generalized; certain sub-populations have higher HIV risk including sex workers (79.1%), factory workers (42.7%); MSMs (32.3%) and prison inmates (31%) needing special attention in order to bring the epidemic under control. Despite the

decline in HIV incidence from 3.44% in 2000 to 2.41% among the 15-49 year age group in 2016 (based on modelling); HIV incidence in Lesotho remains much higher than its neighbors (Namibia, Botswana and Swaziland).

The **scale up of HIV care and treatment** services contributed to a 37% decline in AIDS related deaths from a peak of 14, 804 in 2006 to 9,276 in 2016. The decline in AIDS related deaths was highest among children 0-14 years of age (55%) and lowest among young people aged 15-24 years (1%). Sadly, more than two-fold increase in AIDS related deaths was noted among adolescents 10-19 years between 2000 and 2016. Lesotho has rolled out **HIV Testing Services** to all its public health facilities with over 80% of people tested within health facilities and the remainder at community level. There has been more than three-fold increase in the number of people tested per annum between 2011 and 2016. Of note is that the country failed to achieve the target of 65% with fewer men (36.4%) aged 15-49 years compared to females (58%) of the same age having been tested in the past 12 months with knowledge of HIV status (LDHS, 2014). The country has relevant policies and guidelines adapted from global evidence-based normative guidelines. HTS services were well integrated at hospitals across the various entry points. MOH has recommended use of daily **oral Pre-exposure Prophylaxis** in the national ARV Guidelines (2016). Currently there is no operational plan to guide a systematic rollout for PrEP and hence only few clients (853) predominantly in the PEPFAR supported sites had accessed PrEP between June 2016 and August 2017.

The **adoption of 'Test and Treat' Policy** in 2016 saw a rise in ART coverage for adults and children from 42% in 2015 to 57% in 2016. The implementation of this policy directive was coupled with adaptations of differentiated service delivery (DSD) models to include- less frequent clinic visits, multi-month prescriptions (3-6 months) and community delivery of ARVs. Despite these efforts, the country has the least ART coverage in comparison with its neighbours- Botswana (83%) and Swaziland (79%). In contrast, the preliminary report from LePHIA reported a staggering 90% of PLHIV receiving ART- much higher than that reported from programme reports. It is hoped that the country will interrogate and triangulate the data to meaningfully inform the programme. Programme ART coverage data displays wide variations across districts. Adult ART coverage ranged from 37% in Qacha's Nek to 66% in Mphahle's Hoek whilst paediatric ART coverage ranged from 30% in Thaba-Tseka to 75% in Mokhotlong. Of major concern was the limited national programmatic management capacity of the HIV programme, where there was non-existent HIV Programme Manager. If the country is serious regarding curtailing the AIDS epidemic; this glaring gap needs to be filled with immediate effect. There are indications that the country will transition towards Dolutegravir-based first line regimen in the near future, however, there was no clear transition plan.

Recommendations:

- The MOH with support from partners should immediately fill the position of the HIV Manager for effective programme management, coordination and resource mobilization.
- The new NSP should prioritize HIV prevention strategies targeting higher risk groups given the high rates of new HIV infections in the country. MOH should mobilize adequate resources for HIV prevention.
- MOH/NAC and partners should consider conducting a 'Modes of Transmission' study to determine the sources of new HIV infections in Lesotho so that interventions are better targeted.

- The country should prioritize and scale up targeted HIV testing including index partner testing, innovative HIV self -testing should target men and high risk groups such sex workers and factory workers in order to fast track towards achieving the 1st 90.
- The new NSP should prioritize and provide a clear strategy and phased implementation plan for PrEP rollout as part of Combination HIV prevention; given the unacceptable high HIV incidence bedevilling the country.
- The MOH should prioritize and intensify ART interventions in the districts with lowest ART coverage. District specific implementation bottlenecks need to be identified and addressed accordingly.
- The MOH and partners should carefully plan the introduction of Dolutegravir-based regimens prioritizing treatment naïve patients and those already on treatment who cannot tolerate current first line medicines. Stable ART patients on Efavirenz- or Nevirapine-based ARVs should continue on the current regimens until a time when current medicines have been exhausted and DTG-based regimens have been secured in the medicine pipeline. Meanwhile, medicine losses and expiries should be minimized.

Main Findings: Tuberculosis

Lesotho is among the top 20 countries with highest TB and TB/HIV incidence rates globally. Some progress has been noted in reducing the TB incidence and mortality in the past 15 years. According to the Global TB Report of 2017, the estimated incidence was 724 per 100,000 population. In the same year, TB case notification rate was 342/100,000. Therefore, the treatment coverage was only 46% in 2016 and the huge gap between the case notification rate (CNR) and the estimated incidence meant that many TB cases go undiagnosed and untreated. The rate of initial defaulters is high (cases diagnosed of TB but not registered for treatment) at 22% coupled with lack of an effective system to track these patients. It is anticipated that the planned TB prevalence survey will shed more light into the epidemiology of TB in Lesotho and better guide effective interventions to find the missing cases. In addition, TB mortality in the country remains unacceptably high. Whereas mortality among TB/HIV co-infected patients is falling; mortality among HIV negative TB cases has remained stagnated since 2005. The reduction in mortality among co-infected cases may be attributable to the effectiveness of ART. The current trends in incidence and mortality put the country at risk of missing the End TB Strategy targets. Treatment success for new and relapse TB patients has been below 80% since 2008 and fallen far below the national target of 85% according to the NSP. Neither did any of the districts attain the 85% target. The challenges experienced in TB case management and the ascertainment of treatment outcomes partly emanate from frequent movement of miners to and from South Africa and across districts.

Political will and commitment to the NTP programme is exemplified through its procurement of all first line TB medicines and government's policy of free TB services to patients. However, NTP is not formally established within the MOH human resources structure. Currently, the existing technical staff is inadequate to cover all the key programme areas including Drug-resistance TB, Childhood TB and Paediatric TB Care. The NTP is commended for regularly updating its National TB Strategy (NSP) in line with the current global TB strategy. Of note was that the country adopted use of highly sensitive molecular GeneXpert technology as the first TB diagnostic tool for all presumptive TB cases. An increase in the proportion of bacteriologically confirmed TB cases was observed along with the introduction and rollout of GeneXpert testing since 2013. NTP had introduced the implementation of systematic TB screening for all patients/clients at every point of

entry into health care facilities regardless of presenting symptoms. However, for the HIV negative clients, the current TB symptom screening tool primarily focuses on cough for two weeks or longer and is therefore likely to have low sensitivity leading to missed TB cases.

As a good practice, the reviewers noted the country had established a nation-wide well-functioning system for sample transportation through 'Riders for Health', which offers weekly transportation of sputum samples and laboratory test results between the health care facilities and diagnostic centres. However, the long turnaround time for both Xpert and smear microscopy for samples transported to the laboratory from health centres, which was normally between 2 days and up to 2 weeks in some settings, needs to be urgently attended to.

The NTP has developed Childhood TB guidelines and a training curriculum for TB care providers. Diagnosis, treatment and care of paediatric TB are provided by Baylor clinic network, especially for HIV-infected TB patients, with high quality services provided. However, a low childhood TB case detection rate of 3.3% of all notified cases of TB in the country was reported in 2016. Many health care workers have limited capacity and confidence to diagnose and manage childhood TB; this was more evident in health centres contributing to the low childhood TB detection rate. The country adopted the Isoniazid Preventive Therapy (IPT) programme which is being offered as part of the HIV care package to eligible PLHIV. In 2014; over 54,808 PLHIV were initiated on IPT with figures dropping to 21,845 and 19,880 in 2015 and 2016 respectively following shortages of Isoniazid. Staff at some facilities visited indicated that treatment completion rates were unsatisfactory due partly to reluctance of patients to take IPT.

Recommendations

- The MOH should formally establish the National TB Programme with a well-defined structure from the central to the sub-national levels.
- It is important for the programme to develop and disseminate a more sensitive TB symptom screening tool with consideration of expanding symptom screening criteria to include cough of any duration (regardless of HIV status), producible sputum or adding chest X-ray as a screening tool where it is feasible. It will be prudent for the programme to develop an Operational Guide for screening and diagnosing TB in high risk groups such as prisoners, miners, diabetic patients, PLHIV and children.
- The MOH should develop and implement a capacity building plan including on the job training and mentorship activities targeting TB care providers so as to improve the quality of TB services and treatment outcomes. NTP and partners (e.g. Baylor) should continuously build the capacity and confidence of health care personnel at all levels to improve screening and diagnosis of childhood TB and optimization in the management of child contacts. The programme should ensure that presumptive child TB patients undergo the WHO recommended approach to diagnose TB in children taking into account the limitation of GeneXpert.
- MOH should improve the coordination for the management of migrant patients (between districts and cross-border) and reduce the numbers of patients not evaluated for treatment outcomes.
- MOH should address barriers to, and scale up IPT programme for PLHIV. An advocacy and communication plan should be developed to raise awareness of the IPT programme. Adequate supplies of Isoniazid should be sourced to match with programme needs. The HIV

programme should take ownership of the IPT programme including recording and reporting of programme data.

Main Findings: Hepatitis Situational Analysis

There are existing policies which contribute to prevention and control of viral hepatitis. These include policies on childhood vaccination at 6, 10 and 14 weeks after birth; screening of blood and blood products for Hepatitis B and C, HIV, Syphilis and management of HIV/HBV co-infected patients which is articulated in HIV Prevention and Treatment Guidelines. Of note was that Viral hepatitis did not exist as a programme in Lesotho. However, some activities relating to viral hepatitis were captured in different programmes including the Expanded Programme on Immunization (EPI), the national blood transfusion services, the training in infection control and prevention and laboratory services.

The ministry did not have a viral hepatitis focal person, no strategies and plans to address viral hepatitis. The senior management, health care workers, civil societies and partners had limited knowledge on viral hepatitis. There was neither strategic/operation plan nor committed budget to support viral hepatitis activities.

Recommendations:

- In the short term; the ministry should appoint a Viral hepatitis focal person and consider placing viral hepatitis within the established HIV programme (not as a vertical programme) within MoH. Governance structures at national level such as a Strategic Technical Advisory Group (STAG) and a Technical Working Group (TWG) should be established. WHO and partners can facilitate the development of a National Strategic Plan on viral hepatitis.
- In the medium term; the ministry should strengthen advocacy, resource mobilization and community engagement for a sustainable national viral hepatitis response and develop relevant policies, guidelines and tools to support national response to viral hepatitis.
- MOH in consultation with partners and stakeholders should update national policies to guide vaccine administration among HCWs and other high risk groups.

Main Findings: Health Systems, Community Systems and Cross Cutting Issues

A significant amount of resources have been invested by partners into the HIV and TB programmes however, the effectiveness in the use of these resources requires great improvement. These investments have largely been channeled towards HIV and TB care and treatment programmes but to a lesser extent into HIV prevention interventions. The available funds if used efficiently, could meaningfully help curb the scourge of the HIV and TB epidemics however, of concern was the poor absorptive capacity for available resources to support programme scale up. The multi-sectoral approaches were revitalized by re-establishing the National AIDS Council (NAC) in 2016, having been disbanded 5 years ago. The re-establishment of NAC and therefore reclaiming their mandate may have caused some undue tensions that require mending. NAC is still at its infancy and has not been able to effectively coordinate its partners.

The burn rate for Global Fund resources has been low. Some of the underlying causes included difficulties in accessing the funds due to stringent requirements and lengthy bureaucratic processes and hence managers opted to pursue alternative funding sources. According to the Human resource plan for 2017, 60% of laboratory positions are vacant as a result; the workload

for current staff in facilities is high. Despite this high work load, staff is very hard working and motivated. The country is rolling out routine viral load testing for the diagnosis and monitoring of treatment failure in people living with HIV on antiretroviral treatment with several partners supporting this initiative. Sadly, huge backlog of over 14,000 samples have not been processed some of which are stored at sub-optimal conditions compromising on sample integrity. The current backlog for viral load testing was due to multiple causes including reagent stock outs reported in June 2016, inconsistent adherence to the viral load testing algorithm by clinicians as well as operational issues.

The government of Lesotho progressively and admirably moved to finance 100% of all first line TB medicines and 70% of all required ARV medicines as per FY2017/2018 budget. The creation of the MOH Supply Chain Coordination Unit improved the standardization and reliability of national quantifications. The NDSO supply turn-around time not exceeding seven working days from receipt of regular orders and two working days for emergency orders is very impressive. Review of the availability of ARVs and test kits at health facilities revealed no stock-outs of the products at most facilities. Of note was that the country had moved on with planned shipments for Dolutegravir-based ARVs as the preferred first line without adequate transitioning plan presenting risks to expiries of existing medicines. Regarding stock status for HIV viral load and Early Infant Diagnosis supplies at NDSO level indicated that nearly all the products were on the verge of being stocked out and there were no firm orders in the pipeline, despite funding being available at MoH from partners. Stock outs at NDSO of First line TB medicines were noted at central level although no correlation was seen at facility level during the field visits. The absence of a fully functional national drug regulatory agency has created gaps in ensuring registration, product quality monitoring and coordination of pharmacovigilance at all levels. Inadequate system for monitoring and reporting of stock level at facility level in the country creates gaps in adequately knowing national stock level picture for all the products beyond NDSO level. Gaps exist in human resource positions within the Disease Prevention and Control department creating stiff competing priorities impacting adversely on programme performance. An example is where the proportion of filled positions in both the department of DC and the HIV programme is 31/72 (43%). Twenty (20) out of 35 (57%) staff in department of DC are partner supported, especially the M&E, surveillance officers and counsellors.

Recommendations:

- NAC should be given the space and resources to operate and fulfil its mandate of coordinating the multi-sectoral response. Role clarity between NAC and MOH should be clearly spelt out.
- The CCM should facilitate the engagement of all parties involved (MOH and MOF) in the ordering and procurement of goods and services and devise an efficient and seamless mechanism addressing all the identified challenges that hamper movement of funds, in order to improve Global Fund implementation rate and grant performance. Capacity building initiatives should be considered for the sub-recipients on standard operating procedures.
- With immediate effect, the MOH/ Laboratory department should clear viral load testing backlog and cease storage of samples in the cold room and procure frost free -20 °C and -80° C freezers for storage of plasma samples waiting testing. All sample riders should be retrained on safe handling of biological samples using the WHO guideline. The MOH should hire laboratory personnel to support HIV, TB and hepatitis diagnostics services in line with the NSP and the proposed laboratory HR staffing plan.

- The pharmaceutical directorate should be supported to strengthen the function of comparative drug registration and quality assurance in the absence of a fully functional registration and import control processes at national level. The integrated LMIS system should be updated and expanded to collect facility level stock status and consumption data for improved monitoring and decision making.
- MOH should lobby the MOF and partners to fill all critical positions within the HIV and TB programmes for effective delivery of programmes' mandate and to reduce staff burn out.

Lesotho holds one of the highest literacy rates in Africa, in part because Lesotho invests significantly in education. According to recent estimates, 85% of those older than 14 are literate. Unlike in most other countries, in Lesotho female literacy (94.5%) exceeds male literacy.

With a country total Gross Domestic Product (nominal) of USD 1.9 billion, per capita is estimated at USD 983⁴ while about 40% of its population lives below the international poverty datum line of USD 1.25 per day⁵. The **economy of Lesotho is based on agriculture, livestock, manufacturing and mining**, and depends heavily on inflows of workers' remittances and receipts from the Southern African Customs Union (SACU)⁶. The majority of households subsist on farming. The formal sector employment consists of mainly the female workers in the apparel sector, the male migrant labour, primarily miners in South Africa for 3 to 9 months and employment in the Government of Lesotho (GOL).

The health delivery system is organized such that there are 236 health facilities in the country with 1 referral hospital, 2 specialized hospitals, 18 general hospitals, 4 primary hospital, 4 filter clinics and 207 health centers⁷. In total 180 of these facilities belong to MoH and Christian Health Association of Lesotho (CHAL). Forty percent (40%) of the health centres and 58% of the hospitals are owned by the MoH. Thirty Eight percent (38%) of the health centres and the same proportion (38%) of the hospitals are owned by CHAL. The Health Centres constitute the first point of care and this reduces patient load at district and referral hospitals. About 90% of the private for profit health facilities are situated in the four large districts of Maseru, Berea, Mafeteng, and Leribe. Some non-governmental organizations (NGOs) run clinics also complement government facilities in the provision of health services.

Organization of the Report

This report is organized in chapters that capture major findings from the review. Chapter 1 reports on issues pertaining to country context at macro level following an environmental scan. Chapter 2 delves into the rationale, scope of the review, objectives as well as the methodology used to carry out the joint review. Chapters 3 to 5 presents broad programme areas that are structured in a manner that each section captures the global perspectives, national epidemiological context, and key findings including achievements, challenges and recommendations. Specifically Chapter 3 covers HIV and AIDS issues including HIV Testing Services, Pre-exposure Prophylaxis, Adult HIV Care and Treatment, Paediatric and Adolescent HIV Care and Treatment, Elimination of Mother to Child Transmission of HIV, Voluntary Medical Male Circumcision, Condom Promotion and Distribution, HIV Prevention among Key Populations, Social and Behaviour Change Communication and Enabling environment for the National HIV Response. Chapter 4 covers Tuberculosis Control, including TB/HIV Co-management and Service Integration, Chapter 5 covers the Situational Analysis of the Hepatitis Programme, while Chapter 6 covers health systems, community systems and cross-cutting issues. The latter includes Procurement and Supply Chain Management and Laboratory Services among others. The annexes include list of reviewers, lists of people interviewed and facilities visited.

⁴ Lesotho International Monetary Fund.

⁵ Human Development Indices Archived 12 January 2012 at the Wayback Machine., Table 3: Human and income poverty, p. 35. Retrieved 1 June 2009

⁶ "World bank Lesotho: Country Brief". Archived from the original on 31 March 2014. Retrieved 3 March 2012.

⁷National Health Sector Strategic Plan 2012-2017 page 10

Chapter 2: Background

Rationale:

The Government of the Kingdom of Lesotho has been implementing national strategic plans for HIV & AIDS and TB that are coming to an end in 2018. The country's health service delivery is currently guided by the National Health Policy (2011) and the National Health Strategic Plan 2012/13-2016/17. These overarching health sector strategy and policy take into account the following national, regional and global concerns and/or agreements:

1. Lesotho Vision 2020 and the National Strategic Development Plan.
2. Implementation of the International Health Regulations (2005) especially following the experience in the response to the Ebola Virus Disease Outbreak of 2014.
3. The health and health related Sustainable Development Goals.

In order to assess the progress made in the implementation of the plans and achievement towards set objectives and targets; the Government has sought technical guidance from the World Health Organization Regional Office for Africa to lead the conduct of an external joint review of these programmes and also to conduct a situation analysis of Viral Hepatitis in the Kingdom of Lesotho. The findings are anticipated to feed into the development of successor strategic plans in the coming year, and to inform the development of funding proposals to potential funding agencies, and the Global Fund grant making processes (as recommended by the Global Fund Technical Review Panel). The review took place from 23rd of October – 3rd of November 2017.

Scope of the Review and Objectives

The overall objective of the review is to inform the Ministry of (MOH) and partners on how well the TB and HIV Programmes have performed and what best practices, challenges and opportunities exist; and recommend approaches for improving the performance and impact of the programmes. The review is also meant to assess the situation of viral hepatitis in the country.

Specific Objectives

The Review was carried out to meet the following ten specific objectives:

- 1) To review progress towards reaching national targets for HIV and TB as defined in the TB National Strategic Plan (2014 – 2018), the National HIV Strategic plan (2011/12 – 2017/18) and the National Sexual Reproductive Health Strategic Plan (2014 – 2018).
- 2) To review the level of integration of management and services between HIV, TB and PMTCT Programmes at all levels,
- 3) To assess the level of decentralization of service delivery and synergies with other health programmes such as those for child, maternal, sexual and reproductive health as well as mainstreaming of HIV in the development sector
- 4) To assess quality and effectiveness of HIV and TB services and the extent to which previous reviews findings and recommendations and emerging science are incorporated into delivery of HIV and TB services.
- 5) To assess existing capacities and challenges of cross-cutting systems for service delivery such as supply chain, information systems, laboratory and health workforce including community systems.

- 6) To assess gender, equity and human rights considerations for the HIV and TB responses
- 7) To analyze current investments, value for money and investment priorities for the short and medium term for the TB and HIV programmes.
- 8) To conduct a baseline assessment of Viral Hepatitis burden and services and make recommendations for the development of a national control plan
- 9) To evaluate arrangements and mechanisms for engaging / participation of other stakeholders, such as representatives from other sectors (e.g., justice, labour, social protection), NGOs, other civil society organizations and affected communities in programme activities.
- 10) To define steps to be taken to improve the programmes' performance, including changes in strategic direction and focus.

Review Methodology

Data collection methods

The review was conducted using a combination of methods including desk review (Annex 7.4 List of Documents Reviewed) of national strategic plans, policy, guidelines and other relevant documents, interviews using standardized questionnaires, exit interviews with some service beneficiaries, and direct observations in health facilities at central, district and lower levels through field visits (Annex 7.3 List of People Interviewed). In addition to the field work, a TB Epidemiological Review⁸ was already undertaken earlier in the year whose findings complemented findings from the joint field work. Outputs from both of these activities fed into the fuller picture of the review.

Review teams

The review was conducted by a mixture of international and local experts in HIV & AIDS, Health systems, TB, PMTCT, viral hepatitis, and consistent with the needed skills mix implied by the broad scope of the programmes being reviewed (Annex 7.2 External and Internal Reviewers). Five teams made up of external and internal reviewers were deployed to central and district levels, each comprising experts in the areas of focus for the review. A small sixth team was constituted to focus on viral hepatitis related issues.

Sampling of Facilities and institutions

Health facilities were purposely selected, taking into consideration a mix of public and private ownership, rural and urban settings, and a mix of levels of the health system. All public district hospitals were purposely sampled, and at least one mission hospital belonging to the Christian Health Association of Lesotho (CHAL) per district. In addition, at least two public health centres and one private health centre were randomly selected, as well as one government and one CHAL health post. All 10 districts in Lesotho were visited by review teams.

A sample of collaborating partners such as NGOs (international and local) and Civil Society Organizations (CSOs) were also visited informed by a recent *'Mapping of civil society organisations that provide HIV and AIDS services'*. We deliberately selected organisations across the spectrum of HIV and TB services where CSOs had a comparative advantage including those providing interventions at community level. The central level team conducted interviews with policy makers in government, and representatives from the donor community, partner organisations involved in the work of the programmes under review. In addition, the central team visited some health facilities in Maseru district, specialized centres for managing drug-resistant TB and the TB national reference laboratory.

⁸ Lesotho TB Epidemiological Review and Impact Analysis and Standards and Benchmarks Report, May 2017

Study Limitations:

The Joint review mission for HIV/TB and Hepatitis Programmes in Lesotho was carried out over a two week period and covered several health programmes and hence the exercise was heavily time constrained. The PMTCT programme was recently reviewed comprehensively and therefore, the current review deliberately focused on Prong 3 and 4 for PMTCT given their close relationship with the HIV treatment programme.

Chapter 3: HIV/AIDS

Global Perspectives

The **Vision of the Global Health Sector Strategy on HIV**⁹ is ‘Zero new HIV infections, zero HIV-related deaths and zero HIV-related discrimination in a world where people living with HIV are able to live long and healthy lives’. The **Goal is to End of the AIDS epidemic** as a public health threat by 2030 within the context of ensuring healthy lives and promoting well-being for all at all ages. Ambitious global targets have been set to reduce new HIV infections to less than 500 000 by 2020. The **fast track HIV treatment targets** are encompassed in this goal with the aim of ensuring that *90% of people living with HIV are tested and know their status; 90% of people living with HIV who know their status are on treatment and 90% of PLHIV on treatment are virally suppressed by 2020*. According to UNAIDS, there were an estimated 36.9 million people living with HIV in 2016, 3.3 million of whom were children below the age of 15 years¹⁰.

Globally the scale-up of Antiretroviral therapy has been the main contributor to a 48% decline in deaths from AIDS-related causes, from a peak of 1.9 million in 2005 to 1.0 million in 2016. The number of children (aged 0–14 years) dying of AIDS-related illnesses has been nearly cut in half in just six years, from 210 000 in 2010 to 120,000 in 2016. Global efforts to strengthen HIV prevention and treatment programmes are also reducing the transmission of HIV. Since 2010, the annual number of new HIV infections (all ages) has declined by 16% to 1.8 million. The pace of decline in new HIV infections, however, is far too slow to reach the Fast-Track Target agreed upon by the United Nations General Assembly in 2016: fewer than 500 000 new infections per year by 2020. The pace of decline is still slow and varied by age group and between men and women.

Remarkable progress has been made towards achieving the 90–90–90 targets. More than two thirds of all people living with HIV—an estimated 70% knew their HIV status in 2016. Among those who knew their HIV status, 77% were accessing antiretroviral therapy, and 82% of people accessing treatment had suppressed viral loads. The global attainment of all three 90s by 2020 is both feasible and reachable if gaps across the HIV testing and treatment cascade are aggressively addressed. **Critical areas for fast track include-** The game-changing potential of pre-exposure prophylaxis; innovations to reach 80% coverage target for VMMC in priority countries; keeping male and female condoms as the mainstay for HIV prevention; innovative approaches to expand the number of PLHIV who know their status through HIV self- testing and community-based testing; filling in the treatment gaps and implementation of effective strategies to maximize treatment adherence and retention in care including differentiated service delivery approaches.

Eastern and Southern Africa is the region mostly affected by HIV and AIDS. AIDS-related mortality has declined by 42% between 2010 and 2016 largely attributed to Antiretroviral therapy scale up (UNAIDS Data, 2017). AIDS-related deaths continue to be the main cause of death in the region and especially among young women and girls 15-24 years of age. On the other hand, the region in comparison with other regions experienced the steepest declines (29%) in HIV

⁹ Global Health Sector Strategy on HIV, 2016-2021

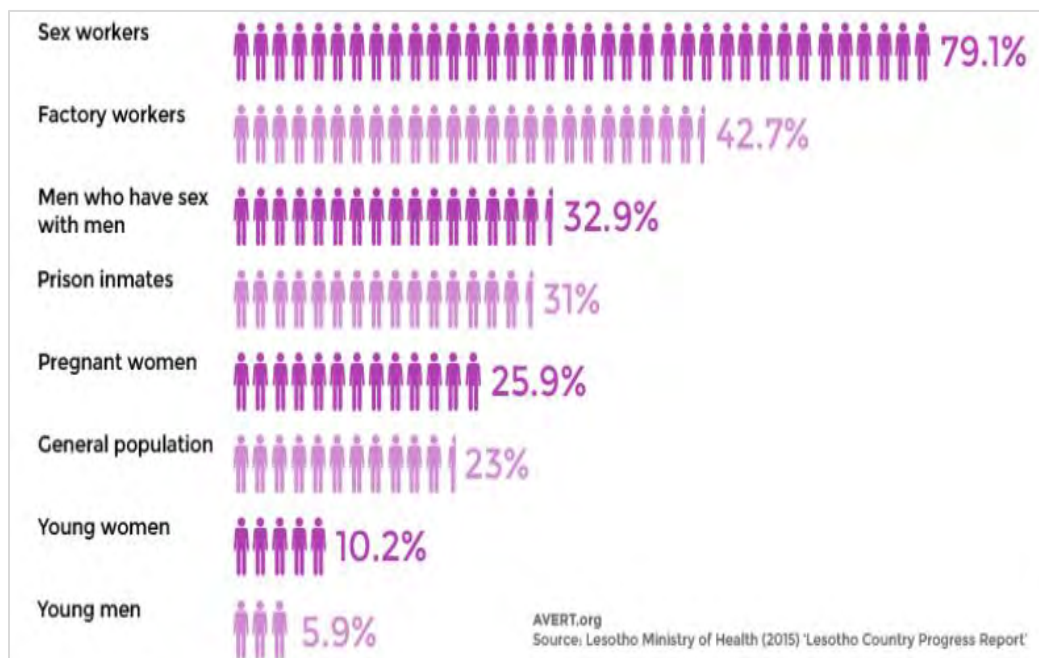
¹⁰ Global AIDS Update, UNAIDS, 2016

infections. However, young women (aged 15–24 years) accounted for 26% of new HIV infections in 2016 despite making up just 10% of the population.

National Context

Lesotho is one of the countries in the world hardest hit by the HIV epidemic. The HIV population in Lesotho has been increasing by 47% from 202,313 in 2000 to 327,427 in 2016. Globally, the country has the second highest **HIV prevalence** among adult men and women 15-49 yrs at 25% in 2016. Women have a higher HIV prevalence than men at all ages. Women aged 25-29, 30-34, 35-39, and 40-44 have an HIV prevalence of 37.5%, 44.9%, 45.5%, and 44.6%, respectively. In comparison, men have an HIV prevalence of 17.9%, 27.5%, 41.2%, and 43.5% for the same age bands¹¹. Although the epidemic is generalized; certain sub-populations have higher HIV risk including sex workers (79.1%), factory workers (42.7%); MSMs (32.3%) and prison inmates (31%) need special attention in order to bring the epidemic under control (Fig 2 below).

Figure 2 - HIV prevalence among high risk groups

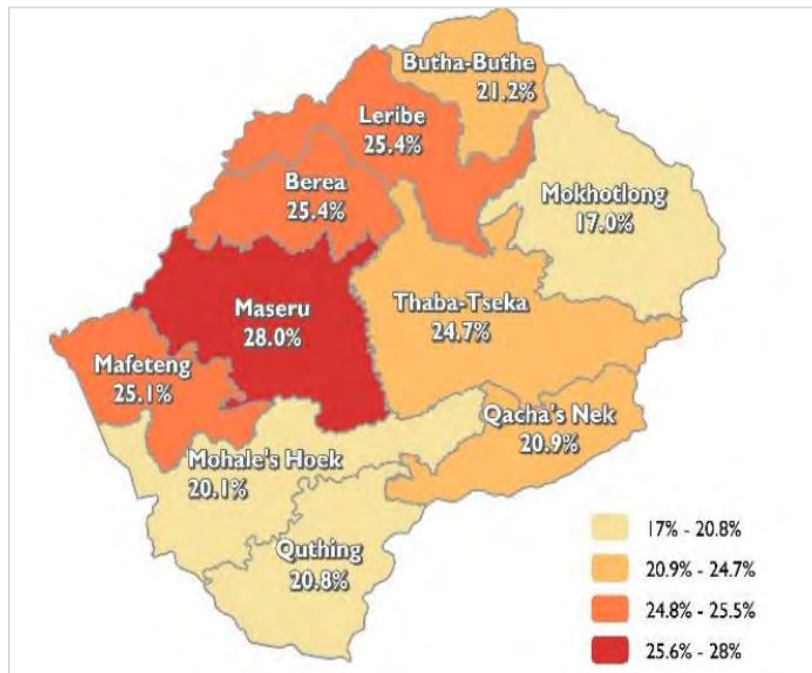


The adult **HIV prevalence** has stabilized since 2005. The sentinel surveillance conducted in 2013 showed that there is no major difference in HIV prevalence among women attending ANC clinics, which stood at 25.9%. Five districts, Mafeteng, Molepolole, Maseru, Leribe, and Beraa account for 75% of all of the people living with HIV in Lesotho.

The HIV prevalence varies across districts ranging from 17% in Mokhotlong to 28% in Maseru district (Fig 3). The lowland districts are characterized by a higher population density, relative vibrant economic activities and movement of people rendering populations vulnerable to HIV infections.

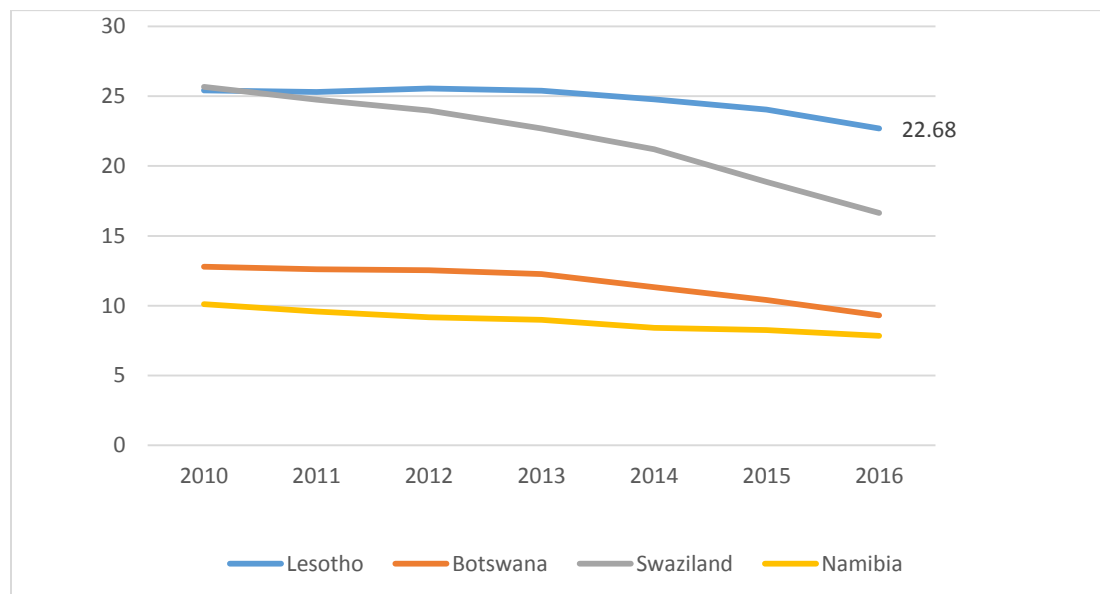
¹¹ Lesotho Demographic and Health Survey, 2014

Figure 3 - Lesotho HIV prevalence by district



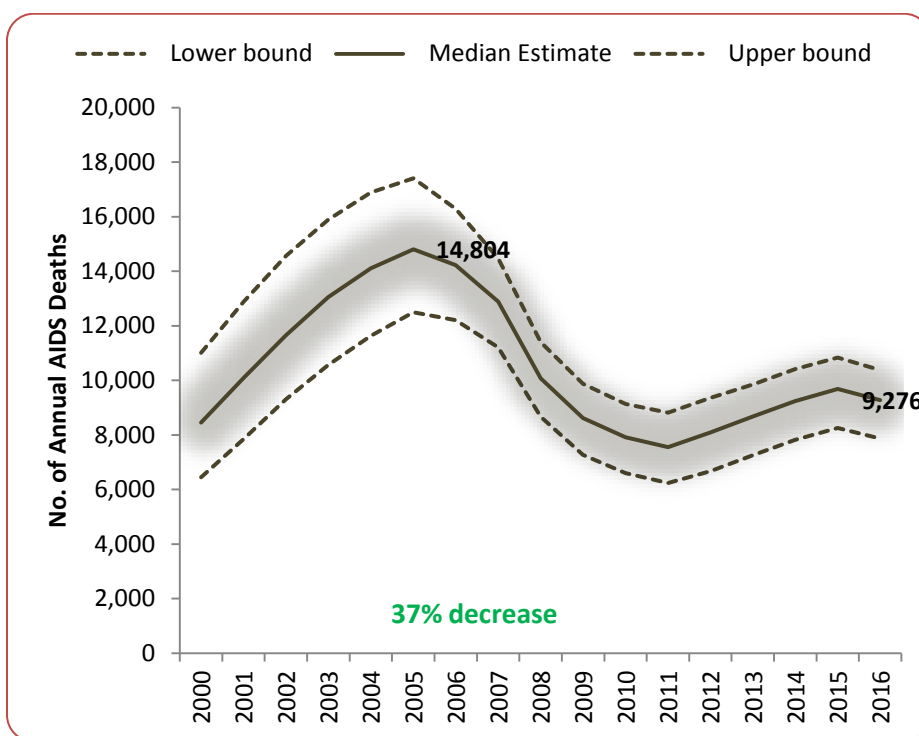
The **number of new HIV infections** among all age groups in Lesotho has declined by 17% from 26,476 in 2000 to 21,914 in 2016. Over the same period, the number of new infections declined by 51%, 25% and 15% among children 0-14 years, adolescents 10-19 years and young people aged 15-24 years respectively. The decline in new infections among children 0-14 years of age was largely attributed to the successful implementation of PMTCT. Incidence has declined from 3.44% in 2000 to 2.41% among the 15-49 year age group in 2016 based on modelling. Despite this progress, Lesotho still has the highest new infections per 100,000 population in the world. Figure 4 below demonstrates the slow progress in reducing HIV incidence in Lesotho compared to its neighboring countries i.e Botswana, Swaziland and Namibia.

Figure 4 - Trends in HIV incidence per 1,000 inhabitants (15-49 years) in selected countries in ESA (2010-2016) (UNAIDS, 2017)



The **scale up of HIV care and treatment services** has resulted in a 37% decline in AIDS related deaths from a peak of 14, 804 in 2006 to 9,276 in 2016 (Fig. 5). The decline in AIDS related deaths was highest among children 0-14 years of age (55%) and lowest among young people aged 15-24 years (1%). Sadly, more than two-fold increase in AIDS related deaths was noted among adolescents 10-19 years between 2000 and 2016.

Figure 5 - Lesotho annual AIDS deaths, 2000-2016 Estimates



Source: Preliminary 2017 Lesotho HIV Estimates Report

Identified drivers of the epidemic are fueled mainly by behavioural, social and structural drivers. A review of the drivers and other factors that fuel the spread of HIV in Lesotho showed that the main challenges underlying the drivers of the epidemic¹² are derived from the social and structural factors that influence the epidemic. The age of sexual debut in Lesotho is low at around 15 years with the average marriage of 25 years. Multiple sexual partnerships are common and combined with unsafe sexual practices increase HIV risk. Migrant laborers to neighboring South Africa and internal movements of job seekers into textile industry is normally associated with extended spousal separation enhancing risks for HIV infection through transactional sex. Although a greater proportion of women are literate compared to men; women have a lower socio-economic status and therefore less empowered for making decisions including negotiating for safer sexual practices. Women are therefore vulnerable to gender abuse and sexual exploitation. Epidemiological curves (LDHS, 2014) showed that young women had nearly twice as high HIV prevalence compared to their male counterparts. These findings are pointing to the fact that older men are engaging in sex with much younger women and girls due to their low socio-economic status and heightened vulnerability. The country should make a deliberate effort to address these fundamental underlying factors that continue to drive the HIV epidemic.

Lesotho has therefore embedded the HIV and AIDS response within the broader socioeconomic development framework that includes HIV and gender as cross cutting issues in the National Development Strategic Plan (NSDP) – 2012/13-2016/17.

¹² Lesotho National HTS Guidelines, 2016 pages 12-13

The National multi-sectoral response strategy to HIV (2011/12-2017/18) has set national priorities that are aligned to the global 90-90-90 objectives as follows:

- i. Reduce new HIV infections by 50% by 2018
- ii. Reduce AIDS and TB related deaths among people living with HIV and AIDS by 50% by 2018.
- iii. Eliminate mother to child transmission and keep mothers alive
- iv. Improve efficiency and effectiveness of the national response planning, coordination and service delivery

In addition to the cross cutting HIV testing services and social and behaviour change communication, core programmes include:

- HIV prevention, treatment and care
- Elimination of Mother To Child Transmission (eMTCT)
- Voluntary Medical Male Circumcision (VMMC)
- Condom promotion and distribution
- Programmes for Key populations

According to the **Preliminary report of the Lesotho Population-based Impact survey** (LePHIA); 77% of PLHIV know their HIV status, 90% are on ART; and 88% are virally suppressed.

Major Findings: Achievements, Challenges and Recommendations

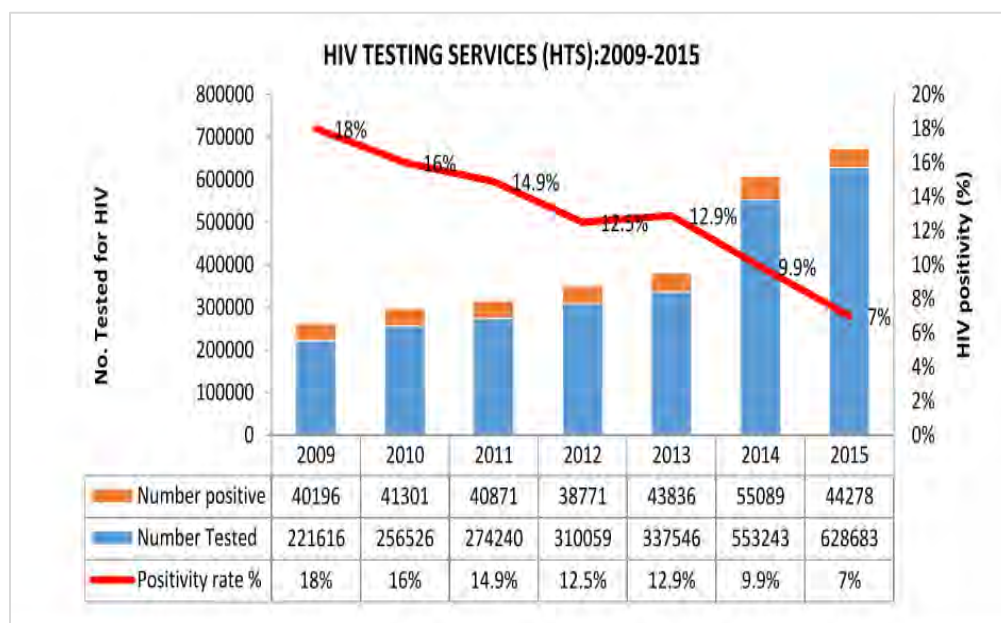
The Performance Table for HIV Programme is summarized in Annex 7.5.

HIV Testing Services

The **overarching goal** of the HIV Testing Services is to identify PLHIV timely through the provision of quality testing services for all including adults, children, couples and families and effectively link them to appropriate prevention, care and treatment and support services¹³. Lesotho has rolled out HTS services to all its public health facilities with over 80% of people tested within health facilities and the remainder at community level. There has been more than three-fold increase in the number of people tested per annum from 274,240 in 2011 to 916,649 in 2016. Multiple entry points exist for testing services within public health facilities. According to Fig. 6 below, the HIV positivity rate dropped from 18% in 2009 to 7% in 2015 with widened access to PITC and high numbers of PLHIV who already know their status.

¹³ The National HIV Testing Services Guidelines. MoH Lesotho. May, 2016

Figure 6 - Annual numbers of people tested for HIV in Lesotho, 2009-2015



The undiagnosed infections remain a significant factor fuelling the HIV epidemic with 15% of women and 35% of men having never been tested (LDHS, 2014). Table 1 below further illustrates low testing rates among men and women in the past 12 months. Of note is that the country failed to achieve the target of 65% with fewer men (36.4%) aged 15-49 years compared to females (58%) of the same age having been tested in the past 12 months with knowledge of HIV status. Reasons cited for not being tested include fear of results, death; stigma & discrimination. According to LePHIA, only 77% of PLHIV know their HIV status and hence the need for the country to step up HTS services targeting high risk groups.

Table 1- Proportion of men and women tested in the past 12 months in Lesotho

Indicator	Age group	Baseline (2009)	Target	Performance*
% Of women and men aged 15-49 years who received an HIV test in the last 12 months and who know their results	Women 15-24 years	23%	65%	54%
	Men 15-24 years	23%	65%	28.6%
	Women 15-49 years	23%	65%	58%
	Men 15-49 years	23%	65%	36.4%

*DHS 2014

Achievements:

- The National HTS guidelines and testing algorithms to guide the implementation of the programme were available and adhered to, at health facilities that were visited. Some facilities

reported having received supervisory visits by district level staff. There were no stock outs of HIV test kits in the majority of facilities visited.

- It was observed that clients were being escorted as they navigate through the health facilities from one service point to another in order to effect linkages of clients to care, treatment and prevention services.
- Both internal and external quality assurance is well observed across the different entry points. Most facilities reported 100% performance on proficiency testing.
- HTS services were well integrated at hospitals across the various entry points including Out-Patient Departments, In-patients departments, TB, ANC and Men's clinics. Outreach and door to door testing were being conducted by some partners such as PSI. A good practice was noted at some facilities where dedicated spaces 'corners' for men and adolescents existed and testing services were being offered as part of a package for comprehensive services.
- According to Lesotho 2016 HTS Guidelines; any person aged 12 years and above with sufficient maturity to understand the benefits, risks and implications of testing may give consent for the test. This policy facilitates access to HTS services by younger adolescents.
- Trained lay and professional counsellors offered counselling and testing services at health facilities although they were mainly being supported by partners such as PEPFAR or Global Fund.
- Targeted HIV testing in selected populations; index partner testing was being implemented mainly at PEPFAR supported sites and through door to door testing of household of an index case. PSI was one of the main PEPFAR implementing partner for this intervention. Verification of HIV status prior to ART initiation was being practiced (a second blood draw was done by a different health worker to verify HIV status) at most facilities visited in line with the new WHO recommendations.

Challenges:

- Significant gaps between PEPFAR and non-PEPFAR supported facilities with the former being better resourced in terms of availability of human resources (nurses, counsellors and data clerks), commodities, broader scope of offered services, and use of data for decision-making.
- Generally there was inadequate supervision from central level to the DHMTs particularly in Botha-Bothe and Mokhotlong districts and most facilities especially the non-PEPFAR supported sites had not set targets.
- Quality assurance challenges including lack of clarity by some service providers on the processes for conducting internal quality assurance.
- Unavailability of professional counsellors in government hospitals and health centres compromising on the quality of counselling services being offered.
- Index partner testing was not being provided in the 'maintenance' districts and hence undermining the programme reach and yield. 'Maintenance' districts are those with minimal PEPFAR support. However the Government of Lesotho is expected to provide health care services to all its populace.
- There seem to be no clear retention strategies for counsellors that were hired by partners and therefore impacting the long-term sustainability of such cadres.
- HIV Self testing is one of the approaches stipulated in the National HTS Guidelines for HIV screening using different distribution channels for HIV self-testing kits; however, not much progress was noted.

- With the current system, health workers are not able to identify clients who drop out of care and present at other facilities as new clients (re-entry). In addition, data gaps were noted in the reporting tools compromising data integrity.

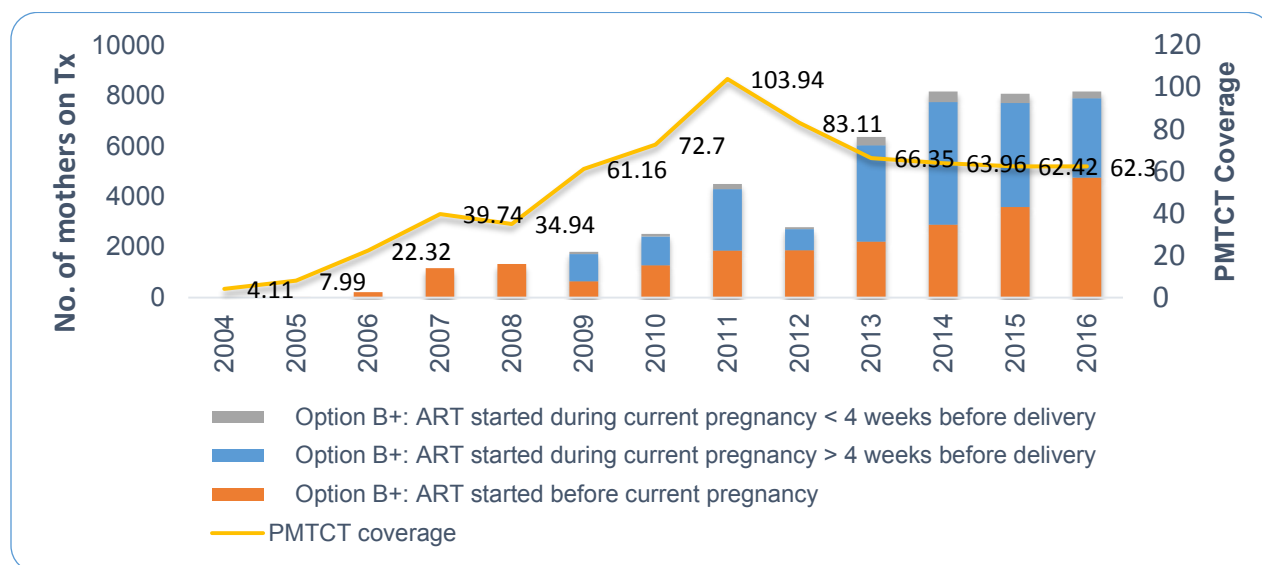
Recommendations:

- The national HTS programme should revive integrated supervisory visits to districts to support programme implementation and data verification. Some facilities cited shortages of transport for outreach and therefore the ministry will have to mobilize adequate transport services to aid supportive supervision and for outreach services for the hard to reach communities.
- The MOH should scale up targeted testing, HIV Self testing and index partner testing in order to fast track towards achieving the 1st 90. Specifically, MOH should consider establishing corners for men and adolescents in facilities to improve uptake of HIV services among these groups that seem to be lagging behind.
- The HTS programme should strengthen linkages to prevention and support services following an HIV test in order to optimize HTS and improve quality assurance practices.
- The MOH should establish an exit strategy after donors leave in order to sustain the programme. Retention strategies for counsellors need to be established as these are critical cadres supporting the programme. MOH should consider advocating for the cadres to be absorbed into the public service structure.
- MOH should consider developing an operational plan for a systematic introduction and rollout of HIV self-testing approach.
- Establish an electronic system that will enable the country to track clients from one facility to another for HTS and other services across the cascade.

Elimination of Mother to Child Transmission of HIV

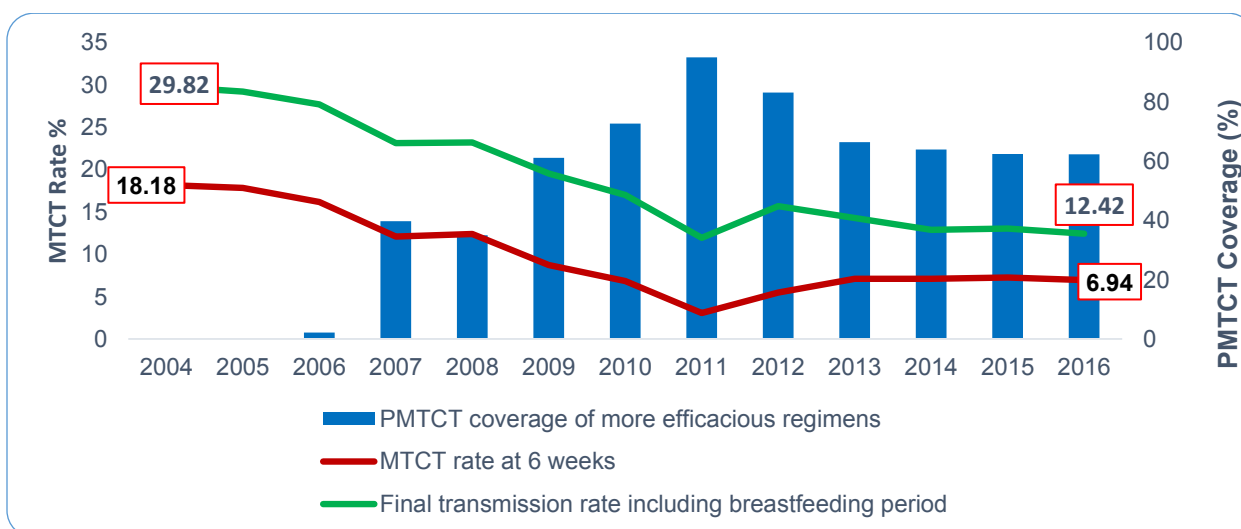
The eMTCT programme aims at eliminating new pediatric HIV infections and improve maternal, newborn, and child health and survival in the context of HIV. Since 2011, the HIV Prevalence among ANC attendees has been on an upward trend by 13% from 24.3% in 2011 to 28% in 2016 with evidence of consistent higher prevalence among urban compared to rural inhabitants. DNA EID is being implemented at 6 weeks and at the end of the breast-feeding period according to national policy.

Figure 7 - Lesotho PMTCT coverage, 2004-2016 estimates



The Lesotho PMTCT ARV coverage has remained low ranging from 66% in 2013 to 62% in 2016. (Figure 7). This is far below the target of 80% as stipulated in the NSP for the year ending 2016/17. Over 50% of pregnant women had started ART prior to the current pregnancy in 2016 which correlates well with the ART coverage in the general population.

Figure 8 - Lesotho MTCT rates, 2004-2016 estimates



The final MTCT rate has dropped from close to 30% in 2004 to 12.4% in 2016. However, the programme needs to close the gaps to reach the target of less than 5% by 2017/18 as committed in the NSP (Figure 8).

Achievements:

- HIV testing is offered to all pregnant women attending ANC with high coverage of over 95% of pregnant women knowing their HIV status during the first ANC visit. HIV infected women are initiated on ART on the same day following the launch of Option B+ policy.
- The PMTCT programme is well integrated and delivered in the MCH platform in most facilities visited facilitating good service integration between PMTCT and SRH. *A good example was Senkatana hospital where all women regardless of their HIV status have on-site access to Cervical cancer screening services. In addition, the same hospital established a Pre-conception clinic in 2014 and held every Friday for couples offering advice on family planning and encouraging women on falling pregnant once virally suppressed. Pre-exposure prophylaxis is offered to the HIV negative partner in sero-discordant couples. Since programme inception, 330 HIV negative babies have been delivered.*
- There was evidence of good linkages between MCH and ART Clinics in most settings with most children on ART being successfully linked and referred to ART clinics at 2 years of age. However, children would continue to attend the under 5 clinic for birth monitoring and vaccinations.
- Some sites were using the EID toll free number to track and access EID results. Some partner supported sites had received donations of DNA PCR POC machines reducing the TAT for EID to few hours.
- *A good practice was observed at Scott Hospital where all ANC women received home visits by mentor mothers through an NGO (Mothers2mothers). Each woman received at least two home visits during ANC and two during post-natal period. The hospital also collaborated closely with LENASO an AIDS service organization to track treatment defaulters bring them back to care.*
- Some facilities were using mobile messaging to serve as reminders for clients to come for their medicine refills. This was mainly observed in EGPAF supported sites.

Challenges:

- PMTCT ARV coverage remains low, at 62% in 2016 against a backdrop of very high infection rates among ANC women. In addition, the programme reported high MTCT rates during pregnancy, child birth and breastfeeding. The low PMTCT ARV coverage may be explained by findings from the last LDHS (2014) where four in ten women (42%) reported at least one of the problems (getting permission to go to the doctor, getting money for advice or treatment, distance to a health facility, not wanting to go alone). The most commonly reported problems were getting money to pay for treatment (27%) and distance to the health facility (26%). It was also noted that many home deliveries (23%) occurred in the community.
- Loss to follow-up of HIV exposed children after birth and breastfeeding mainly associated with the relocation of the mother following delivery. Most women prefer to give birth at the health facilities closest to their rural homes and return to their matrimonial homes few weeks following delivery.
- Male partner involvement remains low at 8% in 2016 despite the initiative such as Index-case testing that have not been very successful as male partners seem reluctant to turn up to health facilities to test. Other innovative approaches will be needed to extend HIV services to men including self-testing and other community approaches to testing and follow up services.

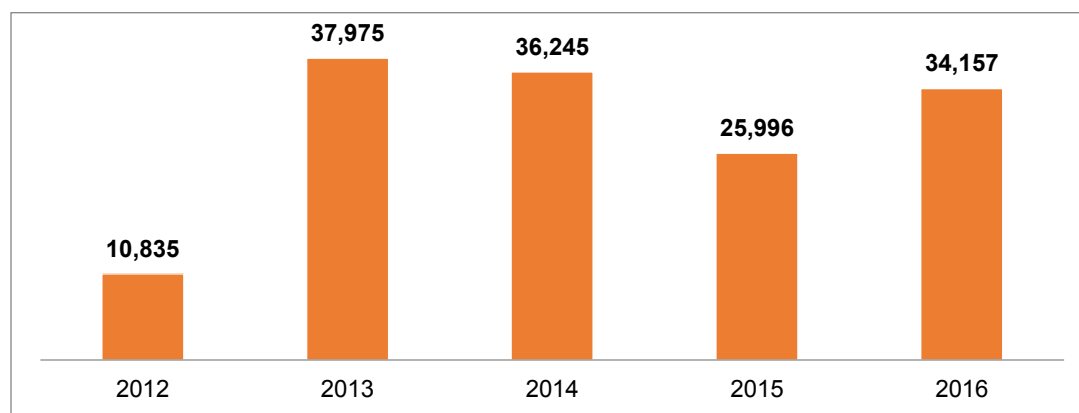
Recommendations:

- MOH should address the identified barriers hampering the success of the programme by engaging community and traditional leaders through effective advocacy and communication strategies that enhance community participation and ownership of the programme including promotion of institutional deliveries.
- The programme should ensure consistency of PMTCT service coverage through pregnancy, childbirth and breastfeeding for all women of reproductive age with partner involvement and testing and tracking of mother-baby pairs.
- MOH should address gaps in Early Infant Diagnosis to shorten the TAT and ensure timely linkage of exposed infant to appropriate care and treatment services.

Voluntary Medical Male Circumcision

Studies have shown that medical male circumcision has the potential to reduce the probability of HIV infection from HIV positive females to HIV negative males by over 60%. Based on prevailing global evidence, Lesotho has adopted VMMC as part of the combination HIV prevention strategy. Lesotho has a tradition of circumcising young boys marking their passage to manhood. However, it is known that traditional circumcisions do not necessarily meet the required standards of complete removal of the foreskin and therefore, putting men at risk of acquiring HIV infection. The NSP aims to scale up VMMC with a target of 80% (317, 215 males) by 2018. The programme targets men aged between 15-39 years. Sadly, the percentage of men aged 15-59 years that were medically circumcised increased from 17.7% to 28% in 2009 and 2014 respectively (LDHS) which is way below the national targets. Figure 9 below illustrates the low numbers of VMMC performed from 2012 to 2016. Based on the current trends, the country is unlikely to achieve the cumulative target of more than 317,000 medical circumcisions.

Figure 9 - Trends in voluntary medical male circumcision, 2012-2016



Source: Lesotho GARPR report, 2017

Achievements:

- The MOH collaborates with CBOs such as LENASO to help create demand for VMMC services in the community. Within health facilities; health education on VMMC services is being provided at services delivery areas. Most of VMMC services are being provided at government facilities while some by NGOs and private practitioners. Partners such as PSI an

International NGO funded by USAID|PEPFAR and UKAID provides HIV Prevention services including HTS and VMMC to three army barracks in Lesotho Defence Forces. VMMC is being performed by trained nurses and doctors hence ensuring quality of the procedures.

- Traditionally initiated Male Nurses have been mobilized to provide VMMC services in the initiation schools such as what was reported in Mokhotlong district.
- Early Infant Male Circumcision (EIMC) is being promoted and provided at a limited number of health facilities.

Challenges:

- VMMC programme is mainly dependant on donor funding with inadequate ownership of the programme by the MoH. Additionally, incentive schemes for service providers are not standardized and thus creating discontentment among some providers. This may explain to an extent the observed high staff turnover of trained personnel.
- The VMMC guidelines and training manual was developed by partners limiting country ownership and standardization of the programme documents and practices.
- VMMC programme is still centralised at hospital level and hence limits access to services at periphery and hard to reach sites.
- Communities have limited understanding in the differences between traditional initiation practices and VMMC this is coupled with the uncertainties surrounding the nature of traditional male circumcisions as it pertains to its effectiveness in HIV prevention.
- Weak linkages exist for HIV negative clients to VMMC. The programme has no clear reporting system for adverse events to MOH with potential negative implications in the quality of circumcisions performed and the management thereof.

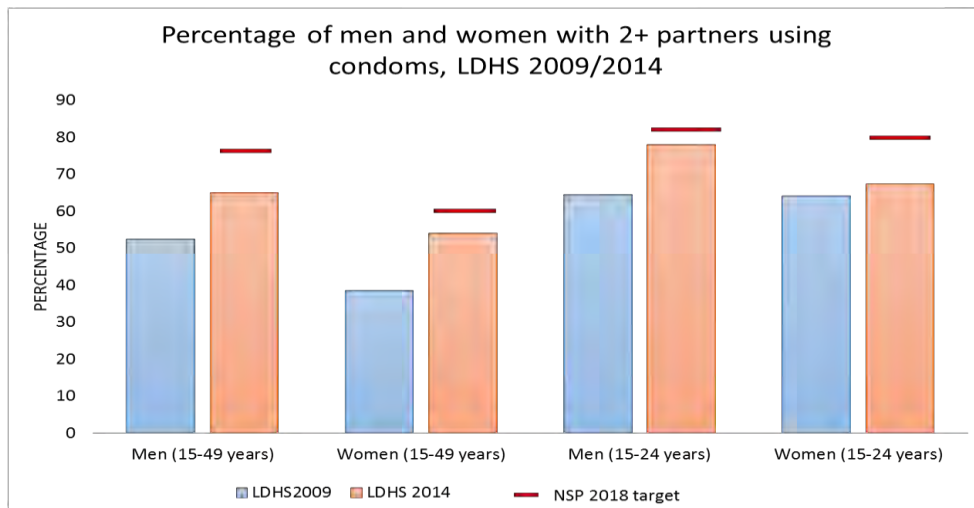
Recommendations:

- The MOH should consider developing standard VMMC guiding documents and to mobilize alternative sources of funding including domestic resources as part of political commitment to enhance programme ownership and sustainability.
- MOH should improve coordination of the intervention and integration into other services at facilities including HTS, SBCC, condom and STI control and treatment to make VMMC services routinely available within health facilities
- Decentralisation of the VMMC services to health facilities and through outreach programmes should be prioritized to expand programme reach to remote settings.

Condom Promotion and Distribution

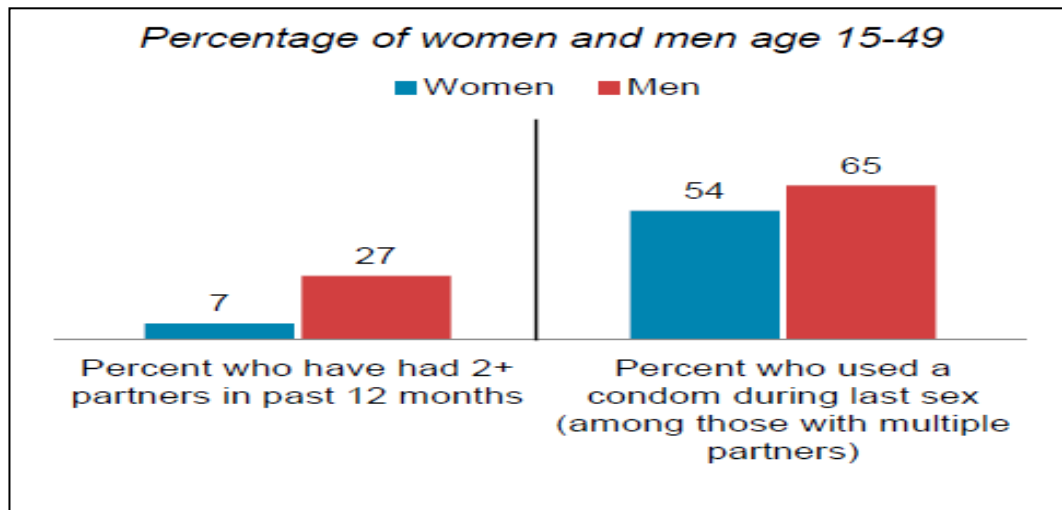
Condom services remain a key component of combination prevention package. An increase in condom use was reported from 2009 to 2014 however, the figures still remain below the national targets for both men and women. Condom use among those with multiple partners was 65% in men and 54% in women aged 15-49 years (See Fig 10 below). Condom use among men who engage in paid sex increased from 78% in 2009 to 90% in 2014. A total of 30 million male and 437 000 female condoms were distributed in 2016 which was nearly close to reaching the annual target of distributing 34 million condoms by 2016/17. Male condoms remain the preferred option than female condoms.

Figure 10 - Percentage of men and women with 2+ partners using condoms, LDHS 2009/2014



The country surpassed the national targets for the percentage of adults aged 15–49 years who had more than one sexual partner in the past 12 months who reported the use of a condom during their last intercourse (women, 54% versus NSP 2015/16 target 48% and men 65% versus NSP 2015/16 target 65%). See Figure 11 below.

Figure 11 - Percentage of women and men 15-49 years, with multiple partners and condom use LDHS 2014



Achievements:

- Male and female condoms are offered at public hospitals and health facilities at multiple dispensing points including open access, OPD, consultation rooms and toilets. Condoms were also being distributed among inmates at correctional services. Condoms demonstration models were generally available. At hospitals and clinics health education sessions were routinely provided to clients as they wait to receive care.
- Condom refills were conducted weekly with quality checks including packaging and expiry dates and kept under favourable storage conditions.
- Branded condoms also exist in the market to widen client choices. PSI used social marketing channels to supply two brands namely - Blue and Gold and Vibe procured by UKAID and USAID respectively.

Challenges:

- There is no clarity on condom coordination mechanism within MOH. In addition there were no standard guidelines and documentation on condom distribution mechanisms. The public condom distribution system is marred by frequent stock outs due to lack of proper inventory system. No one is responsible for tracking stock levels at dispensing points and consumption records are not in existence. Replenishment of condoms is purely triggered by empty dispensers. However, the social marketing arm run by and managed by PSI for condom distribution has better supply chain management system. Of note was that condoms were not available in CHAL facilities as Catholics do not promote their use within their institutions.
- Condom procurement was donor dependent and no apparent sustainability plan was in place. Lubricants were also not available at facilities visited. Lubricants are mainly used among LGBTIs in the country and hence expected to be supplied through their designated service delivery centres. However, due to weak coordination mechanism around key population programming in the country; there is not a functional ordering and distribution system for lubricants including the determination of requirements.
- In comparison to the male condoms; there was low uptake of female condoms. Shortage of IEC materials among other factors may have affected the uptake of the programme.
- Surprisingly, there was no product quality assurance mechanism for condoms (See PSM chapter for more details).
- A recent HIV Prevention Assessment¹⁴ noted that access to condoms by adolescents and young people was affected by many factors including, difficult terrain in some districts, limited options of distribution points (mainly through health facilities as ministry of education prohibited the distribution of condoms in schools) and some cultural barriers.

Recommendations:

- The new NSP should lay out a clear structure for coordinating the Condom Programme and develop an Operational Plan to guide its implementation. The latter should include an advocacy and communication plan to increase demand for condom use and especially the female condom. At institutional level condom education and promotion activities should be intensified including condom dispensing at strategic areas where clients can easily access condoms without prejudice.

¹⁴ Lesotho Prevention Assessment, August, 2017

- The ministry of health should strengthen processes for condom quantification, procurement, distribution (including community-based distribution), and data management and establish a quality assurance system for condoms prior to distribution, in order to facilitate the availability of quality assured product. Health facilities should improve linkages of clients to condom services at each service delivery point.

HIV Prevention among Key Populations

Lesotho has adopted a broad definition of key populations including the following: women and girls, men who have sex with men, transgender persons, people who inject drugs, male and females and transgender sex workers and their clients, prisoners, refugees and migrants people living with HIV, adolescents and young people, vulnerable children and orphans, and populations of humanitarian concern (NSP, 2017). The country considers sex work and men having sex with other men as illegal practices. Key populations have higher risk of HIV infection than the general population. An HIV Prevention Assessment (2017) conducted recently noted that there was no national programme for KPs; sex worker programme was being run primarily by NGOs and lack of an enabling legal framework was cited as the main barrier to programme for KPs.

Achievements:

- Integrated Bio-behavioural Surveillance (IBBS) and size estimations for SWs and MSMs have been conducted. Four CBOs are providing limited services including condoms and lubricants, SBCC, referral and linkages to services including HTS and demand creation for the same (LIRAC and LPPA –SW in two districts, MATRIX-MSM in 9 districts, MANTSOPA-SW). MATRIX caters for an estimated 12,244 MSMs in seven districts supported by GF and 3,553 MSMs in two districts supported by PEPFAR through PSI. MATRIX uses a peer-led educators' service delivery model to follow up peers through the networks of MSMs.
- Sex workers are able to access HIV prevention, treatment care and support; TB/HIV Co-infection, eMTCT; VMMC; and condom promotion and distribution by MANTSOPA a local NGO and sub-recipient of the GF grant.
- A strategic plan has been developed to address the management of HIV in prisons. Prison inmates are able to access HIV prevention services including condoms, VMMC, HTS, TB and HIV treatment.
- Miners and ex-miners are targeted with a comprehensive package of HIV/TB prevention and treatment services by three organizations namely –TEBA, OGRA and MANTSOPA.
- An NGO (MATRIX) does work to help address stigma and discrimination in health settings. It also conducts advocacy activities with government and religious leaders.

Challenges:

- Sex work and men having sex with men are considered illegal practices, preventing the development and provision of targeted programmes. There were no guiding documents for the implementation of programmes targeting sub populations and limited services that focus on key populations and their needs exist in the country. Viral hepatitis programming targeting KPs was non-existent.
- Existing organizations were not providing a comprehensive package especially for MSMs, SWs and transgender.

- Facilities visited reported stock outs of commodities- condoms and lubricants some up to eight months hence affecting continuity of services.
- Implementing partners were not sharing reports with MOH and NAC but submitting directly to their principal recipients for grants eg PSI. It was also noted that there was paucity of data on sub populations such as PWID and transgender.
- It was noted that unemployment and poverty among young people contributed to their risky behaviours. Stigma and discrimination were reported to exacerbate HIV risk and prevented KPs from seeking health care services.
- There was high turnover of peer educators supported by Global Fund as they receive lower incentives compared to their PEPFAR supported counterparts.

Recommendations:

- The new NSP should have a clear strategy for implementing a comprehensive, evidence-based, multi-level interventions for KPs. The MOH should consider appointing a KP focal person responsible for programme coordination, management including supporting reporting systems for key populations.
- An IBBS and Population Size Estimations for the different subgroups such as IDUs and transgender should be considered in order to implement evidence-informed programming.
- NAC and MOH should capacitate CBOs targeting KPs to provide comprehensive health packages for the groups

Social and Behaviour Change Communication

Achievements

- Knowledge of HIV prevention methods is high according to the Lesotho Demographic and Health Survey of 2014. SBCC activities are conducted in some communities and mainly by NGOs. An example is MANTSOPA an NGO that operates in all the ten districts and conducts SBCC activities by raising HIV and AIDS awareness through performing arts targeting the general population and sex workers.
- Specific programmes for Inter-Personal Communication (IPC) are carried out targeting mainly males aged 15-49 years and are mainly supported by partners such as PSI. The IPC uses community level communicators and focuses on HIV prevention.
- Lesotho has adopted and rolled out the Comprehensive Sexuality Education (CSE) programme successfully in schools, in the past 2 years. An HIV and AIDS workplace policy for the Ministry of Education is in place. MoET has dedicated HIV Counselors that are running a mentoring programme. There was ongoing human resource capacity building activities for MOET staff and distribution of IEC materials. MoET staff participated at HIV decision-making partners' forums and attended World AIDS Day commemorations.
- HIV and AIDS has been mainstreamed into the public service with the establishment of HIV Work Place Policies and a Strategic Plan. The ministry of Labour and Education (MoLE) has put in place a Wellness programme that includes HIV and TB services with condom distribution as part of the minimum package. Officials from MoLE participate at HIV decision-making bodies. An HIV and AIDS inter-ministerial committee chaired by the ministry of defense was set up to coordinate the programme across ministries, however, the committee last met over a year ago.

Challenges

- Comprehensive HIV knowledge is low among young people (31% men and 38% women). Most programmes have been rolled out without a demand creation strategy example– VMMC, condoms, Test and Treat.
- Risky behaviour still high – e.g. close to 30% of men had multiple sex partners with limited consistent condom use.
- There is no clear reporting system for ministry of education and of labour and training on health -related activities to MOH or NAC.

Recommendations

- A new SBCC strategic approach needs to be included in the next NSP. This should consider key target populations, messages and communication approaches.
- NAC and MOH should develop a demand creation strategy, which is evidence based and takes into account barriers to programme uptake. The country should consider a new mass media campaign to increase uptake, and particularly to address barriers to early health seeking behavior.

Pre-exposure Prophylaxis

The National Guidelines for Antiretroviral Therapy recommend use of oral PrEP TDF/3TC or TDF/FTC for HIV-negative individuals at ‘significant risk’ of becoming infected with HIV. Use of PrEP is recommended for the following population groups including sex workers, MSMs, sero-discordant couples, those with multiple concurrent sexual partners and prison inmates. It is estimated that about 15% of couples in Lesotho are discordant (LDHS, 2014) while prison inmates have a high HIV prevalence of 31%. The programme is still at its infancy and currently, most of the PrEP activities are being supported by PEPFAR implementers targeting AGYW, FSWs, MSMs, and sero-discordant couples in the districts they support. Among the key areas for support include training of health providers, advocacy and development of communication and marketing strategies, on-going strengthening of an enabling environment and demand creation for PrEP, appropriate service delivery, modeling cost and impact of PrEP on the epidemic, and the development of a robust monitoring and evaluation framework.

Achievements

- The National ART guidelines (2016) have a chapter that provides guidance on PrEP. Some facilities were offering PrEP to eligible clients including sero-discordant couples. Between June 2016 and August 2017; 853 clients were initiated on PrEP in 109 PEPFAR supported facilities.

Challenges

- It was observed that there is no national Implementation plan to guide the rollout of PrEP in the country. The facilities that were offering PrEP did not maintain client records or any standard monitoring tools.
- There is still low awareness and uptake for PrEP in the country.

Recommendations

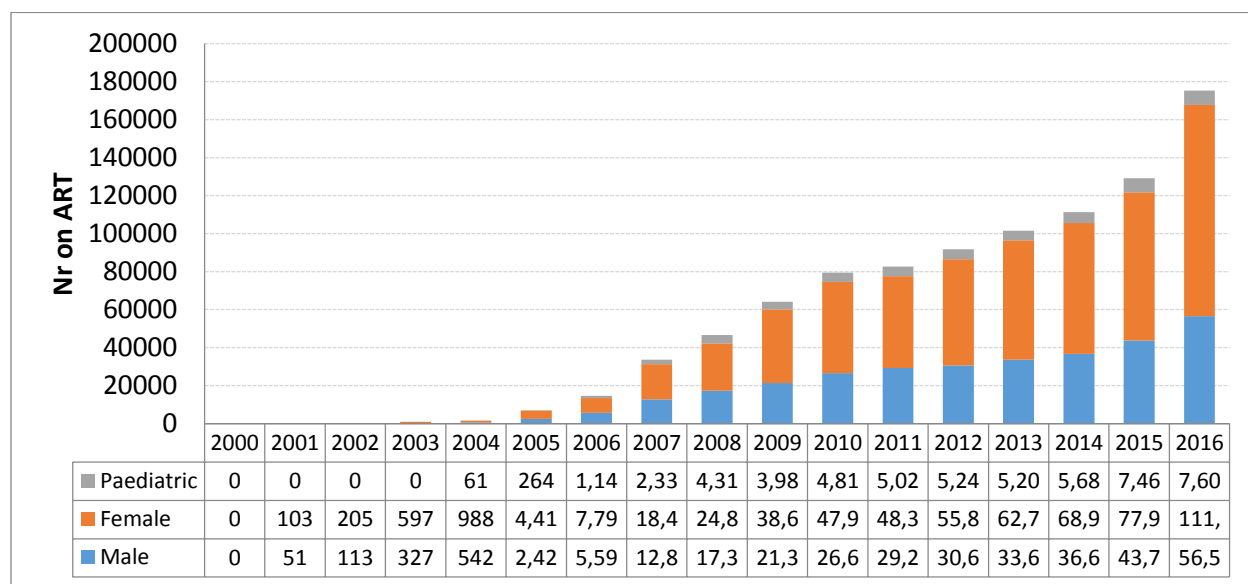
- The MOH in collaboration with its partners should expedite the development of an Implementation plan and monitoring tools based on WHO guidance for PrEP in order to systematically rollout PrEP in the country. This plan may be standalone or simply integrated in the new NSP.
- The MOH to develop an advocacy and communication package for demand creation activities

Adult ART

The Government of Lesotho initiated the ART Programme in 2004 in the public sector using a nurse- driven model (Fig 12). Since then, the country has pursued a decentralization drive to all its public health facilities offering ART services. **The country launched the ‘Test and Treat’ Policy** in June, 2016 that saw a rise in ART coverage for adults and children from 42% in 2015 to 57% in 2016. This initiative was coupled with some adaptations to the ART service delivery models to include- less frequent clinic visits, multi-month prescriptions (3-6 months) and community delivery of ARVs. Capacity assessments of facilities on readiness to implement the policy were carried out followed by a rapid adoption of the policy facilitated by the country’s policy on the provision of free Antiretroviral treatment to patients and direct service delivery services supported by implementing partners. The first line ART for adults and adolescents is a combination of Tenofovir, Lamivudine and Efavirenz. There are indications that the country will transition towards Dolutegravir-based first line regimen in the near future, however, there was no clear transition plan. This transition needs to be carefully planned to halt any potential losses or expiries of existing medicines.

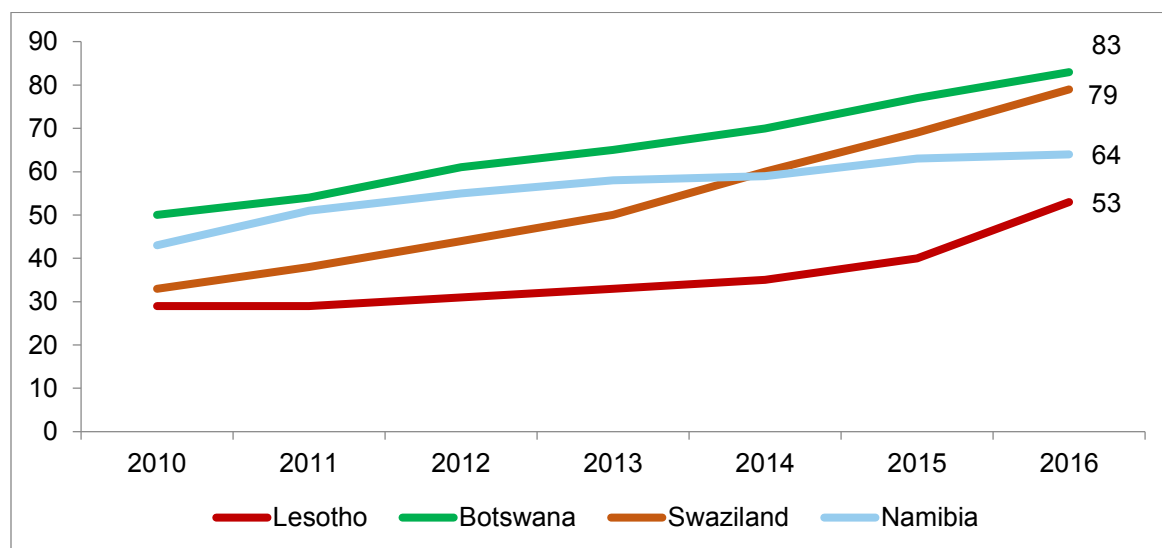
Important updates to the ARV Guidelines included the following: recommend initiation of ART for everyone living with HIV regardless of CD4 or clinical stage (‘Test and Treat’); Introduction of confirmatory HIV testing before ART initiation to ensure correct diagnosis based on new National HIV Testing Services Guidelines; provision of ARVs to HIV-negative individuals at high risk of being infected by HIV (pre-exposure prophylaxis – PrEP); increased emphasis on use of viral load to monitor success of ART and identify treatment failure; guidance on evaluation of treatment failure and conducting enhanced adherence counselling sessions; recommended management of patients presenting with advanced HIV and Addition of new ARV options for 1st, 2nd and 3rd line ART regimens.

Figure 12 - Number of PLHIV receiving ART, 2010-2016



Adult ART coverage ranges from 37% in Qacha's Nek to 66% in Mohale's Hoek whilst paediatric ART coverage ranges from 30% in Thaba-Tseka to 75% in Mokhotlong. In comparison to other countries in the region; Lesotho has had a much lower ART coverage that rose marginally from around 30% in 2010 to 53% in 2016. In contrast, Botswana and Swaziland reported high ART coverage of 83% and 79% respectively (Fig 13 below). Data inaccuracies may partly explain the low ART coverage because the programme relies on ARV consumption/ drug pick-up data as a proxy for the number of PLHIV on ART.

Figure 13 - ART coverage in selected countries in the Eastern and Southern Africa region, 2010 - 2016



Achievements:

- The country has updated its National ART Guidelines in tandem with advances in HIV Treatment and care and in line with the 2016 WHO ARV Guidelines. The ART programme manages patients on first and second line ART with only 9 patients estimated to be on 3rd line. The adoption of the 'Test and Treat'/ Treat ALL policy has facilitated timely initiation of ART and an increase in ART coverage especially among the PEPFAR implementing sites. ART services have been fully decentralized and strong Integration of services exists in many facilities. A 'one-stop shop' model for TB/HIV co-management was observed. With support from partners; some facilities had started multi- month dispensing of ARVs for stable patients (3-6months), ART dispensing in the community by trained community-based cadres and dispensing using the Community ART Group (CAG) model. Differentiated service delivery helps to tailor make services to patients based on client's needs while decongesting health facilities to manage complicated cases.
- To ensure effective linkages to care and treatment initiation; close collaboration has been established between partners performing mobile HTS services (such as PSI) and community based treatment initiators (EGPAF). As such any person identified to be HIV positive is immediately linked to care and treatment at the mobile site.
- It was noted that the country had adopted routine viral load monitoring as the preferred approach to monitor treatment response for PLHIV on ART and that laboratory capacity to conduct viral load testing is continuously being built albeit some constraints.
- Health facilities were using appointment and tracking systems that were standardized across most sites visited. Once a defaulter has been identified; health facility staff would phone the client, pay home visits, or would use a mobile applications e.g. CommCARE (in selected sites). Good collaboration with CBOs such as Lenaso exists in some settings to facilitate defaulter tracing. In addition, VHWs used a tool for tracking ART defaulters.
- HIV drug resistance testing is offered to some patients failing second line therapy, despite, limited access. Solidamed, a Swiss NGO supports the programme at selected facilities.

Challenges:

- Lack of a HIV Programme Manager at national level to manage the programme, coordinate partner support, and mobilize adequate resources for the programme for all ART sites. At DHMT level it was noted that the existing HIV Focal Coordinators lacked clinical background and skills to support HIV care providers at hospital and facility levels and therefore, unable to fully execute their roles.
- The country has not developed an HIV Drug Resistance (HIVDR) strategy and therefore, there is lack of coordinated efforts to carry out HIV Drug Resistance surveys to determine the levels of HIV drug resistance in the country.
- There was sub-optimal laboratory capacity for diagnostics and for patient monitoring. Of note was that the turnaround time for viral load test results was unacceptably high ranging from 1 to 3 months undermining its purpose for monitoring patients' response to treatment. In addition, few patients were accessing CD4 test at baseline due to non-functionality of CD4 machine, unavailability of reagents and supplies or due to a misconception that CD4 testing was no longer required.
- Facilities were experiencing challenges in tracking treatment defaulters and especially Basotho migrants working in South Africa

- HR challenges – frequent staff rotations, staff shortages, lack of senior clinicians skilled in ART were noted as challenges impacting negatively on programme quality
- Some patients have remained in the pre-ART stage even in the context of treat all
- Large data discrepancies between programme data and that from surveys. While ART coverage was reported as 57% in 2016 based on programme data; LePHIA reported 90%.

Recommendations:

- The MOH should urgently recruit a HIV programme manager at central level and a focal person at DHMT level to coordinate the programme. In collaboration with partners; ministry should put in place effective strategies for enhancing linkages between community services and ART, patient retention and tracing of defaulters and particularly through cross border collaboration for migrant workers
- The MOH should address human resource shortages and build the capacity of staff through mentorship and training to deliver quality services. The frequency of staff rotations should be reduced to a minimum (at most annually) to retain critical skills for maintenance of quality standards for patients
- As a priority, the MOH should leverage support from its partners to expand access to quality VL testing and to improve the turnaround time for the return of results for speedy action in the clinical management of patients. The ART programme should prioritize use of CD4 test as part of baseline tests to assess the level of immune-suppression and inform the management of diagnosed HIV positive patients
- Streamline and standardise guidelines for differentiated service delivery models of care – e.g. Multi-month scripting and dispensing, management of patients with advanced HIV disease and take to scale community delivery models for ARV distribution. Government should partner with CBOs and especially networks of PLHIV to bring these initiatives to fruition.
- A national strategy for HIV Drug resistance should be developed and implemented. In addition, the country should resolve data discrepancies between routinely collected data and that from surveys by improving data integrity and robustness of survey methodologies.
- The MOH and partners should carefully plan the introduction of Dolutegravir-based regimens prioritizing treatment naïve patients and those already on treatment who cannot tolerate current first line medicines. Stable ART patients on Efavirenz- or Nevirapine-based ARVs should continue on the current regimens until a time when current medicines have been exhausted and DTG-based regimens have been secured in the medicine pipeline. Medicine losses and expiries should be minimized.

Paediatric and Adolescent HIV Care and Treatment

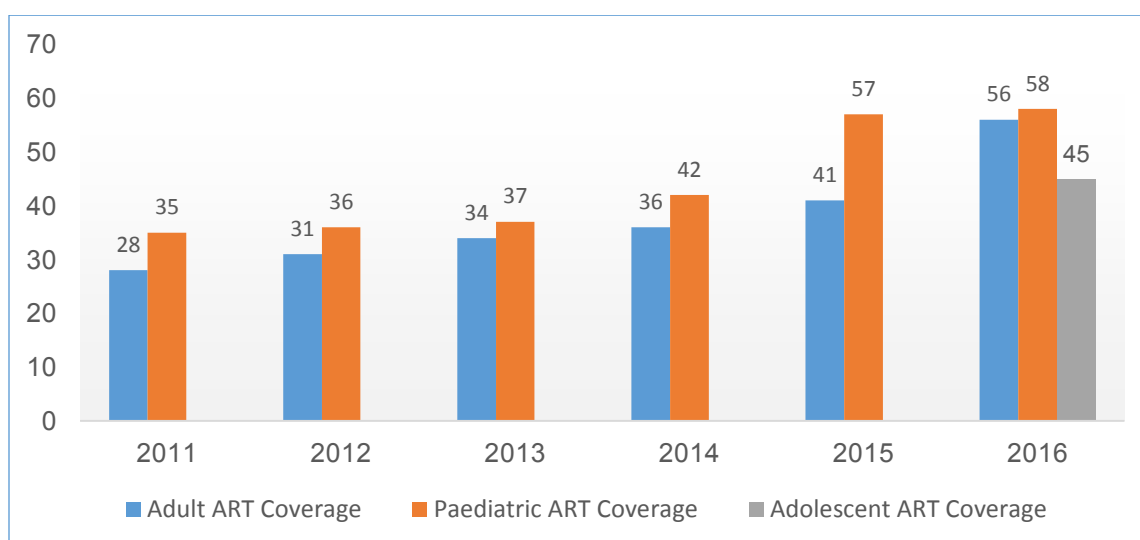
Achievements

- The country has clear guidelines on HIV management for paediatric and adolescent cases. These are part of the National ARV consolidated guidelines. ARV medicines are available and offered free of charge to patients. Family-centred approaches were being practiced at some sites such as Baylor clinic in Maseru that started off as a Paediatric clinic however evolved over time to include adolescents and adults services in pursuit of 'family centred approach' to care. Some facilities are implementing Differentiated service delivery models where adolescents' corners have been established to provide a range of services.
- Given the high rates of HIV infection among adolescent girls and young women; the country through PEPFAR supports the implementation of the DREAMS programme in two districts of

Maseru and Berea. The programme seeks to provide comprehensive layered services targeting AGYW and offered as a school-based HIV risk avoidance and violence prevention, community mobilization and norms changing activities. Other activities include condom promotion and distribution programming, post-violence care, HTS, contraceptive mix options and PrEP. While the programme is commendable, however, the programme reach is limited to only two of the ten districts in Lesotho and so the government should consider scaling it up to other districts.

- HIV drug resistance testing is done for all the patients failing any PI based regimens at Baylor clinics. The tests are conducted in South Africa at a cost of M 4,000.
- The country has disaggregated ART coverage data for children while adolescent ART coverage data was reported for the first time in 2016.
- *A good practice was observed at Baylor clinic in Maseru where adolescents and young people received six-monthly assessments. A checklist was used to assess their homes, HIV education, education, employment activities, use of drugs/alcohol/tobacco, mental health status, SRH, safety, spirituality and support (HEADSSS Assessment). Interventions were delivered based on the findings of the assessment*

Figure 14 - Lesotho paediatric, adolescents and adult ART coverage



Challenges

- Mortality among adolescents living with HIV in Lesotho has increase two fold between 2000 and 2016 raising concerns on the HIV programme quality. This could be attributed to low testing rates among adolescents, low HIV treatment coverage of 45% in 2016 (Figure 14) compared to adults and possibly poor retention in care. It is possible that many of the adolescents are lost during pre-ART phase even in the era of test and treat.
- Adolescents reported challenges with adherence to treatment. Some sites are working closely with NGOs such as LENASO to track defaulters.
- Some health workers lack confidence and competence in managing paediatric ART clients affecting the quality of services offered to this sub-population.
- There are long TAT for viral load tests for patients thus impacting on patient care.

Recommendation

- The ministry of health should standardise adolescent and youth friendly service provision and strengthen linkages between HTS and ART, tracking of adolescents that default treatment in the community.
- Health workers need to be capacitated on paediatric and adolescent care through training and mentorship to increase their competence and confidence in managing these patients.

Enabling environment for the National HIV Response

Achievements:

- GOL is committed to having a strong enabling social and legal environment for PLHIVs, key populations and general public to freely access and utilise HIV and AIDS services (NSP indicator)
- GOL has developed strategies to address stigma to facilitate access to services
- Stigma reduction has been addressed through community programmes
- Majority of the population willing to: take care of PLHIV of their families, accept HIV-positive teachers in the classroom and to buy fresh fruits or vegetables from a vendor known to be HIV-positive

Challenges:

- Inadequate dissemination, implementation and enforcement of HIV-related policies and legislation
 - National HIV and AIDS Bill (2006) adoption
- Fragmented policies & legislation which have impact on HIV/AIDS.
- Negative impact of stigma on HIV service access and utilisation
- Stigma index assessment, not undertaken
- Attitudes of HIV service providers in health facilities towards PLHIV not assessed

Recommendations:

- Review existing policies and laws to adequately address HIV/AIDS issues
 - Ensure that issues pertaining to key populations are also addressed
- Carry out public awareness programmes
- Disseminate, implement & enforce HIV-related policies.
- The review process will also take into consideration the needs of key populations in terms of service delivery and protection of their human rights.
- Carry out Stigma index assessment
- Address attitudes of service providers
- Community awareness raising on human rights of PLHIV

Chapter 4. Tuberculosis

Global Perspectives

The **United Nations developed the Sustainable Development Goals (SDGs)**, 2016-2030. Among the 17 goals, SDG 3 and target 3.3 relates to ‘...ending the epidemic of AIDS, tuberculosis and malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.’ Similarly, WHO developed the END TB strategy (2016-2035) aligning with the SDGs and with the following four principals namely- government stewardship and accountability, with monitoring and evaluation; strong coalition with civil society organizations and communities, protection and promotion of human rights, ethics and equity and adaptation of the strategy and targets at country level, with global collaboration. The key three pillars within this strategy include Integrated, patient centered TB care and prevention, bold policies and supportive systems and intensified research and innovation.

Ending the global TB epidemic will be achievable over the next 20 years only if there is intensive action by all countries which have endorsed the End TB Strategy and its ambitious targets. The End TB Strategy has three high level indicators with corresponding targets for 2035¹⁵. The 2035 targets are:

- 95% reduction in number of TB deaths compared with 2015
- 90% reduction in TB incidence rate compared with 2015 (ten new cases per 100,000 population per year)
- zero TB-affected families facing catastrophic costs due to TB

Globally, the **TB mortality rate is falling at about 3% per year**. The proportion of people who develop TB and die from the disease (the case fatality ratio) was 16% in 2016. This needs to fall to 10% by 2020 to reach the first milestone of the End TB Strategy. **TB incidence is also falling** at about 2% per year; this needs to improve to 4–5% per year by 2020 to reach the first milestones of the End TB Strategy¹⁶. Drug-resistant TB is a persistent threat, with 490 000 cases of multidrug-resistant TB (MDR-TB) plus 110 000 cases of rifampicin resistance emerging in 2016. About 82% of TB deaths among HIV-negative people occurred in the WHO African Region and the WHO South-East Asia Region in 2016; these regions accounted for 85% of the combined total of TB deaths in HIV-negative and HIV-positive people.

National Context:

Lesotho is currently implementing the national TB strategic plan 2012-2018¹⁷. The current NSP was informed by the STOP TB Strategy.

The vision of the plan is a Kingdom of Lesotho where TB ceases to be of major public health threat. The overall goal is to reduce TB prevalence and mortality rates by 25% and 50% respectively relative to the 2008 rates.

Key strategic objectives covered in this plan include.

Strategic Objective 1: To achieve 70% TB case detection while **increasing treatment success rate to 90% by 2018**.

¹⁵ WHO. Implementing the End TB Strategy, 2016

¹⁶ Global TB Report, 2017

¹⁷ Lesotho. National TB and Leprosy Strategic Plan 2013-2017

Strategic Objective 2: To reduce mortality rate among TB/HIV co-infected patients to less than 5% by 2018.

Strategic Objective 3: To increase DST coverage to not less than 95% of prioritized patients (re – retreatment cases) and treat all identified MDRTB cases to achieve a treatment success rate of at least 75% by 2018.

Strategic Objective 4: To address key Health System barriers which include governance and leadership at all levels, Human Resources for Health (HRH), Procurement and Supply Chain Management (PSCM), and strategic information management

Lesotho is among the top 20 countries with highest TB and TB/HIV incidence rates globally. Some progress has been noted in reducing the TB incidence and mortality in the past 15 years. According to the Global TB Report 2017, the estimated incidence was 724 per 100,000 population (Fig 15). In the same year, the TB notifications totaled 7,513 translating to a notification rate of 342/100,000 (Fig 17). The treatment coverage was only 46% in 2016 and the huge gap between the case notification rate (CNR) and the estimated incidence means many TB cases go undiagnosed and untreated. It is anticipated that the planned TB prevalence survey will shed more light into the epidemiology of TB in Lesotho and better guide effective interventions to find missing cases. In addition, the TB mortality in the country remains unacceptably high. The pattern of the TB mortality epi curves (Fig 16) brings to our attention an important fact that mortality among TB/HIV co-infected patients is falling whereas mortality among HIV negative TB cases has remained stagnated since 2005. The reduction in mortality among the co-infected cases may be attributable to the effectiveness of ART. The current trends in incidence and mortality (Fig 16) put the country at risk of missing the End TB Strategy targets.

Figure 15 - Lesotho TB incidence, 2000-2015

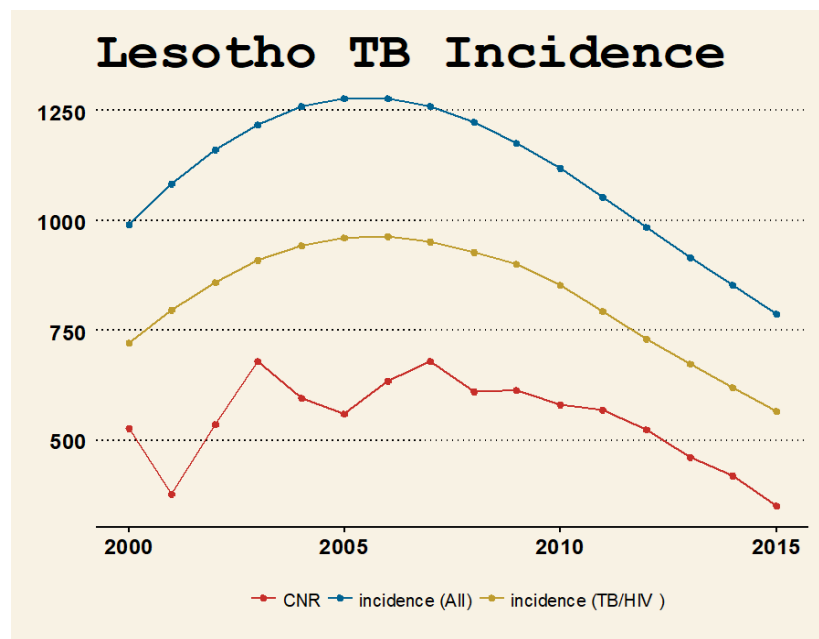


Figure 16 - TB mortality in Lesotho, 2000-2015

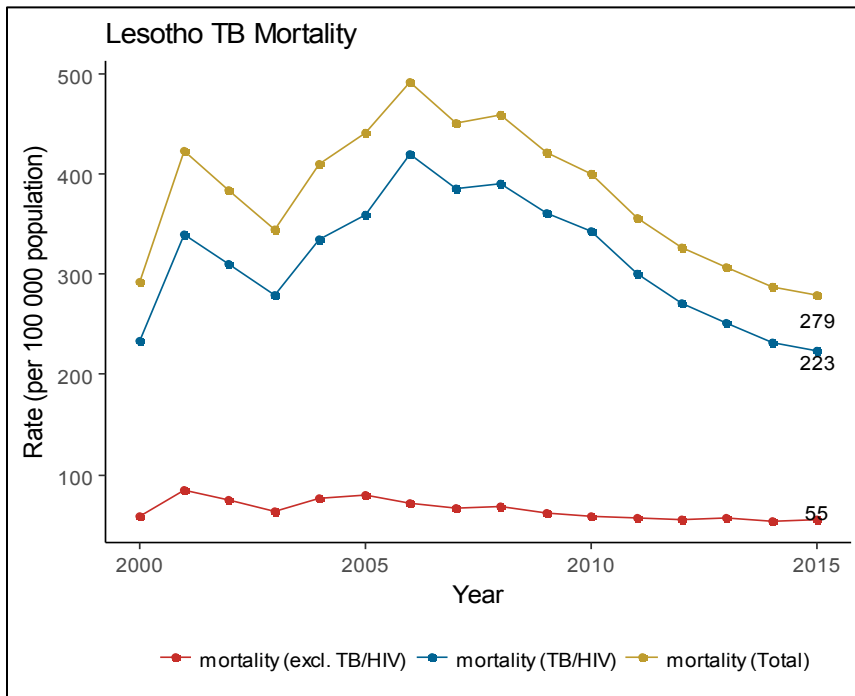
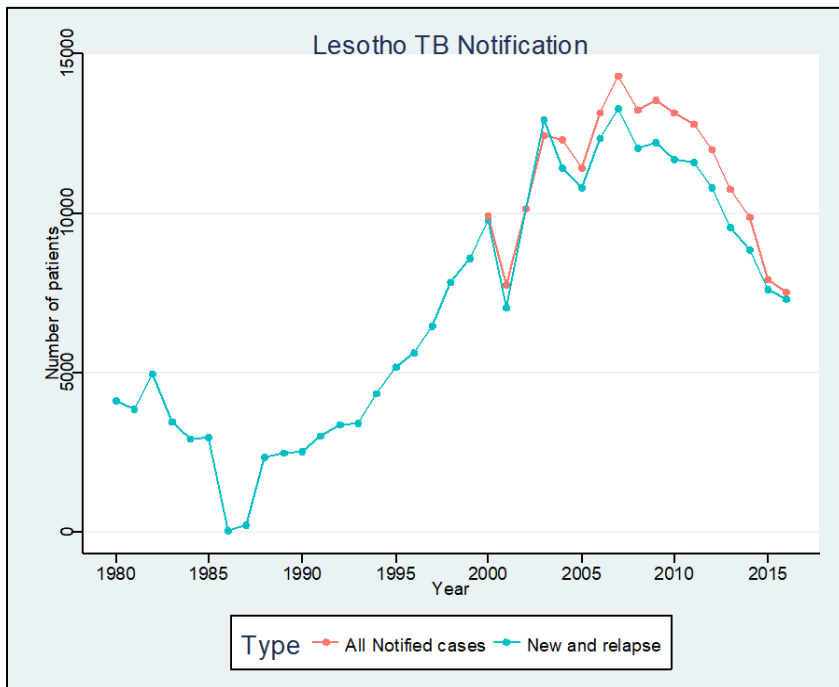


Figure 17 - TB case notifications in Lesotho, 1980 - 2015



An epidemiological and impact analysis¹⁸ for the TB programme was carried out in 8-19 May 2017 and was meant to inform this Joint Review Mission and to update the National TB Strategic Plan. Annex 7.6 summarizes key performance indicators versus NSP targets for TB.

Major Findings, Achievements and Challenges

Political Commitment

Achievements:

- The country regularly updates the National TB Strategy (NSP) that is in line with the current global TB strategy. The current NSP is between 2014 and 2018 and the Ministry of Health has planned to start developing the new NSP 2019-2023 later in 2017. There are dedicated staff at national, district and facility level to coordinate TB activities.
- All the First Line TB Drugs are procured by government and a USD15 Million World Bank Loan facility has been secured to help address TB in the mining sector and for Occupational health interventions. It is government's policy to offer TB services free of charge to patients.
- There are multiple partners supporting MOH technically and financially. The main partners supporting the programme are PEPFAR and Global Fund. The country with support from the Global Fund and the World Bank SATBHSS project with URC as the Implementing Partner is planning to conduct a TB Prevalence Survey which will help to determine the burden of TB in Lesotho. Currently the country uses WHO estimates to report TB disease burden.

Challenges

- The National TB programme is not formally established within the MOH human resources structure. Currently, the existing technical staff is inadequate to cover all the key programme areas. There is inadequate TB technical staff at central level to oversee all the key areas such as drug resistance TB, childhood TB and Paediatric TB Care. The coordination between the National TB Programme and the National Reference TB laboratory is ineffective.
- District level staff are not fully involved in the development and dissemination of national policies and strategic documents
- TB control is over reliant on partner support thus presenting a threat to the sustainability of the national programmes.

Recommendations

- The MOH should formally establish the National TB Programme with a well-defined structure from the central to the sub-national levels. Greater involvement of DHMTs in the development and dissemination of policies, strategic documents and in programme planning is needed to bolster programme ownership, accountability and effectiveness.
- The MOH should strengthen coordination and collaboration among partners to avoid duplication of services at all levels. The new NSP should be used as an advocacy tool to direct partners to fill the gaps in order for the country to reach its targets. Functional collaborative arrangements between NTP and NTRL should be established for the betterment of the TB programme and patient care.

¹⁸ Lesotho Epidemiological and Impact Analysis and Standards and Benchmarks Report, May 2017

Case-detection

The country has a high burden of TB, TB/HIV and MDR-TB; however, the TB case detection rate for susceptible TB is only 49% implying that more than half of estimated TB cases are not diagnosed and treated.

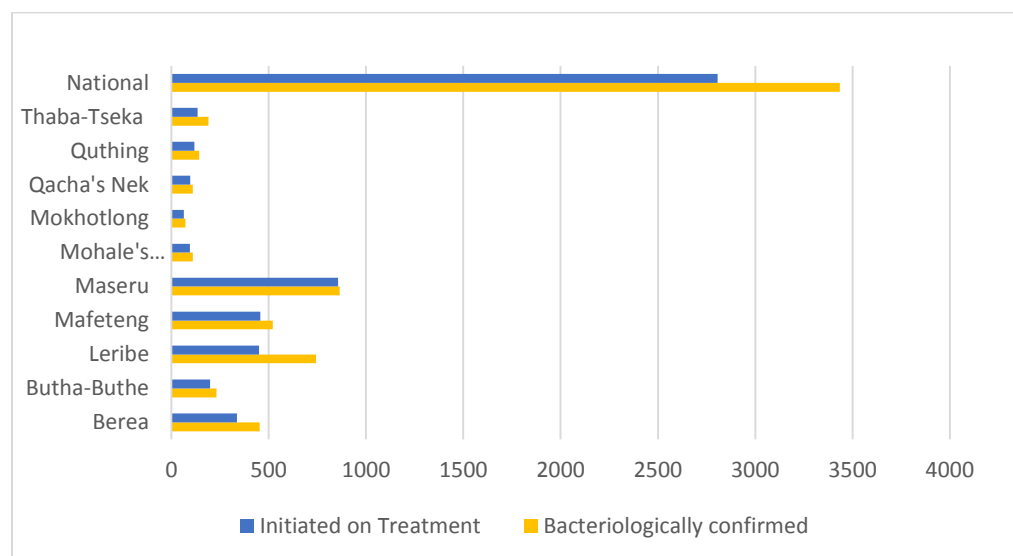
Achievements:

- Of note was that the NTP had introduced the implementation of systematic TB screening for all patients/clients at every point of entry into health care facilities regardless of presenting symptoms. The GOL provides the initial and follow-up TB tests free of charge to patients.
- The MOH has adopted use of highly sensitive molecular GeneXpert technology as the first TB diagnostic tool for all presumptive TB cases. An increase in the proportion of bacteriologically confirmed TB cases was observed along with the introduction and rollout of GeneXpert testing since 2013. This increase was seen across all the districts. The roll out of Xpert in the recent years is likely to improve the quality of TB diagnosis leading to an increase in confirmed TB cases and reduction of patients on empirical treatment based on clinical or X-ray diagnosis.
- Country wide coverage of an established and well-functioning system of sample transportation through 'Riders for Health', which offers weekly transportation of sputum samples and laboratory test results between the health care facilities and diagnostic centres (normally at the district hospitals) is highly commendable (See Chapter 6 Laboratory Services).

Challenges:

- TB case notifications have declined rapidly in the last 10 years (Figure 15) despite high estimated TB incidence rate. Case notifications are still at a low level compared with the estimated incidence (46% in 2016) and a high proportion of estimated incident cases are still not detected. The rate of initial defaulters is high (cases diagnosed of TB but not registered for treatment) at 22% coupled with lack of an effective system to track these patients (Figure 18).
- Severe forms of TB (e.g. TB meningitis and millary TB) were common and mostly associated with underlying HIV coinfections and immunosuppression or delay in TB diagnosis.
- Although the Xpert (or microscopy when Xpert is not available) is assumed to be used for all presumptive TB cases, only 70% of presumptive TB cases identified by the screening of OPD clients were tested by a bacteriological test in 2016. The percentage varies by district and range between 21% (Qacha's Nek) and 92.5% (Maseru). Low bacteriological testing for identified presumptive TB affected the yield of TB screening and resulted in the high proportion of notified TB patients not diagnosed bacteriologically (44% in 2016). Long turnaround time (TAT) for both Xpert and smear microscopy for samples transported to the laboratory from health centres, which was normally between 2 days to 1 week but up to 2 weeks in some settings.
- TB symptom screening tool primarily focuses on cough for two weeks or longer in HIV-negative clients and is therefore likely to have low sensitivity leading to missed TB cases.
- Intensified TB case finding (ICF) among high-risk populations and community was not routine and not well documented. Contact investigations were also not routinely performed among household contacts of index TB cases.

Figure 18 - Bacteriologically confirmed TB versus initiated on Treatment in 2016



Recommendations

- The NTP should prioritize and accelerate active case finding to identify as many missing TB cases as possible and to monitor and support districts to improve Xpert test for all presumptive TB cases in order to increase yield of TB screening for OPD clients; and maximize number of TB patients diagnosed by bacteriological test. It will be prudent for NTP to develop a costed GeneXpert Implementation and Scale Up plan to guide its rollout.
- It is important for the programme to develop and disseminate a more sensitive TB symptom screening tool with consideration of expanding symptom screening criteria to include cough of any duration (regardless of HIV status), producible sputum or adding chest X-ray as a screening tool where it is feasible.
- The NTP should develop an Operational Guide for screening and diagnosing TB in high risk groups such as prisoners, miners, diabetic patients, PLHIV and children. Active case finding for high-risk populations and at the community level (e.g. household contacts, PLWH, miners/ex-miners, prisoners, geographical hot spots) should be carried out systematically and regularly by all health care facilities in order to detect as many missing TB cases as possible.
- The programme should develop and implement an Advocacy, Social Mobilization and Communication strategy to improve TB awareness in the community and create demand for TB services.
- The NTP should conduct routine monitoring and record linkage to ascertain the magnitude of TB cases that are not reported to the national level. The programme should prioritize and expedite the process of conducting the first ever TB prevalence survey.
- Training on diagnosis of TB should be conducted for physicians and TB nurse officers at district hospitals and relevant staff at all health facilities including reading CXR, diagnosis of extra-pulmonary TB and childhood TB in order to build their capacity for TB detection and case management.

Treatment and Care

Achievements:

- The programme has put in place recording and reporting tools for TB including Treatment registers and treatment cards for patients. There is a well-organized system for the management of Drug-Susceptible TB. Patients on first-line TB treatment are well managed at either district hospitals or health centres in terms of registration, follow up and monitoring of treatment.
- An established network of village health workers (VHW) is involved in providing DOT and patient support albeit low coverage for patient support for DOT by VHWs. Adherence support provided to patients: DOT by VHWs or family members (DOT is provided by VHWs for 20-25% of TB patients and the rest taken care by family members); education, counselling and psychological support. In each district hospital, a position of the adherence and psychological support officer (APSO) is dedicated to support TB officer in management of TB patients. The APSO, together with the TB officer, provides adherence support such as education, counselling and psychological support to patients before and during treatment. The World Food Programme also provides food to malnourished TB patients.

Challenges:

- Treatment success for new and relapse TB patients has been below 80% since 2008 and fallen far below the national target of 85% according to the NSP. Neither did any of the districts attain the 85% target (Table 2). Furthermore, high death rates of 14% in 2015 and high proportion of not-evaluated treatment outcomes (9.7%) in 2015. The challenges experienced in TB case management and the ascertainment of treatment outcomes partly emanate from frequent movement of miners to and from South Africa and across districts.
- The country is using Category II for retreatment which has been phased out by WHO. However, the country has already developed an addendum to the current TB Guidelines to inform management of retreatment TB cases.
- Drug-susceptible TB patients do not receive any material support (e.g. financial, food, transport, income loss) in comparison to those with drug-resistant TB and yet some may genuinely need assistance. "DOT" is so heavily reliant on family members and with limited involvement of VHW. It was observed that palliative care services (e.g. symptom or pain relief, end-of-life care) were not available for TB patients and hence compromising on the quality of care
- Follow-up smears were not consistently carried out compromising programme quality.
- Technical supervision visits to sub-national level were rarely conducted and so failure for the NTP to adequately monitor and coordinate programmatic activities at lower levels. Most support visits were carried out by partners.
- The National TB Guidelines are not up-to-date on diagnostic algorithms, regimens for retreatment and on RR/MDR-TB patients

Table 2 - TB treatment outcomes by district, 2015

District	Completed	Cured	TSR	LTF	Death Rate	Failure	N.Evaluated
Berea	51%	23%	74%	6%	14%	1%	4%
Butha-buthe	48%	25%	73%	0%	22%	1%	3%
Leribe	54%	7%	61%	6%	12%	1%	21%
Mafeteng	49%	18%	67%	9%	17%	1%	6%
Maseru	60%	10%	70%	8%	9%	0%	12%
Mohaleshoek	55%	16%	71%	10%	16%	1%	1%
Mokhotlong	53%	21%	74%	6%	17%	1%	2%
Qacha'snek	34%	33%	67%	3%	23%	1%	5%
Quthing	47%	19%	66%	2%	26%	1%	2%
Thaba-tseka	60%	13%	73%	5%	19%	0%	3%
Lesotho	54,6%	13,9%	68,5%	6,9%	13,8%	0,8%	9,7%

Source: NTP Programme, 2017

Recommendations:

- Health facilities should regularly conduct data analysis and TB death audits.
- The MOH should develop and implement a capacity building plan including on the job training and mentorship targeting TB care providers so as to improve quality of TB services and treatment outcomes.
- DOT should be provided to all patients with enhanced involvement of VHWs.
- NTP should phase out Cat II regimens and disseminate the addendum to the guidelines to inform management of retreatment cases according to the WHO recommendations.
- MOH/NTP and partners should consider mobilizing resources for material support to be provided to all TB patients who are in need. Palliative care services should be established including care for TB patients, especially those who are co-infected with HIV or with MDR/XDR-TB.
- MOH should improve the coordination for the management of migrant patients (between districts and cross-border) and reduce the numbers of patients not evaluated for treatment outcomes.
- The NTP should consider revising the national TB guidelines to align with recent global advancements in TB care and prevention.

Management of Childhood TB

Achievements:

- The NTP has Childhood TB guidelines and a training curriculum for TB care providers. Childhood TB Guidelines include routine enrolment on IPT of child contacts who are screened negative for active TB. There was on-going systematic screening of children under 5 years who are household contacts of TB cases
- Diagnosis, treatment and care of paediatric TB are provided by Baylor clinic network, especially for HIV-infected TB patients, with high quality services provided e.g. using sputum induction, Xpert test and CXR for diagnosis; together with standardized treatment, care and

prevention services. Baylor clinic network is fully integrated with the government health system and also provides training and mentorship to health workers working for government and CHAL health facilities in regarding paediatric TB and HIV management.

- There was good integration of TB prevention and care services in MNCH settings with the use of presumptive TB register.
- The country has adopted the new child friendly formulations which were available in many health facilities visited.

Challenges:

- A low childhood TB case detection rate of 3.3% of all notified cases of TB in the country in 2016 (227 out of 6,937 cases whose age was reported). This is lower than what should be expected (5-15%) in high TB burden countries. Many health care workers have limited capacity and confidence to diagnose and manage childhood TB; this is more evident in health centres contributing to the low childhood TB detection rate.
- Screening and management of childhood TB is conducted at several service delivery points at the district hospitals with minimal coordination for the purpose of recording, reporting and tracking of all diagnosed cases and hence high possibility of under-reporting.
- The coverage of child contact investigation is less than 50% with few child contacts being brought to the health facility for screening. It was also noted that IPT coverage among identified eligible child contacts was less than 50% with frequent stock-outs of INH 100 mg in health facilities compromising on IPT programme uptake.

Recommendations:

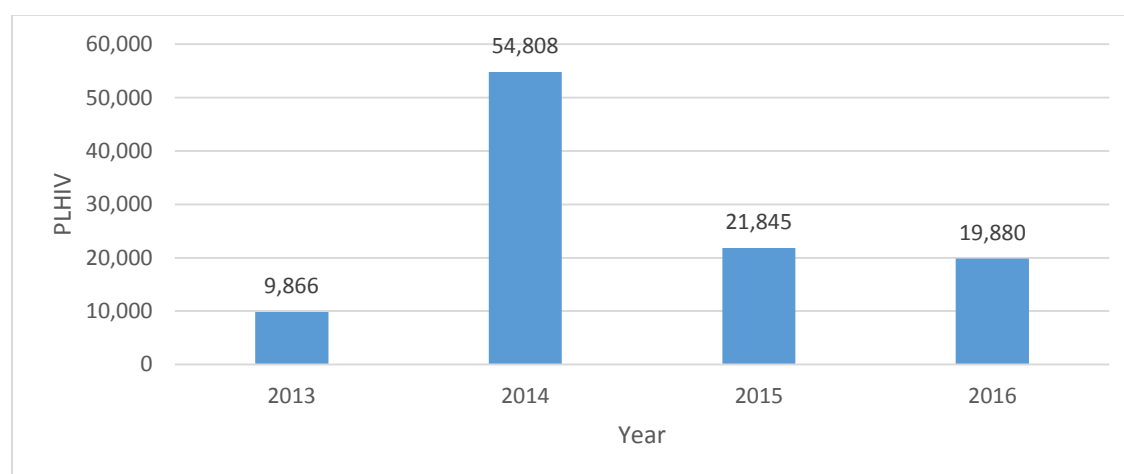
- The NTP should develop a scale up plan for childhood TB while strengthening the coordination of childhood TB activities through the appointment of a Childhood TB focal person. A dedicated Childhood TB Technical Working Group should be established for technical oversight of the programme.
- NTP and partners (e.g. Baylor) to continuously build capacity and confidence of health care personnel at all levels to improve screening and diagnosis of childhood TB and optimization in the management of child contacts. The programme should ensure that presumptive child TB patients undergo the WHO recommended approach to diagnose TB in children taking into account the limitation of GeneXpert that is not a rule out test for TB in children.¹⁹
- MOH/NTP should mobilize resources to minimize barriers for access to diagnostics including making chest x-rays free of charge to children.
- MOH/NTP should devise a plan to strengthen the linkage of the Baylor's data management system, MNCH, paediatric wards and the district TB reporting systems to ensure all paediatric TB patients are captured in the NTP surveillance system.
- MOH/NTP should ensure contact investigation and IPT to be provided to contact children; and improve the supply chain management of Isoniazid to avoid drug stock outs.

¹⁹ Guidance for national tuberculosis programmes on the management of tuberculosis in children. WHO 2014.

Integrated TB/HIV Collaborative activities

The resurgence of the TB epidemic was associated with the advent of the HIV epidemic in the 1980's. Tuberculosis is the major opportunistic infection that causes morbidity and mortality among PLHIV. Patients infected with HIV have a 10% annual risk of developing TB disease compared to HIV negative individuals. Lesotho like many other African countries in the region has a high burden of TB/HIV co-infection rate of 72%. It is estimated that there were 12,000 incident TB cases among PLHIV in 2015 (UNAIDS Data July, 2017). Given the high confection rates, the National TB Guidelines (2016) recommend that TB and HIV programmes should implement collaborative activities along the following areas: *establishing the mechanism for collaboration between HIV and TB services; reducing the burden of TB among PLHIV; and reducing the burden of HIV among TB patients*. The country is implementing collaborative TB/HIV activities however, at varying levels of implementation.

Figure 19 - Annual numbers of PLHIV initiated on IPT in Lesotho, 2013-2016



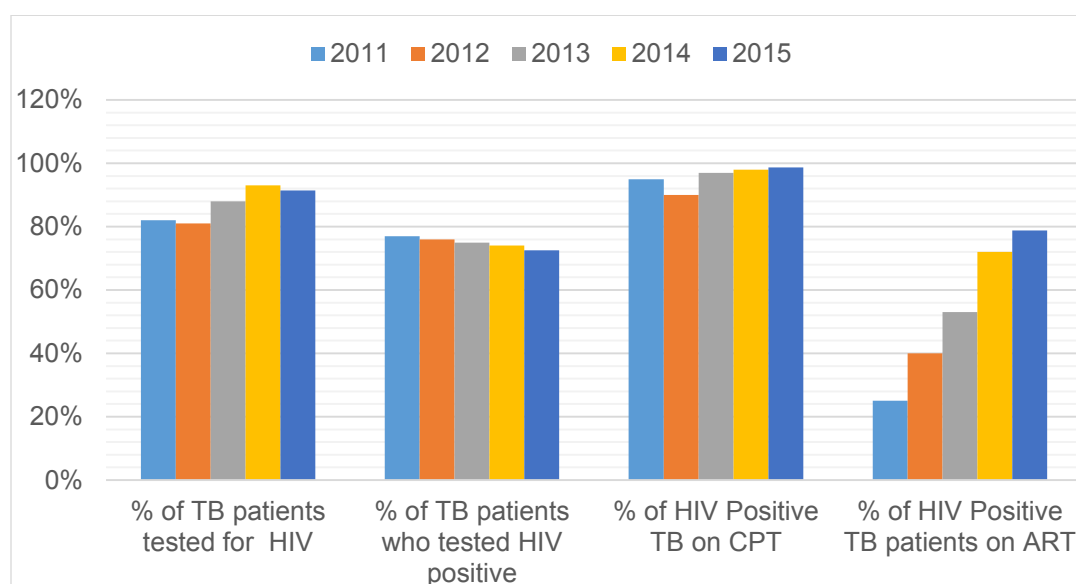
Achievements:

- Given that both the NTP and HIV programmes fall under the same directorate of Disease Prevention and Control within the ministry of health; the organizational structure creates opportunities for greater communication, integration and collaboration across the two diseases.
- The country applied for a Joint HIV and TB Grant under the current Global Fund Grant where government officials alongside multiple stakeholders working and supporting both diseases shared the platform to deliberate on and plan for a joint application that addressed both programme gaps, including TB/HIV collaborative activities.
- There was efficient integration of HIV and TB services at hospitals and health facilities with provision of services using the 'One-stop shop' model in some facilities. There was evidence of ART initiations within some TB clinics visited. PLHIV were being screened for TB using the TB symptom checklist and at every HIV entry point. The integration of the HIV component (testing) in all TB tools resulted in high levels of HIV testing among TB patients (Fig 20 below).
- We observed rising core TB/HIV performance indicators with timely initiation of ART over the years. In 2016, 83.9% of TB cases co-infected with HIV received ART (above the national

target of 80% by 2016). The rollout of ART programme is likely to contribute towards the reduction on TB notifications in Lesotho.

- The country adopted the Isoniazid Preventive Therapy (IPT) programme which is being offered as part of the HIV care package to eligible PLHIV. Studies have shown that IPT reduces the risk of active TB disease in persons infected with HIV. In 2014; over 54,808 PLHIV were initiated on IPT with figures dropping to 21,845 and 19,880 in 2015 and 2016 respectively following shortages of Isoniazid (Figure 19). Staff at some facilities visited indicated that treatment completion rates were unsatisfactory due partly to reluctance of patients to take IPT.
- The country rolled the GeneXpert which is a highly sensitive molecular technology as the initial TB diagnostic tool used for every presumptive TB case including PLHIV. As a result, the turnaround times for TB diagnostics improved especially where onsite services were available.
- TB/HIV IEC materials were available in some health facilities

Figure 20 - Lesotho TB/HIV indicators, 2011-2015



Source: MOH. NTP Programme, 2017

Challenges:

- Low uptake of IPT compounded by stock outs of Isoniazid and Pyridoxine medicines in the past 2 years has negatively impacted the programme. The NTP has limited IPT programme data where treatment completion rates for patients commenced on IPT could not be ascertained. The poor performance of the programme could be due to lack of clarity on programme ownership. According to WHO ICF/IPT Guidance; IPT programme should be managed by the HIV programme.
- It was noted with concern by some HIV care providers that some patients were developing TB while receiving ART. There is a possibility of poor capacity to exclude active TB disease among health workers.
- Some districts had low ART coverage for HIV/TB co-infected patients

- TB screening among PLHIV had low quality, example no questions were elicited for TB symptoms couples with inadequate documentation of TB screening among PLHIV.
- The work of NGOs seem to be more focused on HIV with minority supporting the TB programme. This is against a backdrop of high TB/HIV coinfection rate.

Recommendations:

- The MOH should set up TB/HIV collaborating structures at all levels. Although the NTP guidelines recommend the setting up of an HIV/TB Technical advisory committee at national level and similar structures at lower levels to oversee the programme; these committees have not been fully functional. MOH/NTP should advocate for additional support from partners to support the TB programme.
- MOH should address barriers to, and scale up IPT programme for PLHIV. An advocacy and communication plan should be developed to raise awareness of the IPT programme. Adequate supplies of Isoniazid should be sourced to match with programme needs. The HIV programme should take ownership of the IPT programme including recording and reporting of programme data.
- MOH to investigate underlying contributing factors to reported incident TB cases among PLHIV on ART and build the capacity of health workers to exclude TB prior to commencement of IPT.
- ART Coverage in TB clinics should be improved especially in districts with low coverage.
- Health workers should be sensitized to adhere to guidelines on TB screening in HIV clinics.
- MOH should consider introducing use of LF- LAM for TB diagnosis among the severely immune-compromised PLHIV.

Programmatic Management of Drug-Resistant TB

Burden of DR-TB in Lesotho is known following two drug resistant surveys conducted in 2008/2009 and in 2014/2015 respectively. The surveys indicated that 3.1% of new TB cases were MDR in 2013/14 with similar levels in the subsequent survey (3.2%). However, there was a notable decrease in MDR TB among the retreatment cases from 12.6% to 6.9% across the surveys.

Palliative care has a role in the management of MDR/TB. Palliative care is an approach that improves the quality care of terminally ill patients and their families facing the problems associated with life-threatening illness, through the prevention of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual (WHO, 2002). Therefore, this approach alongside active care therapy helps to control symptoms from TB disease, symptoms associated with underlying conditions such as HIV, peripheral neuropathy which are due to TB medications. High burden of disease treatment (medications) for patients, poor cure rates, and high mortality contributes to distress in patients, families and caregivers.

Despite guidance to improve treatments outcomes, little attention has been paid to palliative care of patients and families²⁰. It is important that patients with advanced TB who maybe dying from

²⁰ Harding, R., Foley Connor, S.R., (2012). Palliative care and End of Life in the global response to multi-resistant TB.

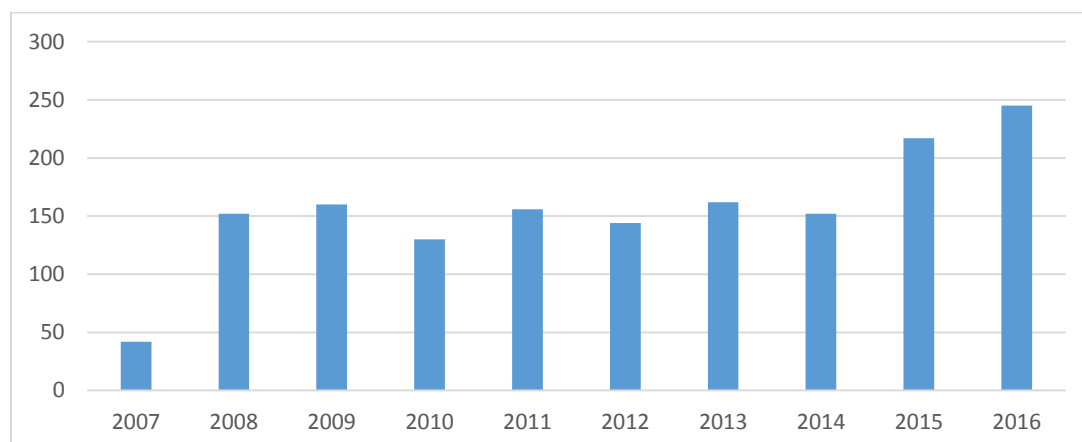
co-infection be cared for respectively with the attention to controlling distressing symptoms and provision of emotional and spiritual support. Family and support of health care workers, including infection control and screening for TB are also critical components in addressing MDR-TB. In 2014, WHO during the World Health Assembly in Geneva resolved to have palliative care integrated by all member states into health care delivery system. The resolutions are meant to strengthen the quality care of patients.

The World Health Organization (WHO) estimated a prevalence of 650 000 cases of multidrug resistant tuberculosis (MDR-TB) in 2010, which result in most patients with extensive drug resistant TB (X-DR) dying from their disease. Lesotho has about 245 DR-TB cases out of 7513 which were notified in 2016 in the TB and Leprosy annual report of 2016. Furthermore, according to the same report, HIV positivity among DR-TB patients was reported to be 79% in 2016. This is much higher than positivity among drug susceptible TB patients. Patients with a confirmed diagnosis of MDR TB coupled with HIV must be highly recommended for inclusion in palliative care as they experience challenges associated with severe chest pains, distressing symptoms and psychosocial issues. This therefore requires that policies and guidelines be updated to ensure that palliative care and end of life care are in place alongside active treatment in order to meet the full range of clients palliative care needs.

Achievements:

- A high coverage of Drug Susceptibility Testing for rifampicin (using the GeneXpert) with increased numbers of DR-TB cases enrolled under MDR-TB treatment (Fig 21).
- DR-TB treatment services are available in Maseru (managed by Partners In Health) with adequate admission and care arrangements for MDR-TB patients on a patient-centered care approach model and community centred care approach.
- The programme uses the GeneXpert, FL-LPA, culture and DST for first-line TB drugs
 - Strong Technical support from a partner (Partners In Health provides all second line treatment for TB in Lesotho with funding from the Global Fund TB grant)
- The country has adopted use of new TB recommended drugs i.e Bequadiline and Delamanid for patients who are intolerant to second-line drugs in the standardized longer regimen.
- The environmental control measures are adhered to in all health care facilities.
- Through the TB Global Fund grant; DR-TB patients receive social support services including food packages and a stipend for transport to and from the health facility. Some components of palliative care are outlined in the DR-TB Guidelines on the management of distressing and associated symptoms.

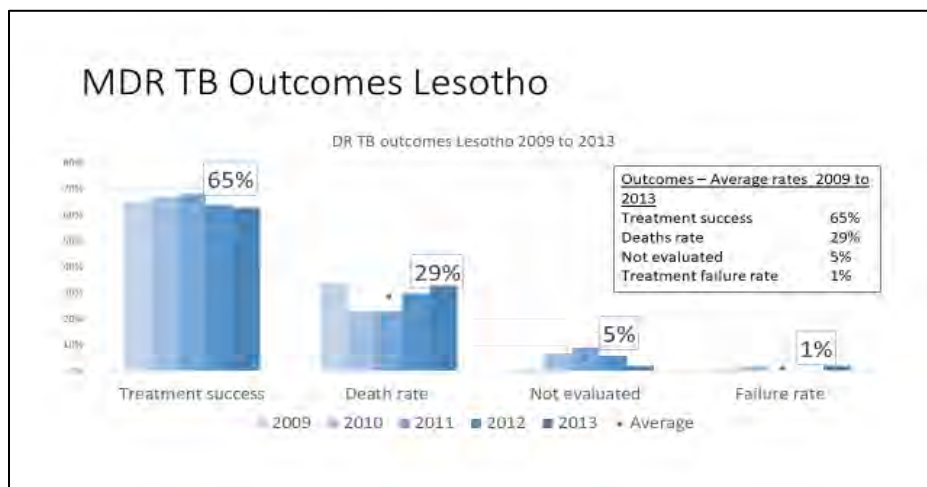
Figure 21 - Number of DR-TB patients enrolled under treatment, 2007-2016



Challenges:

- The country reported high DR- TB death rate at 33% in 2012 (Fig 22). Gaps exist in linking the detected RR/MDR TB cases and patient initiations. Second Line DST is not available in the country.
- There is a highly centralized treatment initiation model of care which is only available in Maseru. PIH team in Maseru manages MDR-TB patients together with VHWs and with very limited involvement and limited capacity of health staff at district and health facilities. There were no DR-TB registers at district level and staff at district and health facility levels were minimally involved in the monitoring of treatment response including management of adverse reactions to drugs. There was no pharmacovigilance system in place for reporting side effects of TB and other medicines.
- The DR – TB unit at PIH employed use of N95 respirators for patients with DR- TB. There were no advisory committees to discuss case management.
- The country is yet to introduce the shorter TB regimens while the MDR-TB regimens in the national TB guidelines are not up-to-date with the new WHO recommendations on MDR-TB treatment (i.e standardized shorter regimen and longer regimens with new drugs).

Figure 22 - MDR-TB outcomes in Lesotho, 2009-2013



Recommendations:

- MOH should establish a position of an MDR-TB Medical Officer for effective programme coordination. NTP and PIH to strengthen engagement of, build capacity for and transfer more responsibilities to district TB units and health care centres in all aspects of PMDT, including supervising and supporting VHWs in MDR-TB case management.
- The programme should build a robust tracking system for DR TB cases and ensure that no gaps between detection and treatment enrolment occur. This includes strengthening the MDR-TB information system to facilitate reporting of all DR-TB cases from GeneXpert sites and NTRL to the NTP.
- NTP should strengthen the capacity at district and health facility level to meet the requirement for effective management of patients including palliative care.
- NTP should consider adopting the shorter MDR-TB treatment regimen and longer regimens with new drugs according to the WHO recommendations; and to develop a transition plan for the introduction of shorter regimens and new drugs for treatment of DR-TB, including the establishment of a mechanism for active TB drug safety monitoring and management.

Management of TB in High- risk groups and populations

Achievements:

- Lesotho is a signatory to the Declaration on TB in the Mining Sector by SADC Heads of states and government and as such is guided by a Code of Practice
- On-going integrated health programmes for ex-miners, miners and their families through World Bank and Global Fund grants. TEBA a profit-making employment bureau facilitates the recruitment of miners intending to work in South Africa. It runs three TB clinics in Maseru, Mafeteng (Fig 23) and Leribe that were established by MOH through the SADC Harmonization of Health Services in the Mining Sector. The clinics conduct health awareness services, comprehensive TB and HIV screening and treatment services, home based care services for

patients with chronic conditions. Patients diagnosed with TB are first treated in Lesotho until they smear convert to negative before they can proceed to South Africa for work.

- Recording and reporting tools take into consideration occupations and TB high risk groups

Figure 23 - Courtesy Mafeteng Occupational Health Service Centre



Challenges:

- High TB rates 1746/100,000 among miners
- No regular TB screening programme for high risk populations. TB screening tools used in TEBA clinics were not sensitive enough to pick all TB cases particularly those without cough symptoms

Recommendations:

- The NTP should establish systematic screening for TB among high-risk populations and consider introducing INH prophylaxis for ex-miners.
- MOH should consider establishing a TB workplace programme as part of Wellness Programme targeting health care workers.
- Given the relationship between TB and other comorbidities such as Diabetes Mellitus; strong collaborative activities should be designed and implemented.

Public-Private Partnership

Achievements:

- There are strong partnerships with private sector and partners in TB e.g. CHAL health facilities, Baylor clinic network, PIH DR-TB Hospital, points of care for miners/ex-miners and

families and private clinics. Some private clinics provide integrated TB/HIV or TB laboratory services, case notification, treatment and case management. In some districts there has been meaningful engagement with the traditional healers or faith forum.

Challenges:

- There was no official MOUs between MOH and private clinics in TB management and policy guidelines to support engagement of variety of private providers is lacking. Linkages between the private sector and NTP is weak with low coverage of private health care providers in TB care and prevention. It was also noted that very few NGOs were working on TB at the community level.

Recommendations:

- MOH/NTP to finalize MOUs and develop policy framework for the engagement of relevant private care providers and partners. At district level, DHMTs should strengthen the coordination of support and to engage potential partners and private care providers to co-invest in TB services.

Chapter 5: Situation Analysis of Viral Hepatitis Services in Lesotho

Background

In 2015, there were approximately 325 million people living with chronic hepatitis B or hepatitis C virus infection. About 70 million of them were in the African Region. It is estimated that 1.75 million adults are newly infected with HCV annually, largely due to injecting drug use and due to unsafe injections in health care settings in certain countries. The epidemic caused by HBV affects mostly the WHO African and Western Pacific regions. Viral hepatitis is the infection causing inflammation of the liver. It is caused by five various types of heptides mainly A, B,C, D and E. Hepatitis A and E are mainly transmitted through fecal oral contamination and cause acute infections and outbreaks. On other hand, hepatitis B and C are transmitted through contaminated body fluids, causing both acute and chronic hepatitis and accounting for 96% of all viral hepatitis related deaths.

The 2030 Agenda for Sustainable Development Goals (SDGs) calls on the international community to combat hepatitis and for inclusive approaches that promote equity and universal health coverage to ensure no one is left behind. The global targets for 2030 are: 90% of people with HBV and HCV infections tested and 80% of eligible patients are reached with treatment. In May 2016, the World Health Assembly (WHA) approved the first Global Health Sector Strategy to combat viral hepatitis. To facilitate implementation of the WHA Resolution and the attainment of the related SDG eliminations targets, Lesotho requested assessment of viral hepatitis situation in the country and make appropriate recommendations as part of the joint review of the HIV, TB, PMTCT and cross cutting programmes.

The objectives of baseline assessment were:

- To assess the current policy and practices on viral hepatitis in Lesotho
- To assess the institutional capacity to screen, confirm and manage Viral Hepatitis cases
- To provide recommendations for initiating and scaling up of a Viral Hepatitis Programme

Methodology

The Viral Hepatitis Assessment Tool developed by WHO was domesticated for Lesotho context and used by reviewers to assess the viral hepatitis. The team conducted a desk review of relevant documents covering national policies, guidelines, registers, and standard operational procedures. This was followed by interviews of key informants in the Ministry of Health, visiting health facilities (private and public) including laboratories.

Key Findings

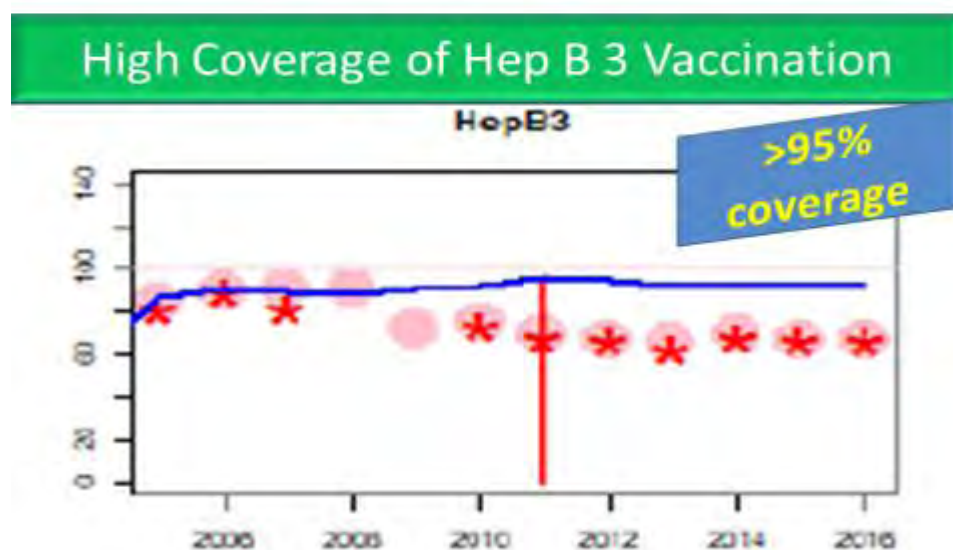
Management and leadership

Viral hepatitis does not exist as a programme in Lesotho. However, some activities related to viral hepatitis are captured in different programmes including the Expanded Programme on Immunization (EPI), the national blood transfusion services, the training in infection control and prevention and laboratory services. The ministry does not have a viral hepatitis focal person, no strategies and plans to address viral hepatitis. The senior management, health care workers, civil societies and partners had limited knowledge on viral hepatitis. There was neither strategic/operation plan nor committed budget to support viral hepatitis activities.

Current policies and practices

There are existing policies which contribute to prevention and control of viral hepatitis. These include policies on childhood vaccination at 6, 10 and 14 weeks after birth; screening of blood and blood products for Hepatitis B and C, HIV, Syphilis and management of HIV/HBV co-infected patients which is articulated in HIV Prevention and Treatment Guidelines. Currently, Lesotho has childhood vaccination (penta) schedules which include three Hep B doses given at 6, 10 and 14 weeks with high coverage (>95%) across the country (Fig 24). However, there is no birth dose within childhood immunization schedule.

Figure 24 - Hepatitis B coverage in Lesotho, 2006-2016



Lesotho: WHO and UNICEF estimates of immunization coverage: 2016 revision

Hepatitis B Vaccination for Health Workers and other high Risk Groups

The vaccination for health care workers and other high risk groups has been ad hoc. Interviews of nurses from several health facilities, key populations, Lesotho Medical council and Independent Private Practitioners revealed that there is no standard policy regarding vaccination of health care workers and other high risk groups. MSF supported a once off vaccination campaign and provided vaccinations to nursing students.

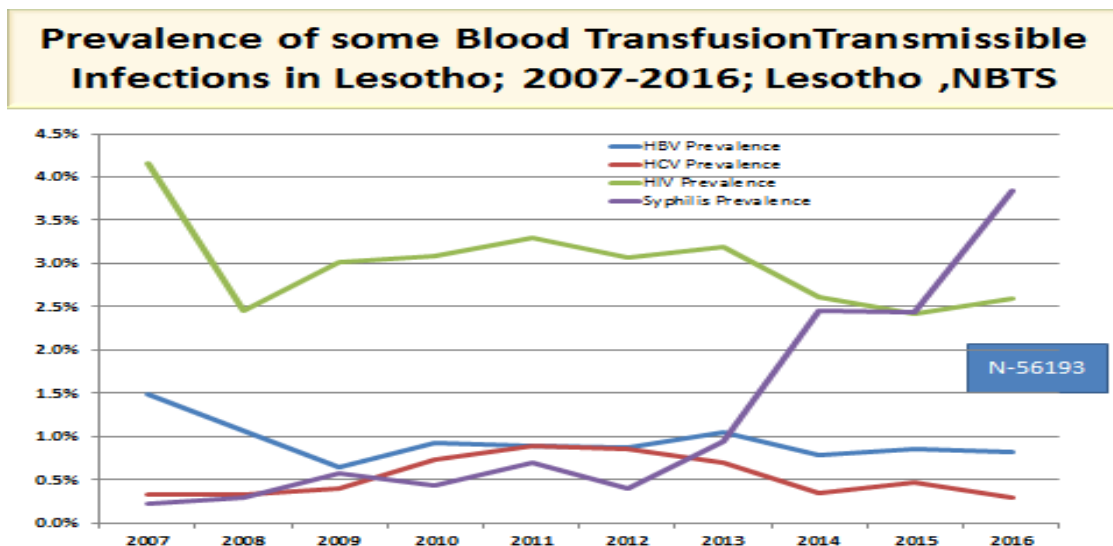
National Blood Transfusion Services

Lesotho has a well-developed National Blood Transfusion services. The institution screens all blood donated units against blood transfusion transmissible infections (BTTIs) including HIV, Syphilis, Hepatitis B and C. It has an arrangement with the South African National Reference Laboratory for an external quality assurance programme conducted twice yearly. From 2007 to 2016, a total of **56,193** blood units were collected and screened for blood transfusion transmissible diseases (Fig 25). Overall, the HIV prevalence among blood donors in Lesotho has declined from 4.2% in 2007 to 2.6% in 2016. During the same period; syphilis prevalence rose

from 0.2% to 3.9% raising concerns on a seemingly neglected disease. The prevalence of both HBV and HCV has been stable in the blood groups over the decade at 0.8% and 0.3% respectively. During the same period, blood transfusion data identified **514 units** which were HBV positive and **312 units** positive for HCV. Sadly all units were discarded and no post- test support services offered.

There are no guidelines related to counseling and service linkages to those whose blood are positive to any of the BTTIs. Blood donors are informed to come back for results after a week if they wish. Those who come for results are referred to closer health facilities for further consultations and no feedback is provided to blood transfusion services. Interviews with Private practitioners and Lesotho Medical council indicated that there was no record of patients ever treated for HBV and HCV virus in the country. There are no national guidelines for screening, testing, assessment and treatment of acute and chronic viral hepatitis. Neither were there guidelines addressing liver conditions and capturing data on the burden of viral hepatitis in the country.

Figure 25 - Prevalence of blood transfusion transmissible infections in Lesotho, 2007-2016



Viral Hepatitis testing, Treatment and Care

Most people with chronic viral hepatitis are not aware of their status, and very few people are accessing testing and treatment services. The global 2017 report indicates that only **9% of HBV**-infected people and 20% of HCV-infected people had been tested and diagnosed. Of those diagnosed with HBV infection, only **8%** (1.7 million people) were put on treatment, while **7%** (1.1mil) of those diagnosed with HCV infection had started treatment in 2015. Hepatitis B can be managed chronically as any other chronic diseases like diabetes or Hypertension with good health outcomes. However, Hepatitis C is curable with high cure rate of 97% when properly treated for only 3 months. The Lesotho National Reference Laboratory has the capacity to test for Viral Hepatitis B only. Together with all other public facilities; the laboratories cannot screen for all other viruses (A, C, D and E). The National Blood Transfusion services is the exception where hepatitis

C can be tested although with limitations of not being able to carry out genotyping services. No record could be found of individuals tested and on treatment for viral hepatitis.

Integration of Viral Hepatitis Services

There is a need to develop a strategy to guide the national hepatitis elimination efforts that is aligned with the MoH and the global strategy targets for 2030. Preferably, the national viral hepatitis elimination programme should be housed within the Department of HIV and AIDS as this set up will enhance the collaboration with existing HIV and STI supporting partners.

Hepatitis awareness, surveillance and monitoring

There is limited knowledge of viral hepatitis among stakeholders including health workers, key populations and civil societies. There is no information on workforce development relating to viral hepatitis. Lesotho has never commemorated world hepatitis day which falls on 28 July each year. This is a missed opportunity for awareness raising and advocacy for viral hepatitis. Although Viral hepatitis is one of the notifiable diseases; it is not included in the monthly epidemiological reporting form neither is it captured in any MOH records. Lesotho has concluded the Population HIV Impact Assessment Survey; however, due to competing priorities and cost, the Hep B and C virus were not tested. This was a missed opportunity in terms of understanding the country's hepatitis disease burden. However, if additional resources are available, the samples could be tested for hepatitis to determine the national disease burden. Additionally, Lesotho will be conducting the Integrated Bio- behavioural surveillance survey for key populations which will include Hep B and C. This will help to determine the levels of infections in this high risk group.

Strengths, challenges, opportunities and recommendations

Strengths

The following were identified as the strengths in the national efforts to address Viral Hepatitis:

- There are updated policies on Viral Hepatitis prevention: These relate to Hep B (Penta) vaccination at 6, 10 and 14 weeks with more than 95% coverage for the 3rd dose
- All donated blood is screened for HBV, HCV, HIV and Syphilis
- Hep B vaccination for health care workers has been implemented although on ad hoc bases and so most health care workers are not vaccinated
- There is laboratory capacity for HBV screening at central level

Challenges

The review identified the following as key challenges in the national efforts to address Viral Hepatitis:

- No Hepatitis focal person
- There is limited awareness and knowledge on viral hepatitis among policy makers, health workers and the general public

- Lack of high level advocacy, commitment and resources for hepatitis elimination and limited central level governance or guiding structures and systems to effectively coordinate the national responses for viral hepatitis.
- There are no guidelines for testing and treatment of HBV and HCV patients
- HBV vaccine uptake among health care workers remain variable and there is no clear policy and documentation on vaccination coverage
- Systems for surveillance, monitoring and reporting of viral hepatitis are yet to be established.
- Lack of laboratory capacity to diagnose HCV

Opportunities

With the adoption of various World Health Assembly Resolutions on Viral Hepatitis and the call for the elimination of viral hepatitis as a public health problem by 2030, it has generated momentum to address this public health problem. The existing services for testing donated blood for transfusion transmission infections can be expanded and improved for reporting and linking those whose blood units test positive for further management. With high coverage of Penta vaccination and BCG at birth, it forms a strong operational platform for introduction and expansion of Hepatitis B to be administered at birth. WHO global guidelines for viral hepatitis testing and treatment are available on WHO website and can be adopted at country level to facilitate service delivery. Expertise exists and can be mobilized from sub-region to support national efforts to address viral hepatitis.

Recommendations for MOH and Wellness programme:

Short-term 3-6 months:

- Appoint Viral hepatitis focal person
- Consider placing viral hepatitis within the established HIV programme (not as a vertical programme) within MoH
- Establish governance structures at national level such as a Strategic Technical Advisory Group (STAG) and a Technical Working Group (TWG)
- Seek technical support from WHO/Partners to facilitate the development of a National Strategic Plan on viral hepatitis

Medium term 7-12 months:

- Strengthen advocacy, resource mobilization and community engagement for a sustainable national viral hepatitis response.
- Develop the relevant policies, strategies, guidelines and other tools to facilitate the planning, implementation, monitoring and evaluation of the national response to viral hepatitis.
- MOH in consultation with partners and stakeholders should develop update national policies to guide vaccine administration among HCWs and other high risk groups
- MOH should develop a communication strategy and intensify health promotion to increase the vaccination among health care workers, high risk groups and the general population on viral hepatitis
- Develop the Testing, treatment and care guidelines for Viral Hepatitis
- Ensure that laboratory staff have the requisite skills for the new technologies they might be deploying, including HCV diagnosis and confirmation

Long-term 12-24 months:

- Initiate discussions within MOH to introduce HBV-birth dose vaccination. WHO to facilitate learning through on-site visits to countries with good National Hepatitis Programmes within the framework of South-South collaboration
- Strengthen the laboratory capacity to screen and confirm hepatitis C, A and E
- Relevant regulatory bodies should ensure that Viral Hepatitis is a component of early childhood, school health and continuing medical education
- MOH, partners and health training institutions to provide training on HBV and HCV clinical assessment and case management to health workers and key focal points of high risk groups.
- Develop surveillance, monitoring and reporting systems within the framework of the Strategic Information
- Develop a national research agenda for Viral Hepatitis to address emerging operational and management challenges
- Support the establishment of cancer registry to routinely capture data on Viral Hepatitis associated liver cancers

Chapter 6: Health Systems, Community Systems and Cross-Cutting Issues

Financing the HIV and TB Programmes

Funding levels and Effectiveness: A significant amount of resources have been invested by partners into the HIV and TB programmes however, the effectiveness in the use of these resources requires great improvement. These investments have largely been channeled towards HIV and TB care and treatment programmes but to a lesser extent into HIV prevention interventions. Consequently, the country is still grappling with high rates of new HIV infections. The sustainability of funding given the heavy partner investment is also worrying. Donor funding for health accounts for more than 40% of the overall health funding (See table 3 below).

The table 3 below shows an overview of nominal financial flows for public health sector 2011/11 to 2015/16²¹

Table 3 - Financial Flows for Public Health Sector

Years	GOL Recurrent Expenditure	Development* Expenditure	Non Development Budget donor expenditure	Total Public Health Sector Expenditure
2011/12	956,576,707	648,366,602	No data	1,604,943,309
2012/13	1,185,607,703	474,359,693	897,634,997	2,557,602,393
2013/14	1,534,099,067	218,954,395	1,858,122,469	3,611,175,931
2014/15	1,540,337,501	104,837,532	1,085,554,170	2,730,729,203
2015/16	1,665,112,630	62,954,694	1,216,652,598	2,944,719,922

Source: Public Health Sector Expenditure Review 2017

According to the department of Disease Prevention and Control, HIV Programme receives LSL 266 m/year of which LSL 10 m is for programmatic activities and management while the remainder is for the procurement of medicines and health products. The TB programme on the other hand receives LSL 20 m/year of which 10 m is for programmatic activities and for management support with the remaining budget allocated for procurement of medicines and health products.

The table below shows the trend in the overall GOL allocation to the health sector.

Table 4 - Trends in GOL Budget allocation to the Health Sector

Trends in GOL Budget allocation to the Health Sector		
Financial Year	Budget Allocation (Maloti- Billions)	% of Overall Government Budget
2012/13	1,808	13
2013/14	2,022	14
2014/15	1,831	12
2015/16	1,943	11

Source: AJR 2015/16

PEPFAR Portfolio grew from an annual budget of USD 39 million two years ago to the current budget of USD 81 million. CDC has a 5-year Cooperative Agreement with MoH at an annual

²¹ The totals for the recurrent budget have been compiled by extracting data from the IFMIS system used by the GoL in January 2017. These totals, however, may differ from reported totals seen on other government documents. The reason for the difference is that the system is constantly being updated and data is being backdated, meaning that depending on *when* data is taken the numbers might differ.

budget of USD 6 million. Most of this funding goes towards the procurement of Viral Load machines and reagents. Most of the PEPFAR funding is through international NGOs who then provide sub-grants to local NGOs. PEPFAR is concentrating their investments in 5 of the 10 districts in Lesotho that happen to carry 75% of the HIV burden. The PEPFAR investment is higher than the GFATM investment. The paradox is that the available funds if used efficiently, could meaningfully help curb the scourge of the HIV and TB epidemics however, of concern was the poor absorptive capacity for available resources to support programme scale up. The table 5 below shows the trends in recurrent expenditure per cost centre. It can be seen that whereas expenditure for the HIV programme increased by 76%; that for TB decreased by 2% between 2012 and 2016. According to the Directorate of Finance in MOH, TB expenditures are captured within the Disease Control.

Table 5 - Trends in recurrent health expenditures (2012 - 2016)

Cost Categories	2011 / 12	2012 / 13	2013 / 14	2014 / 15	2015 / 16	2015/16 % of Total	2012 - 2016 Nominal Increase
Administration	384,914,768	685,461,338	918,863,997	906,319,676	939,056,621	56%	144%
HIV/AIDS	131,899,993	103,027,385	143,712,244	139,297,736	232,741,415	14%	76%
District Hospitals	266,771,773	169,292,803	218,436,423	223,153,303	221,666,611	13%	-17%
DHMTs	45,104,383	54,446,879	75,263,436	100,437,289	106,119,760	6%	135%
Family Health	44,143,591	62,344,311	44,755,814	40,536,580	45,836,177	3%	4%
Laboratories	12,038,120	20,078,217	23,441,955	27,566,460	27,209,443	2%	126%
NHTC	20,431,677	20,823,435	26,202,074	26,275,117	26,936,121	2%	32%
LFDS	6,988,930	8,269,532	11,459,295	16,108,889	15,470,326	1%	121%
Planning	4,373,773	3,293,638	5,796,004	6,478,512	11,492,025	1%	163%
Health Services	7,483,064	28,702,091	35,410,931	14,424,053	9,754,579	1%	30%
Disease Control	8,816,789	13,387,212	9,259,562	13,324,836	8,622,522	1%	-2%
Blood Transfusion	4,867,700	4,375,257	4,518,065	5,526,331	4,479,535	0%	-8%
Environmental Health	3,382,730	3,147,144	4,601,780	4,593,489	4,389,055	0%	30%
Financial Management	2,307,677	2,752,388	4,122,869	4,821,084	3,990,846	0%	73%
Human Resources	2,276,404	3,425,969	4,079,901	7,197,527	3,801,162	0%	67%
Health Education	1,135,811	1,161,859	2,406,441	2,473,566	2,455,572	0%	116%
Pharmaceuticals	208,954	541,809	551,737	696,802	546,553	0%	162%
Oral Health	511,763	1,076,438	1,216,540	1,106,254	544,306	0%	6%
Social Welfare	8,918,807	0	0	0	0	0%	-100%
Total	956,576,707	1,185,607,703	1,534,099,067	1,540,337,501	1,665,112,630	100%	74%

Source: Public Health Sector Expenditure Review 2017

Non development budget - Donor expenditure

Donor expenditure independent of the development budget totaled around LSL 1,216,652,598 in 2015/16 and had a nominal Compound Annual Growth Rate (CAGR) of 11% and a real CAGR of 5.3% between FY2012/13 and FY2015/16²². In FY 2015/16, USAID/PEPFAR provided the largest amount of donor funding (36% of the total) closely followed by the Global fund. All the sources of donor expenditure are outlined in Table below.

Table 6 - Nominal overview of donor expenditure (LSL, million)

<i>Donor</i>	<i>FY 2012/13</i>	<i>FY 2013/14</i>	<i>FY 2014/15</i>	<i>FY 2015/16</i>	<i>CAGR</i>	<i>% of total 15/16</i>
<i>USAID/PEPFAR</i>	319,359,377	444,133,517	418,350,744	437,136,412	11%	36%
<i>Global Fund</i>	144,495,643	273,008,354	282,051,958	423,364,241	43%	35%
<i>PIH</i>	64,300,995	81,499,410	55,734,069	56,002,016	-5%	5%
<i>World Bank</i>	7,089,488	23,270,510	60,991,134	26,961,946	56%	2%
<i>World Vision</i>	3,070,732	14,873,396	16,204,311	16,038,445	74%	1%
<i>WHO</i>	18,575,085	19,556,233	-889,034	4,784,806	-36%	0%
<i>Irish Aid</i>	-16,155,486	35,302,221	14,543,651	5,880,683	-171%	0%
<i>UNDP</i>	490,328	828,651	96,448,016	92,167,130	473%	8%
<i>MSF</i>	12,709,099	17,525,898	17,641,299	14,658,674	5%	1%
<i>MCC</i>	110,188,421	684,916,870	0	0	-100%	0%
<i>Others</i>	233,511,316	263,207,410	124,478,023	139,658,245	-16%	11%
<i>Total,m</i>	897,634,997	1,858,122,469	1,085,554,170	1,216,652,598	11%	100%

Source: Public Health Sector Expenditure Review 2017

Absorptive capacity: The average budget execution percentage for the overall MoH budget (recurrent and development budget combined) was 91% for the five-year period. Within this period, total budget execution has fluctuated from a low of 87% in 2013/14 to a high of 104% in 2011/12. Recurrent budget execution has been high during the period, averaging 94%. On the other hand, the development budget execution has averaged 82% over the entire period, hitting a minimum low of 34% in FY 2015/16 (Table 7).

²² MoH Resource Mapping data base

Table 7 - Total health expenditure and absorptive capacity (LSL Millions)

Metrics	2011 / 12	2012 / 13	2013 / 14	2014 / 15	2015 / 16
<i>Development Budget total</i>	510,481,814	623,516,338	400,586,931	133,497,627	183,808,453
<i>Development expenditure total</i>	648,366,602	474,359,693	218,954,395	104,837,532	62,954,694
<i>Development Budget Execution</i>	127%	76%	55%	79%	34%
<i>Recurrent Budget Total</i>	1,039,131,534	1,249,725,891	1,613,202,596	1,654,748,482	1,779,378,445
<i>Recurrent Expenditure Total</i>	956,576,707	1,185,607,703	1,534,099,067	1,540,337,501	1,665,112,630
<i>Recurrent Budget Execution</i>	92%	95%	95%	93%	94%
Total Budget	1,549,613,348	1,873,242,229	2,013,789,527	1,788,246,109	1,963,186,898
Total Expenditure	1,604,943,309	1,659,967,396	1,753,053,462	1,645,175,033	1,728,067,324
Total Budget Execution	104%	89%	87%	92%	88%

Source: Public Health Sector Expenditure Review 2017

Possible causes of poor implementation rate include: weak programme management and coordination; inadequate programme staff; bureaucratic procurement procedures leading to lengthy lead times before receipt of products thus contributing to the slow implementation of activities and low absorption of funds. The skeletal staff seem overwhelmed by several competing priorities that fail to cope with programme demands. In addition, there is an impression that GF funds are difficult to access due to the associated stringent requirements and so managers opt to pursue alternative funding sources. The Directorate of Planning Services is also responsible for facilitating budget allocation and authorization before its release for implementation of activities including funds from partners however, the approval processes are deemed lengthy and too complex.

The table 8 below shows the overall recurrent allocations to health with the associated expenditure.

Table 8 - Recurrent allocations to health by level

Overall average recurrent health allocations and expenditures by level						
Level	FY 2014/15			FY 2015/16		
	Allocation	Expend.	%age	Allocation	Expend.	%age
District Level	680,811,784	417,978,791	61	571,530,495	275,675,794	83
DHMTs	124,917,213	92,227,097	74	124,629,751	95,123,039	76
Hospitals	393,218,845	268,750,361	68	369,709,056	306,362,654	83

Source: AJR 2015/16

According to the AJR 2015/16, ninety-two (92) percent of recurrent budget and 71% of capital budget were expended by the end of the financial year, resulting in an average expenditure of 82%. The overall absorptive capacity of financial resources at district level remained low at 83%, despite an increase from 61% absorption rate in 2014/15 FY. The percentage of budget expended at the DHMTs remained stagnant at 76% while the hospital level expenditure increased from 68% to 83% in 2015/16 FY.

The table 9 below shows the receipts and utilization of GF funds over 5 FYs period.

Table 9 - Utilization of GFTAM funds over 5 years

Utilization of GFATM funds over 5 FYs						
	HIV			TB		
FY	Receipts	Expenditure	%	Receipt	Expenditure	%
2011 -12	51,463,047.0	50,809,623.0	98.7	7,034,055.0	6,868,893.0	97.7
2012-13	35,176,659.0	28,240,798.0	80.3	7,094,467.0	6,317,765.0	89.1
2013-14	83,090,129.0	78,834,259.0	94.9	11,481,718.0	11,339,883.0	98.8
2014-15	99,248,519.0	98,514,866.0	99.3	19,834,039.0	19,596,432.0	98.8
2015-16	112,070,677.0	111,838,660.0	99.8	24,204,285.0	24,019,218.0	99.2
	381,049,031.0	368,238,206.0	96.6	69,648,564.0	68,142,191.0	97.8

Source: Finance Unit, Department of Planning & Statistics

The table 10 below shows the level of utilization of the budgets allocated by the government to the two programmes for three FYs.

Table 10 - HIV and Tb/DC budget utilisation

GOL						
	HIV			TB & DC		
FY	Receipts	Expenditure	%	Receipt	Expenditure	%
2013-14	148,690,649.0	143,712,243.8	96.7	13,822,419.0	9,259,562.5	67.0
2014-15	178,457,786.0	139,297,735.9	78.1	15,090,067.0	13,324,835.6	88.3
2015-16	237,724,461.4	232,741,415.0	97.9	15,510,655.4	8,622,522.2	55.6
	564,872,896.4	515,751,394.7	91.3	44,423,141.4	31,206,920.2	70.2

Source: Finance Unit, Department of Planning & Statistics

The Table below shows the burn rate of GF resources by the different SRs for a 3 year period.

Table 11 - Global Fund burn rate by SRs

	Total Budget	Total Expenditure	Burn Rate
By Recipients			
Ministry of Finance (MOF)	1,201,286	1,029,517.39	86%
Ministry of Health (MOH)	24,160,341	22,783,039.66	94%
Other Government: MOSD	44,336	44,335.63	100%
National Drug Service Organization	530,254	469,924.57	89%
Total	25,936,216	24,326,817	94%

Source: MOF - PMU - GFATM

The Table below shows the current burn rate of the New funding Mechanism.

Table 12 - Burn rate for the New Funding Model Grant

By Recipients	Total Budget	Total Expenditure	Burn Rate
Ministry of Finance, Lesotho	2,722,070	1,764,831	65%
MOH	18,983,840	14,951,727	79%
NDSO	490,223	352,196	72%
LPPA	188,779	105,582	56%
LEBOHA	81,082	51,023	63%
RFH	754,332	219,292	29%
MOH/SP	3,573,812	1,375,449	38%
PIH	586,516	501,195	85%
WFP	898,949	367,085	41%
NAC			
Total	28,279,602	19,688,381	70%

Source: MOF - PMU - GFATM

The budgeting process: begins with the programmes. The programmes determine their needs and priorities for the year. The finance person attached to the programme then works with the programme to cost the planned activities and also to align the activities according to the budget lines. Once the indicative budget is received from Min of Finance, the budget is adjusted to fit within the budget limits. Unfortunately, this step of adjusting is done by Finance department without consulting the programme. Usually, the adjusted budget is approved and released by the Ministry of Finance.

Suppliers' payment: The process of paying suppliers is very lengthy and bureaucratic. Once invoices and proof of delivery is submitted to department of finance for payment, it requires up to about four signatories for approval. This sometimes takes more than a month because of non-availability of the signatories. When this is completed, the vouchers are physically relayed to the Ministry of Finance, where at least two signatories must approve the payment before instructing the central bank to pay. This process alone could take months too. Such bottlenecks need to be addressed and improvements made in the payment processes so as to improve efficiencies in the execution of the ministry's mandate. The CCM should facilitate the engagement of all parties involved (MOH and MOF) in the ordering and procurement of goods and services and devise an efficient and seamless mechanism addressing all the identified challenges that hamper movement of funds, in order to improve the GF implementation rate and grant performance. Capacity building initiatives should be considered for the sub-recipients on standard operating procedures.

Programme Governance, Coordination and Management Structures

Coordination: The health field is crowded with many partners with different agendas. Partners include: UN family, United States Government (USG) and PEPFAR family, Local partners, other international NGOs such as Red Cross and Christian Health Association of Lesotho (CHAL). The AJR of 2014/15 recommended that the country should develop a compact on SWAPs. However, the initiative met hurdles along the way as some partners were not willing to put their resources into one basket.

The last four years has seen supportive political leadership; translating into enabling policies and funding; multi-sectoral approaches were revitalized by re-establishing the National AIDS Council (NAC) in 2016, having been disbanded 5 years ago. During the 5 years, the national response was inadvertently overseen by MOH. MOH developed a national AIDS strategic plan instead of the health sector response plan thereby overstepping their mandate. The re-establishment of NAC and therefore reclaiming their mandate may have caused some undue tensions. MOH sees HIV/AIDS as a health issue and this may contribute to the conflict. NAC's relationship with MOH is strained. The NAC is responsible for coordinating the multi-sectoral response to HIV, which includes the health sector response. NAC is still at its infancy and has not been able to effectively coordinate its partners. NAC is engaged in re-asserting itself; making efforts to improve partner coordination and alignment; working on improving information systems for non-health data.

MOH Department of Disease Control participates in planning with partners. MOH Planning Department coordinates the partners in the health sector as well as projects. There are reportedly overlaps and duplication of donor support pointing to the challenge of weak partner coordination. Many times donor agreements are signed without the consultation with or involvement of MOH planning department.

The Principal Secretary (PS) of MOH is the substantive chair of the partner's forum for HIV and for the CCM. Other coordination structures include the HIV and TB TWGs. Most of the coordination structures are reportedly neither active nor effective. It is alleged that the CCM has been drifting from its known mandate of coordination and going into implementation thereby compromising delivering on its mandate. It is alleged to neither give strategic direction to the response nor make major decisions on strategic issues.

PEPFAR is an active member of the CCM. There is also the AIDS development partners' monthly meeting chaired by UNAIDS in which partners share progress updates on their activities. PEPFAR not only consults stakeholders during development of the COAG, but also holds quarterly performance review meetings in which stakeholders are invited to attend. In contrast, the Health Development Partners Group is not active as it has not met in the last two years.

Public Private Partnerships for Health: The office of the PPP coordinator was established when government was partnering with Christian Health Association of Lesotho (CHAL). Government partnered with TSEPONG to construct and manage a referral hospital in a true spirit of PPP. This office working in collaboration with the legal department, is responsible for drafting all MOUs between MOH and implementing partners. Most (about 95%) implementing partners have signed MOUs with MOH. These partners are introduced by the programme and the principal secretary signs on behalf of the Ministry. The challenge is lack of technical capacity of the PPP coordinator to detect duplication between implementing partners (IPs) and also inability of ensuring the IPs' compliance to the MOUs. For example, MOUs require IPs to provide quarterly reports but this

does not happen and is not enforced. It's recommended that the directorate of planning in the MOH should be meaningfully involved during the initial donor engagement meetings before firm commitments/agreements are reached.

Table 13 - Subventions to organisations in a PPP

Subventions to Organisations in a Public Private Partnership			
Institution/Organisation	Total Subvention	Budget Allocation as % of:	
		Recurrent Budget	Total Budget
<i>TSEPONG</i>	517,005,649	29	27
<i>CHAL</i>	268,000,000	15	14
<i>Red Cross</i>	5,800,000	0.33	0.3
<i>Blue Cross</i>	4,500,000	0.26	0.23
Total	795,05,649	45	41

Source: AJR 2015/16

Subventions provided to MOH partners (Tsepong, CHAL, Red Cross and Blue Cross) accounted for 41% of the total budget allocation for 2015/16.

Christian Health Association of Lesotho (CHAL): The church founded organization runs a total of 8 of the 20 hospitals and 72 of the 265 health facilities in the country. CHAL has a running MOU with GOL in form of a provider – purchaser agreement to provide the entire package of primary health care services including immunization, prevention and care in HIV/AIDS and TB without discrimination. Partners supporting GOL do extend their support to CHAL health facilities as well. GOL meets 80% of the CHAL budget each year through subvention and this is earmarked to meet the recurrent costs. CHAL meets the 20% and this is in form of the organizational contribution to infrastructure. In addition, partners supporting capacity building for health care workers in GOL facilities also supported CHAL facilities in the same way. However CHAL had the view that this support although useful did not necessarily meet their most priority needs and hence expressed the need to be more engaged in the budget allocation discussions.

Due to financial constraints, CHAL is not able to frequently supervise their health facilities. However, some good practices noted included CHAL facilities serving communities in hard to reach areas and had flexibility in hiring personnel. They also offer better non-monetary incentives to their workforce probably associated to the foundation of faith.

CHAL is a member of the CCM and TWGs including those of HIV, TB, SRH and various governing committees. The flow of health information follows the same pattern as with MOH facilities. There is integration of services although there has been limited capacitation of staff in meeting the needs of special population groups. Given the extent and scope of services provided to the people of Lesotho, it is recommended that CHAL reconsiders competing to become a sub-recipient of the GF, and this will take reorganizing internally and putting in place systems that are a pre-requisite.

Districts and Community Involvement in Health: Districts indicated absence of code of conduct for partners. Some District Administrators are not involved and/or do not have the opportunity to be part of the support provided to the districts. Community leaders could help identify felt needs of the communities. Often partners go directly from central level to the facilities/communities for support without consultation with relevant district offices including that of the District Administrators. Their engagement with partners prior to implementation or provision of services in the district would facilitate provision of support in accordance with felt needs of communities

they serve. Absence of coordination mechanism leads to duplication of efforts and this hinders visibility of value of such support in terms of expected impact of the initiatives.

Achievements

- Supportive political environment and the re-establishment of a multi-sectoral HIV/AIDS coordination and response
- Existence of partner coordination structures and mechanisms. Existence of engagement mechanisms with partners through MOUs

Gaps/Challenges

- Weak partner coordination at the different levels of government and ineffective coordination mechanisms. Failure to implement SWAPS as agreed.
- Weak monitoring and enforcement of rules of engagement with partners.

Recommendations

- Involving the directorate of planning in discussions with donors before making decisions to commit the Ministry
- MOH and partners should ensure that the coordination mechanisms are operational and effective.
- The PPP coordinator should be capacitated to monitor partner compliance to agreements and should leverage on existing M & E officers to monitor adherence to the MOUs.
- NAC should be given the space and resources to operate and fulfil its mandate of coordinating the multi-sectoral response.
- CHAL should reconsider competing to become a sub-recipient of the GF, and this will take reorganizing internally and putting in place systems that are a pre-requisite.

Leadership and Governance: The TB Programme falls under the Disease Prevention and Control directorate and is headed by a TB Manager. The incumbent was transferred to this position in an acting capacity and is engaged formally as a 'consultant'. The NTP Manager reports to the Director Disease Prevention and Control who reports to the Director General of Health Services. There is no clear organogram for the NTP programme and hence existing programme personnel are inadequate to fully execute the NTP strategy. The NTP Manager is deputized by a TB/HIV Medical Officer. At lower levels; each district has a District TB Coordinator who supports TB Officers based at facility level. Various players operate at community level in the provision of TB care and support. Notably the Village Health Workers (VHWs), Community based Organizations (CBOs), Non-governmental organizations, TB Supporters and traditional healers who are coordinated by the District Health Management Teams (DHMTs).

There is poor MOH ownership of the HIV programme and the plan, due in part to inadequate numbers of human resources. There is no HIV Manager in post to coordinate the programme. The timeliness and completeness of monthly reports submitted by health facilities are poor. The poor government ownership of the HIV programme created a vacuum that was filled by partners, thus seemingly play a leading role. There is a clear power imbalance between partners such as PEPFAR and MOH.

Transparency and Accountability: Partners are concerned about the poor implementation of plans and strategies and accountability of performance by MOH. The AJR of 2014/15 recommended the implementation of performance contracts at all levels. However, a stakeholder

meeting held sometime after to review progress established that this had not been done because MOH was still waiting for the Ministry of Public service to train top managers of the Ministry of health. The high turnover of MOH senior leadership and management also contributes to low implementation rates. The principal secretary of MOH being the chair of CCM, and at the same time the largest sub-recipient, makes it hard to hold him to account for the low implementation rates.

Achievements

- Existence of the HIV and TB programmes and strategic documents.

Gaps/Challenges

- Poor MOH ownership of the HIV programmes – No programme manager
- Direct service delivery by partners in lieu of providing technical assistance
- Low activity implementation rates.
- Weak technical accountability system for MOH staff and programme management.

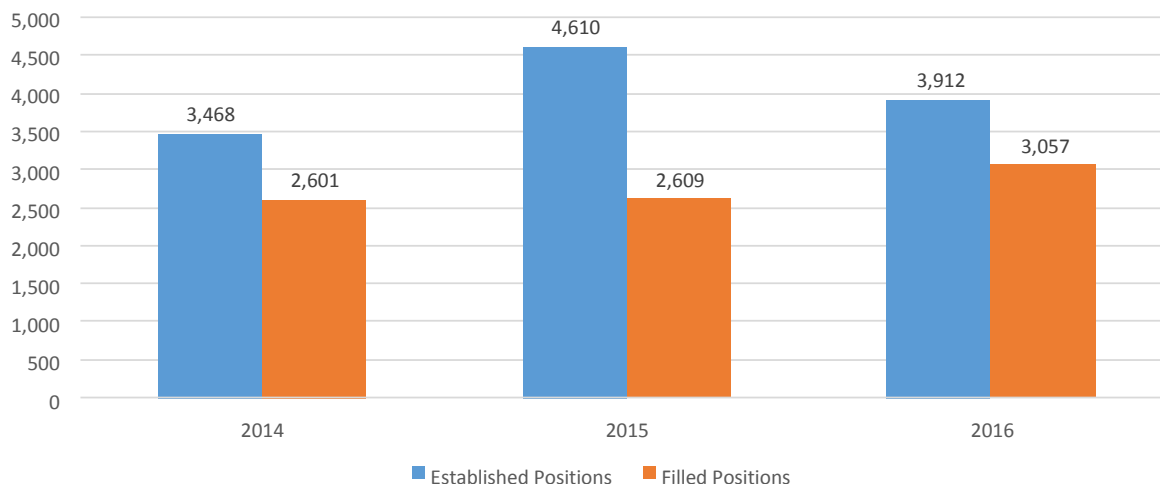
Recommendations

- Implement earlier recommendation of performance contracts of MOH staff
- It is recommended to have renewed political commitment and leadership; MOH should inculcate culture of holding staff accountable for what they do.
- Consider scaling up results based financing for entities receiving public funds for implementation of programmes.

Management of Human Resources for Health

Staffing Levels: Overall, there is an acute shortage of human resources. According to the Annual Joint Review report of FY 2015/16, about 50 percent of the health centers (GOL, CHAL and Red Cross) were staffed according to the minimum staffing requirements. However, the overall vacancy rate was 22% in 2015/16, a significant improvement from 43% reported in the previous year. Figure 26 below shows the trend over 3 FYs of established positions filled.

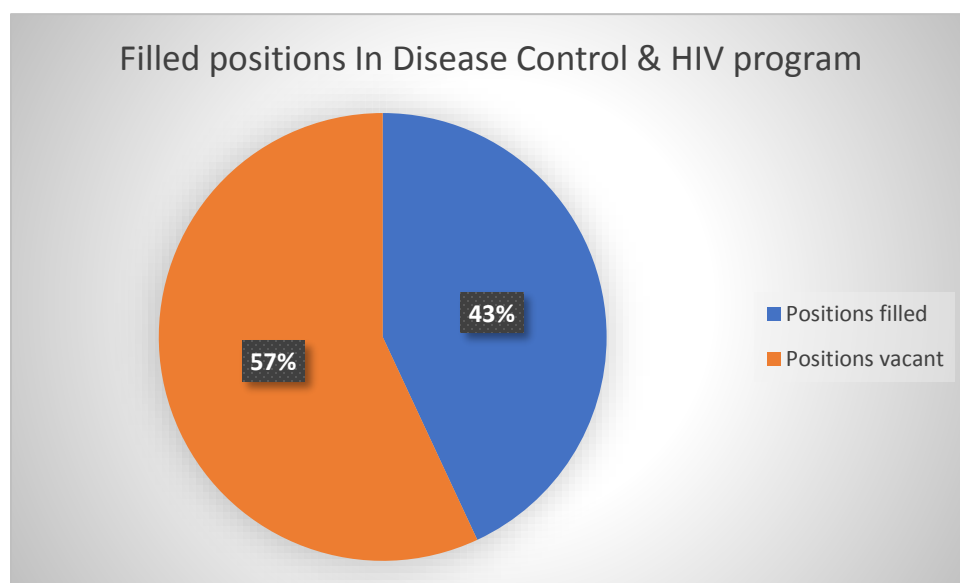
Figure 26 - Staffing levels for MOH, 2014-2016



Source: AJR 2015/16

There are 36 HR officers attending to HRH issues across the country of which 17 are at the MOH headquarters. Filling established positions is a challenge. The staff numbers are not only inadequate but also established public service positions have not been filled for more than 8 years for various reasons. Whenever recruitment of staff did not happen during a particular FY, funds were returned to the treasury and were not released during the subsequent years. MOH could not request for the funds from MOF because there was a general ban on recruitment in the public service. Worse still, MoF has raised concerns about the huge wage bill and pointed out that the public service is top heavy. MOH has not succeeded in negotiating with the Ministry of Public Service to expand the MOH establishments. The proportion of filled positions in both the department of DC and the HIV programme is 31/72 (43%). Twenty (20) out of 35 (57%) staff in department of DC are partner supported, especially the M&E, surveillance officers and counsellors. Attracting and retaining qualified health care workers is a challenge. Staff are generally demotivated. HIV manager position is vacant, has not been attractive when advertised. There is stigma among health workers to TB care. Health workers do not make decisions. Leadership and governance is generally weak. Figure 27 below shows the proportion of established positions filled in the department of Disease Control and HIV programme.

Figure 27 - MOH staffing levels



Source: Human Resource Department

The table below shows staff breakdown per primary health facility.

Table 14 - MOH staffing per primary health facility

Average Number of Staff per Facility	GoL		CHAL
Nurse Clinicians	0.35		0.58
Registered Nurse / Midwives	2.52		2.26
Registered Nurses	0.12		0.05
Nursing Assistants	1.88		2.06
Health Assistants	0.33		0.27
HIV Counselors	3.57		4.42
Pharmacy Technicians	0.24		0.03
Data Clerks	0.40		0.86
Total Staff	9.40		10.52

Source: AJR 2015/16

HR seconded to MOH: PEPFAR is hiring up to 1,700 health workers deployed in 166 sites. These are mostly nurses, counsellors and data clerks. Government has no capacity to sustain these workers or even absorb them. Sustaining partner supported staff is a challenge. Ministry of Public Service (MoPS) is not consulted before signing agreements with donors in which staff will be

hired. Therefore planning for transitioning these staff to government pay roll has not been possible. Staff supported by GF have a comparatively high turnover; are less salaried and demotivated compared to their counterparts supported by other partners. With the many challenges surrounding human resources for health, it may be inferred that the sub-optimal performance of the programmes could be partly attributed to the use of unqualified staff; discrepancy in salaries between partner supported staff and MOH staff; non-allegiance to MOH of the partner supported staff.

Achievements

- The overall vacancy rate was 22% in 2015/16, a significant improvement from 43% reported in the previous year.

Challenges

- There was inadequate numbers and mix of human resources for health and difficulties in filling vacant established positions within the MOH structure. Attracting and retaining HRH by GOL is challenging.
- Seconded staff seem to be more allegiant to their employers and not MOH supervisors.
- Planning for transitioning seconded staff to the government pay roll has not been possible because Min of Public Service is not consulted before signing agreements with donors in which they are to support staff. Therefore planning for transitioning these staff to government pay roll has not been possible.

Recommendations

- MoPS should be engaged by MOH before signing agreements with donors in which they are to support staff in order to plan and have agreement about transitioning seconded staff to government pay roll.
- MOH/MOPS should participate in selection of candidates to be hired by partners to support government.
- Partner seconded staff should work alongside and be answerable to the MOH staff. They should work within the existing system and structure.
- Harmonization of salaries across MOH staff and supported staff
- The HR department should be engaged during development of the next strategic plan.

Social Protection and Universal Health Coverage

According to the National Social protection policy²³ 2014/2015 – 2018/2019, poverty is still viewed as a major hindrance and concern for the country. The report states that the majority (84%) of the population is vulnerable to poverty. Lesotho revised its social protection policy in 2014 to address the risks and challenges across the life-course. The National Social Protection Strategy is thus structured around four key life-course (pregnancy and early childhood; school age and youth; working age; and old age) plus the two dimensions of shocks and of disability/chronic illness that may impact at any stage of the life-course. While this is a very commendable effort from the government, it was observed that only few TB clients are benefiting from the social grant under

²³ Government of the Kingdom of Lesotho. National Social protection policy 2014/2015 – 2018/2019

the disability and chronic illness category. These are MDR-TB patients and those with moderate malnutrition of BMI of 18.5 and below. It was also realised that many patients do not complete their full course of treatment due to extreme poverty despite the government's policy of free TB treatment. Some clients when feeling better, migrate to South African mines for better job opportunities, only to return later in a worse state. TB disease is one of the critical health care risks that cripple the social economic status of the patient and family members, and most TB patients indicated lack of support in this regard. TB could well be placed under disability and chronic category so that all TB patients can be assisted with a full social food rations in order to gain full recovery regardless of the severity of the condition.

Achievements

- The National Policy on Social Development with a National Social Protection Strategy 2014/2015 – 2018/2019 is in place to govern the implementation of social protection for vulnerable groups.
- The current policies clearly outline the support for communities such as; cash assistance to families, disabled persons and chronic illnesses, public assistance grants, food parcels and psychosocial support with the involvement of multi-disciplinary teams.

Challenges

- High poverty and unemployment rates, food insecurity and HIV/AIDS impact on household economic status. The most vulnerable groups include children and older people infected and affected by HIV/AIDS.
- Treatment interruptions among some patients due to lack of food has prompted some village health workers to provide assistance.
- Eligibility for supplementary nutrition targets MDR patients and those with a BMI of 18.5 and below.
- Lack of awareness among health care providers about social protection policies.
- Long bureaucratic processes involved in accessing social support for clients.
- Lack of standardized government funded disease based social protection package.
- Unavailability of data on economic impact of TB /HIV on communities and families.

Recommendations

- MOH should collaborate with social welfare department for review and strengthening of psychosocial support to drug susceptible TB patients and others needing assistance.
- Strengthen collaboration between MOH and Social Protection department in order to improve timeous support for clients who need the services.
- Ministry of Public services and social welfare should disseminate Social Protection policies to all stakeholders.
- MoH to facilitate social protection programmes to meet the needs of vulnerable populations and communities
- Need to determine baseline information on economic impact of HIV/TB on families and communities.

Gender Equality, Human Rights and Gender Based Violence

Lesotho is a signatory to, and has ratified, the SADC Protocol on Gender and Development adopted by Heads of State in August 2008. The country also enacted the Sexual Offences Act (SOA) in 2003. Strengthening gender equality is a priority of the Government of Lesotho as illustrated in Vision 2020 and the NSDP. The Government has further enacted the Legal Capacity of Married Persons Act, 2006, and developed the Gender and Development Policy to address

these challenges. Despite the push towards the attainment of gender equity and equality; there is no domestic violence legislation to help address violence against women (VAW). According to an assessment on Gender based violence carried out in 2014; eighty-six percent of women experienced some form of VAW at least once in their lifetime, including partner and non-partner violence. Forty percent of men perpetrated VAW at least once in their lifetime. VAW is predominantly perpetrated within intimate relationships. Sixty-two percent of women experienced, while 37% of men perpetrated, intimate partner violence (IPV). The forms of violence experienced include physical, sexual, psychological and economical abuse. A significantly higher proportion (18%) of Intimate Partner Violence (IPV) survivors reported an HIV positive status compared to non survivors (13%). The Child and Gender Protection Unit (CGPU) that has been set up to deal with survivors of Domestic Violence needs ongoing capacitation.

Government has developed National guidelines for the management of survivors of sexual abuse; however, the uptake of the programme was difficult to ascertain due to lack of performance data. A multi-country GBV assessment report unearthed the fact that Lesotho had the highest sexual harassment prevalence rate at workplaces and in schools. Child marriages seem to be high in Lesotho. There are no mechanisms to effectively track progress on the impact of the work of the ministry of gender in addressing gender equality and GBV. Some partners such as UNFPA support these activities albeit with limited budgets. GBV and gender inequality are associated with high HIV risk. Men are left behind in many interventions and especially the 'herdsmen' and therefore considerations should be made to reach them.

Achievements:

- Lesotho is a signatory to important SADC protocols on Gender and Development and has developed relevant policies in pursuit of gender equality, human rights and amelioration of GBV.
- The ministry of Gender conducts activities to raise awareness against child marriages but with limited collaboration with other ministries;

Challenges:

- Widespread cases of GBV occur in Lesotho which are inadvertently under-reported due to associated stigma and fear of victimization.

Recommendations:

- The Government with support from its partners should consider setting up one-stop centres to comprehensively address the needs of survivors of sexual-based violence.
- The country should consider adopting the Domestic Violence Act that criminalizes GBV.
- Government to create specific programmes targeting men and especially the 'herdsmen' who are left behind in accessing health services.

Strategic Information

Reliable data for decision making is a major challenge in the response. There is a huge discrepancy between administrative data and survey data, and the quality is questionable. Overall data management is poor and unreliable largely due to HR numbers. ICAP is the technical partner supporting government in electronic records. PEPFAR supported districts are performing better

than GF supported districts on various indicators as delays in GF disbursements hamper programme implementation.

The Planning Department hosts HMIS. Ideally all health data should be managed by HMIS unit. However due to especially HR constraints (only one 1 out of 3 established positions in HMIS in MOH are filled), parallel systems emerged, such as EPI, HIV and TB data systems managed by the respective programmes. The rest of the health data is managed by HMIS unit. In addition, HMIS is managing the data on PMTCT aspects of HIV. The M&E officers supported by partners are managing the HIV and TB data within the programmes. PEPFAR and GFATM supports data clerks in each of the 5 districts. TB reports are generated quarterly. ICAP supports district to compile and analyse HIV data.

Communication between HMIS unit and the programmes has been poor over the years; with limited sharing of information. However this status is likely to change with the advent of DHIS2. Existing coordination structures include TWGs for HMIS and Strategic Information TWG. These enabled the engagement of partners to harmonize data collection and management.

PEPFAR supported information system is run vertically with the records assistants collecting HIV data only and transmitting it directly to PEPFAR, without sharing or giving feedback to the HF, district or MOH. They use their own tools in spite of MOH directive during TWGs to share information. Overall, their system is working against the MOH system by competing with rather than complimenting the MOH system. PEPFAR holds quarterly meetings to share results where they present data collected using their system and compares it with what they refer to as MOH data from the same HFs, all this is done with participation of MOH. MOH figures are always lower than the PEPFAR figures due to poor completeness. PEPFAR supported records assistants have recently been trained to collect health data other than that of HIV.

Achievements

- With partner support, MOH has recently introduced the electronic DHIS2 to improve in data management.
- Through partner support; MOH has introduced an electronic health record system with data collected using tablets at health facilities
- Trained data clerks have been recruited to collect and transmit health data

Challenges

- Parallel health information systems leading to inefficiencies
- Poor information sharing by partners with government

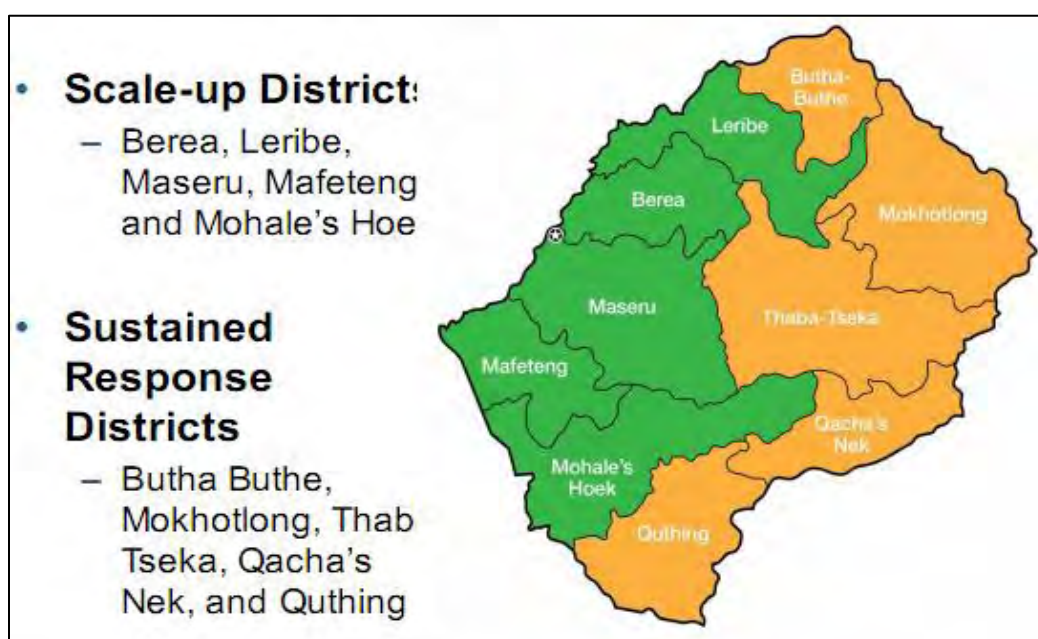
Recommendations

- Data collected by data clerks should be transmitted through the official MOH channels and linked to the DHIS2.
- Partners should refrain from perpetuating parallel reporting systems and encourage seconded staff to pay allegiance to MOH.
- MOH/DHMT should take up their stewardship role in health information management.

Laboratory Services

The **laboratory directorate of the MOH is responsible** for the coordination of services offered by all the laboratories in Lesotho within the context of the laboratory policy and strategic plan. Funding for the laboratory is supported mostly by partners (US CDC/PEPFAR, GFATM, World Bank) (60%) and the government of Lesotho (40%). The majority of the funding i.e. 80% to support the HIV and TB programmes, 2% support for viral hepatitis and 10% for reportable diseases. Laboratory support in Lesotho has been divided into scale up and sustained response districts located within the lowland and highlands, respectively. The majority of CDC/PEPFAR supported laboratories are located in the lowland districts with HIV prevalence of 24.8% – 28% (Fig 28).

Figure 28 - Laboratory support by partners in Lesotho divided into Scale-Up and Sustainable Districts



The laboratory network in Lesotho is organized in a tiered system with the NRL director providing oversight to the regional laboratories. National Reference Laboratory (NRL) provides high complexity testing and referral services to lower tiered laboratories. The regional laboratories provide referral services to district laboratories and/or health centers. The specific services offered at each level are specified detailed in the laboratory handbook. External laboratories in South Africa (NICD) and Uganda (NTBRL) serve as reference labs for HIV and TB, respectively.

Lesotho has a **well-coordinated sample transport system**, supported by riders for health (R4H), across the tiered laboratory network. Bike riders are trained on proper handling and transport using the WHO guidelines for triple packaging of biological samples during transportation. From October 2016 to September 2017, the riders in the scale up districts transported 382,079 and 324,803 samples (blood, DBS, sputum and plasma) and results, respectively (Fig 29). In Maseru, 156,574 samples and 130,397 reports were transported by the

riders (Fig. 30). The difference between the number of samples and results were due to several reasons including sample rejection, mislabeling, hemolyzed sample, insufficient samples, clotted samples, incomplete lab request forms, wrong vacutainer or sample transit times more than 48 hrs

Figure 29 - Sample and report transport for scale up districts, October 2016-September 2017

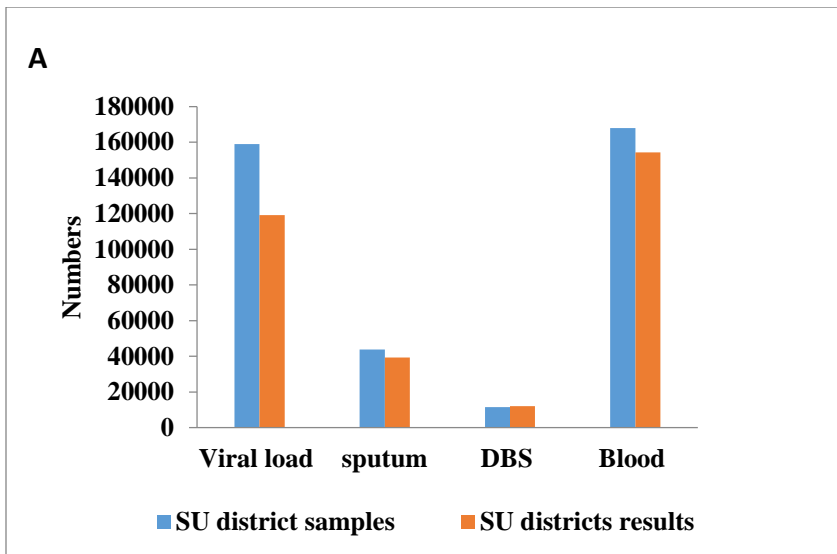
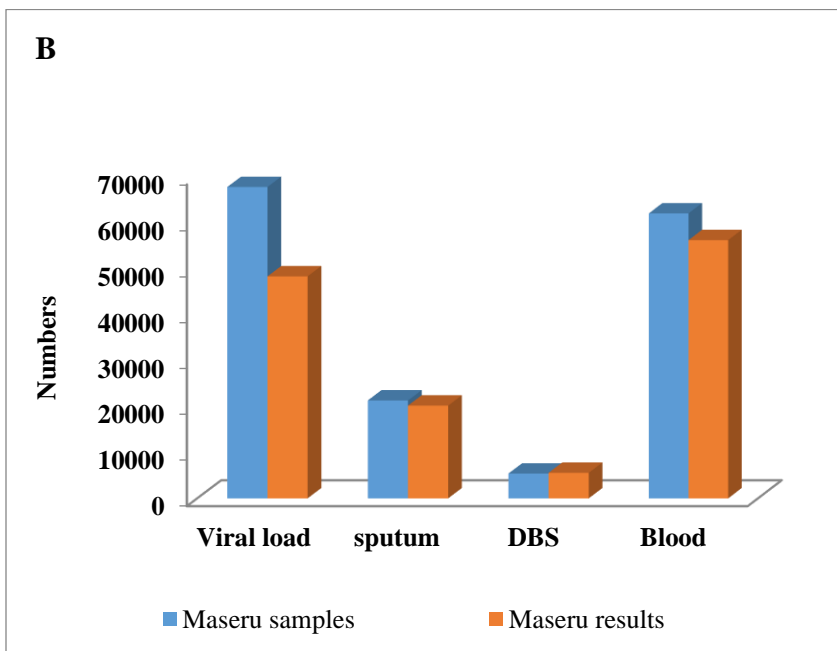


Figure 30 - Sample and report within Maseru, October 2016-September 2017

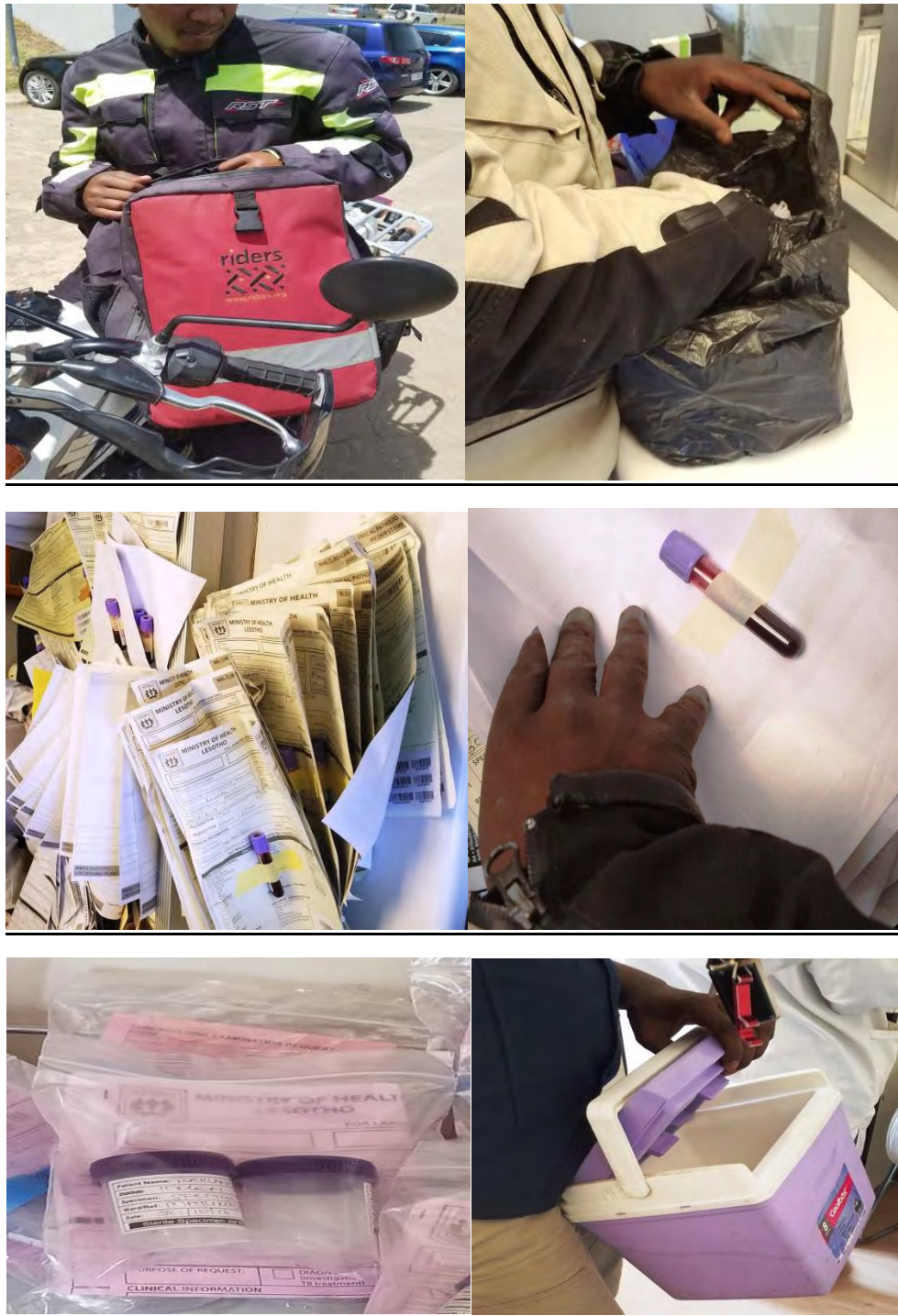


Plans to overcome challenges with reaching hard to reach places by piloting drones in three hard to reach sites will be funded by Vodaphone. However, the lab director raised biosafety concerns related to the use of drones. The R4H courier system collects samples for viral load

testing from health center sites to regional or central laboratories. Reports are also collected and returned to the health center facilities by the sample couriers. However, TB sputum samples are collected once a week from health center facilities to district labs or regional lab facilities that are equipped with GeneXpert platforms. Culture, Drug sensitivity testing (DST) and 1st Line probe assay (LPA) for MDR TB are conducted at the National TB reference laboratory (NTRL). The turnaround time (TAT) from sample collection to receipt of reports by the health facilities for viral load testing reports is usually 3 weeks however due to nonadherence to the viral load algorithm by health care providers the TAT can be as high as 14 weeks . Lesotho is currently piloting, in the Northern region, SMS notification of patients of the availability of viral load reports. Qualitative HIV diagnosis for infants is centralized and conducted at the NRL. Dried blood spots (DBS) collected nationwide is couriered by bike riders. Reports are either sent back to the requesting health centers via the bike rider and if positive, the lab sometimes sends an alert to the requesting clinic. Lesotho through the Elizabeth Glazier Pediatric AIDS foundation (EGPAF) is piloting the use of near point of care (POC) nucleic acid technology (NAT) qualitative PCR in seven facilities.

Some challenges were observed with Riders for Health. It was noted that WHO guidelines for triple packaging of category B biological samples during sample transportation is not followed, thereby compromising safety of the bike riders and integrity of samples (Fig 30). Although, sputum samples and LRFs were transported in individual Ziploc bags, the use of triple packaging of biological samples is not adhered to by the bike riders. We observed a sample courier from a private lab using a cooler box to transport sputum samples. Despite the efficient sample transport system, handing of biological samples do not meet the required safety standards (Figure 30).

Figure 31 - National sample transport coordinated by Riders 4 Health



The proposed staffing plan for laboratory services indicates a current average of 7 laboratory staff per facility compared to 18 laboratory staff required per facility in 2017. Laboratory logistics officers in the lab director's office works with the central procurement unit to quantify laboratory reagents and consumables. Quantification of laboratory commodities is based on service data

and targets. There were reports of recent stock outs of reagents for DST, cartridges for GeneXpert and viral load reagents. Procurement of laboratory equipment is regulated and mapping is done to determine needs, type of and placement of laboratory equipment. Leasing of lab equipment is usually preferred however if leasing is not an option, procurement is tender based.

Laboratory support for HIV and TB programme

Viral Load scale up and EID testing

The Lesotho National Strategy and Implementation Plan for Scaling up HIV Viral Load Testing for 2015/16 – 2017/18 outlines plans to roll out and ensure routine access to viral load testing for diagnosis and monitoring of treatment failure in people living with HIV (PLHIV) on antiretroviral treatment (ART) by 2020. Targeted viral load testing started at the NRL in 2014 however with the support of several partners including Clinton Health Access Initiative (CHAI), Medicins Sans Frontières (MSF), Partners in Health (PIH), Riders for Health (R4H), SolidarMed and the U.S Center for Disease Control/ President's Emergency Plan for AIDS Relief (CDC/PEPFAR) partners (URC) , viral load testing capacity in Lesotho has been scaled up and is now available in four regional laboratories in Maseru, Butha-Butha (SolidarMed), Mafeteng (URC) and Leribe (URC) districts. The platform used in the aforementioned labs is the fully automated COBAS TaqMan/Ampliprep version 2 (CAP/CTM), a real-time PCR that targets both the Gag and LTR regions of the HIV genome with a limit of detection of 20 – 1 x 10⁷ HIV-1 RNA copies/mL. The regional hospital labs have one CAP/CTM- 96 or 48 platforms each however the Maseru lab has 2 CAP/CTM -96 and recently acquired the COBAS X 4800, which fully automates nucleic acid purification and PCR set-up from primary blood collection EDTA tubes thereby eliminating the need for aliquoting plasma samples. The Roche platforms have capacity to tests 94 - 96 plasma samples in one run and 384 samples a day. However, with three ROCHE COBAS platforms the Maseru molecular biology lab has capacity to test 504 samples a day. The lab receives requests for HIV-1 viral load testing for adults and children from health clinics/hospitals within and about 1 – 4 hours away from Maseru.

Nonetheless, the NRL has not achieved the established targeted number of viral load tests from 2014 to 2017 according to the NSP and viral load scale up plan (Fig 32).

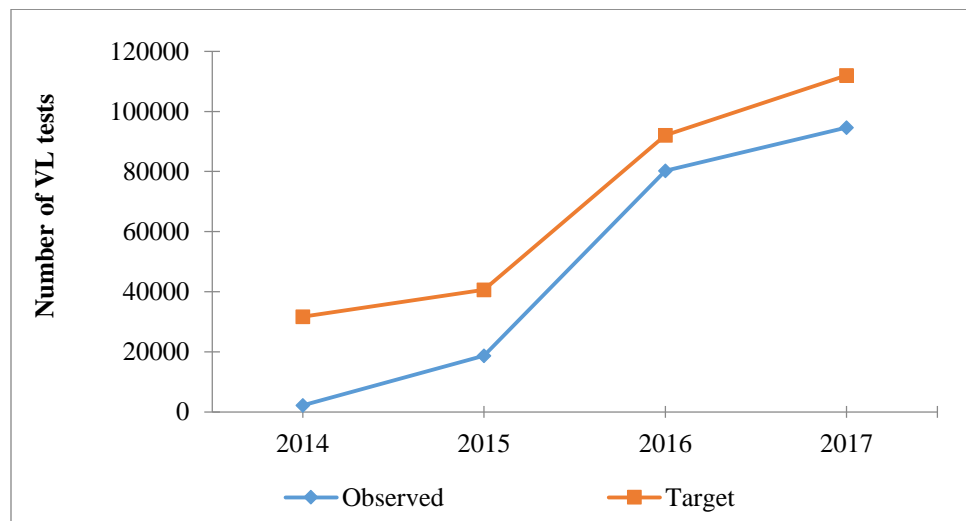
Major findings:

- **Extended TATs for HIV viral load**

According to the laboratory information system (LIS) during this review, the current backlog of viral load tests is 14,000 plasma samples from adults and children collected since July 2017. However, there are also more than 6,000 samples received since August 2017 that have not been accessioned in the LIS. Consequently, the average TAT for HIV viral load is ≥3 months. It is worth noting that viral load for clinics referring EDTA whole blood samples are currently tested using the COBAS X4800, with a TAT of 2 – 3 weeks. At the NRL, plasma samples are stored either in -80C freezer or ironically, in the reagent storage cold room at 2 – 8° C. To maintain RNA stability for viral load, it is recommended that plasma samples should be stored no more than 6 days at 4 – 8 °C. Therefore, quality of the testing at NRL on samples stored at 2 -8 C is questionable and it

is necessary to make decisions on the benefits to patients versus cost of testing samples that may not be used for clinical decision making due to extended TATs and spurious reports.

Figure 32 - Number of viral load tests performed at the NRL versus target viral load tests as per the NSP & viral load scale-up plan



The current backlog for viral load testing was due to multiple causes including reagent stock outs reported in June 2016, inconsistent adherence to the viral load testing algorithm by clinicians as well as operational issues (halogen light and needle) with one of the CAP/CTM equipment since 2nd October 2017. Upon review of a sample of LRFs, it was noted that some clinician were requesting for viral load test at ART initiation. However, WHO recommends routine viral load testing at 6 and 12 months after ART initiation and every 12 months thereafter.

- Implications of the back log for HIV viral load testing

HIV viral load (VL) testing is the gold standard for treatment monitoring, hence, a back log of viral load result may have implication for management of treatment failures and consequently, a biomedical risk for HIV transmission. Additionally, testing plasma samples stored at 2 -8 C since August (3 months) and /or plasma samples subjected to multiple freeze thaws cycles thereby affecting samples integrity will likely yield spurious results that may not be consistent with clinical findings. Therefore, the benefits of continued testing of samples especially those stored at 2- 8 C needs to be discussed

Managing the backlog

To manage the backlog the lab technicians and data clerks work two 8 hour shifts and overtime on weekends.

Recommendations to reduce the backlog of viral load samples and better management of treatment failures

Short term:

- **Sample integrity for viral load testing:** With immediate effect, cease storage of samples in the cold room and procure frost free -20 °C and -80° C freezers for storage of plasma samples waiting testing. Freeze thawing of plasma samples should be limited to maintain sample integrity prior to testing. Plasma samples separated at the sites should be frozen at -20 °C if collection and delivery to the NRL is more than 6 days. However, to maintain sample integrity

and cold chain these samples should be kept frozen and shipped in ice packs. Plasma samples should be kept frozen at the NRL and once thawed plasma samples should be tested immediately. Furthermore, the lab should refrain from storing plasma samples at 4 -8 C for more than 6 days prior to testing.

- **Equipment management:** The lab directorate should ensure that the procurement unit expedites procurement of spare parts required to operate the faulty CAP/CTM platform at the NRL. Additionally, the lab directorate should explore the possibility of emergency procurement of spare parts used for routine maintenance of viral load platforms.
- **Requesting viral load testing:** Clinicians and /or health care providers should also be retrained on (i) the viral load testing algorithm to limit the number of VL test requests from patients not eligible for VL testing especially those initiating therapy and (ii) on completing the LRFs as well as indicating STAT (red stickers) for unsuppressed patients requiring repeat VL testing after enhanced adherence counselling..
- **Human resources:** Contract and /or hire and train additional lab technologists and data entry clerks to support viral load and /or EID testing in all regional labs
- **Sample transport (i)** Riders for health should revise the sample transportation system to ensure riders only transport triple packaged specimens packed separately from the LRFs (ii) Retraining of all sample riders on safe handling of biological samples using the WHO guidelines (iii) Use of frozen ice packs to transport of frozen plasma samples
- **Result reporting:** Establishment of an electronic medical record system (eMRs) that is linked to the LIS whereby unique identifier can be used to allow linking of successive samples to patients for optimal patient management. Furthermore, the COBAS x4800 should be linked to the LIS to minimize transcription errors. Additionally, a reporting mechanisms and /or alert system should be in place for high viral load (> 1000 CPM) reports for proper management of treatment failures. Finally, due to lack of unique identifiers and an eMR system it may be a challenge collecting data to determine the number of patients on ART who are virally suppressed.
- **Staff competency assessment:** Establish a standard operating procedure (SOP) for competency assessment of all staff performing viral load and EID testing. For high complexity tests, after initial training and competency, the staff should be assessed after 6 months and annually thereafter. Records of competency assessments should be filed in personnel folders.

Long term:

- **Policy review:** Update the HIV NSP and the viral load scale up plan according to the WHO HIV treatment (Treat all) guidelines.
- **Decentralization of EID testing to regional hospital labs:** The lab directorate should review the possibility of decentralization of EID testing to hospital laboratories in Mafeteng and Butha Buthe, with high throughput CAP/CTM -96 platforms. This will involve training of staff in these labs on qualitative PCR as well as determining the sites that will refer EID samples to these regional laboratories.
- **HIVDR surveys:** Based on the suboptimal management of unsuppressed patients on ART, Lesotho is highly encouraged to conduct surveys for pretreatment drug resistant (PDR) and acquired drug resistance (ADR) based on the WHO global guidelines for HIVDR. Furthermore, use of remnant samples for viral load monitoring that are optimally cryopreserved may be used for HIVDR testing. The NICD in South Africa, a WHO HIVDR accredited lab, can support countries like Lesotho without capacity for HIVDR testing.
- **Specimen repository:** Establish sample storage and inventory system with an alert mechanism and electronic database to ensure adequate storage, tracking and /or retrieval of cryopreserved samples. Samples should be stored using 9 x 9 storage boxes (ii) Procure

additional – 20 and -80 C for sample storage (iii) Remove of non-operational – 20 C freezers in the lab

Best Practices observed

- *One of the lab techs serves as the lab quality officer and the role of quality officer is rotated amongst all techs. A national lab quality manual exists and a new version is available and is being read by lab staff. In addition, a laboratory manual which is also shared with laboratory clients details the tests and requirements for each tests performed in each lab in the tier network however the TATs are not stipulated in the manual.*
- *The lab informs all clients of testing interruptions via a memo.*
- *There was evidence of staff involvement in SOP development. Monthly quality improvement meetings are held during which new SOPs are read as a team*
- *Lab was assessed using the WHO SLIPTA tools and awarded 3 stars. The lab is currently working towards strengthening its quality management systems*
- *Laboratory participates in EQA schemes coordinated by CDC for HIV viral load testing. Panels are received semiannually and the lab has been performing satisfactorily with the exception of the EQA panel received in May 2017. The lab report was unsatisfactory and the root cause was due to transcription error during reporting.*
- *The lab uses as back up other reference labs in case of equipment failure staff at NRL performs testing using equipment at other regional labs.*
- *Consistent power supply was also reported and all equipment are on UPS*
- *Roche COBAS platforms are regularly serviced by Roche after every 15,000 runs and this is usually three months.*

Challenges:

- According to the Human resource plan for 2017, 60% of laboratory positions are vacant as a result; the workload for current staff in facilities is high. Despite this high work load, staff is very hard working and motivated.
- A remote management dash board to monitor testing quality for viral load and EID testing is available at the MOH. However, the quality manager and lab director were not trained on the functionality of the dash board and are underutilizing the dash board which can be used to monitor quality of testing in all laboratories with LIS.
- Reagent stock outs were reported for viral load and EID testing in June 2016. As per best practices, the lab informs all clients of testing interruptions via a memo.
- EID is centralized at the NRL Molecular laboratory. DBS samples for EID testing are received daily. Although, priority is given to pediatric samples for qualitative PCR testing, the TAT for EID is 7 days however due to the viral load backlog, EID TAT is 3 months. However, the extended TAT can be circumvented by decentralizing EUD at least to regional labs that also use the CAP/CTM 96 platforms.
- Performance verification of the new COBAS x4800 was limited to method comparison (accuracy) because the lab did not have access to verification panels to verify the analytical measurement range (AMR) and linearity.
- The biosafety cabinet was overdue for service maintenance and pipettes are not routinely calibrated. The latter was due to lack of weights and scales as well as lack of SOPS to perform pipette calibration or funds to outsource pipette calibration.
- Centrifuges used for plasma separation at the NRL and also in district labs are not calibrated

- A standard lab request form (LRF) for exists for HIV viral load testing however the LRFs are incompletely filled by the requesting clinics .Specifically , the date and time samples are collected and separated were mostly missing from the LRFs reviewed. However, the lab indicates date and time of sample receipts in the lab information system (LIS) as well as on the LRFs.
- Date-mark machines to record date and time on LRFs have being out of use since 2014.
- The clinics are not using the red sticker for patients with high viral load to indicate STAT on LRFs as a result the lab does not prioritize testing for unsuppressed patients.
- Not all clinics have a bar code on the lab request form. As a result, data clerks usually have to manually enter information on the LIS. LIS is not linked to electronic medical records and paper reports are returned to clinics using the bike riders.
- Review of reports prior to dispatch is very suboptimal and manual especially for the COBAS x480 which is currently not connected to the LIS. As a result viral load data is manually transcribed on the report forms. There was no evidence of review of the manually transcribed VL values by the senior lab technologist or team head although the reports indicate that these results were reviewed. When I inquired I was informed the reports are too many for them to sign individual report nonetheless, review is done but without signatures or stamps. The lab sent a request to the LIS focal person to connect the COBAS x4800 to the LIS but there have been delays in implementation.
- Upon receipt of LRFs in the lab, each sample is assigned a unique lab bar code or lab number by the LIS
- Using LIS and if ART number is used, the lab can review previous testing and reject samples that are not eligible for testing. Rejection is communicated to the clinics using rejection logs via the bike riders. However, it was noted that ART numbers are not unique i.e. the same ART number may be assigned to two different people.
- Some and not all lab staff are vaccinated against Hepatitis B
- There is no electronic sample archiving system for sample repository. Samples are stored based on date and time received in the lab. Although whole blood when received in the lab is separated within 24 hours, plasma samples are usually stored in 2 -8 C for more than 3 months prior to storing in -80 C or testing.

Diagnostic support for TB programme – National Reference Laboratory

Diagnosis and management of multi drug (MDR) and extremely drug resistance (XDR) TB is dependent on availability of quality assured diagnostics testing capacity. Molecular diagnostics platform such as GeneXpert have capacity to detect DNA sequences specific for Mycobacterium tuberculosis and rifampicin resistance MTB/RIF by polymerase chain reaction in less than 2 hours. Furthermore, new molecular platforms, such as the line probe assay (LPA) can detect MDR (RIF/INH) and XDR MTB. Nonetheless, culture and drug sensitivity testing (DST) remain the gold standards for phenotypic detection of MDR/XDR MTB. In addition, smear microscopy, although cannot diagnose MDR/XDR MTB, is crucial for diagnosis of MTB especially in testing sites without GeneXpert platforms. Currently, 28 GeneXpert platforms (4 –12 modules) are placed in 23 district hospital sites and at the NTBRL in Maseru.

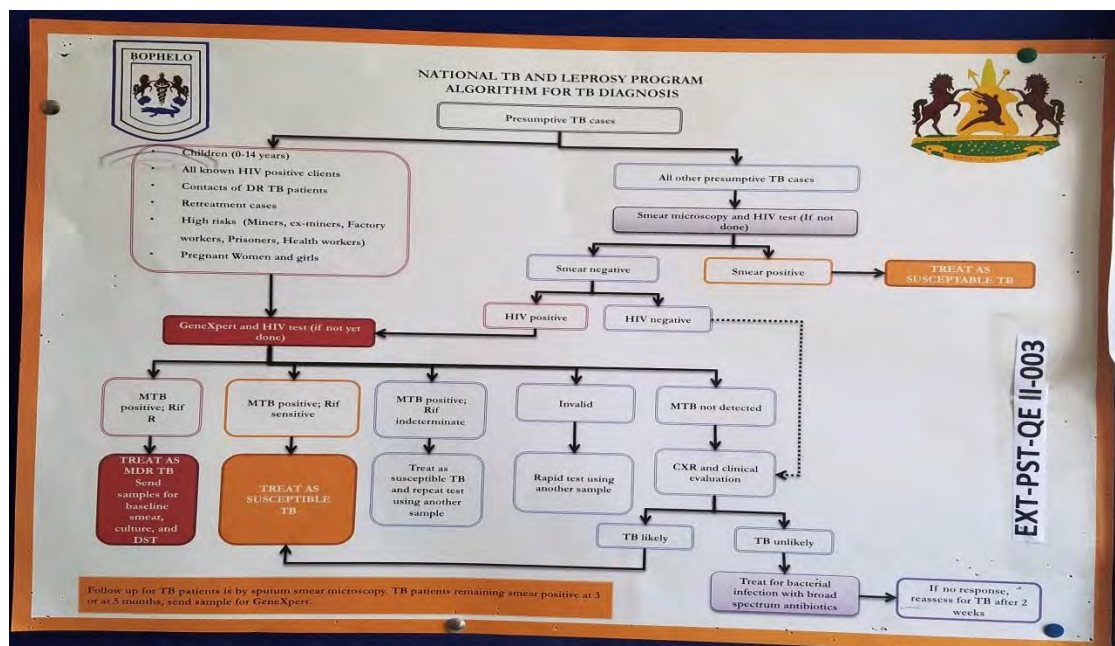
In Lesotho, **new and presumptive TB cases are confirmed using GeneXpert** at regional and /or health centre laboratories whilst confirmation for MDR MTB is referred to the NTRL for culture, DST and /or 1st line LPA. Sputum samples that are confirmed resistant to 1st line drugs are referred to NICD or the Uganda NTBRL for 2nd line DST and /or LPA. The sample transport network for MTB diagnosis depends on transport of sputum samples using sample couriers supported by riders for health. The couriers transport samples from community health facilities to district and

/or regional labs for diagnosis with GeneXpert. Furthermore, samples requiring confirmation (Culture/DST and /or 1st line LPA) are referred to the NTRL using DHL and /or bike riders.

The following were observed during review of the NTRL:

- **Quality management systems implementation:** (i) successfully participate in EQA schemes coordinated by NHLS South Africa (for microscopy, culture, DST and LPA) and Institute of Tropical Medicine (ITM) (for 1st line LPA). (ii) Lab is currently participating in the SLIPTA process through a resident mentor supported by World bank
- **Human resources:** NTRL: 8 technologist and 2 data clerks. Two of the technologist, supported by World Bank, serves as a QMS mentor and technical adviser, respectively. One of the senior lab technologists is also the safety officer.
- **Clinic - sample courier - lab relationships:** Lack of coordination between the clinic, riders and lab were observed. As a result (i) samples are not collected and delivered to the labs for testing (ii) reports especially critical reports not received by the clinic as a result loss of cases e.g. MDR , infected infants , patients with unsuppressed viral load were noted
- **MTB diagnostics algorithm:** The current Lesotho TB diagnostics algorithm (Fig 33) is not in compliance with the WHO/Global Laboratory Initiative (GLI) model for TB diagnostics. Nonetheless, the following were noted (i) Smear microscopy is used for MTB diagnosis in labs with no GeneXpert capacity and/or when there is a stock out of cartridges or if GeneXpert modules are not operational. (ii)BSC cabinets were serviced and within the service period however pipettes were not calibrated due to lack of standardized weights.(iii)The biocontainment lab (P3) at the NRL is currently not maintaining negative air pressure however the lab is still performing cultures and 1st line LPA, which is a biohazard risk.(iv) Currently due to stock out of reagents, DST is not done however 1st line LPA is currently used for confirmation of MDR TB. Furthermore, Lowenstein-Jensen is used as a backup technique for culture and DST however eggs are usually purchased by lab techs.

Figure 33 - Lesotho TB diagnostic algorithm



- Commercially available external quality control reagents (ATCC positive controls) are not available for 1st line DST rather the lab uses EQA samples as controls
- Supportive supervision to regional and district labs are done by the NRL however this has not been consistent due to transport logistics. However, when done the NTRL provides training (microscopy and GeneXpert), mentorship and EQA support to regional and district lab facilities
- The TAT for :
 - GeneXpert is 7 days and 24hrs for samples from districts and in patient samples, respectively
 - Culture 6 – 45 days
 - 1st line LPA 7 days after positive culture
- Critical RIF resistance reports for samples referred to the NTBRL are not always sent back to referring clinics due to lack of air time or incompletely filled LRFs, lacking clinician or clinic information.
- Stock out of GeneXpert cartridges was reported twice in 2016 and resulted in back log of testing in 2016. The amount of GeneXpert cartridges (3,750/ month) forecasted for 2017/2018, seems like an underestimation based on GeneXpert tests performed in 2016 and taking into account additional modules in some testing facilities. Additionally, recent back logs (September 2017) were also due to introduction of GeneXpert ultra cartridges which required calibration of equipment in addition to lack of enough ultra-cartridges.
- Use of a prepaid electricity system coupled with lack of diesel fuel for generators results in frequent power outages at the NTBRL which compromises on going cultures and stored samples.
- The current LIS is unable to reliably conduct data analysis due to lack of unique identifiers i.e. one patient can have different file numbers and /or names.
- Personnel folders at NTRL reviewed were comprehensive with educational records, training records and transcripts, immunization details, JD's, contracts, annual appraisal reports etc.

Recommendations for TB diagnostics

- **TB Diagnostic algorithm:** Revise, validate, train and disseminate the diagnostics algorithm for TB according to the WHO TB guidelines and TB NSP.
- Strengthen coordination between laboratory, health facilities and sample couriers and establish a TWG comprised of representatives from national, regional and district teams.
- Develop an operational plan that considers optimal implementation and utilization of new laboratory technologies prior to their roll out.
- Expedite renovation of the TB containment lab at the NTRL to permit culture, 1st and 2nd DST (phenotypic) and LPA (genotypic).
- Gradual phase out of light microscopy (ZN staining) and phase in fluorescent microscopy.
- Management dashboard for GeneXpert: With expansion of GeneXperts and frequent interruption of testing due to problems with modules and absence of EQA schemes for MTB/RIF testing at some sites, implementation of a remote management dash board can monitor the performance of GeneXperts and triggers investigations and corrective and preventive actions, when necessary.
- Result reporting: (i) All GeneXpert should be linked to the LIS and electronics medical records (once established) to allow e-reporting system and minimize on test TAT (ii) A real time reporting mechanism for RIF⁺ should be established between testing labs and the NTRL to minimize missing cases of MDR/XDR TB.
- **HIV/TB:** In view of the high mortality in HIV/TB co-infected patients consider a gradual phase in of Urine LAM for diagnosis of TB according to WHO guidelines.
- Hire laboratory personnel to support HIV, TB and hepatitis diagnostics services in line with the NSP and the proposed laboratory HR staffing plan.
- Review the existing power supply in all laboratories to ensure uninterrupted services

Procurement and Supply Chain Management

Background

Both the TB and HIV strategic plans clearly articulated PSM as a key support function to the delivery of programme objectives and target. At end term the assessment of performance of the two strategic plans focused on the PSM within the programme while keeping an overall outlook of how the programme interacts with the wider PSM functions to attain results. The key functions of focus were: Selection of required products, Forecasting and Quantifications, Procurement, Storage/warehousing, Distribution and last mile delivery, Rational use, Information systems and the M&E, Quality assurance, and Coordination in relation to PSM. The review focused on using the Health Commodity Security approach (Annex 7.1) with the particular theory of change that looked at PSM ensuring that the timely delivery of adequate and sustained quantities of required quality-assured products for HIV/AIDS, Tuberculosis and Viral Hepatitis programming in the country would contribute to significant reduction in the burden of the conditions. As such commodities and systems for delivery of products for all those disease conditions were assessed from public health approach to health supply management.

Indicators performance

Both TB and HIV strategic plans had specific performance indicators for PSM functions and the performance of the indicators are summarised in table below.

Table 15 - TB and HIV PSM performance indicator on proportion of health facilities reporting no stock out of products for HIV and TB

Indicator	Product	Performance	Comments
Proportion of health facilities reporting no stock out of products for HIV and TB Target: 100% for all No baseline data	Reagent	77.78%	Data source: GHSC health facility monitoring report for 2017 for the priority districts only Aggregation method: total number of facilities reporting no stock out of the product in a quarter was considered for each product
	ARV	97.23%	
	Test kits	83.69%	
	Condom	89.47%	
	FLD for TB	No Data	
	TB reagents	No data	
	Average	87.04%	

There was no data reported for TB medicines availability at health facility level as the system was still under development. The stock outs didn't have significant impact on continuity of treatment due to quick NDSO response time to orders. Despite the high average availability reported above, there was significantly low adherence to minimum and maximum stock levels especially for laboratory reagents at NDSO level. A systematic analysis of the national level stock status for TB medicines, HIV medicines and diagnostics for both TB and HIV at time of the review is provided below.

Analysis of Central Level Stock Status at time of the review

HIV Test kits

The stock levels of HIV test kits showed that most products were within the minimum and maximum level but there was no firm order in the pipeline. Table below summarises the stock position at NDSO at time of review.

Table 16 – Rapid HIV testing kits stock status at the NSDO during the programme review period

Rapid HIV test kits products	MOS_Stock on hand	MOS_Stock on Order	Total MOS	Comments/Notes
Determine 100	7.7	0.0	7.7	The country needs to place orders and regularise the supply planning and management of these products
Unigold 20	7.6	0.0	7.6	
SD Biline HIV 1/2 3.0	51.6	0.0	51.6	
Auto Lancets (safety) 100	0.3	0.7	1.1	
DBS (Low Prevalence Kit) 50	7.8	0.0	7.8	

HIV Viral Load & EID Reagents

The review of the stock levels of HIV viral load and Early Infant Diagnosis supplies at NDSO level indicated that nearly all the products were on verge of being stocked out and no firm orders in the

pipeline. The review also found that this situation is common despite some funding being available at MoH from partners. Table below summarises the stock position at NDSO at time of review.

Table 17 - Viral load & EID reagents stock status at the NSDO during the review period

Viral Load & EID Reagents	MOS_Stock on hand	MOS_Stock on Order	Total MOS
HIV-1 Test Version 2.0, 48 Tests	2.8	0.0	2.8
HIV-1 -Qualitative Test Version 2.0, 48 Tests	1.2	0.0	1.2
Specimen Extract RUO Reagent 350 Tests	1.5	0.0	1.5
K tips (12*36)	2.2	0.0	2.2
Flapless SPU (12*24)	2.3	0.0	2.3
Tube racks (12*96)	1.4	0.0	1.4
S Tubes input (12*24)	0.9	0.0	0.9
Wash Reagent 5.1l	9.5	0.0	9.5
Pipettes 1000ul Filter Tips 960	N/A		

HIV CD4 Monitoring Reagents

The HIV CD4 monitoring was using the mix of Facs Count and Facs Callibur platforms in the country at time of the review. The stock levels of the reagents and control kits at central level indicated mixed picture of both understocks and overstocks. This is indicative of possible weaknesses in quantification and lack of appropriate early warning systems. Table below summarises the stock position at NDSO at time of review.

Table 18 - CD4 reagent stock status at the NSDO during the review period

CD4 Reagents	MOS_Stock on hand	MOS_Stock on Order	Total MOS
BD Facs Count Reagent (50)	14.6	0.0	14.6
BD Facscalibur Tri-test CD3/CD4/CD45 50T	10.9	0.0	10.9
Trucount Control kit	5.0	0.0	5.0
Calibrite 3 colour kit	2.5	0.0	2.5
Facs Clean 5L	0.4	0.0	0.4
Facs Control Kit 25T	3.0	0.0	3.0
Facs Rinse 5L	35.3	0.0	35.3
Facs Lysing Solution 500T	3.0	0.0	3.0
Facs Flow Sheath Fluid 20L	58.8	0.0	58.8
Facs Count Printer Paper Roll	6.0	0.0	6.0

TB Reagents and Consumables

The TB reagents stock review of the stock levels were at two extremes of both understocks and overstocks. There appears to be working supply systems for the GeneXpert Cartridges. Table below summarises the stock position at NDSO at time of review.

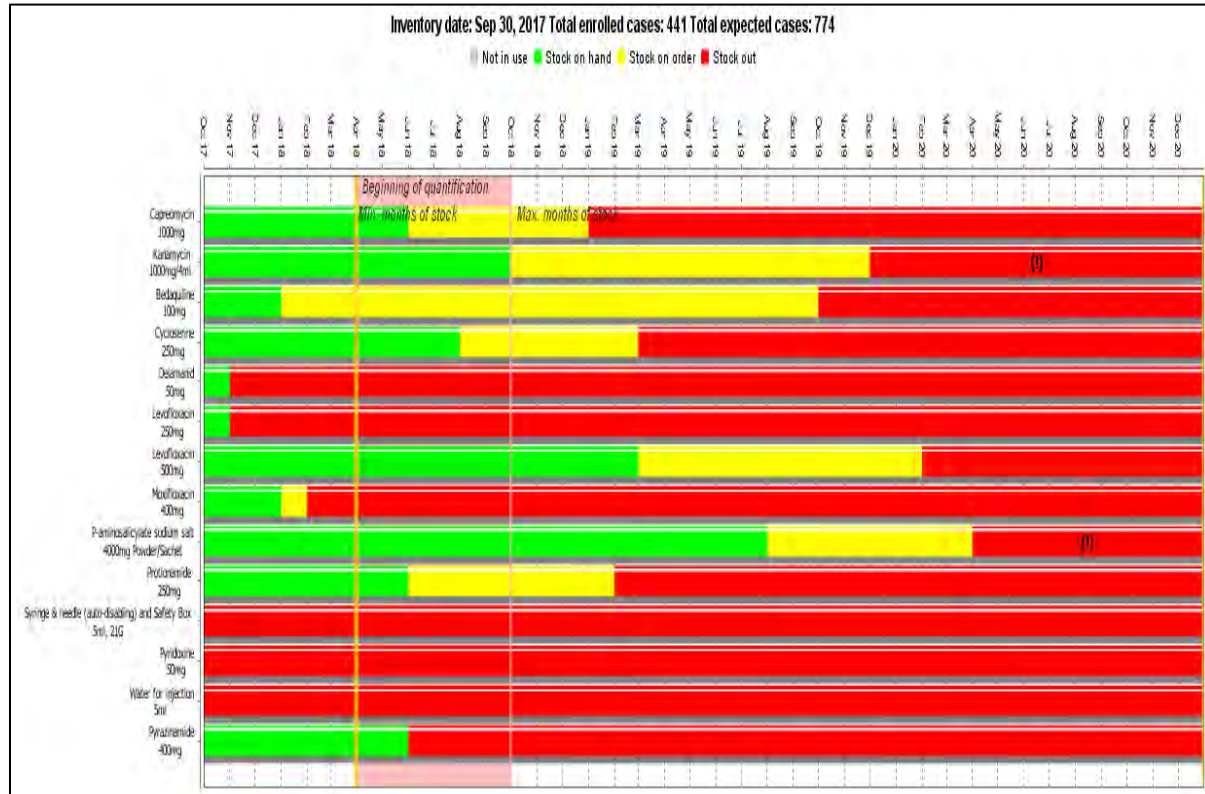
Table 19 - TB reagents & consumables stock status at the NDSO during the review period

TB Reagents & Consumables	MOS_Stock on hand	MOS_Stock on Order	Total MOS
GeneXpert Cartridges 50T	2.8	0.0	2.8
Sputum jars 500	0.8	7.7	8.5
Ethanol Acid Alcohol 3% 1l Reagent 1	9.4	0.0	9.4
Microscope slides frosted ends 50	16.6	0.0	16.6

Second Line TB Medicines

There was no stock out of second line Tuberculosis medicines at time of the review. The stock situation was analysed using QuantTB software for Early Warning and the results of the stock situation is illustrated below.

Figure 34 - Second-line TB medicine stock status using QuantTB software, September 2017



There is no stock out of any product in the system and major risks can be mitigated with formulations substitution. There were however two products found at risk of expiry as indicated in the table below.

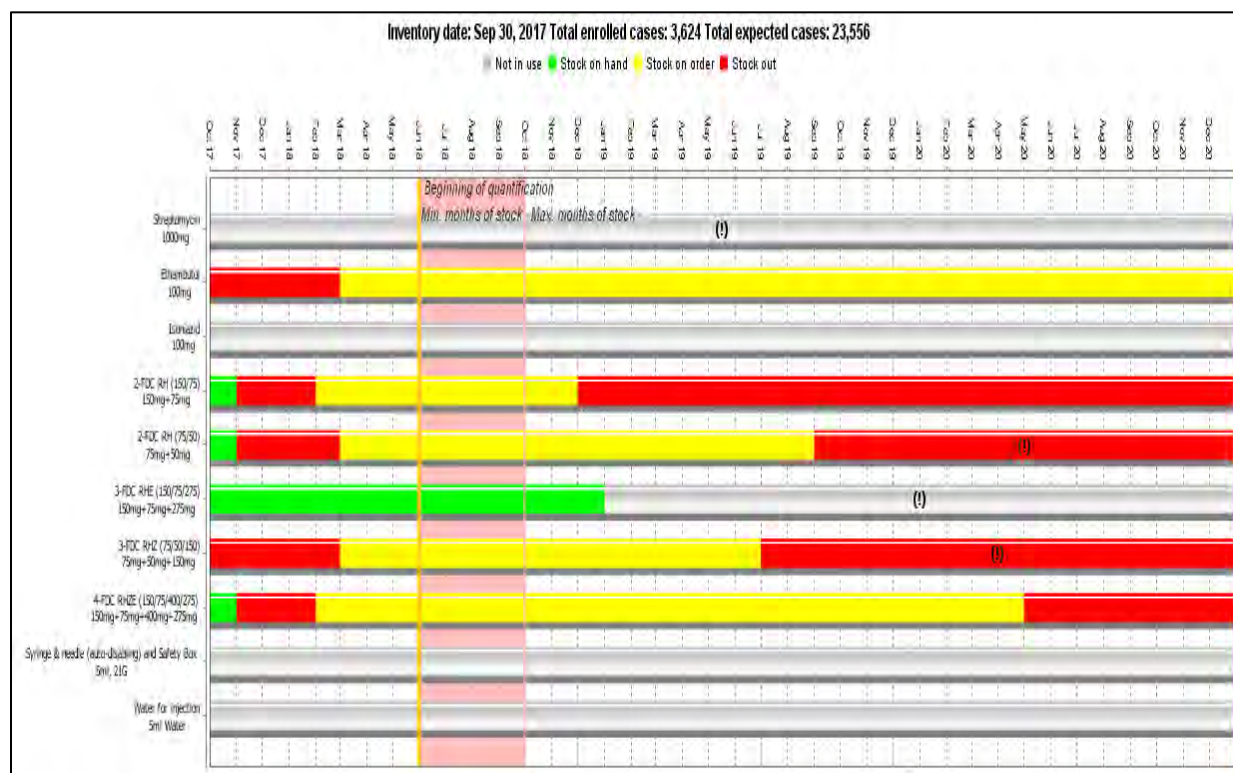
Table 20 - TB products at risk of expiry at the NSDO during the review period

Product name	Quantity at risk of expiry/wastage	Expiry Dates	No of cases that can be treated	Possible Reason
PAS(Na)	103,809	Apr 2020		
Kanamycin	24,444	Dec 2019	Approx. 100 cases in 8 months	Reduced utilization and case finding???

First Line TB Medicines

There was mixed stock situation of first line Tuberculosis medicines at time of the review. Stock out at NDSO of Ethambutol 100mg, INH 100mg and pediatric medicine (RHZ) were noted at central level although no correlation was seen at facility level during the field visits. There were very low stock levels for adult TB medicines and pediatric TB medicine (RH) and plans were in place to ensure no disruption to treatment occurs. The stock situation was analysed using QuantTB software for Early Warning and the results of the stock situation is illustrated below.

Figure 35 - First-line TB medicines using QuantTB software, September 2017



There was evident risk of possible expiry of the medicines as well as stock-outs. Table below provides a snapshot of the products considered at risk of expiry during the time of the review.

Table 21 - TB products at risk of expiry during the programme review period, 2017

Product name	Quantity at risk of expiry/wastage	Expiry Dates	No of cases that can be treated	Reason
Streptomycin (CAT II Adult)	17,940 25,200 43,140	June 2018 Jul 2018	770	Change in regimen
RHZ 75/50/150mg (Paed)	139,600	July 2019	830 (about 250 reported annually)	Targets not met/ Shipment not staggered.
RH75/50 (Paed)	42,804	Sep 2019	127 (about 250 reported annually)	Targets not met/ Shipment not staggered.
RHE (CAT II Adult)	100,072 911,904 1,011,976	Jan 2019 Aug 2020	2409 (about 1100 reported annually)	Change in regimen/over quantified

Key achievements

During the period of the two strategic plans, the following were key achievements in area of health commodity procurement and supply management:

Selection of products:

- The national disease programmes have had ease in introduction of new products and formulations to ensure appropriate regimens are used in the country. The pharmaceutical department adopted comparative registration and prequalification protocols to allow for products importation.
- The use of child-friendly formulations has significantly improved over the period of implementation of the strategic plans.
- The country currently uses appearance on products lists under the WHO prequalification scheme and United States Foods and Drugs Administration (FDA) as basis for selection and procurement.

Financing of medicines and health supplies

- The government of Lesotho progressively moved to finance 100% of all first line TB medicines and 70% of all required ARV medicines as per FY2017/2018 budget.
- The commitments from partners for laboratory diagnosis have steadily improved over the period of implementation of the strategic plans.

Forecasting and quantification

- Creation of the MOH Supply Chain Coordination Unit (SCCU) and support from USAID projects improved the standardisation and reliability of national quantifications. There is a working quantification working group for the MoH that carries out annual quantifications to inform government budgeting cycle and procurements, and bi-annual quantification reviews to inform procurements.
- The MoH was able to adopt and use standard tools for quantification of HIV and TB medicines namely Quantimed™ and QuanTB™ respectively.

Procurement of health commodities

- The country has continued to use national systems to procure ARVs, TB medicines and laboratory commodities/equipment financed by GoL and PEPFAR, hence supporting the need for local capacity building.
- Fast-track mechanisms exists for emergency procurement requiring approval and waiver from Ministry of Finance.

Storage, distribution and last mile

- NDSO distribution is now up to last mile to all health facilities.
- The NDSO supply turn-around time not exceeding seven working days from receipt of regular orders and two working days for emergency orders.
- NDSO handling charges for products have been standardised at 7% for ARVs, TB medicines, laboratory products are non-commercial stocks (donations), and 20% for the condoms and other bulk products.
- As a medium-term measure to address human resources capacity gaps at health facility level, an assisted push/pull system for distribution of ARV and TB medicines.
- NDSO has migrated from Rx solutions to the Indus™ for warehouse management as a measure to improve inventory management.

LMIS, Quality Assurance & Coordination

- An integrated Logistics management information system (LMIS) has been rolled out to allow for all products to be reported within one reporting and management platform.
- The SCCU has been created to coordinate the overall national commodity supply management particularly quantification, procurement planning, LMIS and reporting, supply chain diagnostics, and supervision.
- The supply chain management technical working group is in place and involves all partners, programmes and key players at national level.
- Sampling and testing of medicines from health facilities for quality testing in ISO certified drug quality control laboratory in place for all products procured by the Global Fund.
- 12 district logistics officers have been deployed to support the supply management at district level with Maseru and Leribe each having two officers.

PSM Challenges and gaps

The following key challenges and gaps have been noted in the PSM for the programmes:

- The absence of a fully functional national drug regulatory agency has created gaps in ensuring registration, product quality monitoring and coordination of pharmacovigilance at all levels. The inadequacy in the post-distribution quality monitoring and limited pharmaco-vigilance places patients at risk of poor quality products.
- Inadequate system for monitoring and reporting of stock level at facility level in the country creates gaps in adequately knowing national stock level picture for all the products beyond NDSO level. The country plans to introduce the informed push for ordering and distribution of products to health facilities.
- There were significant inadequacies in the quality of the data used to inform national quantifications particularly:
 - The programme targets used for quantifications varied significantly from actual performance and this led to direct cases of stock piles for commodities for VMMC, ARV medicines, selected second line TB medicines, among others. In particular, there was reported expiry of ARV medicines due to failure to meet programme targets.
 - The patient data reported from the health facilities is of poor quality characterised by under-reporting, inaccuracies and limited disaggregation. A case in point is the different reported numbers of paediatric TB patients, 227 at NTP and 250 at Baylor for same reporting period.
- There is multiplicity of formulations and pack sizes of same medicines at facility level creating confusion among health workers at time of reporting and ordering in addition to rational use challenges at patient level. At time of review, the country was having a mix of the paediatric TB formulation, RHZ 75/50/150mg (new dosage combination) and RH 60/60 (old) despite move towards newer formulations.
- Despite standardisation of the quantification tools, there has been inadequate training and orientation of national staff at SCCU and the District Logistics Officers in use of both Quantimed™ and QuanTB™ relevant for quantification and Early warning systems. There is unclear system for condoms and VMMC commodities planning leading to stock piles and high risk of expiry.
- There is significant delay in release of funds for procurement of medicines and health supplies and the amounts released are further affected by limits determined by quarterly release warrants from Ministry of finance.
- Current regulations do not allow for pre-financing/prepayment for orders as required by suppliers particularly GDF leading to long lead time. This is further complicated by limited pool of local suppliers at country level.
- Procurement unit faces significant challenges in programme giving appropriate specifications for requests and non-willingness to accept open bidding.
- The delayed gazetting of the SCCU within the MoH structure can lead to risk of it being disbanded with time. There is possible ambiguity in roles of SCCU and Pharmaceutical department may create role conflicts affecting services delivery.

Priority issues for next Strategic Plans

In formulating the next strategic plans, the MoH should consider the following specific actions and priorities in relation to PSM components:

- Clearly define the PSM indicators and have baselines conducted as much as possible. The programmes should work with the SCCU to create some mechanisms to monitor such indicators. The options for indicators are:

Table 22 - Possible types of mechanisms for monitoring PSM indicators

Type	Indicator	Indicator definition
Absolute availability	<ul style="list-style-type: none"> • Proportion of health facilities reporting no stock out of all the tracer medicines over review period 	<ul style="list-style-type: none"> • <u>Numerator</u>: Number of facilities reporting no stock out of all tracer medicines • <u>Denominator</u>: Total number of facilities sampled
Average availability	<ul style="list-style-type: none"> • Proportion of health facilities reporting no stock out of any of the tracer medicines over last seven days 	<ul style="list-style-type: none"> • <u>Numerator</u>: Number of facilities reporting no stock out of tracer medicines • <u>Denominator</u>: Total number of facilities

- The programmes should consider enhancing PSM functions within their strategic plan to equate it with the level of investments.
- Pharmacovigilance and in-country quality monitoring of medicines and laboratory supplies should be considered as key areas.

Recommendations

The following recommendations are made to improve the PSM function within the programmes and for future National Strategic plans:

Table 23 - Recommendations for improvement of PSM indicators within programmes and for future National Strategic Plans

Recommendation	Timeline	Responsibility
The SCCU should be gazetted and TOR harmonised with other units of MoH for effective functioning and supervision of national supply chains	April 2018	PS MoH
The integrated LMIS system should be updated and expanded to collect facility level stock status and consumption data for improved monitoring and decision making	January 2018	SCCU
The pharmaceutical directorate should be supported to strengthen the function of comparative drug registration and quality assurance in absence of a fully functional registration and import control processes at national level	June 2018	WHO Lesotho
The government should consider putting funds for prepayment of suppliers of non-commercial stocks at NDSO and allowing issuance of framework contracts to reduce procurement lead times	April 2018	PS MoH
Programmes should continuously revisit targets and demand creation and harmonise them with quantifications and supply side to avoid stock piles and expiries	Continuous	Director Disease Control & Programmes
The product lists and formulations for ART, smear sensitive TB treatment and MDR-TB should be harmonised and optimised with focus on promotion of use of fixed dose and newer formulations	December 2017	Director Disease Control & Programmes
The SCCU should source for resources and/or technical assistance and carry out appropriate training of the relevant personnel on use of Quan TB and Quantimed™ tools	February 2018	SCCU
The programmes should revisit the target setting and the accompanying M&E systems to ensure quality of data for inputs into the national forecasts and quantifications.	March 2018	Director Disease Control & Programmes

Community Systems

The demand for care services at hospital level has thus overwhelmed the already existing fragile health systems. A majority of patients with communicable and non-communicable diseases including TB, HIV and AIDS are currently being cared for in their families under the community based care support structures. Health care professionals alone in the care of the chronically and terminally ill cannot be the answer. As such, the need to motivate people to take treatment, care and support (including treatment for opportunistic infections, anti-retroviral therapy and DOT for TB treatment), calls for the strengthening and expansion of the health care delivery system.

Civil Society Organizations (CSO) and other partners

The UNAIDS defines CSOs as AIDS Service Organizations, professionals and scientific organizations, faith based organizations and INGO globally and at community level. They are a significant stakeholder in providing services to those infected and affected by chronic and terminal illnesses. In 2013, the Government of Lesotho developed a collaborating strategy to enhance government/NGO partners to guide health care facilities in approving, coordinating, monitoring and evaluating the services provided including the funding allocated. It was expected that CSO work with government in coordinating mechanisms at lower levels based on similar principles at the national level. At the district, the coordination mechanism consists of the DHMT, an institutional framework with distinct composition, roles and responsibilities to address the technical, managerial, and monitoring and evaluation.

Lesotho has been described as one of the countries in the forefront of revitalizing Primary Health Care which has its roots in community and partner participation. The aim is to promote the health and wellness of the community members through their full engagement. TB and HIV are the top two causes of morbidity and mortality in Lesotho and are the key critical illnesses warranting joint partnership of communities given the nature of its cause. This Integrated Community HIV and TB Services strategic plan is the strategic guide to inform the national response to HIV and TB at community level in a lifespan of five years.

The strategy places emphasis on the values and principles of PHC which are key to a functional HIV and TB service delivery at community level. The strategy calls all the key stakeholders to utilize it so as to harmonize and reduce the fragmentation that was observed during the situational analysis. However, while the strategy has been in place for close to four years, it was noted that the observations and challenges raised during the development of the strategy were still prevalent during this particular review. There are also a number of partners who support HIV and TB with varied roles and responsibility for technical assistance, funding and implementation. Table 24 below summarizes partner involvement in the areas of TB and HIV.

Table 24 - Roles of partners in community home-based care provision in Lesotho

Stakeholder	Community HIV and TB services provided
WHO	Provide technical support and mobilize resources for the community based activities
UN Team	To ensure that persons living with HIV have access to and benefit from integrated service delivery that include nutrition support, ART, and care; and HIV/TB co-infection management Provide technical support and mobilize resources for community based activities
PSI	Technical support and HIV/AIDS testing and counselling activities through mobile clinics
EGPAF	Technical support, resource mobilization, Support family health days and liaise with community leaders. Partners with local NGOs for sustainability.
LENASO	Supports Community Based Organizations with technical support, the linkages and advocacy for uptake of TB, HIV/AIDS treatment
Red Cross	Train home based care facilitators based in their project areas for HIV/AIDS care, support and treatment, support OVCs and food security
LPPA	Establish peer educators groups/clubs to educate youths about life skills and HIV/AIDS in the community, offers clinical services in their designated clinics and provides HTS services to youth and adults
World Vision	Train community care coalitions in the community inclusive of all community health workers to address children's needs Support vulnerable children and allows the community to take a lead in their activities, support self-reliance projects
Senkatana	Training of HIV/AIDS home based care givers and service provision HIV/AIDS care, treatment and support in the country
ALAFA	Provide TB, HIV and AIDS care, treatment and support the factory workers.
LENEPWHA	Coordination and support to HIV/AIDS support groups in the care, prevention and treatment of HIV/AIDS and minimally TB They provide technical Support to people with HIV/AIDS in the country and mobilize resources
SOLIDARMED	Strengthening the capacities and effectiveness of village health workers at village and household level with a focus on maternal and child health, TB and HIV Capacitation of village health workers and the community on TB, HIV/AIDS and Maternal health services. Integration of PHC services
MSF	Mentoring of village health workers and lay counsellors to give better community based services in TB and HIV/AIDS and maternal and child health Mentoring village health workers and nurses to give quality care to TB, HIV/AIDS in their catchment areas.
PIH	Involvement in TB,HIV/AIDS, MDR TB Mother and Child Health by strengthening village health workers Provide services to people with resistant TB (XDR TB) and has a special hospital.
LIRAC	Involved in HTS , doing door to door testing where they test couples and children utilizing trained church driven lay counsellors Provide door to door HIV testing and counselling and referrals Works directly with churches and chiefs in the community
MOH	To coordinate the community TB, HIV and AIDS care services

	Provide overall guidance, oversight, regulation and control of the services, create partnerships and networks and coordinate with key partners, TB, and HIV/AIDS clients and community
CHAL	CHAL facilities remain a key ally with many health facilities, especially in rural areas
GFATM	Global Fund to Fight AIDS, Tuberculosis and HIV AND TB (GFATM) has granted the MOHSW for scaling up TB and HIV Control through round 8 and New Funding Model. Provision of incentives for some Community Health Care Workers
Riders for Health	Support transportation of sample transportation for both the HIV and TB management by bringing samples for laboratory tests from health centres to district hospitals.
Baylor	Focus on care, treatment and support for children with TB/HIV in children and adolescents. Provides care, support and treatment of children with TB, HIV and AIDS

Source; MOH 2013, Strategy for integrating **community HIV and TB services in lesotho**

Achievements

- PEPFAR is covering 5 high disease burden districts with 75% of PLHIV. The lower disease burden districts are covered by Global Fund. About 50% of all health facilities are managed by CHAL.
- There is notable community to health facility linkages and vice versa. Good working relationships exist between DHMTs and most of the CSOs. The MOH has strong partnership with CHAL health facilities.
- In some districts such as Berea there was evidence of strong engagement of traditional healers/ faith forum.
- LENEPWA an umbrella network organization for PLHIV is represented at decision-making bodies within the HIV response in CCM, TWG, review on NSP and national guidelines. LENEPWA has adequate capacity , human resources and operational system to implement projects with GFATM and PEPFAR in delivery service
- Civil society is effectively represented in the national HIV response, at national and district level and are a part of District Councils

Main Challenges

- There is no national HIV strategic plan, policy guidelines that include a framework that describes the process, coordination and content of monitoring, evaluation and review of civil society activities.
- Weak tracking system for the patients
- Health partnership forum which is co-chaired by WHO is not functional at all due to frequent government changes. The Health sector plan available is in draft form.
- The coverage of private health care providers in TB care and prevention remains low among the districts covered.
- No supervision of CSO work by DHMTS - targets not agreed and monitored. CSOs provide reports to DHMT but it was not clear how these are used as there is no feedback loop. DHMTs have no transportation and rely on CSOs to provide support, compromising CSO's work

Recommendations

- MOH to consider review of the strategy for integrated community HIV and TB services as it comes to an end in 2018. However, the recommendations of the strategy need to be acted upon as a matter of urgency considering that the strategy is about to lapse.
- MOH should consider updating PPP policy guidelines to support engagement of all providers. Other important stakeholders such as traditional healers and retail chemists should be engaged for TB screening and referral.
- Programmes should strengthen community outreach given the difficult terrain and sparse population patterns in districts.

Village Health Care Workers

Community health workers have been with the health care system from way back in the 1950's. Their work and tasks are enormously diverse throughout their history, within and across countries and across programmes²⁴. They describe their duties inclusive of quite a wide range of different tasks that can be preventive, curative and/or developmental, in other cases VHWs are appointed for very specific interventions. In Lesotho as earlier indicated, the main focus of implemented primary health care is the engagement of the local communities in order to effectively deliver health care and promote accessibility of health care services. Communities were mobilized to form committees that could work under the guidance of the health facilities, and this is where we saw the birth of community health workers. At present Lesotho has VHW fully engaged in a wide range of health care services like TB, HIV, Maternal health and any other health care services as prescribed by the managers. The implementation of the VHW model is done in collaboration with the partners.

According to the MOH (2013) guidelines for drug resistant TB, community based care for DR allows patients to receive DR-TB treatment in their own community. The purpose is to address one of the most serious barriers to adherence, the inconvenience of DOT. In community TB care, the VHW administers treatment at home more convenient for patients than travelling to a clinic each day. Doses are administered twice a day, observed by a DR TB supporter in the patient's home. During the injectable phase, a nurse or trained DR TB supporter should inject the patient at home. In appreciation of these efforts, the 2013 strategy noted that to achieve programme impact, community based TB and HIV supporters needed to be incentivized without stifling the spirit of community volunteerism. Accordingly they were to be incentivized with M400, which was found to be irregular and inconsistent. Despite this, in almost all the districts visited, volunteers soldiered on with their daily work without much distraction.

Achievements

- The findings from those interviewed showed that VHWs in Lesotho made positive impact with regards to providing care to patients and families.
- A VHW strategy is in place to guide the implementation and coordination of VHW activities.
- Committed and passionate VHWs were seen in all the districts visited and were attached to the health facilities, performing multiple health care services; not only focusing on TB and HIV related issues.
- Community Referral Forms have been developed to aid the bi-directional referral system for patients between health facilities and the community.

²⁴ Lehmann, U., Saunders D., (2007) Community Health Worker; What do we know about them. University of the Western Cape. South Africa.

Main Challenges

- Weak coordination of the programme leading to sub-optimal support for VHWs.
- Weak coordination between partners working with VHW – hence fragmented programmes, activities, support and incentives.
- VHWs were working under unfavorable conditions, e.g. accompanying patients at night on foot, some patients stay far from the health facilities.
- Minimal capacity building initiatives for VHWs to carry out their tasks - an example is where some VHWs are asked to administer injections without prior training.
- No provision of protective materials such as aprons, gloves, masks (kits) as well as incentives (boots, sunhats, freezer-jackets). Most of them owed more than 12 months or more of their allowances. There is no harmonization of payment of VHWs' incentives between government and partners.
- Lack or no policy guidelines available in district and standardized reporting tools for community based TB, HIV/AIDS care.
- Sparse population density and difficult terrain creates access challenges in highland districts.

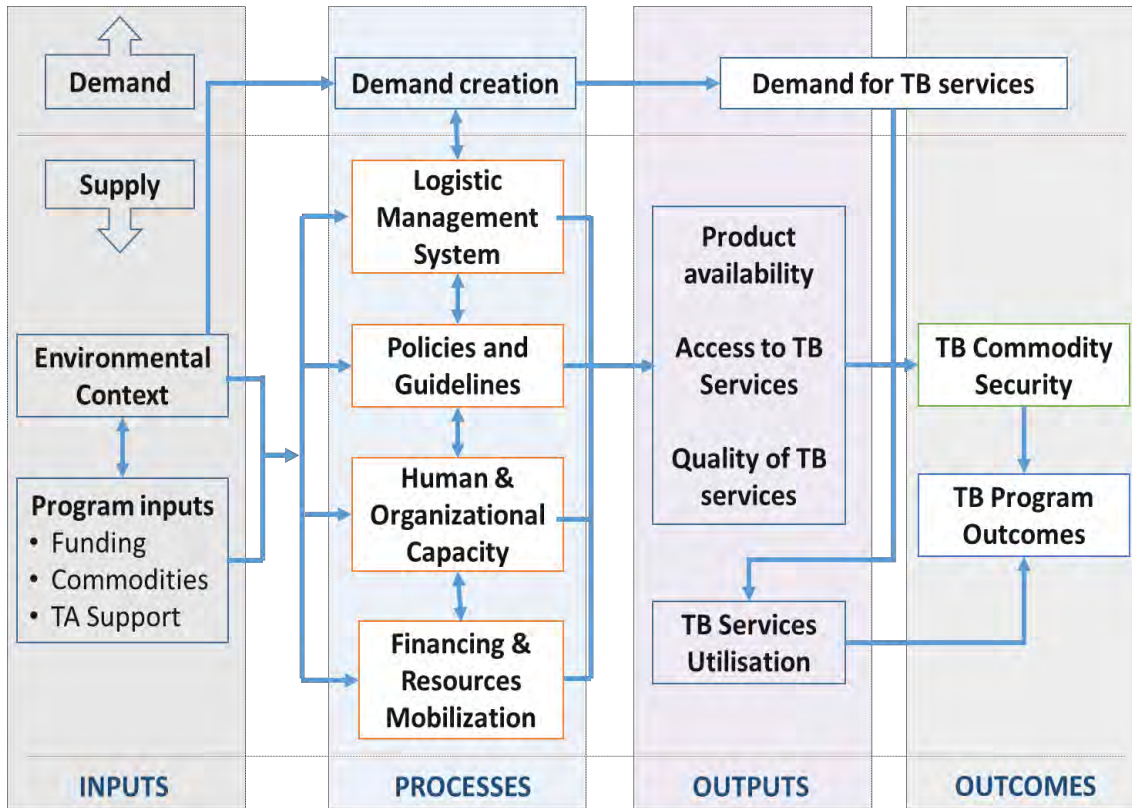
Recommendations

- According to the respondents, the government and the implementation agencies are both particular about the utmost care of patients and therefore there is need to pay attention to continued training and refresher workshops for VHWs.
- The Ministry of Health should establish an effective coordination mechanism for VHWs.
- MOH should disseminate and implement the revised VHW guideline to all facilities and provide training and regular sharing of information with the VHWs.
- MOH should consider reviewing and reviving the VHWs' welfare conditions (incentives) and kits and revisit the initiative of VHW administering injections by strengthening supervision by nurses.

Annexes

Annex 7.1 : PSM Review Commodity Security Framework

The review utilised the commodity security framework below:



Annex 7.2 : External and Internal Reviewers and Field Sites

DISTRICT	HEALTH FACILITY	TEAM MEMBERS
Qacha's Nek	Tebellong HOSP Health center 1- gov - Melikane HC Machabeng HOSP Health center 2- CHAL - Hermitage HC	External Reviewers Dr Simbarashe Mabaya(HIV Prevention/PMTCT) Dr Charlie Nathanson (Team Leader) Local Reviewers Dr Marealle(TBHIV MO), Phenithi(Communication and Advocacy mobilizer), Mphotleng Tlhomola(HTS Coordinator), Motlatsi Rangoanana(M&E ADVISOR_TB), Matsepeli Ntsepe(PMTCT MANAGER), Ms Puleng Ramphalla(HTS Advisor, CDC) Dr. Hamid Mandali(TSEPO Programme Technical Advisor)
Quthing	Quthing Government Hospital Health center 1- gov Mphaki HC Health center 2- CHAL St Gabriel HC	TEAM 1 MOH=5 Implementing partners=2 External=4
Mohales Hoek	Nts'ekhe Hospital Health center 1- gov Phamong HC Health center 2- CHAL Holy Cross HC	TEAM 1 MOH=5 Implementing partners=2 External=4
Mokhotlong	Health center 1- gov Malefiloane HC Health center 2- Redcross Mapholoaneng HC Mokhotlong HOSP	External Reviewers Dr Jean Iragena(TB case finding & management;programme mgt) (Team Lead) Ms Penny Makuruetsa(CHBC), Dr Eunice Omesa(TB PMDT), Dr Moris Okumu Dr Nhatlinh Nguyen (Lead for TB)
Buth Buthe	Seboche Hospital Health center 1- gov Linakeng HC Health center 2- CHAL St Peters HC Butha Buthe Hospital	Local Reviewers Anna Masheane(TBHIV FOCAL POINT), Thato Raleting(TB M&E OFFICER), Masetabele Masilo(HTS Coordinator), Sebakeng Makhakhe(Programme Officer), Lephophosi kopanye(M&E TB) Likhapha Ntlamelle(PMDT PIH) Mr. Motlatsi Letsika(Paediatric/Adolescent HIV/TB Nurse Mentor BAYLOR) Jacqueline Makokha -(Regional Adviser UNAIDS) Pepukai Chikukwa - (SI Adviser UNAIDS)
Leribe	Mamohau Hospital Health center 1- gov Mahobong HC Health center 2- CHAL Emmanuel HC Motebang Hospital	TEAM 2 MOH=5 Partners= 4 External=4
Thaba Tseka	Paray Hospital Health center 1-gov Khohlo Nts'o HC St James Mission Hospital Health center 2- CHAL Mohlanapeng HC	External Reviewers Dr Enos Masini- Team Lead(TB Case finding & management & programme mgt) +2 Ms Sindy Matse- KP) Ms Khaya Mlandu
Berea	Berea Hospital Health center 1- gov Pilot HC Health center 2- Redcross	Local Reviewers Ts'eliso Marata(SI&E ADVISOR-TB), Rosina Phate(ADULT ART CLINICAL OFFICER),

	Kolojne HC	Morongoe Nyakane(HIV M&E), Malebohang Maine(Senior Counselor), Mika Mohlabane(VMMC coordinator) Dr Justine Mirembe(Care & Treatment Advisor, USG/PEPFAR) Mr. Ian Membe(SI Advisor, USAID) Ms. Lucia Tsehloane(Programme manager LENASO)
Mafeteng	Mafeteng Government Hospital Health center 1- gov Lecoop Hc Health center 2- CHAL Mount tabour HC	TEAM 3 MOH= 5 Partner=3 External= 4
Maseru	Scott Hospital Thaba Bosiu Queen Elizabeth II HC St Josephs Hospital Sankatana Hospital	External Reviewers Dr Fabian Ndenzako- Lead (HIV Treatment & Care/ Viral Hepatitis), Dr Sall Ramatoulaye, Co-lead(TB/HIV & TB POLICY &STRATEGY), Dr Fatim Cham-Jallow(LABORATORY NETWORKS), Ekpeno Akpanowo(PSM), Dr Buhle Ncube(HIV Prevention), Ms Khaya Mlandu(PMDT CHBC), Dr Joseph Murungu(HIV Treatment &Care) Dr Jakie Makhoka; Dr Hugue Lago; Dr. Tsitsi Apollo (Consultant- Report Writer) Local Reviewers Dr Letsie(DCD DIRECTOR), Dr Maama(NTP Manager) Puleng Sello(TB FIELD M&E), Senate Molapo(TB M&E OFFICER), T'sepang Mabesa(M&E FIELD OFFICER-TB), Itumeleng Tshabalala(PHARMACY TECH), Keletso Ntene(Surveillance Officer), Moelo Sehlabaka(Psychologist), Nyane Nonyane(HMIS OFFICER-HIV) Dr Fred Asiiimwe(Care & Treatment Advisor, USG/PEPFAR) Jamila Jarrakhova (OFT Adviser UNAIDS) Dr Puleng Ramataboe(TBHIV) Maleqhoa Nyopa (Director Blood Bank) UNICEF UNFPA
	Interviews with stakeholders	TEAM 4 MOH=8 External= 9 Partner=2

Annex 7.3: List of People Interviewed

Name	Organization
Mr Monaphathi Marake	MOH
DG	MOH
Dr. Mosilinyane Letsie	MOH
Dr. Thabelo Ramatlapeng	MOH
Dr. Llang Maama	MOH
DR Ramatlapeng	MOH
Nkaiseng Monaheng	MOH
Ntoetse Mofoka	MOH
Nthabiseng Moalosi	MOH
Dr Joseph Tetteh	MOH
Mrs. Tsietso	MOH
Dr. L. Petlane	MOH
Mrs Lebaka	MOH
Dr. Kalabay	MOH
Mathapelo Mothebe	MOH
Mrs. Mosepili	MOH
Thabo Malieaue	MOH
Masebeo Koto	MOH
Malefane	MOH
Ms Gemina	MOH
	WHO
	UNAIDS
	UNICEF
	UNFPA
	UNESCO
	WFP
Dr Jill Sanders,	Baylor Clinic
Dr Tsotako,	Baylor Clinic
Dr Hlasoni	Baylor Clinic
Esther Tumbare	EGPAF
Libete Selaphine	CHAL
Matsesho Noe	CHAL
Masechaba Leketa	CHAL
Dr Iyiola Faturiyele	EQUIP
(Kristen E. Ruckstuhl,	USAID
Aubrey Casey, coordinator)	PEPFAR
Andre R Pelletier	CDC
Dr Koen	ICAP
Keratile Thabana	NAC
	NBTS
Mr Tampose Mothopeng	MATRIX
Mabataung Mokhathali	Ministry of Gender
Makhotso Lechko	Ministry of Education
Neo Mphutlane	Ministry of Labour and Employment

Sefaki Nkhala	Ministry of Finance/PMU
Mankhatho Linko	Social Protection Department
Omer Zang	World Bank
	CHAI
	Chemonics
Dr Kanyema	AHF
	NDSO
	URC
	NRL
Mathabo Ntoi	SATBHSS Coordinator
Mamathule Makhotla	TIMS Coordinator
Maadel Lesaoana	LENEPWHA
Matumiso Mokone	LENEPWHA
	LIRAC
	Independent Medical Practitioners Association
Dr. Lawrence	Partners in Health
Mahabofano Fosa	PSI
Rethabile Nkhetse-Kahlolo	PSI
Dr. Moji	Lesotho Medical Council
Dr. Maema	SANKATANA Hospital
Dr. Oyewusi	SANKATANA Hospital
Ms 'Mabatlounge	SANKATANA Hospital
Ms. Mofo	SANKATANA Hospital
Dr. Meseret Asfan	SANKATANA Hospital
Tseliso Tsebo	Scott Hospital
Mrs Mantsoaki	Scott Hospital
Pheello Motale	Scott Hospital
Nteboheng Mosebi	Matsieng Health Centre
Keneuoe Melato	Matsieng Health Centre
Moretlo Jabbe	MANTSOPA
Khantsane Sekoala	MANTSOPA
Mathalfo Sekhonyana	TEBA Clinic
Sebongiye Mawenga	TEBA Clinic

Annex 7.4 List of Documents Reviewed

1. Harding, R., Foley Connor, S.R., (2012). Palliative care and End of Life in the global response to multi-resistant TB.
2. World bank Lesotho: Country Brief". Archived from the original on 31 March 2014. Retrieved 3 March 2012.
3. Global TB Report, 2017
4. Government of the Kingdom of Lesotho. National Social protection policy 2014/2015 – 2018/2019
5. Guidance for national tuberculosis programmes on the management of tuberculosis in children. WHO 2014.
6. Human Development Indices Archived 12 January 2012 at the Wayback Machine., Table 3: Human and income poverty, p. 35. Retrieved 1 June 2009
7. Lehmann, U., Saunders D., (2007) Community Health Worker; What do we know about them. University of the Western Cape. South Africa.
8. Lesotho ANC HIV & Syphilis Sentinel Surveillance Report, 2016
9. Lesotho Bureau of Statistics
10. Lesotho Country Operational Plan (COP/ROP) 2017
11. Lesotho Demographic and Health Survey. 2014
12. Lesotho Global Fund Concept Note, 2015
13. Lesotho International Monetary Fund.
14. Lesotho National Health Sector Strategic Plan 2012 – 2017
15. Lesotho National HTS Guidelines
16. Lesotho Prevention Assessment, August, 2017
17. Lesotho TB Epi Review, 2017.
18. Lesotho Test and Treat Implementation Plan, June, 2016.
19. National ART Guidelines, 2016
20. National HIV/AIDS Strategic Plan 2011/12-2017/18.
21. NTLF Strategic Plan 2013-2017
22. Preliminary Data from LePHIA, September, 2017.
23. Preliminary Lesotho HIV/AIDS Estimates, March, 2017.
24. TB Annual Report 2016
25. The Gender-Based Violence Indicators Study, Lesotho, 2014.
26. UNAIDS Data, 2017.
27. UNAIDS Global AIDS Update, 2017.
28. UNAIDS. Geospatial Country Profile, Lesotho, 2017.
29. WHO. Global Health Sector Strategy on HIV 2016-2021
30. World Mortality 2013 Report

Annex 7. 5 Performance Table for HIV Programme

Indicator		Baseline*	Target* (2016/17)	Performance
Percentage of adults with advanced HIV infection receiving antiretroviral therapy by 2017/18		35%	55%	56%** (2016)
Percentage of children with advanced HIV infection receiving antiretroviral therapy by 2017/18		29%	60%	58%** (2016)
Percentage of estimated HIV-positive incident TB cases that received treatment for both TB and HIV by 2017/18		72%	93%	75% (2015)
Percentage of HIV+ pregnant women who received antiretroviral therapy to reduce the risk of mother to child transmission by 2017/18		74%	85%	62.30%** (2016)
Percentage of infants born to HIV-positive women receiving a virological test for HIV within 2 months of birth by 2017/18		35%	100%	
% / Number of males aged 15-49 who report having been medically circumcised		26%	79%	23% medically circumcised and 48% traditionally circumcised***
Percentage of adults aged 15–49 who had more than one sexual partner in the past 12 months who report the use of a condom during their last intercourse		women 38.5%	women 60%	54%***
		Men 52.3%	Men 75%	65%***
		women 64.0%	women 80%	60%***
		Men 64.4%	Men 80%	72%***
Number of male and female condoms distributed annually			34,200,000	30,000,000**
			1,800,000	437,000**
Percentage of key populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission		–	35%	–
		–	35%	–
		–	65%	–
		–	35%	–
% Of women and men aged 15-49	Women 15-24 years	23%	65%	54%

years who received an HIV test in the last 12 months and who know their results	Men 15-24 years	23%	65%	28.6
	Women 15-49 years	23%	65%	58%
	Men 15-49 years	23%	65%	36.4%
% Of women and men 15-49 years with comprehensive knowledge of HIV and AIDS		W=37.6% M=28.7%	75%	W:38.5%*** M:30.3%***
% Of women and men 15-49 years with accepting attitudes to PLHIV		W=42.3% M=32.9%	W: 70% M: 65%	W:46.3%*** M: 35%***
Proportion of women aged 15-49 who experienced physical or sexual violence from a male intimate partner in the past 12 months				

Annex 7. 6 Performance Table for TB Programme

Indicator	Target	Performance
TB Case Detection	70% (2018)	49%
Treatment Success for New and Relapse TB Cases	85% (2018)	74%
Treatment Success rate for MDR-TB	75% (2018)	64%
Treatment Success rate for new TB cases among mine workers	87% (2017)	Recording tools not disaggregated by KPs.
Previously treated TB cases with a culture and DST results	90% (2017)	>90%
PLHIV regularly screened for TB (adults and children)	100%	100%
Dually infected TB patients accessing ART by 2016	80% (2016)	86%
At least one Drug Resistant Survey conducted	1 survey (by 2014)	Achieved
All DR-TB cases started on treatment	100%	Data not available
Districts empowered to manage DR-TB cases from their district	80% (2015)	Date not available
Inmates screened for TB on entry into correctional institutions	45% (2017)	All inmates are routinely screened
TB death rate among new smear positive TB cases	6% (2017)	11%