LESOTHO

PUBLIC HEALTH SECTOR EXPENDITURE REVIEW 2017

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Lesotho

Public Health Sector Expenditure Review

November 2017

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KINGDOM OF LESOTHO
Government Fiscal Year: April–March

CURRENCY EQUIVALENTS
(As of December 5, 2016)
Currency Unit = Lesotho Loti (LSL)
LSL13.79 = US$1

ACRONYMS

ART	Antiretroviral
CAGR	Compound Annual Growth Rate
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
CHAL	Christian Health Association of Lesotho
LDHS	Lesotho Demographic and Health Survey
LDHIS2	Lesotho District Health Information System 2
DHMT	District Health Management Team
FY	Fiscal Year
GoL	Government of Lesotho
HRH	Human Resources for Health
IFMIS	Integrated Financial Management Information System
IMR	Infant Mortality Rate
LDHS	Lesotho Demographic and Health Survey
LSL	Lesotho Loti
MMR	Maternal Mortality Rate
MoF	Ministry of Finance
MoH	Ministry of Health and Social Welfare
MoU	Memorandum of Understanding
NMR	Neonatal Mortality Rate
OPD	Outpatient and Dental Services
PBF	Performance Based Financing
PEPFAR	President's Emergency Plan for AIDS Relief
PER	Public Expenditure Review
PPP	Public–Private Partnership
QMMH	Queen Mamohato Memorial Hospital
SSA	Sub-Saharan Africa
U5MR	Under-Five Mortality Rate
UNAIDS	Joint United Nations Program on HIV/AIDS
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

ACKNOWLEDGMENTS

This Public Expenditure Review (PER) is the product of close collaboration between the Government of the Kingdom of Lesotho, UNICEF, and the World Bank. Preparation of the report was led by Paolo Belli (Program Leader, Health, Nutrition, and Population, World Bank) and Nikhil Khanna, Manager, Health Financing, Lesotho, Clinton Health Access Initiative).

The authors of the report would like to thank UNICEF for their financial contribution to the PER, and specifically Anthony O. Asije (Child Survival and Development Specialist) and Gabriele Fontana (Regional Health Adviser) for their invaluable comments on this expenditure review, and Emily Kobayashi (former Country Director, Clinton Health Access Initiative) for her invaluable support.

This Public Expenditure Review would not have been possible without the dedicated and ongoing support of the Government of Lesotho, and specifically the efforts of the Ministry of Finance, Ministry of Health, and Ministry of Development Planning to collaborate closely with the authors and providing access to financial data from across the public health system. The authors would like to acknowledge the valuable support of Hon. Dr. Moeketsi Majoro (Minister of Finance), Hon. Nyapane Kaya (Minister of Health), Hon. Tlohelang Aumane (Minister of Development Planning), Nthoateng Lebona (Principal Secretary, Ministry of Finance), Monaphathi Maraka (Principal Secretary, Ministry of Health), and Khomoatsana Tau (Principal Secretary, Ministry of Development Planning), as well as the Planning, Finance, and other Units of the Ministry of Health for their technical leadership and collaboration in sharing information, reviewing drafts, and sharing valuable insights into health system accounting practices.

The authors would also like to acknowledge the important contribution of Dr. Karen Prins (former Operations Director, Tsepong) for sharing financial and output information on QMMH and its associated clinics.

The PER benefited from the support and leadership of many colleagues within the World Bank Group, including Janet Entwistle (WBG Representative in Lesotho), Laurence Carter (WBG Senior Director, Infrastructure, PPPs, and Guarantees), Timothy Evans (WBG Senior Director, Health, Nutrition, and Population), Magnus Lindelow (WBG Practice Manager, Health, Nutrition, and Population), as well as the entire World Bank health team in Lesotho, including Omer Zang (Health Specialist), Kanako Yamashita-Allen, (Project Leader, Health Sector Performance Enhancement Project), and Dinesh Nair (Senior Health Specialist). It also benefitted from technical contributions and support from colleagues at IFC, including Mark Halliday (Principal Health Specialist), Geoffrey Keele (Senior Communication Officer), and Saleem Karimjee (Senior Manager, IFC).

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Executive Summary

This Public Expenditure Review (PER) is the result of collaboration among UNICEF, the World Bank Group, and Lesotho's Ministries of Health and Finance. Senior economists from the Clinton Health Access Initiative provided invaluable support in analyzing health expenditure data. The PER covers a five-year period, from fiscal years (FY) 2011/12 to 2015/16 (in Lesotho, the fiscal year runs from April 1 through March 30).

Scope of Report

The report describes and analyzes expenditure patterns in Lesotho's public health sector using multiple data sources. Focusing on the Ministry of Health and Social Welfare's (MoH) expenditure, the report identifies opportunities to improve the efficiency, equity, and effectiveness of financial resource use.

To present a clear view of health expenditure, the report disaggregates total expenditure in the health system and describes its allocation across cost centers, districts (10 of them in Lesotho), levels of care, and health facilities (hospitals and primary health centers). Specific focus is on allocation of expenditure by economic classifications, and across outsourced health service providers.

The report analyzes subvention payments and expenditure by major outsourced service providers—including Tsepong[1] and the Christian Health Association of Lesotho (CHAL)—because of their large share of the MoH budget. This examination helps explain the providers' costs and compares their expenditure to that of government facilities to gain insight into the reason for any differences.

CHAL, a non-governmental organization, plays an important role in health service provision in Lesotho, operating 61 primary health centers, eight district hospitals, and four teaching facilities. CHAL is funded by the Government of Lesotho (GoL), but run independently.

[1]Tsepong is the private company that operates the QMMH, the gateway clinic, and the three filter clinics.

Tsepong operates four primary care facilities and the Queen Mamohato Memorial Hospital (QMMH), the only multi-specialty tertiary hospital in Lesotho.

Key Findings

The GoL has made considerable strides in the past five years toward addressing problems concerning accessibility of services and the quality of its primary health infrastructure. The recurrent budget had a compound average growth rate of 9 percent over the five-year period of the report, illustrating the GoL's commitment to increasing health care financing.

Moving forward, to meet the goal of universal health coverage, the GoL must improve the quality and cost-effectiveness of health care and increase access to underserved populations—and achieve these objectives under extremely tight budget constraints. The main priority for the Ministry of Health (MoH) should be to strengthen its control systems both for compliance as well as performance at all levels (center, district, facility level), which now appear extremely weak. The health system looks very fragmented, with several pools of resources from donors and government and different service providers operating according to different priorities and operating mechanisms, and without any accountability for results.

The data for the MoH expenditure on outsourced health services reveal that over the past four years, the ministry's public–private partnership (PPP) with Tsepong has accounted for approximately 30 percent of total MoH recurrent expenditure. This proportion has been stable. The data show that the QMMH and the associated clinics have provided healthcare services for between a third and half of all the inpatients in Lesotho each year and have been treating a quarter of the country's outpatients. However, there remain several issues (Section 3) affecting the PPP that are currently under arbitration and could have significant financial implications for the MoH.

Payments to CHAL have increased by 121 percent over the period studied. This is in line with the nominal increase seen for government-run District Health Management Teams (DHMTs), which are responsible for delivering primary healthcare services and managing primary health

care centers across 10 districts. In fact, large nominal expenditure increases of more than 100 percent were seen for DHMTs (135 percent), Laboratories (126 percent), Planning (163 percent), and Pharmaceuticals (162 percent). Increases in DHMT expenditure is especially significant given the GoL's emphasis on allocating more funding to the districts to aid decentralized service delivery.

Data on budget utilization rates across the health sector reveal sharp differences. The Administration cost center, which includes Tsepong, spent roughly 99 percent of its budget each year over the period studied. District hospitals performed below this amount in terms of their absorptive capacity, with an average budget use of about 90 percent. This average belies significant differences in the performance of district hospitals, with Mafeteng Hospital consistently using about 95 percent of its budget, while Machabeng Hospital used less than 70 percent of its budget (only 63 percent in FY 2015/16).

In terms of absorptive capacity, DHMTs performed worse than district hospitals, consistently struggling to spend their total allocated funding and averaging a utilization rate percentage in the low- to mid-80s. The Leribe DHMT was the best performer, spending 97 percent of its budget in FY 2015/16, while Qacha's Nek was the worst, at 61 percent the same year.

We acknowledge the major efforts made by the Government of Lesotho to address healthcare funding and access gaps and to provide universal health coverage. But improvements in health outcomes continue to be slow: maternal and neonatal mortality rates in Lesotho are among the highest in the world, with 1,024 per 100,000 and 59 per 1,000, respectively.

Increasing the use of health funds and the efficiency in health sector management should be a priority for the GoL. Making full use of the MoH's fiscal resources would help expand and improve healthcare services.

Key Recommendations

We suggest that the GoL take these steps to take advantage of healthcare opportunities:

i. *Improve the institutional capacity to collect, validate, and utilize evidence* on health outcomes, service delivery performance, and health expenditure allocations and utilization at all levels to guide decision making.

ii. *Improve allocative equity of funding across districts and district hospitals,* as current funding is skewed on both an absolute and per capita level. This could be done by using a new capitation and need-based formulas to allocate resources across districts.

iii. *Change the payment system for hospitals and provide greater autonomy in the day-to-day management of individual hospital facilities*. Allocations to individual hospitals should be based on some measure of the services (in terms of volume and quality) delivered by the same health facilities, and not input-based norms. It is worrisome that bed occupancy rates of most district hospitals (both government and CHAL owned) are abysmal (32 percent), signaling service quality and reliability issues that need to be addressed.

iv. *Improve efficiency and equity in funding for primary health centers,* as there are large variations in funding per health center and per medical visit across Lesotho. In a first phase, allocations to individual primary health centers could be based on capitation, with adjustments related to gender and age of the patients living in their catchment areas.

v. *In each health facility, staffing should depend on services provided, patient demand, and workload*, and not be fixed according to rigid input-based norms. Some thought should be given to the redeployment of health workers across Lesotho, which currently seems unbalanced. For example, primary health centers seem understaffed, while some hospitals have excess staff given their workload. Maseru has the highest concentration of doctors and specialists, whereas some other districts lack enough doctors.

vi. *Create the institutional capacity necessary within the MoH to exercise oversight of its outsourced services* given the large share of the budget they absorb. Currently only two full-time employees directly manage these contracts, which account for over 52 percent of the total spent by the Ministry of Health.

vii. *Revise the CHAL Memorandum of Understanding to ensure greater accountability and oversight of funds and health outcomes.* The current agreement with CHAL involves a lump-sum payment that it applies across the entire organization, and the GoL has little

control over how the funding is allocated. Given that CHAL is being paid to operate over 20 percent of the primary health centers and 40 percent of the hospitals in Lesotho, and that its facilities have significant efficiency disparities with its GoL counterparts, we advise changing the structure of the contract to increase GoL leverage, and link at least some of the payment to service delivery results.

viii. *Conduct further studies on efficiency and quality within QMMH* to ensure funds are being used well. We also recommend revisiting the key rationale of the PPP contract and the role that QMMH should play within the broader health system. *Consider renegotiating certain aspects of service delivery* (services included and excluded), as well as payment for extra inpatient services.

ix. *Conduct further recommended studies listed below to arrive at specific recommendations to improve major problem areas:*

- Comparison of cost per patient and efficiency between CHAL, other private providers, and MoH primary healthcare facilities;
- Absorptive capacity/bottleneck analysis and payment process mapping for MoH recurrent budget spending;
- Referral analysis between district hospitals and QMMH with the aim of improving the referral system;
- Repeat "Endline Study for Queen Mamohato Hospital Public Private Partnership" quality and performance study conducted by Boston University; and
- Conduct a qualitative study into the annual fall in development budget expenditure, and understand how donors' contributions to the sector can be better coordinated.

Data Sources

Data used for this report were taken from multiple sources. Government recurrent budget and total expenditure data were extracted directly from the Integrated Financial Management Information System (IFMIS) in January 2017. While collecting data on recurrent MoH expenditure, we learned that the figures can conflict with other totals seen in government documents. The reason for this discrepancy is that the data in the IFMIS system, even for past financial years, can change depending on *when* the data are extracted.

Expenditure is constantly being updated, reallocated, and backdated, so the totals are constantly changing, and could change in the event of an audit. For this reason, figures in the "recurrent expenditure" are not final figures. This places greater importance on "total expenditure" data as a more reliable source for tracking expenditure and making comparisons across districts and service providers.

Data for the MoH development expenditure (which operates as a separate project-based budget with multiple bank accounts using primarily donor funds) were taken from the yearly Development Budget Sources and the Finpro system managed by the Ministry's Project Accounting Unit. Our early attempts to use IFMIS data for development expenditure provided completely different estimates. This confirmed that there is no coherence between IFMIS and Finpro data, because donor-funded expenditures that are not channeled through the "budget" are not routinely accounted for in IFMIS. The figures provided by the Finpro system were audited for all the fiscal years considered in this report, and have been used to describe total development expenditure. However, there are some differences between the disaggregated figures in the Finpro system and the higher-level numbers in the audits, which we note later when we present our disaggregated analysis.

Non-development budget donor expenditure is included in this report to give a more complete picture of financial flows to the health sector in Lesotho. These data were taken from the MoH Planning Department's resource mapping database, which is compiled in an annual exercise in which the MoH requests donors and implementing agents to report their expenditure. It must be noted that all resource mapping data is self-reported, and some organizations do not report. For this reason, the data are only referenced when looking at overall expenditure on health, but is not broken down further, because we do not have more information or certainty concerning these estimates' accuracy. All data are validated and thoroughly reviewed with the submitting organization, and currencies are converted and financial years normalized based on the methodology described in the document linked in the footnote.[2]

[2] https://clintonhealth.box.com/s/wrkccpmz2nfwzv3y06e4q9pynbfw9ukn.

Economic reports and databases of international development organizations, along with peer-reviewed publications, were used to compare GoL health outcomes and spending with other countries, and their specific details are referenced when used. CHAL expenditure data were taken from annual expenditure reports provided by CHAL to the MoH, and QMMH and filter clinic expenditure data were taken from the audited accounts provided to the MoH and confirmed by Tsepong management.

Given this, a major gap that the study identifies is in the comprehensiveness and consistency of information across the health sector on financial flows; another gap is in service delivery performance. We hope this review will contribute to filling these gaps and, more importantly, provide an appetite for evidence that can convince Lesotho decision makers to create institutional conditions to better inform policies and day-to-day management of the health system.

1. Characterizing Lesotho's Health System

1.1. Introduction

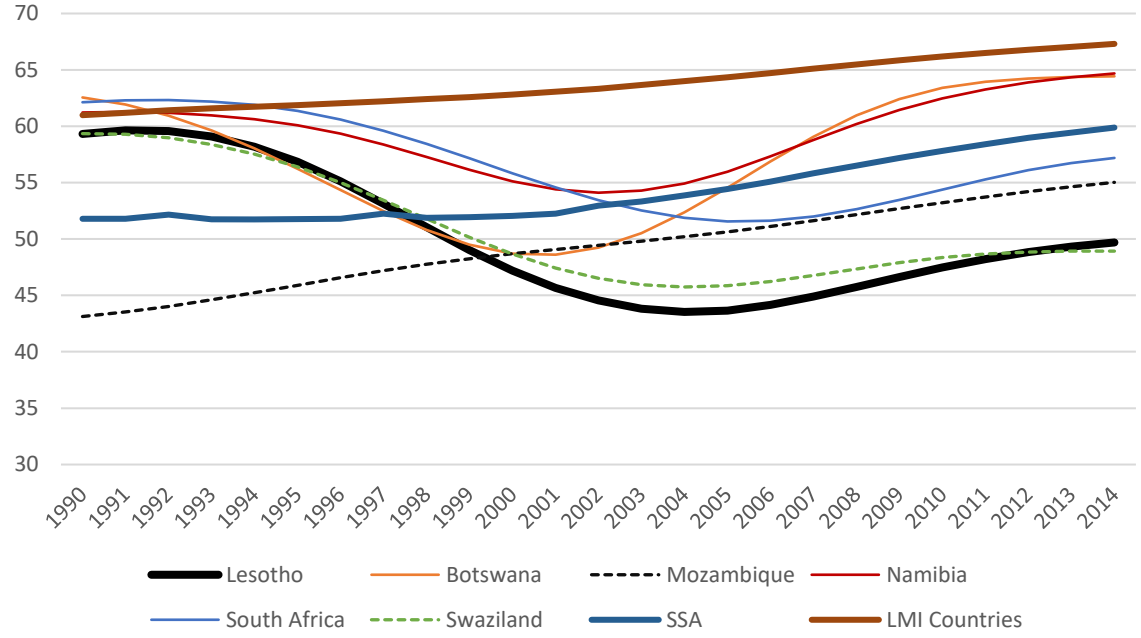
Lesotho is a small, mountainous lower middle-income country of 11,720 square miles enclaved by the Republic of South Africa, with a population of around 2 million people. Almost half of the Basotho people are economically dependent on informal crop cultivation or animal husbandry. Nearly two-thirds of the country's national income originates from the farming sector. Economic growth has remained sluggish for Lesotho in recent years. The GDP is expected to grow by only 2.6 percent in FY 2016/17.[3] The last available nationwide data from the Household Budget Survey for FY 2010/11 showed that poverty remained high and is on the rise in rural areas. About 57 percent of the people are living below the national poverty line in Lesotho. Not surprisingly, Lesotho is also among the "low human development" countries as classified by the United Nations Development Program.

1.2. Health Outcomes and Disease Burden in Lesotho

Since 2005, life expectancy at birth in Lesotho has increased consistently, though in 2014 it remained 18 years lower than the average observed in lower middle-income countries (50 years versus 68 years) and 10 years lower than the average for Sub-Saharan Africa (50 years versus 60 years). This follows the period 1990–2005, when life expectancy of birth in Lesotho dropped from 60 years to below 44 years. We observed a similar trend for neighboring countries (Botswana, South Africa, and Swaziland) that is correlated to high HIV/AIDS prevalence rates in Southern Africa (Figure 1.1).

[3] Source: The World Bank.

Figure 1.1: Life expectancy at birth 1990–2014

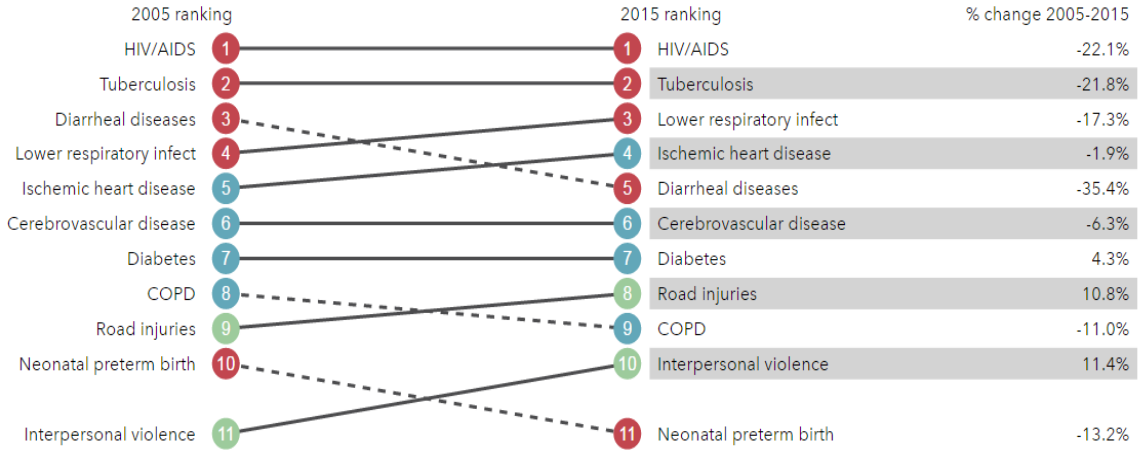


Sources: World Bank Open Data and the World Bank Group.

HIV/AIDS is, by a wide margin, the primary cause of mortality in Lesotho, with 41.4 percent of deaths (adults and children included) in Lesotho attributed to HIV/AIDS in 2014.[4] Figure 1.2 shows the top 10 causes of death by rate in 2015 and the percentage change between 2005 and 2015. HIV/AIDS is also the main cause of mortality for children under 5 years of age (20 percent). Other top causes of mortality for children include prematurity, birth asphyxia, and acute respiratory tract infections. These four illnesses/conditions are responsible for 62 percent of deaths among children under 5 years.

[4] *Lesotho Demographic and Health Survey (LDHS),* 2014.

Figure 1.2: Top 10 causes of death by rate in 2015 and percent change 2005–2015

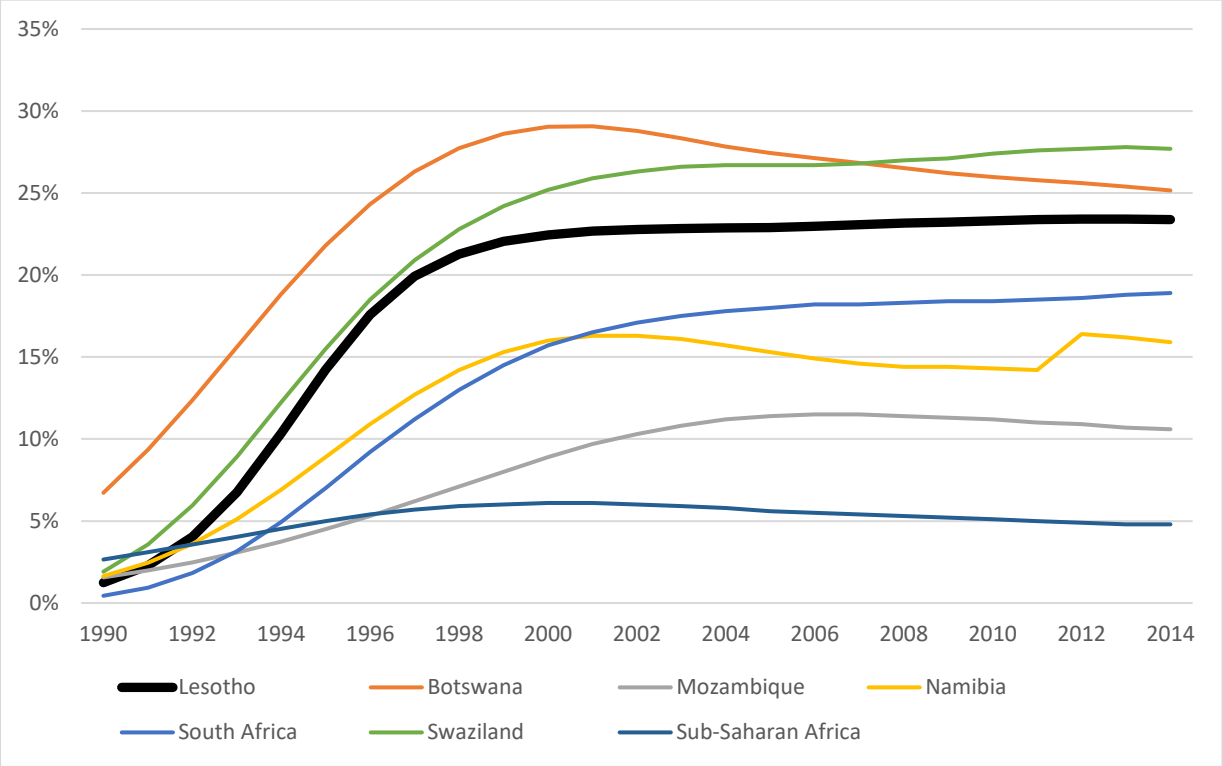


Source: Global Health Data exchange: http://www.healthdata.org/lesotho.

As can be inferred by the mortality rate statistics, Lesotho has one of the highest levels of HIV prevalence in the world. The 2014 Lesotho Demographic and Health Survey estimated that HIV prevalence among adults ages 15–49 was 24.6 percent.[5] Data from the Joint United Nations Program on HIV/AIDS (UNAIDS) (Figure 1.3) indicate that HIV prevalence since the early 2000s has continued to increase, albeit marginally (24.6 percent in 2014, up from 23.4 percent in 2004). Lesotho's HIV prevalence rate is more than four times the average for Sub-Saharan Africa (SSA), but is in line with neighboring countries such as Botswana, South Africa, and Swaziland, where the rate was between 19 and 28 percent in 2014.

[5] *LDHS,* 2014.

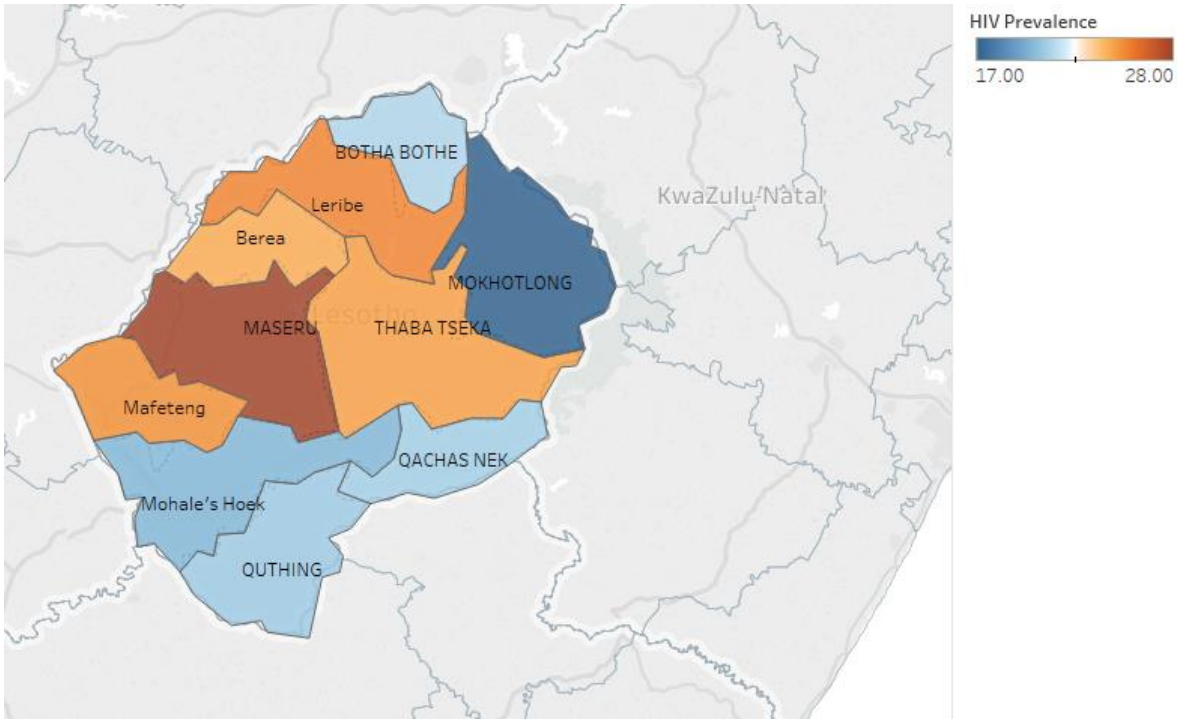
Figure 1.3: HIV prevalence among adults ages 15–49



Source: UNAIDS AIDS info online database.

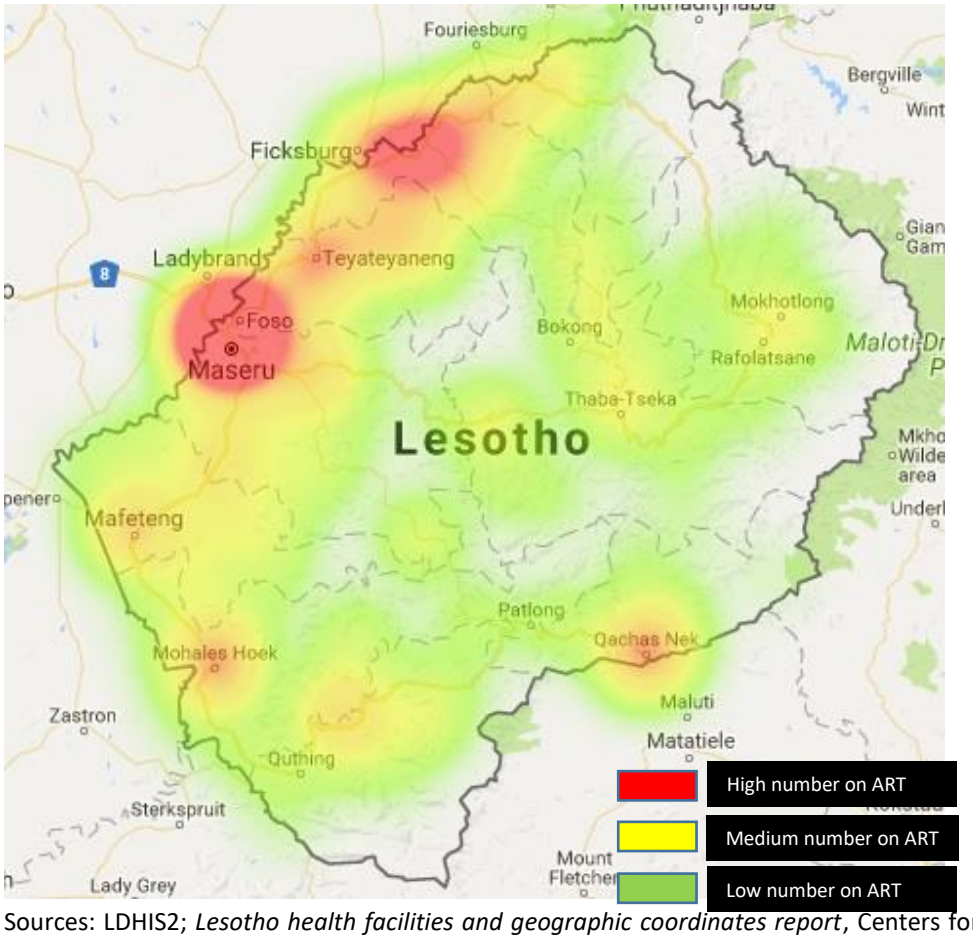
Figures 1.4 and 1.5 show the geographic breakdown of the HIV prevalence rate in Lesotho. The first map shows prevalence by district, the highest rate (28 percent) occurring in the population center of Maseru. The second map shows the number of patients on antiretroviral (ART) medicine per health facility (primary health centers and district hospitals), represented geographically and somewhat mirroring the prevalence rates described earlier, with the largest number located in Maseru. A high volume of ART drugs is distributed in city centers in each district, mostly because those are the areas with the highest population densities and often the locations of district hospitals. The two large red spots represent Maseru city and the Hlotse urban area in the Leribe district. When compared to the prevalence map, a lack of ART medicine distribution in districts such as Mafeteng (25.1 percent) potentially points to systematic failures to get patients on treatment.

Figure 1.4: District breakdown of HIV prevalence



Sources: Lesotho District Health Information System 2 (LDHIS2) and *LDHS,* 2014.

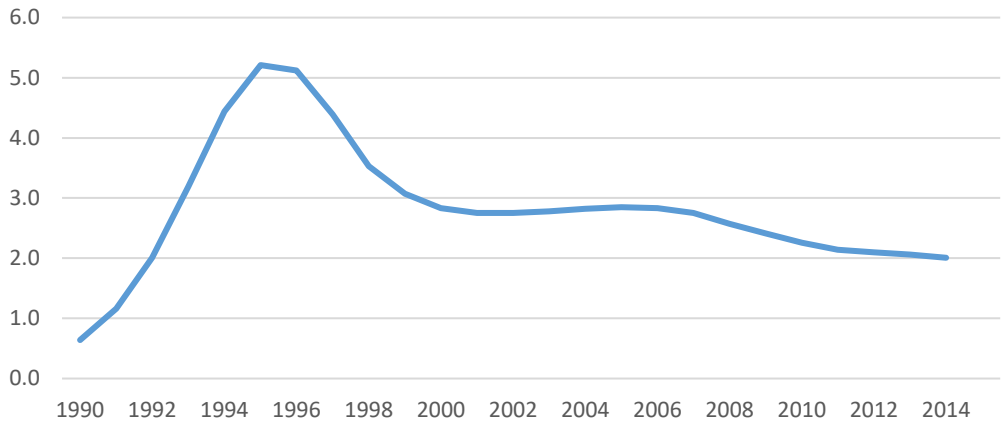
Figure 1.5: ART distribution heat map—Lesotho 2015



Sources: LDHIS2; *Lesotho health facilities and geographic coordinates report*, Centers for Disease Control and Prevention, October 2016.

Data from UNAIDS and the 2014 Lesotho Demographic and Health Survey (LDHS) confirm a reduction in HIV incidence in Lesotho over the past 20 years. The LDHS estimates the 2014 HIV incidence for adults ages 15–49 to be 1.9 new infections per 100 person years of exposure.[6] UNAIDS data indicate a significant reduction from an incidence level of 5.21 in 1995 to 2.01 in 2014.[7] Despite the decline in incidence, the rate of HIV prevalence has been increasing. This is partly due to the increase in life expectancy for those living with HIV/AIDS because of increased access to treatment.

Figure 1.6: Lesotho UNAIDS trend in HIV incidence: New infections per 100 person years

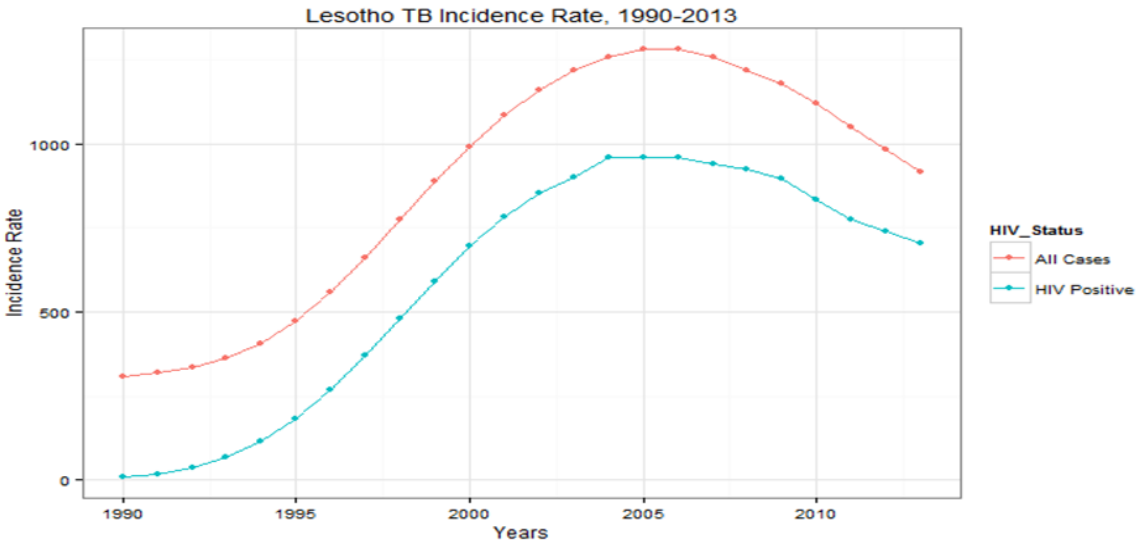


Source: UNAIDS AIDS info online database.

Tuberculosis represents an additional challenge for the health system of Lesotho. Lesotho's TB incidence rate is the highest in the world, at 788 cases per 100,000, according to the 2016 *Global Tuberculosis Report*.[8] This high TB incidence is driven by the high prevalence of HIV in the country. In 2014, 74 percent of TB patients tested positive for HIV. Figure 1.7 illustrates the close association between HIV and TB since 1990 in Lesotho.[9]

[6] It is the sum of individual units of time that the persons in the study population have been exposed or at risk to the conditions of interest. The most frequently used person time is person years.
[7] The difference in HIV incidence estimates exists because they are from different sources. The difference is quite small, and so the information from both sources is not in contradiction with each other.
[8] World Health Organization (WHO).
[9] *Lesotho Annual Joint Review Report,* 2014–15.

Figure 1.7: TB and HIV incidence rates

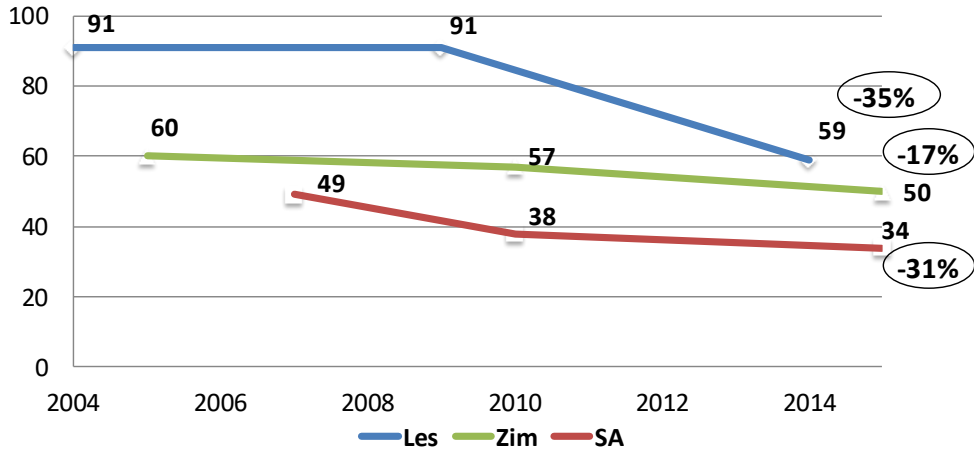


Source: *Lesotho Annual Joint Review Report,* 2014–15.

The Lesotho maternal mortality rate (MMR), infant mortality rate (IMR), and neonatal mortality rate (NMR) are, respectively, 1,024 deaths per 100,000, and 59 and 34 deaths per 1,000 live births[10], the highest in Southern Africa and among the highest globally. The silver lining is that the IMR used to be much worse, improving by 35 percent between 2009 and 2014. The MMR and IMR in Lesotho (described and compared to South Africa and Zimbabwe in Figures 1.8 and 1.9) lagged severely behind the Millennium Development Goals, which aimed to reduce child mortality by two-thirds and maternal mortality by three- quarters from 1990 to 2015.[11]

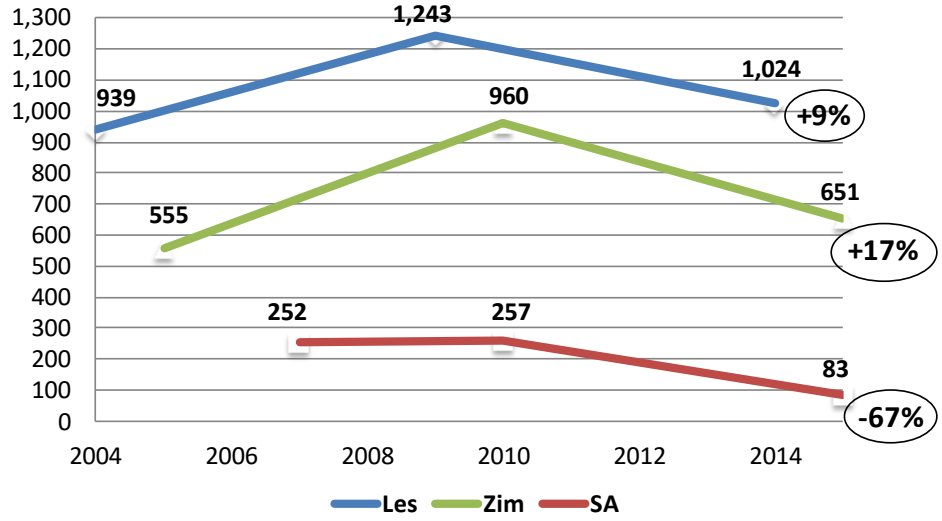
[10] Ibid.
[11] WHO et al, *Trends in Maternal Mortality 1990–2008: Estimates developed by WHO, UNICEF, UNFPA and the World Bank,* 2010.

Figure 1.8: Infant mortality rate



Sources: *Zimbabwe DHS,* and *LDHS, 2014*.

Figure 1.9: Maternal mortality rate[12]



Sources: *ZDHS,* the World Bank, and *LDHS*.

Over the past few years, significant effort has been made by both the GoL and partners to strengthen health systems related to maternal and neonatal care. The MoH identified Reproductive, Maternal, Neonatal, and Child Health and equity in health service access as two of three priority areas. The MoH partnered with United Nations Fund for Population Activities to support district Sexual and Reproductive Health mentors and with the World Bank to

[12] Deaths per 100,000 live births.

implement a performance-based financing program to incentivize improvements in maternal and child health in selected districts.

The Millennium Challenge Corporation of the US government made a major investment in refurbishing and equipping all health centers in the national health system, including construction of nurses' housing, mother waiting lodges, and provision of furniture and equipment essential for safely conducting deliveries at the primary level. All nurses trained in Lesotho are now required to study midwifery and graduate fully qualified to conduct deliveries.

While all these initiatives have strengthened health delivery, significant gaps remain. For example, the national rate of institutional deliveries has substantially increased between 2009 (42 percent)[13] and 2014 (77 percent)[14]; however, changes in the MMR have been insignificant during the same period, suggesting inadequate quality of interventions that reduce mortality.[15] More needs to be done to make sure that all institutional deliveries, in hospitals as well as primary health centers, truly become "safe" deliveries. Furthermore, data still reflect stark inequities in levels of access for poor and rural women in Lesotho, indicating that they may be more at risk for maternal and neonatal death, especially considering that more than 30 percent of the population in some rural districts gives birth outside of health facilities, compared to 16 percent in urban districts.[16]

The 2015 Comprehensive Emergency Obstetric and Newborn Care (CEmONC) assessment reports that only 30 percent of the 20 secondary hospitals in the country (where nearly half of the institutional deliveries occur) provide all expected CEmONC services to ensure safe delivery, and 89 percent of maternal deaths occurred at facilities without CEmONC certification.[17] Maternal mortality is also inextricably linked with the extremely high prevalence of HIV (30 percent prevalence rate among women 15–49)[18] in Lesotho. HIV was

[13] *LDHS,* 2009.
[14] *LDHS,* 2014.
[15] Although the 2014 estimated MMR of 1,024 is lower than the 2009 estimated MMR of 1,243, the confident intervals for these estimates overlap substantially, indicating that there is no evidence to conclude that the MMR has changed.
[16] *LDHS,* 2014.
[17] *EmONC Report,* 2015.
[18] *LDHS,* 2014.

indirectly responsible for half of maternal deaths reviewed, all of which occurred at facilities without CEmONC certification. Thus, the need for health care workers fully trained to manage deliveries for women with HIV is crucial.

In addition, while the facility delivery rate has increased over the past few years, recent studies point to several barriers still discouraging facility attendance. These include lack of preparedness, ill treatment by nurse-midwives, staff and supply shortages at health centers, and a general negative perception of health service quality at facilities. Further compounding the issue, unnecessary referrals to the QMMH, caused by inadequate services at the primary or secondary care level, combined with long travel distances and poor transportation options exacerbate the risks of complication and death for pregnant women and newborns.

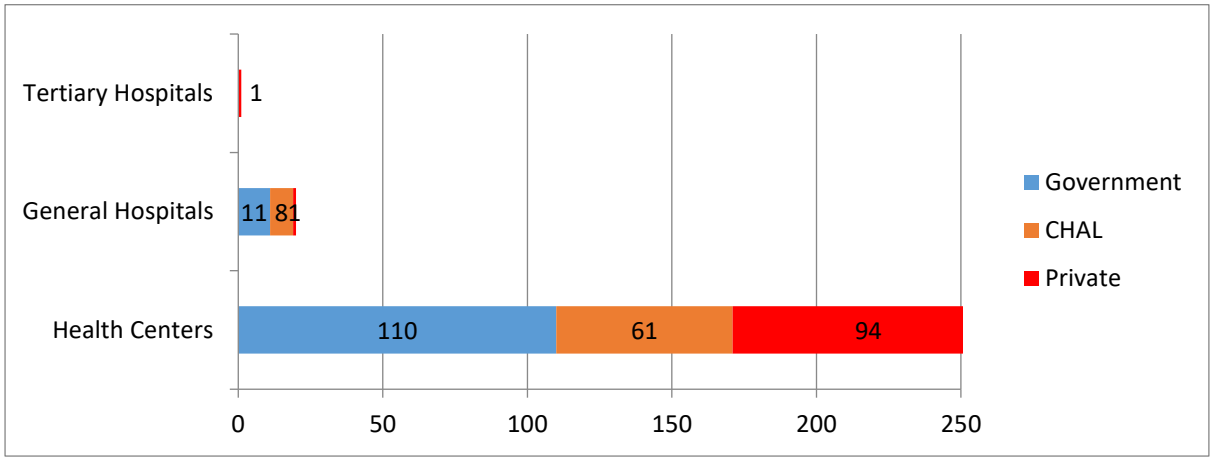
1.3. Health Infrastructure in Lesotho

As the government department responsible for the operation of the health system, the MoH develops health policy, standards, and guidelines, and mobilizes resources for the health sector. The delivery of health services in Lesotho is done at three levels: primary, secondary, and tertiary. In total, there are 286 health facilities in Lesotho. Of these, 265 are primary health care centers, 20 are general district hospitals, and one is classified as a tertiary/referral hospital (QMMH) and is in Maseru. Patients requiring services beyond what is offered at the tertiary level are referred to Universitas and Pelonomi hospitals in South Africa at the government's expense.

The GoL is the largest healthcare provider in the country, operating 110 primary healthcare centers and 11 general hospitals. CHAL operates 61 primary healthcare centers and eight general hospitals, and is completely financed by the MoH through a subvention payment. Tsepong operates Lesotho's only tertiary care hospital, the QMMH, along with four clinics. Figure 1.10 shows the healthcare system pyramid, split by government, CHAL, and private[19] providers.

[19] "Private" includes facilities operated by NGOs and private providers.

Figure 1.10: Health care pyramid by provider



Sources: Health Facility List 2015, Health Planning and Statistics Department, and the MoH.

Secondary district hospitals have a combined hospital bed capacity of 1,833, broken down in Table 1.1 (hospitals without data[20] and the QMMH were excluded from this table). The tertiary hospital, the QMMH, has a 425-bed capacity, more than double the largest secondary hospital, Motebang. In general, the bed occupancy rate at the district hospital level is alarmingly low, averaging 32 percent across all the hospitals with data, while the occupancy rate at the QMMH during FY 2015/16[21] was 74 percent.

[20] Mohlomi Mental Hospital, Botsábelo Infectious Disease Hospital.
[21] October 1, 2015–September 31, 2016.

Table 1.1: Number of beds and bed occupancy rate secondary hospitals[22]

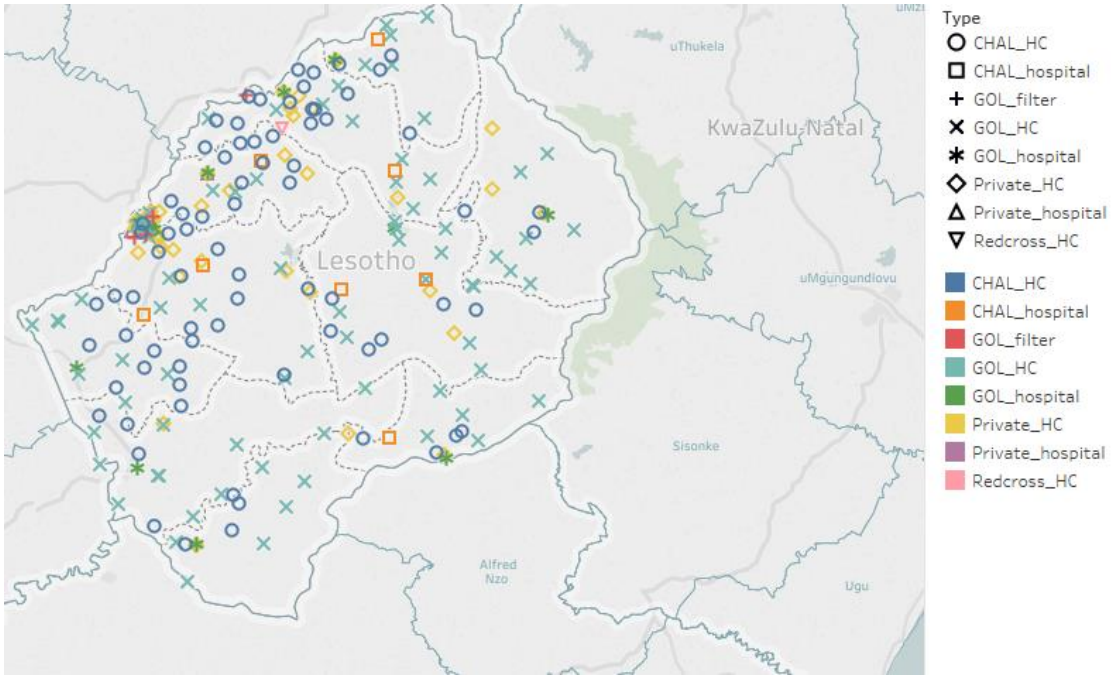
	Hospital Name	Total Number of Beds				Bed Occupancy Rate			
		2012	2013	2014	2015	2012	2013	2014	2015
Government Hospitals	Botha-Bothe	129	129	129	129	28	28	51	28
	Berea	128	128	125	128	32	No data	49	45
	Machabeng	106	105	96	96	32	32	32	45
	Mafeteng	148	-	148	148	55	58	47	58
	Mokhotlong	110	110	110	110	37	37	63	31
	Motebang	192	192	192	192	33	No data	36	31
	Ntsekhe	132	-	-	134	42	48	45	45
	Quthing	140	132	132	132	27	24	29	34
	Makoanyane	36	36	36	37	No data	42	-	23
CHAL Hospitals	Maluti	150	150	150	140	49	47	48	9
	Mamohau	57	51	51	51	55	26	20	12
	Paray	76	76	78	76	50	No data	50	38
	Scott	102	102	102	102	51	58	67	45
	Seboche	88	90	88	88	No data	28	46	40
	St. Joseph	120	122	122	120	26	32	31	26
	St. James	100	100	100	100	No data	No data	21	45
	Tebellong	56	50	50	50	27	50	47	3

Source: *Lesotho Annual Joint Review,* 2016.

Figure 1.11 shows the spatial distribution of health facilities by type and by ownership across Lesotho. Health facilities are concentrated in the higher population lowland districts of Berea, Leribe, and Maseru.

[22] Data from the *Annual Joint Review* does not include inpatient totals in the representative years, meaning that the average length of stay for district hospitals cannot be calculated.

Figure 1.11: Spatial distribution of health centers



Source: *Lesotho health facilities and geographic coordinates report,* CDC, October 2016.

Key Takeaways: Health Infrastructure in Lesotho

- In Lesotho, there are 265 primary healthcare centers, 20 secondary general hospitals, and one tertiary/referral hospital. Patients requiring services beyond what is offered at the tertiary level are referred to Universitas and Pelonomi hospitals in South Africa at government expense.
- The location of health facilities mirrors population distribution, as they are concentrated in the higher population lowland districts of Berea, Leribe, and Maseru.
- The GoL operates 40 percent of the primary health centers in the country and 55 percent of the hospitals.
- Secondary district hospitals are characterized by extremely low bed occupancy rates, averaging around 32 percent, suggesting either lack of awareness and demand on the part of the population, poor quality, or excess capacity.
- By contrast, the bed occupancy rate at QMMH was 74 percent in FY 2015/16. It should be noted that the occupancy rate data for district hospitals are collected during a yearly exercise by the MoH planning department, while detailed patient data for QMMH are recorded monthly.

1.4. Human Resources for Health (HRH) in Lesotho

The availability of well-trained health workers is essential to the delivery of health services, and in this section, we describe the current HRH situation in Lesotho. The ratio of doctors to the population is 0.9 per 10,000. For nurse-midwives, the ratio is 10.2 per 10,000. Both ratios are below the WHO AFRO regional average of 2.6 and 12.0, respectively, a poor result that has significant negative effect on the ability of the government to deliver quality health services.

The staffing norms for MoH facilities are guided by the Ministry of Public Service establishment list. The list was produced based on the numbers the MoH proposed its established HR positions should be across its facilities, and could be changed in the future to address MoH priorities. Consulting the list, all primary health centers have between four and six nursing positions, a fixed range regardless of the demand for services. GoL hospitals have more variability in their number of established positions, and do not seem to comply with any bed-based norms, but their hospital staffing does not seem to depend on demand either (Figure 1.12).

A HR optimization report conducted in 2013 showed an imbalance in the distribution of health workers. Primary health centers did not have the nursing and medical staff they needed, while hospitals generally had excess staff given their workload. For example, hospitals had 250 percent of the nurse-midwives and 450 percent of the nursing assistants needed to meet demand for services, while health centers fell short by between 10 percent and 59 percent.[23]

With this background emphasizing the need to further revise the establishment list and link it to patient demand and reasonable workload for staff, the PER records that between 2015 and 2016, the MoH made progress, halving its HR vacancy rate from 44 percent to 22 percent.[24] This can be attributed in large part to the Nursing Education Partnership Initiative, founded in 2011, which greatly increased the number (and quality) of qualified nursing graduates each subsequent year, and to a drop in established positions on the establishment

[23] Health Workforce Optimization Analysis, MoH, 2014.
[24] The number of filled positions increased by 16 percent between 2014 and 2016 to a total of 3,057.

list. More work must be done to align staffing to facility need and patient demand, as the current process (a standard staffing norm for all health centers) leads to short-staffed, high-volume health centers and over-staffed/under-utilized, low-volume facilities.

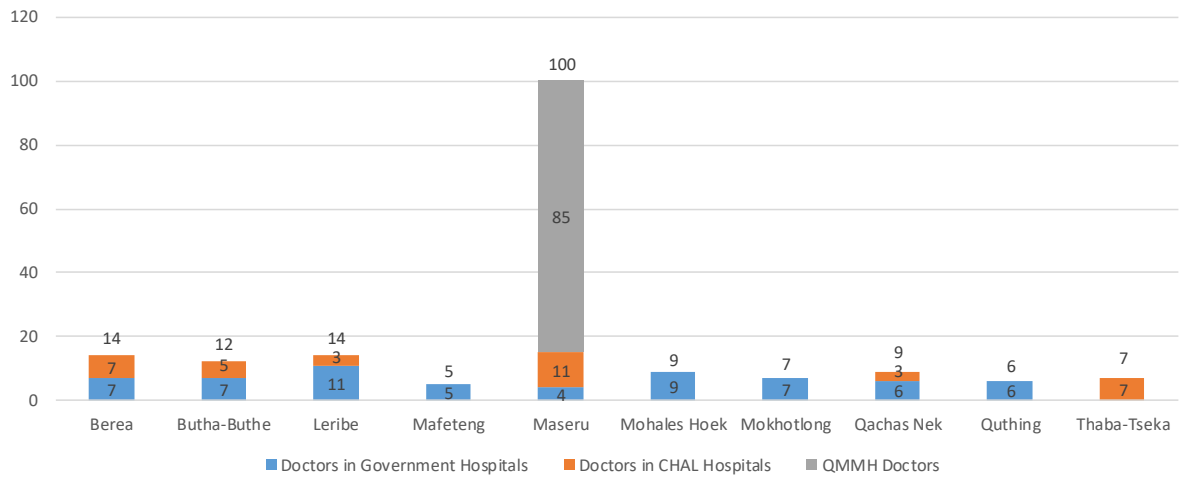
Figure 1.12: Lesotho government healthcare personnel

Source: *Lesotho Annual Joint Review,* 2016.

In terms of HR staffing, Lesotho remains a nurse-driven health service, with an average of 11.58 nurses per doctor[25] across the government-run health system. The distribution of these doctors and nurses is extremely skewed toward the capital city, Maseru, and the QMMH, largely due to the QMMH being the country's only national referral hospital, which requires a vast array of specialists, as well as the high population of the capital district. Overall, Maseru has 17 more doctors than the rest of Lesotho combined. Figures 1.13 and 1.14 show the doctors and nurses per capita in each district, with Maseru leading the way, with 2.3 doctors per capita, and Mafeteng coming in at the bottom, with 0.26 doctors per capita.

[25] 2,120 nurses/183 doctors = 11.58.

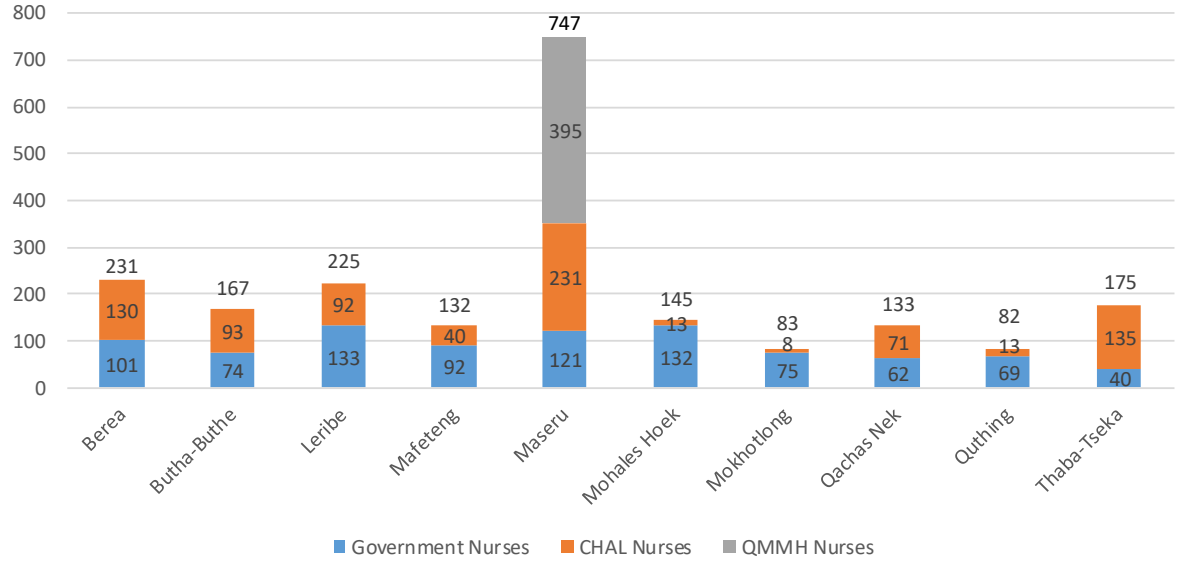
Figure 1.13: Doctors per capita by district



Source: *Lesotho Annual Joint Review,* 2016; and QMMH HR staffing sheet.

Nursing resources are more evenly distributed throughout the country, as shown in the following graph, with 747 in Maseru, against the next highest number of 231 in Berea. Looking at the number of nurses per capita, Qacha's Nek has the highest rate, followed by Maseru and Bothe-Botha, and Mafeteng and Quthing have the lowest number of nurses per capita, which corresponds to their low per capita doctor rate.

Figure 1.14: Nurses per capita by district in hospitals and primary health facilities



Source: *Lesotho Annual Joint Review,* 2016; and QMMH HR staffing sheet.

Overall, QMMH doctors constitute slightly less than half the doctors in Lesotho, with 85 (46 percent of the total), while the government employs 62 doctors (34 percent of the total), and CHAL 36 (20 percent of the total). By contrast, the government directly employs the highest number of the nurses in Lesotho, with 899 employed (42 percent of the total) versus 826 employed by CHAL (39 percent of the total) versus 395 employed by QMMH (19 percent of the total).

Thought should be given to reallocating doctors to underserved districts to ensure patients have sufficient access. Nurses are more evenly distributed among facilities due to the prevalence of many nurse-staffed primary health centers across Lesotho operated by the government as well as CHAL.

As described in Table 1.2, in 2016 there was an average of 9.4 health staff at each government primary health facility. This was just 1.12 workers fewer than at each CHAL facility, indicating that CHAL employs similar numbers of health staff as the government at the primary health center level. CHAL does employ more than double the number of data clerks (0.86 versus 0.40) and around one more HIV counselor (4.42 versus 3.57) when compared to government-run primary healthcare facilities.

Table 1.2: Staff breakdown 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: *Lesotho Annual Joint Review,* 2016.

Key Takeaways: Human Resources for Health (HRH) in Lesotho

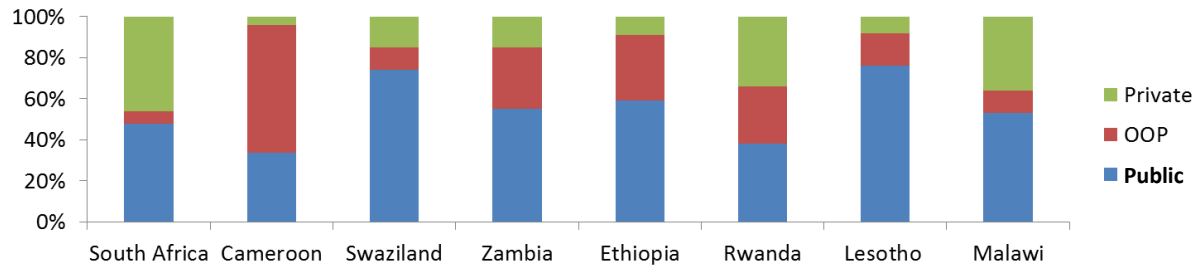
- In Lesotho, the ratio of doctors to the population is at 0.9 per 10,000. For nurse-midwives, the ratio is 10.2 per 10,000. Both ratios are below the WHO AFRO regional averages of 2.6 and 12.0, respectively.
- The number of filled positions has been rising in recent years, with HRH staff increasing by 16 percent between 2014 and 2016 to a total of 3,057.
- The distribution of health workers (despite standardized norms) is unbalanced. Primary health centers had 51 percent of the nursing and medical staff they needed during that period, while hospitals generally have not only an adequate number of staff, but some have more than twice the number of nurse-midwives needed. For example, hospitals have 250 percent of the nurse-midwives and 450 percent of the nursing assistants needed to meet current demand for services, while health centers have a gap of 10 percent and 59 percent, respectively.
- The sole tertiary hospital, the QMMH, staffs slightly fewer than half the doctors in Lesotho, with 85 doctors, due in large part to the wide array of specialists required to be on staff as the only tertiary facility in the country. Nevertheless, this skew of doctors in Maseru is worrying given the distances patients must travel to get there and the limited number of physicians in other districts.
- CHAL, which is funded by the GoL but run independently, on average employs 1.12 more health workers at its primary health facilities than the GoL.

2. Healthcare Financing

2.1 Aggregate Levels of Spending

Lesotho's total health expenditure, 10.6 percent of GDP in 2014, is a bit less than double the average for SSA, and is higher than all its neighboring countries, as described in Table 2.1. Private expenditure (mainly out-of-pocket expenditure) is 24 percent of the total, at only 2.5 percent of GDP; government is 44 percent; and external (financed by donors/development partners) is approximately 32 percent of total expenditure. Therefore, patients in Lesotho spend less on an out-of-pocket basis than most other SSA countries, as described in Figure 2.1.

Figure 2.1: Funding sources for health—country comparison



Sources: Most recent national health accounts available at World Bank Data (2014). [26]

When looking at per capita health expenditure (Table 2.1), Lesotho, which has lower income than most of its neighbors in the South African sub-region, ranks below many of its peers and is around the average for SSA, higher than only Mozambique and Zimbabwe.

These high-level statistics indicate that Lesotho is dedicating substantial financial resources to health relative to its GDP and income. There is still scope for increases in health expenditure and funding per capita in line with economic growth, but the overall level of funding is not low.

[26] The only out-of-pocket expenditure estimate identified was from the World Bank's 2014 database. No data were found on out-of-pocket payments at a disaggregated level.

Table 2.1: Macro health expenditure—African country comparison 2014

Country	Health Expenditure per Capita (current US$)	Health Expenditure, Public (% of GDP)	Health Expenditure, Public (% of Government Expenditure)	Health Expenditure, Total (% of GDP)
Lesotho	105.11	8.08	13.08	10.62
Botswana	385.31	3.19	8.84	5.41
Mozambique	42.00	3.94	8.81	6.98
Namibia	499.02	5.36	13.86	8.93
South Africa	570.21	4.24	14.23	8.80
Swaziland	247.90	7.00	16.58	9.25
Zimbabwe	57.71	2.47	8.49	6.44
Lower middle-income	90.02	1.64	N/A	4.50
Sub-Saharan Africa	97.71	2.34	N/A	5.50

Source: Data are 2014 figures from the World Bank.

2.2 Evolution of Public Health Expenditure

The Ministry of Finance (MoF) is responsible for all the budgetary allocations to the MoH. These are categorized into recurrent and development budgets, the former consisting of around 12 percent of total government expenditure over the entire period.

Donor funding represents another significant funding channel for healthcare in Lesotho, constituting around 32 percent of total health sector expenditure in FY 2015/16. Some donors have their funding channeled through the development budget, but most funding is spent independently. Overall public (including donor) health sector expenditure in Lesotho totaled more than 2.9 billion Lesotho Loti (LSL) in FY 2015/16, a nominal 15 percent increase from FY 2012/13.

Table 2.2: Overview of nominal financial flows for public health sector FY 2011/12–2015/16 (LSL)

Years	GOL Recurrent Health Expenditure	Development* Health Expenditure	Non-Development Budget Donor Health 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

Sources: IFMIS, development budget, and funds statements.
*Note: This money includes funding from donors that is disbursed to the government to meet the needs of specific projects, as well as funds that are provided directly by the government from tax revenues, usually in the form of counter-financing.

As Table 2.3 and Figure 2.2 show, the dynamic of total public health expenditure in real terms has been stagnant. Donors' expenditure channeled outside the budget has been volatile, exhibiting a large increase in FY 2013/14 that was not sustained in following years. Overall, donors' expenditure channeled outside the Treasury system had a real compound annual growth rate (CAGR) of 5.3 percent between FY 2012/13 and FY 2015/16. By contrast, total MoH expenditure (aggregating recurrent and development expenditure) decreased in real terms, exhibiting a -3 percent CAGR during the period. As Figure 2.3 shows, this negative growth rate is explained by the large fall in development expenditure (two-thirds of which was financed by donors); recurrent expenditure, which is completely financed by government, had a real CAGR of 9 percent, showing the government's commitment and success in increasing financial flows to health.

Table 2.3: Real (in FY 2015/16 LSL currency units) overview of financial flows for public health sector FY 2011/12–2015/16 (LSL)

Years	GOL Recurrent Expenditure	Development Expenditure	Non-Development Budget Donor Health Expenditure	Total Public Health Sector Expenditure
2011/12	1,162,930,835	788,233,195	No data	1,951,164,030
2012/13	1,373,694,788	549,613,027	1,040,037,539	2,963,345,354
2013/14	1,687,421,788	240,837,391	2,043,829,115	3,972,088,294
2014/15	1,642,153,955	111,767,303	1,157,309,403	2,911,230,661
2015/16	1,665,112,630	62,954,694	1,216,652,598	2,944,719,922

Figure 2.2: Real (in FY 2015/16 LSL currency units) overview of financial flows for public health sector FY 2012/13–FY 2015/16 (LSL)

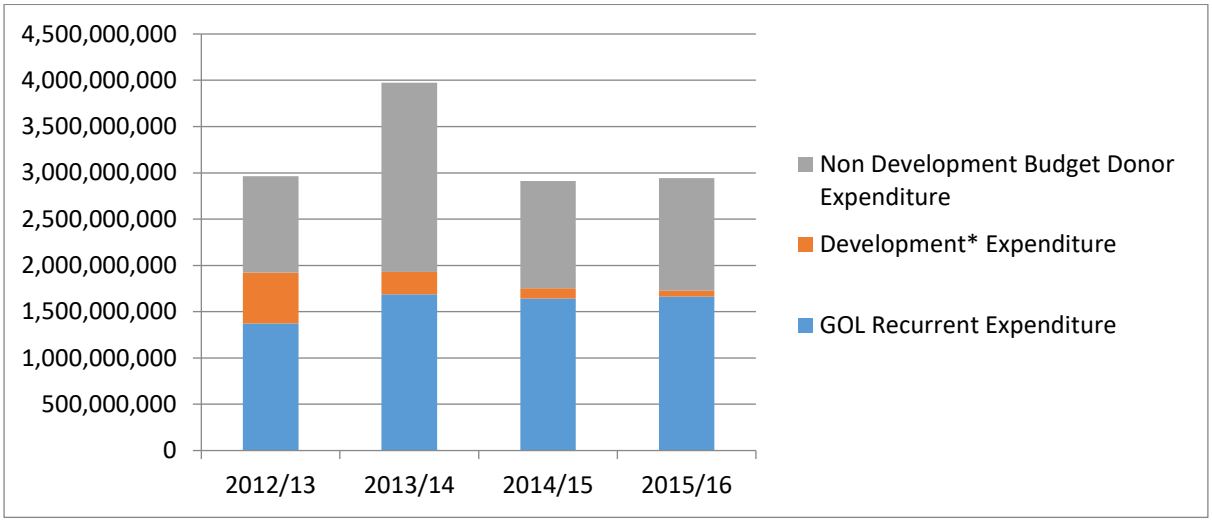
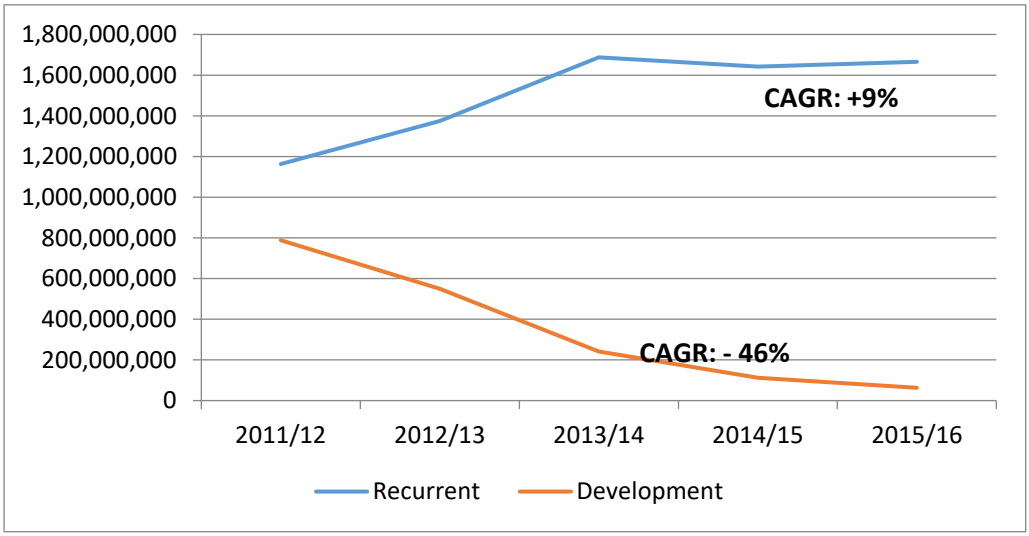


Figure 2.3: Real recurrent expenditure and development expenditure evolution (LSL)



Sources: IFMIS, development budget sources, and uses of funds statements.

In general, the government has consistently increased its overall expenditure on health, specifically through the recurrent budget, while donors have decreased their total contribution to the health sector. The fall in donor funding spent via the development budget and visible through government systems is significant, as it suggests that donors prefer to increasingly spend their funds independently versus channeling their financing through government systems and oversight.

Overview: Recurrent budget expenditure

Recurrent expenditure, the dominant component of overall government spending, making up 96 percent of expenditure in FY 2015/16, is allocated across 37 cost centers (Table 2.4) and sub-cost centers (for example, representing individual DHMTs and hospitals). All cost centers except for Disease Control, District Hospitals (see the following paragraph), and Blood Transfusion have experienced increases in expenditure over the five-year period of this report. The increases have been far from uniform across each cost center (Table 2.4 and Figure 2.4), but at a minimum, the majority have had their nominal expenditure increase—a positive sign.

The cost center Administration accounts for the highest nominal expenditure throughout the period, reaching 56 percent of total recurrent expenditure in FY 2015/16. Administration has experienced the third highest percentage increase in expenditure from FY 2011/12 to FY 2015/16 (144 percent), but much of this is simply because the Queen Elizabeth II (QE-II), the predecessor to QMMH, was accounted for under District Hospitals, while QMMH is accounted for under Administration. If we take the nominal increase in Administration spending from FY 2012/13 (the first year in which QMMH was fully operational) to BY 2015/16, this increase is estimated at 37 percent (the analysis of the details concerning the Administration cost center appears later in the report). This shift from accounting QE-II under District Hospitals to QMMH under Administration also explains the 17 percent drop in expenditure seen under District Hospitals over the same period. Taking this into account and using FY 2012/13 as a baseline, we see that in fact, spending on District Hospitals increased by a nominal amount of 31 percent up to FY 2015/16.

Large nominal expenditure increases of more than 100 percent were seen for the cost centers DHMTs (135 percent), Laboratories (126 percent), Planning (163 percent), and Pharmaceuticals (162 percent). Increases in DHMTs (the cost center responsible for funding primary health centers) expenditure is especially significant given that the GoL has put an emphasis on allocating more funding to the districts to aid decentralized service delivery.

While this growth is positive and shows the government's commitment to increasing expenditure on its primary health system, it should be noted that the absolute total

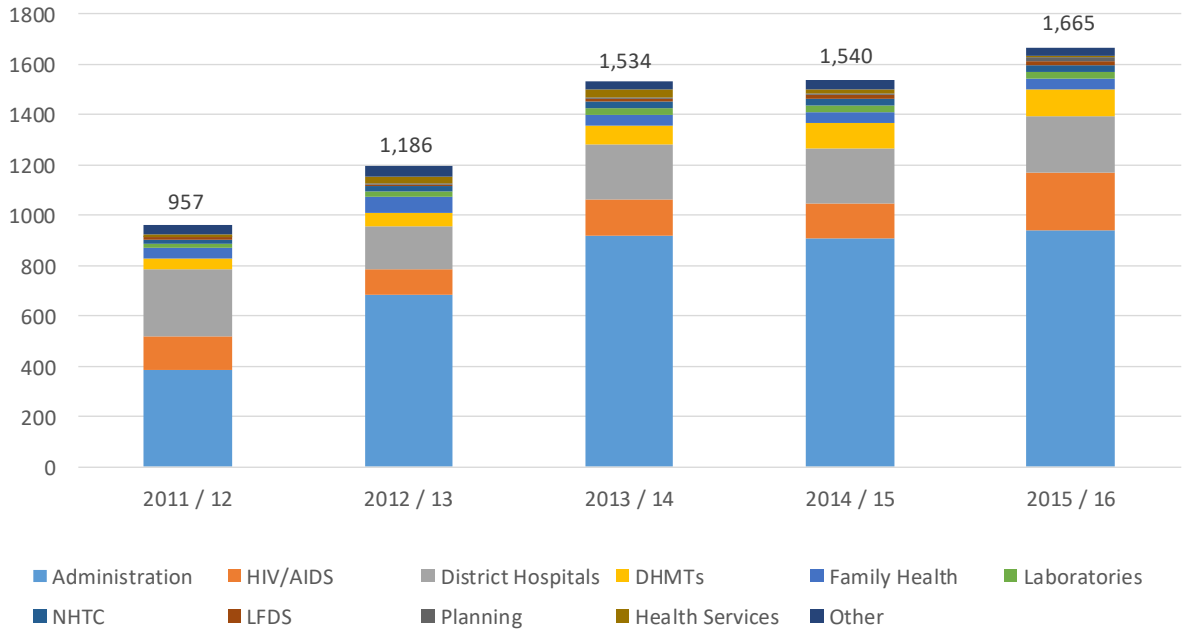
expenditure on DMHTs and subsequently all the health centers in Lesotho still only represented 6 percent of total expenditure in FY 2015/16, showing scope for continued growth.

Table 2.4: Recurrent health expenditure by cost center (nominal; LSL)

Cost Categories	2011/12	2012/13	2013/14	2014/15	2015/16	2015/16 % of Total	FY 2012/FY 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: IFMIS expenditure tracking system.

Figure 2.4: Recurrent health expenditure by cost center (LSL, millions)



Source: IFMIS expenditure tracking system.

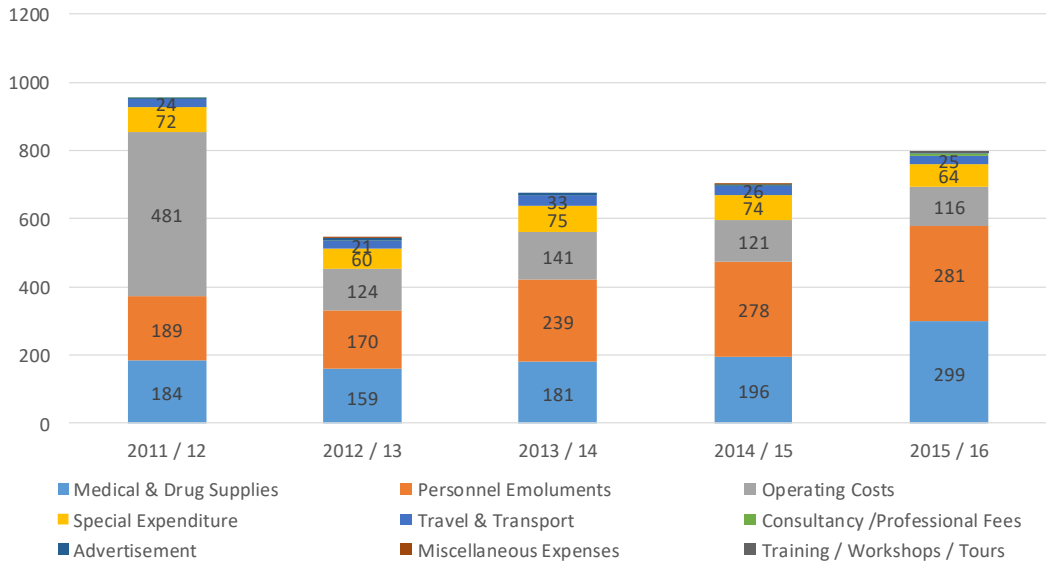
When disaggregating total expenditure by economic classification, the numbers are skewed because all payments to outsourced health services are made under the economic

classification Grants and Subscriptions (Table 2.5 and Figure 2.5). These payments cover all operating and capital costs for QMMH, CHAL, and other contracted out hospitals and primary health services across Lesotho, so this classification is misleading. Removing Grants and Subscriptions, one sees that on average during the entire report period, Personal Emoluments usually takes up the largest share of the recurrent budget, followed closely by expenditure on Medical and Drug Supplies (in FY 2015/16, expenditure on Medical and Drug Supplies surpassed Personal Emoluments). One must note that the "Medical and Drug Supplies" classification in Table 2.5 is broader than the "Pharmaceuticals" cost center in Table 2.4, as many medical supplies are bought under district hospital cost centers, and ARV's are purchased under the cost center "HIV/AIDS". Compared with other health systems, the share of expenditure representing HR costs is low; viewed another way, spending on Medical and Drug Supplies might be comparatively high. This finding prompted us to suggest a review of Medical and Drug supply costs to ensure competitive pricing and costs in line with standards in SSA.

Table 2.5: Recurrent health expenditure breakdown by economic cost expenditure, government facilities, and departments only (LSL)

Cost Categories	2011/12	2012/13	2013/14	2014/15	2015/16	2015/16 % of Total	FY 2012/FY 2016 Nominal Increase
Medical & Drug Supplies	184,187,824	159,428,157	181,141,980	196,159,780	298,628,116	38%	62%
Personnel Emoluments	188,733,155	170,372,365	239,129,983	278,455,161	280,796,370	35%	49%
Operating Costs	481,157,239	124,183,843	141,169,839	121,440,231	115,662,646	15%	-76%
Special Expenditure	71,705,897	59,874,104	75,075,808	74,443,858	64,279,515	8%	-10%
Travel & Transport	24,208,375	21,292,961	32,995,466	26,126,745	25,374,691	3%	5%
Consultancy /Professional Fees	811,467	1,613,767	579,235	762,890	4,905,082	1%	504%
Advertisement	3,264,569	7,226,536	6,478,284	4,455,885	4,124,624	1%	26%
Miscellaneous Expenses	0	3,328,819	0	202,402	1,547,382	0%	-
Training / Workshops / Tours	0	0	0	0	96,675	0%	-
Total	**954,068,526**	**547,320,551**	**676,570,595**	**702,046,951**	**795,415,101**	**100%**	**-17%**

Figure 2.5: Recurrent health expenditure breakdown by economic cost expenditure—government facilities and departments only (LSL, millions)

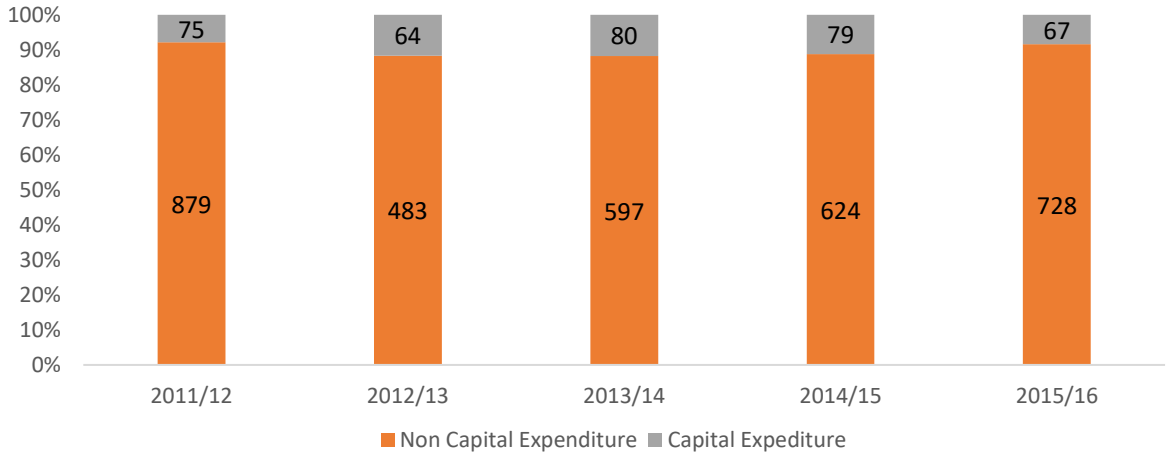


Source: IFMIS expenditure tracking system.
Note: The Grants and Subscriptions cost center is not included.

The government does not maintain a separate budget for capital expenditure, which is common in other countries, and the term *recurrent* in the "recurrent budget" is misleading in that it includes non-repetitive—often once-off—capital expenditures. Line items such as "special expenditure," for instance, cover items such as the provision of doctors' housing as well as expenditure on office and non-office equipment. Within the line item "operating costs," a subsection exists on non-ordinary maintenance of public assets, which could also be considered a capital expense. These expenses made up around 11 percent of total recurrent expenditure over the entire period, coming to 67 million LSL in FY 2015/16, down from 79 million LSL in FY 2014/15. OECD countries spend, on average, 0.45 percent of their GDP on capital expenditures for health.[27] In Lesotho's case, a back-of-the-envelope calculation would suggest that a similar percentage would equal around 130 million LSL in each year. At 67 million LSL in 2015/16, and not including the maintenance and initial construction costs associated with QMMH or donor-funded capital expenses, we conclude that over the period studied current total capital expenditure on health has been adequate given global norms, and it does not stand out as an area of major concern.

[27] See http://www.oecdilibrary.org/docserver/download/8115071ec064.pdf?expires=1498754067&id=id&accname=guest&checksum=17392ECF2762B42982B28D0F1AF2C6B4.

Figure 2.6: Ministry of Health, capital expenditure totals, and percentage (y axis) of recurrent health expenditure (labels in LSL, millions)



Source: IFMIS expenditure tracking system.
Note: The Grants and Subscriptions cost center is not included.

Overview: Development budget expenditure

The development budget is managed by the Project Accounting Unit in the Ministry of Health. It is a project-based budget category that includes primarily donor funds plus GoL counterpart financing (donor funding consisted of 66 percent of total development budget expenditure over the entire period and is broken down later in this section). Between FY 2011/12 and FY 2015/16, development budget expenditure averaged 302 million LSL. The development budget differs from the recurrent budget in that it mainly exists so specific donor projects managed by the MoH can have their own bank accounts and auditing processes. Because it is project based, its expenditure can vary significantly year to year, in contrast with the recurrent budget, which tends to increase with inflation at a minimum. Development budget expenditure has been decreasing, as several donors have downscaled their support to the Lesotho health sector over the past few years or they have moved it outside the development budget and the Treasury system; recently, development budget expenditure made up a miniscule amount of all spending, its expenditure totaling only 4 percent of the total in FY 2015/16.

Data are available that break down the development budget by program into different cost codes like the recurrent budget. However, when reported by cost code, the sum of these expenditures does not equal the sum of the overall expenditure for the development budget

as recorded in the audited financials (Table 2.6; the difference over the entire period is around 43 million LSL higher when using the cost codes). Because the audited reports do not go into the detail of economic classification, we were unable to reconcile the two data sources. For this reason, the disaggregated figures described in the development expenditure section should be used for illustrative purposes only, to convey the broad trends in development budget expenditure across varying classifications, and the audited numbers should be considered the validated totals for the development budget.

Table 2.6: Audited development expenditure totals versus development expenditure by cost code aggregation (LSL)

Categories	**2011/2012**	**2012/2013**	**2013/2014**	**2014/2015**	**2015/2016**
Audited Development Expenditure Totals	648,366,602	474,359,693	218,954,395	104,837,532	62,954,694
Development Expenditure from Cost Codes	658,870,370	459,728,663	244,085,031	100,523,973	89,833,806
Nominal Difference	10,503,768	-14,631,030	25,130,636	-4,313,559	26,879,112
Cost Code Expenditure as a % of Actual	102%	97%	111%	96%	143%

Sources: Finpro expenditure tracking system, development budget sources, and uses of funds statements.

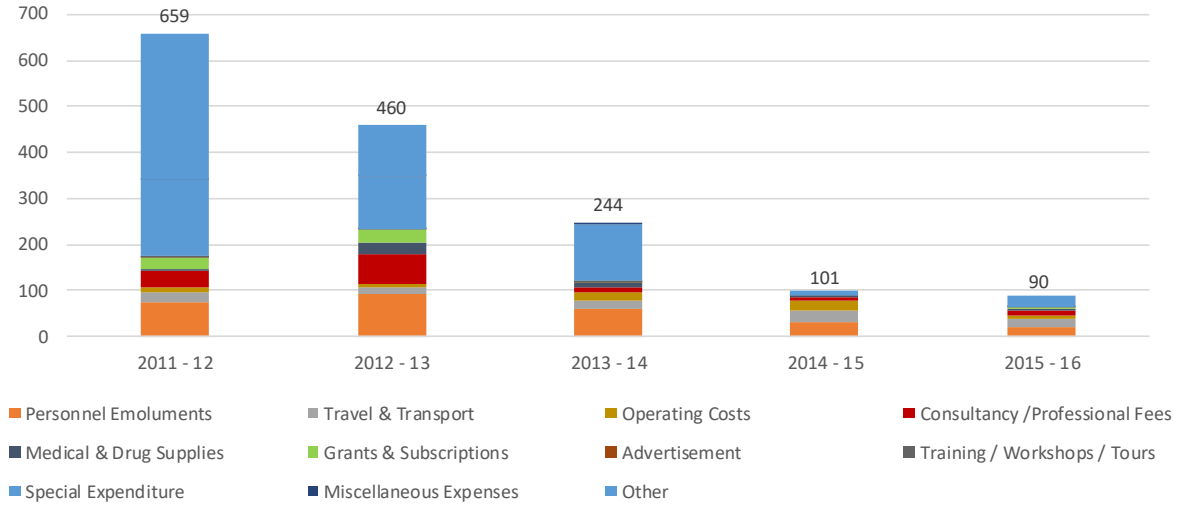
Table 2.7 and Figure 2.7 describe aggregate development expenditure broken out by economic classification. The development budget is often confused with a capital budget, which it is not, as it contains mostly recurrent expenditures. In fact, Personnel Emoluments made up the highest percentage of expenditure for FY 2014/15 and FY 2015/16, contributing 22 percent of total development spending in the latter fiscal year.

Table 2.7: Development health expenditure by cost code (LSL)

Expenditure Categories	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2015/16 % of Total**	**FY 2012/FY 2016 Nominal Increase**
Personnel Emoluments	75,304,271	93,745,430	62,117,521	31,771,495	19,596,820	22%	-74%
Travel & Transport	20,053,153	12,639,551	14,608,278	23,370,946	17,655,881	20%	-12%
Operating Costs	11,813,125	9,394,922	17,956,813	23,834,580	9,602,551	11%	-19%
Consultancy /Professional Fees	35,365,372	63,035,601	10,977,564	5,649,101	9,025,610	10%	-74%
Medical & Drug Supplies	4,912,908	26,726,365	11,894,854	2,935,711	4,095,894	5%	-17%
Grants & Subscriptions	25,674,604	27,314,776	1,825,799	419,316	2,843,272	3%	-89%
Advertisement	487,104	381,963	133,059	311,815	753,701	1%	55%
Training / Workshops / Tours	548,020	528,253	471,880	886,992	381,963	0%	-30%
Special Expenditure	168,516,295	115,400,706	124,047,332	4,307,052	0	0%	-100%
Miscellaneous Expenses	93,891	265,471	51,930	98,051	0	0%	-100%
Other	316,101,628	110,295,624	0	6,938,913	25,878,114	29%	-92%
Total	**658,870,370**	**459,728,663**	**244,085,031**	**100,523,973**	**89,833,806**	**100%**	**-86%**

Source: Finpro expenditure tracking system.

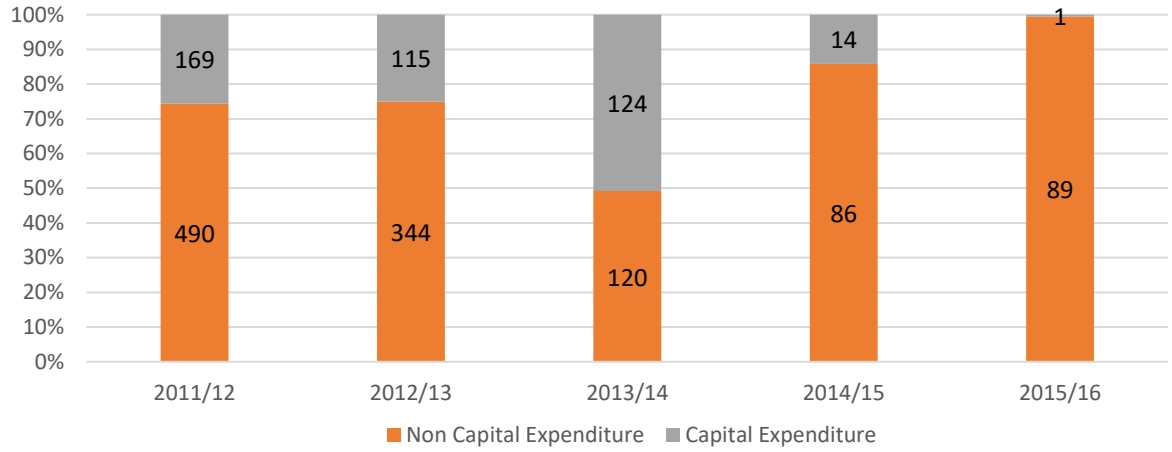
Figure 2.7: Development health expenditure by cost code



Source: Finpro expenditure tracking system.

For the three fiscal years of 2011/12–2013/14, the largest expenditure classification was "special expenditure." Matching this to the expenditure by donor, we can see that it corresponds to the funds provided by the Millennium Challenge Corporation through the Government of Lesotho over the same period. These funds were provided to construct and refurbish most of the primary health centers in Lesotho. Figure 2.8 describes the overall share of capital expenditure in the development budget using the same criteria as noted earlier in the recurrent budget. Since the Millennium Challenge Corporation funds have formed the bulk of the capital expenditure in recent years, and these have diminished, we can see that capital spending overall has similarly declined from 169 million LSL in FY 2011/12 (26 percent of total) to 1 million LSL in FY 2015/16 (1 percent of total).

Figure 2.8: Capital expenditure totals and percentage (y axis) of development health expenditure (labels in LSL, millions)



Source: Finpro expenditure tracking system.

Table 2.8 describes the sources of funding for development budget expenditure between FY 2011/12 and FY 2015/16. Except for the United Nations Fund for Population Activities (UNFPA), all the long-term contributors to the development budget reduced their expenditure between FY 2011/12 and FY 2015/16. In FY 2015/16, a new Japanese grant was the largest source of funding, making up 29 percent (LSL 26 million) of total development expenditure.

Table 2.8: Development health expenditure by funding source (LSL)

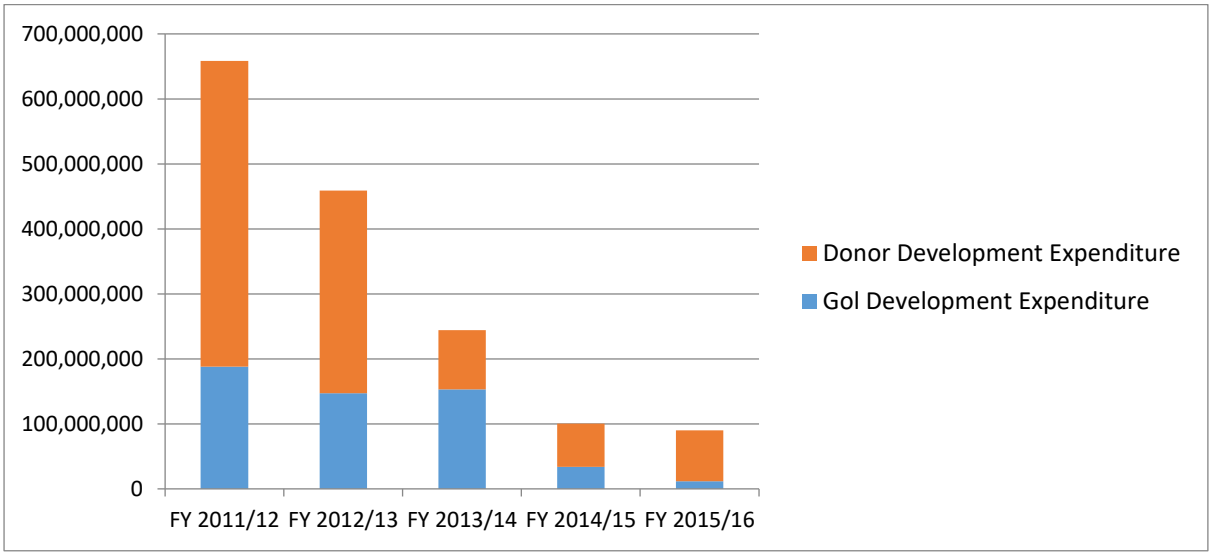
Donor	2011/12	2012/13	2013/14	2014/15	2015/16	2015/16 % of Total	FY 2012/FY 2016 Nominal Increase
Japanese Grant	0	0	0	0	26,106,478	29%	-
Global Fund	35,176,520	67,130,711	55,614,079	28,156,713	17,728,103	20%	-50%
GoL	187,938,476	147,172,024	153,257,613	33,684,352	11,970,812	13%	-94%
PEPFAR	16,562,972	24,450,722	20,246,324	21,313,935	9,860,915	11%	-40%
WHO	0	0	0	10,847,264	9,176,961	10%	-
World Bank	8,565,524	7,089,488	4,541,011	3,623,407	5,413,005	6%	-37%
African Development Bank	0	0	0	0	3,269,956	4%	-
Irish Aid	29,500,531	37,217,199	5,588,868	241,869	2,583,395	3%	-91%
UNICEF	3,596,057	2,409,314	1,797,399	1,391,881	2,209,067	2%	-39%
UNFPA	874,826	347,190	3,039,739	1,262,600	1,247,067	1%	43%
GAVI	0	0	0	1,952	268,046	0%	-
MCC	300,308,827	173,912,015	0	0	0	0%	-100%
EU	76,346,638	0	0	0	0	0%	-100%
Total	**658,870,370**	**459,728,663**	**244,085,031**	**100,523,973**	**89,833,806**	**100%**	**-86%**

Source: Finpro expenditure tracking system.

The GoL has often contributed to development expenditure in the form of "counterpart" financing, which is a requirement for some donor-funded projects. Over the period considered, GoL expenditure averaged around 34 percent of total development expenditure,

with the proportion varying year to year, as shown in Figure 2.9. For FY 2015/16 GoL expenditure as a portion of total development expenditure was lower than usual, making up 13 percent of the total. The drop in GoL counterpart financing in the development budget is unexplained, and it is difficult to draw conclusions on its causality and impact. Given that the development budget is a useful channel for joint GoL–donor projects, its reduction can be viewed as a decrease in GoL–donor coordination in health financing. If that is the case, the negative outcome should be investigated by consulting with the donor community.

Figure 2.9: GoL contribution to development expenditure (LSL)



Source: Finpro expenditure tracking system.

Overview: Non-development budget—donor expenditure

Donor expenditure independent of the development budget totaled around 1,216,652,598 LSL in FY 2015/16, and had a nominal CAGR of 11 percent and a real CAGR of 5.3 percent between FY 2012/13 and FY 2015/16.[28] In FY 2015/16, USAID/US President's Emergency Plan for AIDS Relief (PEPFAR) provided the largest amount of donor funding (36 percent of the total), closely followed by the Global Fund. All the sources of donor expenditure are presented in Table 2.9 and Figure 2.10.

[28] MoH Resource Mapping database.

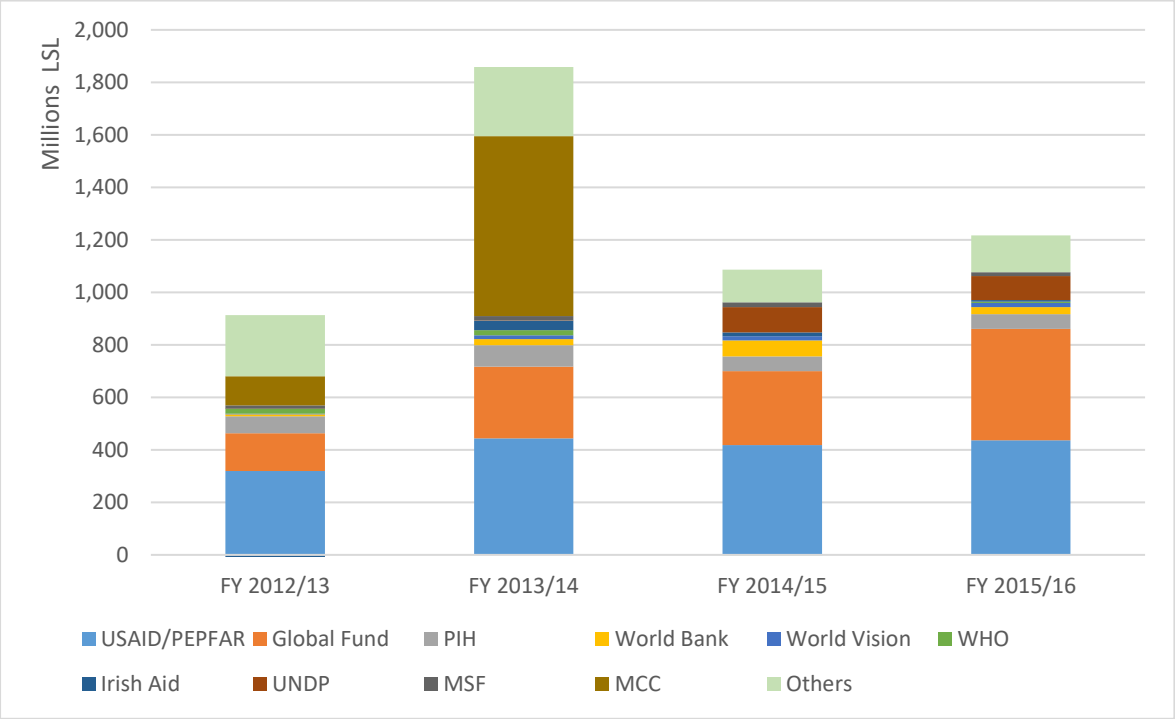
Table 2.9: Nominal overview of donor expenditure[29] (LSL)

Donor	2012/13	2013/14	2014/15	2015/16	CAGR	% of total FY 2016
USAID/PEPFAR	319,359,377	444,133,517	418,350,744	437,136,412	11%	36%
Global Fund	144,495,643	273,008,354	282,051,958	423,364,241	43%	35%
PIH	64,300,995	81,499,410	55,734,069	56,002,016	-5%	5%
World Bank	7,089,488	23,270,510	60,991,134	26,961,946	56%	2%
World Vision	3,070,732	14,873,396	16,204,311	16,038,445	74%	1%
WHO	18,575,085	19,556,233	-889,034	4,784,806	-36%	0%
Irish Aid	-16,155,486	35,302,221	14,543,651	5,880,683	-171%	0%
UNDP	490,328	828,651	96,448,016	92,167,130	473%	8%
MSF	12,709,099	17,525,898	17,641,299	14,658,674	5%	1%
MCC	110,188,421	684,916,870	0	0	-100%	0%
Others	233,511,316	263,207,410	124,478,023	139,658,245	-16%	11%
Total	**897,634,997**	**1,858,122,469**	**1,085,554,170**	**1,216,652,598**	**11%**	**100%**

Source: MoH Resource Mapping database.

It is promising that the two largest donors to Lesotho, USAID/PEPFAR and the Global Fund, have had their expenditure increase over the period, with a CAGR of 11 percent and 43 percent, respectively.

Figure 2.10: Donor expenditure (LSL, millions)



Source: MoH Resource Mapping database.

[29] Total expenditure in these tables = self-reported donor expenditure in RM database minus (-) donor expenditure (if relevant) in the development budget.

Key Takeaways: Aggregate Levels of Spending

- Focusing on expenditure visible via government accounting systems, total health expenditure (combining recurrent and development budgets) has decreased in real terms, exhibiting a -3 percent CAGR during the report period. However, real GoL recurrent expenditure had a CAGR of 9 percent between FY 2011/2012 and FY 2015/2016, showing the government's commitment to increasing financial flows to health.
- The cost center Administration accounts for the highest nominal expenditure throughout the period, reaching 56 percent of total recurrent expenditure in FY 2015/16. The cost center DHMTs, which represents the administrative units that fund GoL primary health centers, accounted for 6 percent of total GoL expenditure in FY 2015/16.
- Large nominal expenditure increases of more than 100 percent were seen for the cost centers DHMTs (135 percent), Laboratories (126 percent), Planning (163 percent), and Pharmaceuticals (162 percent). Administration also increased considerably, while District Hospitals fell considerably; however, this was largely a result of QE-II's categorization as a District Hospital, while QMMH was categorized under Administration.
- Considering the health expenditure directly executed through government facilities, in FY 2015/16 Medical and Drug supplies made up 38 percent of total recurrent spending, closely followed by Personal Emoluments, at 35 percent of total recurrent expenditure.

2.3 Budget Utilization

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

Table 2.10: Total health expenditure and absorptive capacity (LSL)

Metrics	2011/12	2012/13	2013/14	2014/15	2015/16
Development Budget Total	510,481,814	623,516,338	400,586,931	133,497,627	183,808,453
Development Expenditure Total	648,366,602	474,359,693	218,954,395	104,837,532	62,954,694
Development Budget Execution	127%	76%	55%	79%	34%
Recurrent Budget Total	1,039,131,534	1,249,725,891	1,613,202,596	1,654,748,482	1,779,378,445
Recurrent Expenditure Total	956,576,707	1,185,607,703	1,534,099,067	1,540,337,501	1,665,112,630
Recurrent Budget Execution	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%

Sources: IFMIS, development budget sources, and use of funds statements.

Table 2.11 describes recurrent budget execution for each cost center in the MoH over the five-year period. Except for an anomaly in the Human Resources cost center in FY 2014/15, Administration has the highest average execution levels over the period, at 99 percent, while Pharmaceuticals has the lowest, at 63 percent. Typically, all departments keep expenditure below 100 percent of budget apart from a few one-off exceptions.

Table 2.11: Recurrent budget absorptive capacity by cost center

Cost Categories	2011 / 12	2012 / 13	2013 / 14	2014 / 15	2015 / 16
Administration	96%	100%	100%	103%	95%
HIV/AIDS	98%	81%	95%	78%	98%
District Hospitals	91%	92%	87%	81%	90%
DHMTs	81%	91%	81%	82%	85%
Family Health	73%	87%	95%	73%	101%
Laboratories	81%	97%	91%	90%	95%
NHTC	94%	79%	90%	82%	92%
LFDS	95%	84%	93%	121%	90%
Planning	97%	92%	94%	87%	79%
Health Services	98%	97%	98%	96%	94%
Disease Control	92%	98%	67%	88%	113%
Blood Transfusion	76%	84%	77%	68%	74%
Environmental Health	96%	92%	89%	78%	81%
Financial Management	97%	95%	93%	92%	88%
Human Resources	97%	96%	91%	232%	93%
Health Education	88%	91%	88%	69%	85%
Pharmaceuticals	66%	54%	54%	73%	67%
Oral Health	71%	73%	86%	79%	50%
Social Welfare	79%	-	-	-	-
Total	**92%**	**95%**	**95%**	**93%**	**94%**

Source: IFMIS expenditure tracking system.

District Hospitals perform slightly below average in terms of its budget absorptive capacity, with a FY 2015/16 average budget use of 90 percent, against the 94 percent seen in Table 2.11 for all cost centers. Aside from FY 2014/15, when the average dipped to 81 percent because of large increases in unused budget for Purchase and Production of Materials, as well as Non-Office Equipment at Mokhotlong and Quthing hospitals, the average has remained relatively constant in the high 80s percent to low 90s percent range (Table 2.12).

Mafeteng Hospital has consistently been the best performer, using 95 percent of its budget in FY 2015/16 and similar levels in the preceding years, while Machabeng Hospital has been consistently the worst performer, using 63 percent of its budget in FY 2015/16 and similar levels in the years before, with consistent underspends in areas as diverse as Power, Purchase, and Production of Materials; Non-Office Equipment; and Subsistence Local. The consistently poor performance of certain hospitals implies that a lack of utilization is an issue specific to those facilities and should be investigated further. We recommend that if a cost center repeatedly underspends budget, as at Machabeng Hospital, in the following financial year, funding should be reallocated to the cost centers that require it the most. Instead, because the recurrent budgeting process tends to incrementally increase funding levels per cost center year after year, poorly performing facilities continue to receive more budget then they can spend.

Table 2.12: Recurrent budget absorptive capacity by hospital

Cost Categories	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**
Berea Hospital	95%	92%	88%	95%	94%
Botsabelo Hospital	91%	84%	84%	90%	94%
Butha-Buthe Hospital	90%	84%	83%	69%	93%
Machabeng Hospital	99%	85%	67%	60%	63%
Mafeteng Hospital	89%	94%	96%	93%	95%
Mohlomi Hospital	93%	94%	86%	91%	83%
Mokhotlong Hospital	92%	89%	90%	67%	98%
Motebang Hospital	86%	100%	90%	82%	94%
Ntsekhe Hospital	95%	97%	87%	90%	93%
Queen II Hospital	90%	-	-	-	-
Quthing Hospital	93%	94%	85%	71%	84%
Senkatana Hospital	88%	78%	61%	80%	76%
Total	**91%**	**92%**	**87%**	**81%**	**90%**

Source: IFMIS expenditure tracking system.

In terms of absorptive capacity, DHMTs perform worse than district hospitals (Table 2.13 and Figure 2.11), consistently struggling to fully spend their allocated funding. The average use for FY 2015/16 comes to 85 percent. This is in line with preceding years, which range from 81 percent in FY 2011/12 to 91 percent in FY 2012/13. Leribe DHMT is the best performer in FY 2015/16, spending 97 percent of its budget, while Qacha's Nek is the worst, at 61 percent.

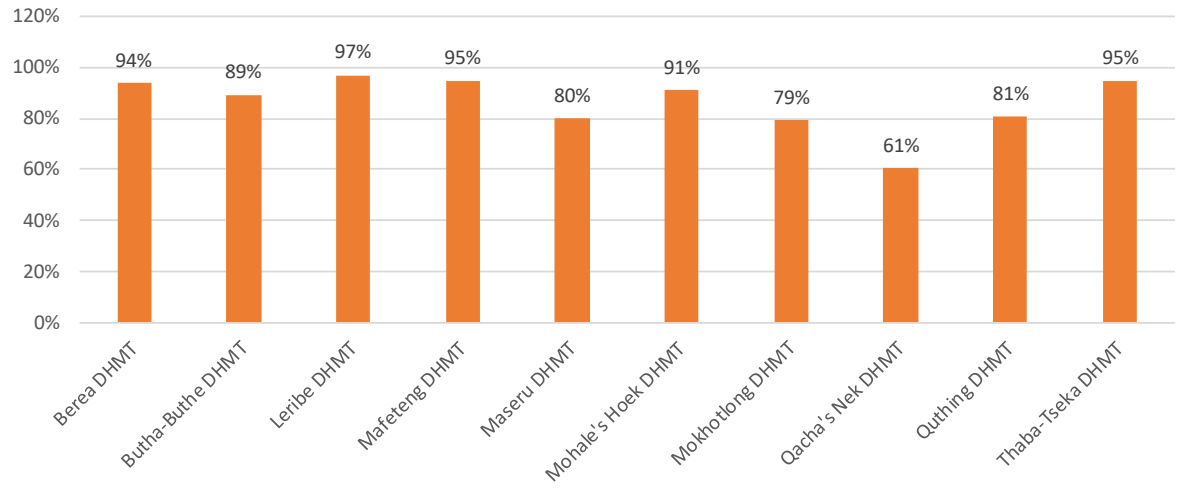
As is the case with the hospitals, DHMTs have a low utilization of their Purchases and Production budgets (84 percent in FY 2014/15 for hospitals and DHMTs combined). However, overall most Purchases and Production expenditure is linked to central cost codes, and these have higher use than do those linked to decentralized expenditures. This is a troubling finding: as the GoL has stressed its intention to accelerate decentralization and increase the financial resources allocated to the districts, they risk allocating funding to cost centers that have trouble spending the money they already receive.

Table 2.13: Recurrent budget absorptive capacity by DHMT

Cost Categories	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**
Berea DHMT	80%	95%	82%	95%	94%
Butha-Buthe DHMT	79%	96%	86%	72%	89%
Leribe DHMT	91%	100%	81%	90%	97%
Mafeteng DHMT	85%	93%	81%	90%	95%
Maseru DHMT	59%	98%	89%	95%	80%
Mohale's Hoek DHMT	101%	97%	77%	85%	91%
Mokhotlong DHMT	70%	83%	76%	72%	79%
Qacha's Nek DHMT	89%	62%	73%	58%	61%
Quthing DHMT	79%	87%	73%	53%	81%
Thaba-Tseka DHMT	94%	76%	83%	86%	95%
Total	**81%**	**91%**	**81%**	**82%**	**85%**

Source: IFMIS expenditure tracking system.

Figure 2.11: FY 2015/16 recurrent budget absorptive capacity by DHMT



Source: IFMIS expenditure tracking system.

Besides anomalies such as HR in FY 2014/15, cost centers generally stick to their budgets, with Administration one of the better performers in this regard (Table 2.14). This is largely due to the high proportion of payments made to service providers contracted ahead of time and not subject to procurement or other expenditure processes. Some of the poorer performers include Pharmaceuticals, which historically has had difficulty in spending its drug allowance due to shortfalls in a range of item codes, most notably and consistently Purchase and Production of Materials. This issue should be investigated further as health centers continue to face drug stock-outs, indicating significant issues in the nationwide drug procurement process.

Table 2.14: Maximum and minimum recurrent budget absorption per cost center

Cost Categories	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**
Maximum Efficiency	98%	100%	100%	232%	113%
Cost Code	HIV/AIDS	Administration	Administration	Human Resources	Disease Control
Minimum Efficiency	66%	54%	54%	68%	50%
Cost Code	Pharmaceuticals	Pharmaceuticals	Pharmaceuticals	Blood Transfusion	Oral Health

Source: IFMIS expenditure tracking system.

When measuring utilization by economic classification (Table 2.15), we note that most items remain below their allocation except for occasional unforeseen events such as an expense

related to the FY 2014/15 Rent and Lease of Buildings for Government, which is categorized here as Special Expenditure. Among the highest performing segments in terms of budget absorption, Grants and Subscriptions largely reflects payments to contracted out service providers, and so it is unsurprising that it is typically fulfilled at 100 percent. Other segments such as Advertisement have a record of underperformance, in part due to over-budgeting and recent expenditure declines in Printing and Stationery costs.

Table 2.15: Recurrent budget absorption by economic classification

Cost Categories	2011/12	2012/13	2013/14	2014/15	2015/16
Grants & Subscriptions	99%	100%	100%	100%	100%
Medical & Drug Supplies	83%	82%	83%	74%	95%
Personnel Emoluments	96%	100%	100%	99%	82%
Operating Costs	95%	88%	83%	73%	86%
Special Expenditure	92%	89%	92%	120%	92%
Travel & Transport	89%	76%	94%	97%	87%
Consultancy /Professional Fees	88%	99%	73%	100%	60%
Advertisement	76%	77%	62%	37%	54%
Miscellaneous Expenses	-	-	-	-	74%
Training / Workshops / Tours	-	-	-	-	97%

Source: IFMIS expenditure tracking system.

Key Takeaways: Budget Utilization

- The average budget execution percentage for the overall budget (recurrent and development budget combined) was 91 percent for the five-year report period.
- Recurrent budget execution has been high during the period, averaging 94 percent. On the other hand, the development budget execution has been low, declining to a low of 34 percent in FY 2015/16, while averaging 82 percent over the entire period.
- District hospitals perform slightly below average in terms of their absorptive capacity, with a FY 2015/16 average budget use of 90 percent. Machabeng and Senkatana hospitals have the lowest spending rates, averaging 75 percent and 76 percent respectively. In terms of absorptive capacity, the DHMTs perform worse than district hospitals, averaging utilization of 85 percent in FY 2015/16. Leribe DHMT is the best performer in FY 2015/16, using 97 percent of its budget, while Qacha's Nek is the worst at 61 percent. This is a troubling finding: although the GoL has stressed its intention to increase the financial resources allocated to the districts to accelerate

decentralization, it risks allocating funding to cost centers that have trouble spending the money they already receive.

2.4 District Level Expenditure

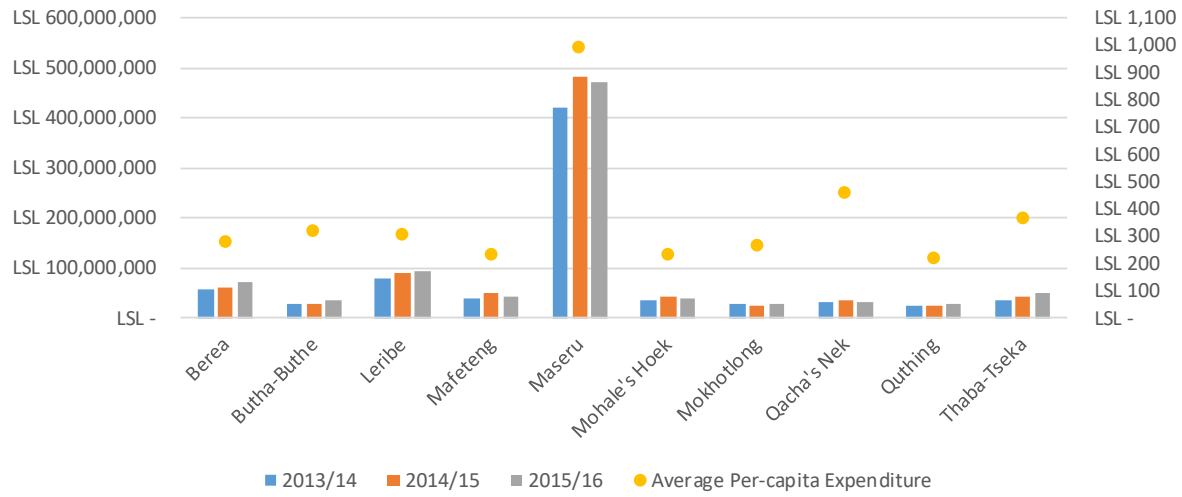
A review of expenditure by district is useful in assessing the level of geographic equity in resource distribution and for identification of districts that may be experiencing limited funding relevant to their needs. Achieving geographic equity in resource allocation requires disproportionately favoring regions that have a greater need for health services. Criteria used in this section measuring relative need include population size and health outcome indicators, and number of facilities.

Described in Table 2.16 and Figures 2.12–2.14, there is significant variation in absolute and per capita government health expenditure at the district level. District expenditure includes: (1) expenditure on government primary health centers; (2) general MoH administration costs for DHMTs; (3) expenditure on MoH-operated district hospitals; (4) expenditure by the tertiary hospital QMMH and its filter clinics in the Maseru district[30]; and (5) expenditure by CHAL-owned health centers and hospitals.[31] Excluded from this analysis due to a lack of data is district expenditure by Baylor, PIH, and Red Cross, all of which operate facilities in the districts. All expenditure in the development budget, non-development budget donor expenditure, plus expenditure by centrally managed programs such as HIV/AIDS, which centrally procure commodities that are distributed to the districts, is also excluded from the analysis in this section, because of lack of data. The period of the analysis includes fiscal years 2013/14, 2014/15, and 2015/16.

Looking at absolute expenditure, distribution across districts shows that Berea, Leribe, and Maseru receive the highest absolute funding, while Mokhotlong, Qacha's Nek, and Quthing receive the lowest amounts. Absolute funding in Maseru is more than five times higher than the second-place district, Leribe.

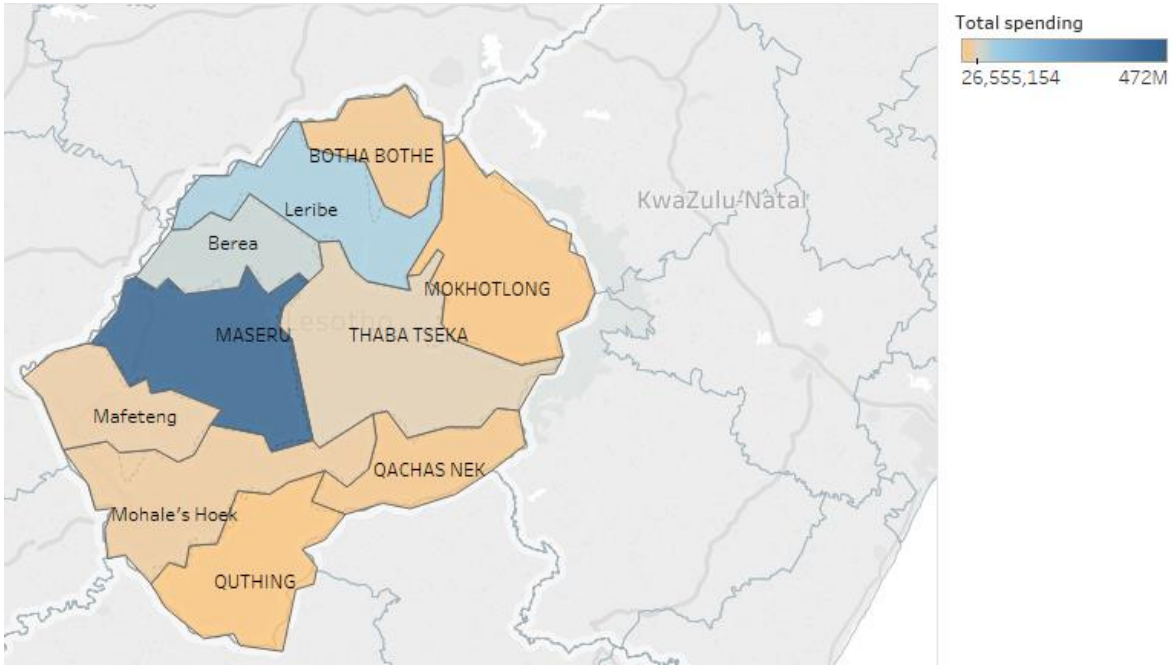
[30] Expenditure by QMMH and its filter clinics was obtained from audited financial statements for Tsepong.
[31] This covers government expenditure on all district-level health facilities besides the four health centers managed by Red Cross and the four clinics managed by Tsepong. In terms of facility numbers, this refers to expenditure on 178 of the 186 district-level health facilities funded by the government.

Figure 2.12: Total recurrent[32] expenditure and per capita expenditure by district



Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.

Figure 2.13: Average absolute spending per district



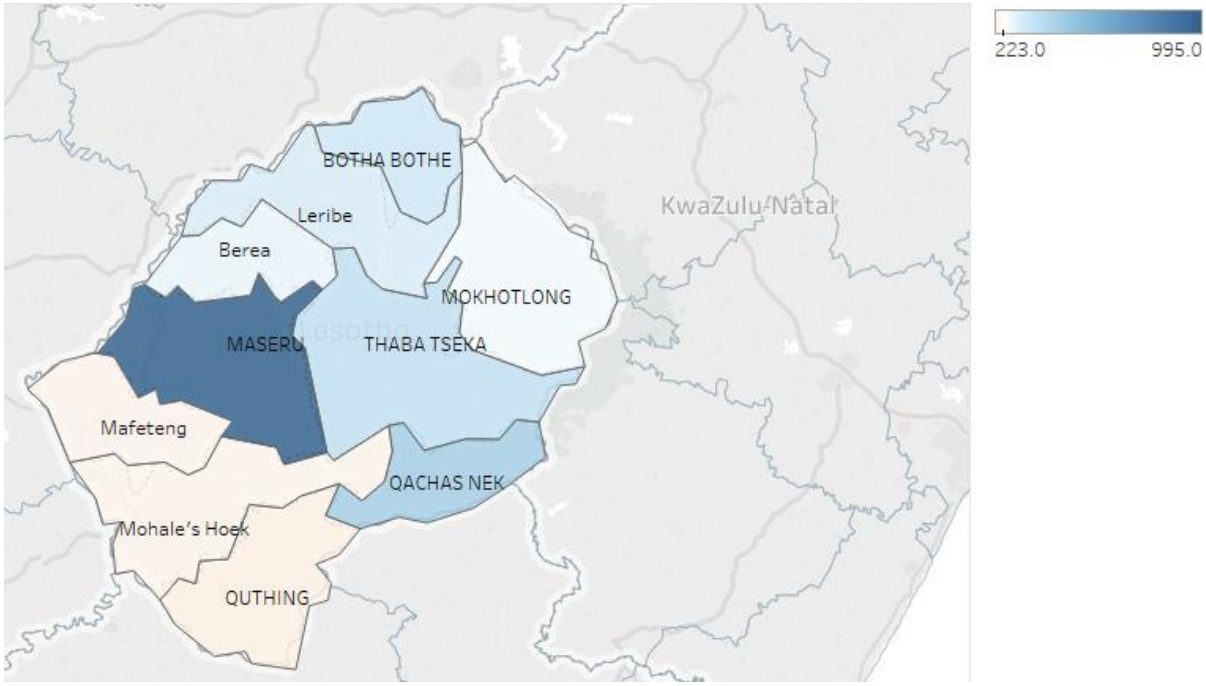
Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.

When accounting for district population, per capita expenditure for Maseru is still the highest in the country, at 995 LSL per person, but it is only around double the second-place district,

[32] This table excludes expenditure from the development budget because of an inability to disaggregate spending down to the district level.

Qacha's Nek. Notably, the figures for Maseru include QMMH, which skews the data, as QMMH is a referral hospital used by the population nationwide and meant to provide more complex and specialized health services than provided at the secondary level.

Figure 2.14: Average per capita spending per district



Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.

Reviewing Table 2.16, which summarizes both absolute and per capita funding by district, it appears that Maseru has high funding allocations for both indicators, while Quthing does poorly on both metrics and should be looked at as relatively underfunded. Leribe is in the top quartile, indicating that it is a relatively well-funded district. Factors such as disease burden, socioeconomic vulnerability, and remoteness of districts are additional considerations made in addressing inequities within the health system expenditure, and should be considered before arriving at a concrete conclusion of spending inefficiency and equity.

Table 2.16: Absolute, per capita funding by district

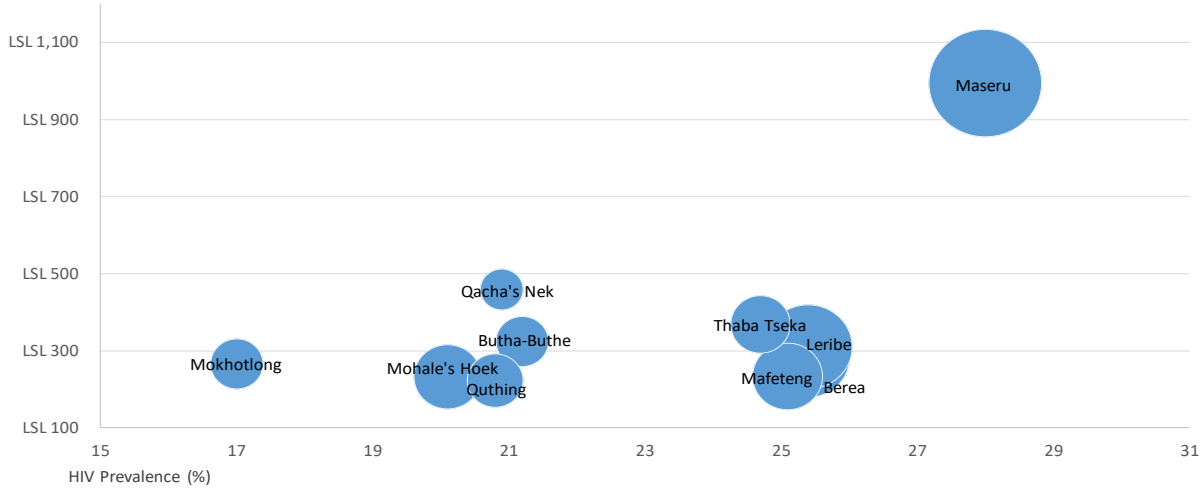
District	2013/14	2014/15	2015/16	Average per Capita Expenditure
Berea	55,628,382	61,887,427	72,489,331	281
Butha-Buthe	28,231,130	27,960,257	33,901,353	324

Leribe	78,180,681	89,269,183	91,770,262	310
Mafeteng	38,007,608	48,939,399	42,648,430	233
Maseru	419,563,077	482,434,886	472,371,948	995
Mohale's Hoek	34,331,936	40,828,361	39,749,785	232
Mokhotlong	28,513,607	26,023,653	27,820,374	266
Qacha's Nek	30,292,805	34,401,501	31,811,541	460
Quthing	23,648,576	23,932,908	26,555,154	223
Thaba-Tseka	34,733,731	43,230,587	50,054,091	368
National Average	77,113,153	87,890,816	88,917,227	369

Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.
Note: The color coding in the table illustrates higher values in green and lower values in red, with a sliding scale between the two.

When per capita funding is compared with disease burden[33] (Figure 2.15), Maseru's funding, while substantially high, looks justified given its large population and its high disease burden. Funding allocations in Berea, Mafeteng, Mohale's Hoek, and Quthing seem too low.

Figure 2.15: District per capita expenditure versus disease burden[34]



Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, *LDHS,* and QMMH annual accounts.

Expenditure for each economic category tends to mirror overall expenditure in the districts with a few exceptions. HR is the highest expenditure classification for the districts, making up 64 percent of total district expenditure. Operating costs is the second largest expenditure line item, accounting for around 15 percent of total expenditure in the districts, followed by drugs (14 percent) and transport (7 percent). The percentage of total district expenditure on

[33] Disease burden involves taking HIV prevalence in a district as a proxy.
[34] Size of bubble indicates the population of the district.

drugs is lower than the national average, because many drugs, including all ART medicines, are procured centrally, and those data are excluded from this district analysis. The finding suggests that to significantly reallocate district expenditure to better serve underfunded districts, the MoH should consider HR redistribution to improve equity of access for the population.

When looking at per capita district funding by economic classification, shown in Table 2.17, Quthing again looks to be underfunded across classifications, with Qacha's Nek appearing relatively well funded based on its population. The table also shows that the three most mountainous districts (Mokhotlong, Qacha's Nek, and Thaba-Tseka) have the highest transport expenditure per capita, which would be expected.

Table 2.17: Per capita district funding by economic classification

District	Per Capita HR Spend per District	Per Capita Drug Spend per District	Per Capita Operating Cost Spend per District	Per Capita Transport Spend per District
Berea	157	36	38	15
Butha-Buthe	186	41	41	18
Leribe	178	40	53	21
Mafeteng	142	31	50	13
Maseru	137	32	19	15
Mohale's Hoek	127	31	50	16
Mokhotlong	153	30	54	25
Qacha's Nek	322	56	44	43
Quthing	130	30	34	14
Thaba-Tseka	215	39	31	29
National Average	175	37	41	21

Sources: IFMIS expenditure tracking system and CHAL annual expenditure reports.
Notes: 1. The color coding in the table illustrates higher values in green and lower values in red, with a sliding scale between the two.
2. Figures do not include spending at QMMH, as the available breakdown of spending is not comprehensive.

Key Takeaways: District Expenditure

- Absolute government funding in the health sector is highest in Maseru by a wide margin, more than five times higher than the second-place district, Leribe. When accounting for district population, Maseru still has the highest per capita expenditure (995 LSL per capita), but the gap with the other districts is much smaller, at around

double the amount of the second-place district, Qacha's Nek (460 LSL). This figure is exaggerated by the presence of Maseru's QMMH, a referral hospital technically servicing all of Lesotho. Berea had the lowest average per capita expenditure in the country, at 281 LSL per capita, and should be looked at as a candidate for increased funding given its population size and high disease burden.

- HR is the highest expenditure category for the districts, making up 64 percent of total district expenditure. Operating costs is the second largest expenditure line item, accounting for around 15 percent of total expenditure in the districts, followed by drugs (14 percent) and transport (7 percent). The finding suggests that to significantly reallocate district expenditure to better serve underfunded districts, the MoH should consider HR redistribution to improve equity of access for the population.

2.5 Expenditure by Hospitals and Primary Health Centers

This section describes expenditure by district hospitals and primary health centers in Lesotho (Table 2.18 and Figure 2.16). Beginning with secondary-level expenditure, which consists of expenditure by both MoH- and CHAL-run district hospitals plus expenditure of QMMH[35], average expenditure over the three-year period was 37,386,750 LSL per hospital. Calculating the average excluding QMMH, we find that expenditure was 20,509,880 LSL per district hospital (excluding three specialist hospitals). Among district hospitals, Motebang Hospital in Leribe had the highest average total expenditure over the period, at 42,762,401 LSL, and Tebellong Hospital had the lowest total expenditure, at 11, 521,942 LSL. QMMH average expenditure is more than six times larger than the highest district hospital, Motebang. The highest rate of expenditure growth over the period goes to Leribe's Seboche Hospital, which increased nominal expenditure by 55 percent over the period FY 2013/14–FY 2015/16. Conversely, Mokhotlong Hospital showed the largest decline, with expenditure falling 15 percent in nominal terms over the same period.

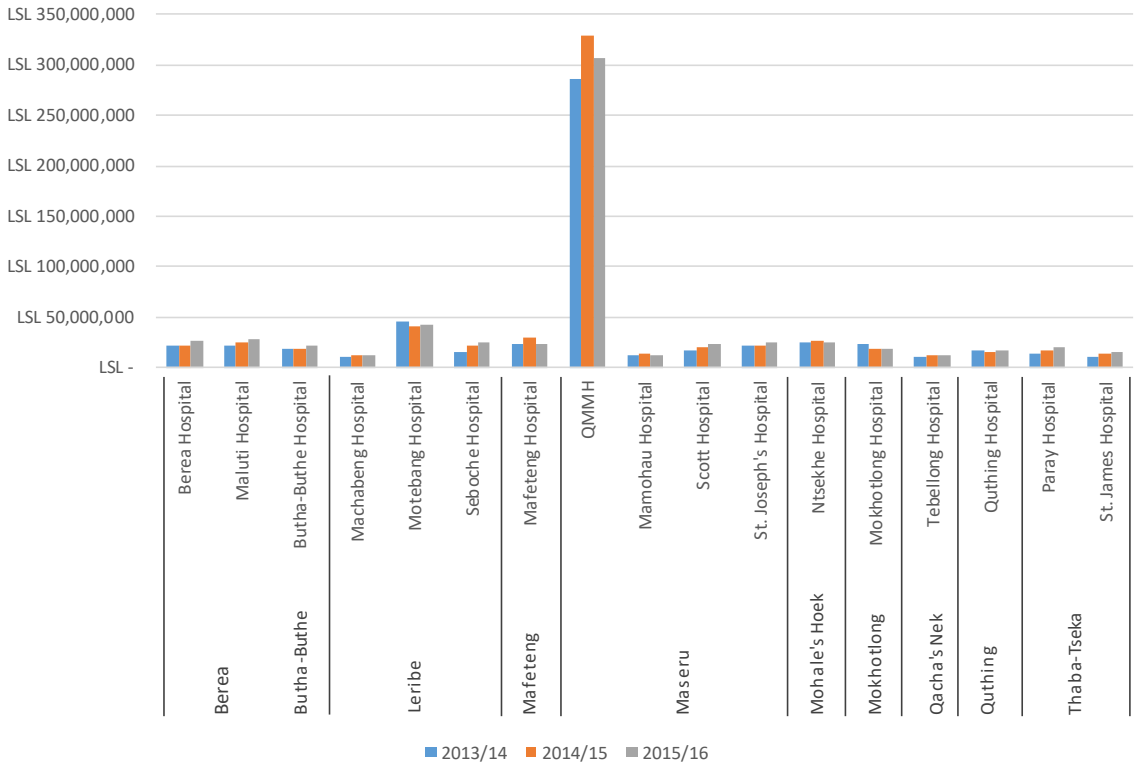
[35] Because QMMH includes the main hospital plus three filter clinics and the expenditure is not disaggregated between the two of them, we have taken 85 percent of QMMH spending and said it is by the hospital, and 15 percent for the filter clinics.

Table 2.18 Overall hospital expenditure by district and facility (LSL)

District	Hospital	2013/14	2014/15	2015/16	Average	14 - 16 Nominal Growth
Berea	Berea Hospital	21,928,155	21,065,399	26,333,255	23,108,936	20%
Berea	Maluti Hospital	21,891,085	25,715,849	28,702,650	25,436,528	31%
Butha-Buthe	Butha-Buthe Hospital	19,338,723	18,735,048	21,988,218	20,020,663	14%
Qacha's Nek	Machabeng Hospital	9,940,238	12,723,317	11,692,508	11,452,021	18%
Leribe	Motebang Hospital	45,502,203	40,915,459	41,869,540	42,762,401	-8%
Leribe	Seboche Hospital	15,858,603	21,504,795	24,528,398	20,630,599	55%
Mafeteng	Mafeteng Hospital	24,129,770	29,676,574	23,945,125	25,917,156	-1%
Maseru	QMMH	286,195,000	328,865,000	307,190,000	307,416,667	7%
Maseru	Mamohau Hospital	12,790,627	13,962,132	12,327,822	13,026,860	-4%
Maseru	Scott Hospital	17,729,892	20,284,783	23,317,033	20,443,903	32%
Maseru	St. Joseph's Hospital	21,683,153	21,518,439	24,511,506	22,571,033	13%
Mohale's Hoek	Ntsekhe Hospital	24,845,773	26,966,600	24,373,526	25,395,299	-2%
Mokhotlong	Mokhotlong Hospital	22,713,497	18,233,640	19,271,967	20,073,035	-15%
Qacha's Nek	Tebellong Hospital	10,343,924	12,172,477	12,049,425	11,521,942	16%
Quthing	Quthing Hospital	16,587,366	15,703,626	16,474,988	16,255,327	-1%
Thaba-Tseka	Paray Hospital	13,269,162	16,684,348	19,533,766	16,495,758	47%
Thaba-Tseka	St. James Hospital	10,668,315	13,471,210	15,000,331	13,046,619	41%

Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.
Note: The color coding in the table illustrates higher values in green and lower values in red, with a sliding scale between the two.

Figure 2.16: Total hospital expenditure by facility



Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.
Note: Filter clinics are not included.

Assuming hospitals are providing the same level of service quality, one can measure hospital efficiency by calculating the ratio of their inputs (expenditure by economic classification) and outputs (inpatients). There are two sources of information: (1) the data from the MoH information system (DHISL2), which provides information on inpatient and outpatient cases for each hospital facility; and (2) the total revenue from user fees that hospitals collect and return to the MoF. Unfortunately, the data available from LDHIS2 do not seem fully reliable for all hospitals[36], and therefore, in the following, we use the user-fee revenue collected as a proxy of their patients' volume. [37]

Looking at Table 2.19 and Figure 2.17, which use inpatient fee data from FY 2015/16, one can see that Berea, Maluti, and Tebellong hospitals have the highest total expenditure per inpatient in the country. Machabeng, Motebang, and Paray hospitals have the lowest expenditure per inpatient, representing either superior efficiency or underfunding for the number of patients being seen. There is a clear positive trend between the two variables, with a correlation coefficient of 0.69 using the selected dataset.

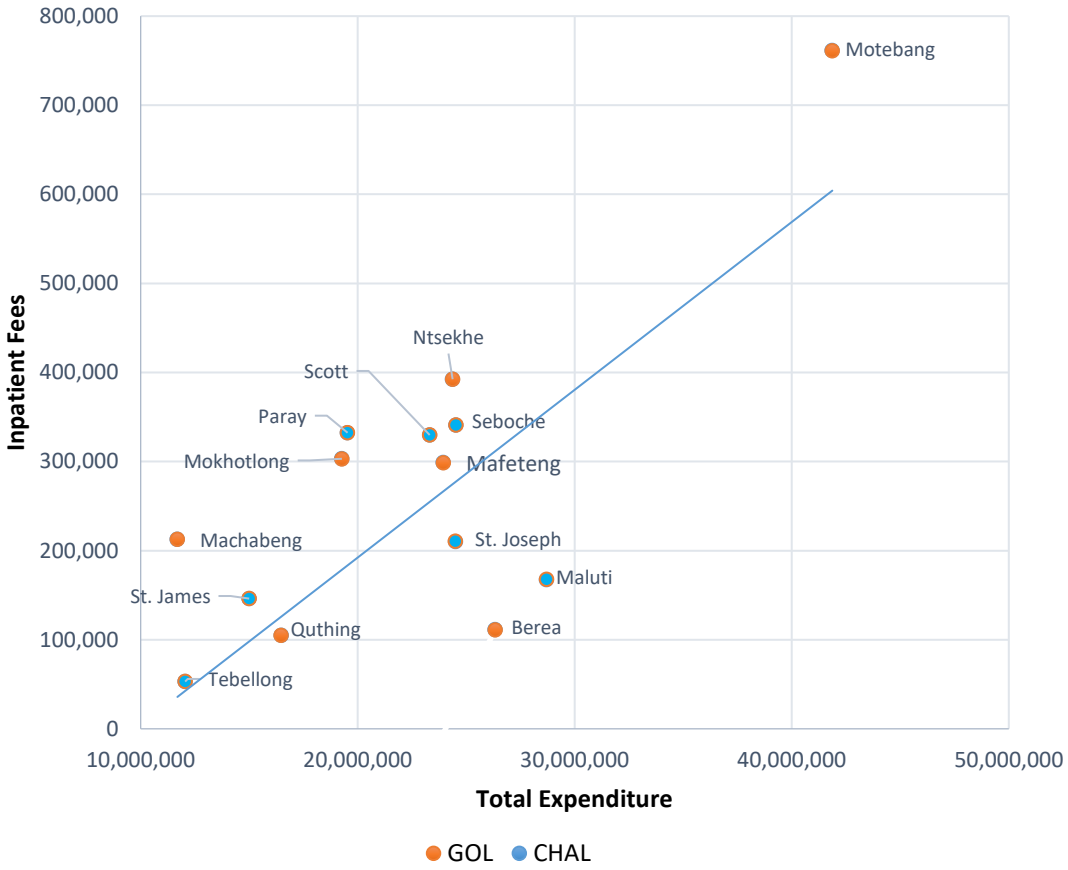
Table 2.19: Hospital expenditure per inpatient fee (as a proxy for inpatients) FY 2015/16

Hospital	Absolute Inpatient Fees	Total Expenditure per Inpatient Fee	Total HR Expenditure per Inpatient Fee	Total Transport Expenditure per Inpatient Fee	Total Drug Expenditure per Inpatient Fee	Total Operating Cost Expenditure per Inpatient Fee	Ownership
QMMH	3,534,856	87	35	NA	NA	NA	Other
Berea Hospital	111,132	237	141	6	37	53	GOL
Machabeng Hospital	212,610	55	48	2	6	0	GOL
Mafeteng Hospital	298,813	80	46	2	14	17	GOL
Maluti	167,607	171	125	4	24	13	CHAL
Mokhotlong Hospital	303,124	64	36	3	6	18	GOL
Motebang Hospital	761,133	55	31	1	8	14	GOL
Ntsekhe Hospital	392,415	62	36	1	11	13	GOL
Paray	332,331	59	44	3	6	4	CHAL
Quthing Hospital	104,780	157	98	5	26	28	GOL
Scott	329,772	71	49	1	11	8	CHAL
Seboche	340,980	72	45	2	13	4	CHAL
St. James	146,156	103	76	5	12	5	CHAL
St. Joseph's	210,264	117	81	3	18	7	CHAL
Tebellong	53,035	227	158	11	30	5	CHAL

Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.
Note: The color coding in the table illustrates higher values in green and lower values in red, with a sliding scale between the two.

[36] Other hospital data such as average length of stay, total bed days, occupancy rate (apart from a snapshot presented earlier in the report), and number of inpatients or outpatients are not available. Without these data, it is difficult to conduct any efficiency analysis, and we have therefore been limited in our conclusions.
[37] Each patient pays 15 LSL upon hospital admission and then 15 LSL for each day spent in the hospital. Then, the patient is subject to other user fees for surgeries or other medical treatment. Therefore, the total user-fee amount is only an imperfect proxy of actual inpatient volumes.

Figure 2.17: Hospital expenditure per inpatient fee (excluding QMMH)



Sources: IFMIS expenditure tracking system and CHAL annual expenditure reports.

When examining district hospital expenditure broken down by economic classification (Table 2.20), one finds that average HR, drugs, and operating cost expenditure all have strong positive correlations with average total expenditure (all have correlation coefficients of more than 0.85). On the other hand, average transport expenditure is weakly correlated with total expenditure, and probably more related to the geographic location of a hospital and other unknown factors.

Table 2.20: Average hospital expenditure per economic classification FY 2013/14–2015/16 (LSL)

District	Average Total Expenditure	Average HR Spend	Average Transport Spend	Average Drugs Spend	Average Op. Costs Spend
QMMH	307,416,667	123,833,000	NA	NA	NA
Maluti Hospital	25,436,528	17,951,940	700,153	3,875,015	1,995,727
Mamohau Hospital	13,026,860	8,817,957	526,117	1,717,094	711,839
Paray Hospital	16,495,758	12,180,762	788,256	1,902,649	1,086,291
Scott Hospital	20,443,903	14,386,674	311,205	2,856,777	2,335,148
Seboche Hospital	20,630,599	13,477,802	596,766	3,337,430	1,375,655
St. James Hospital	13,046,619	9,353,041	816,050	1,473,268	937,054
St. Joseph's Hospital	22,571,033	16,172,064	520,649	3,267,852	1,140,869
Tebellong Hospital	11,521,942	7,384,141	525,458	1,585,731	1,148,013
Berea Hospital	23,108,936	13,802,069	701,811	3,556,240	4,845,195
Butha-Buthe Hospital	20,020,663	13,025,512	784,538	3,016,126	3,064,364
Machabeng Hospital	11,452,021	8,886,525	660,987	1,092,231	812,278
Mafeteng Hospital	25,917,156	14,369,104	820,631	3,792,908	6,464,132
Mokhotlong Hospital	20,073,035	11,905,555	1,588,833	1,906,380	4,328,812
Motebang Hospital	42,762,401	24,490,734	1,172,782	5,787,155	10,355,285
Ntsekhe Hospital	25,395,299	13,757,584	731,782	3,978,874	5,946,117
Quthing Hospital	16,255,327	10,679,754	605,812	2,265,448	2,504,025

Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.
Note: The color coding in the table illustrates higher values in green and lower values in red, with a sliding scale between the two.

Tables 2.21 and 2.22 present, respectively, total expenditure at the primary health center level, and average expenditure per primary health care center in each district. Expenditure at the primary health center level consists of spending by both the GoL and CHAL plus the filter clinics operated by QMMH.[38] Maseru has the highest absolute expenditure for its primary health centers, while Mokhotlong has the lowest. Mokhotlong is one of the most rural and inaccessible districts in the country, and the lower spending here could be attributed to the inequitable distribution of resources.

Table 2.21: Primary health expenditure by district (LSL)

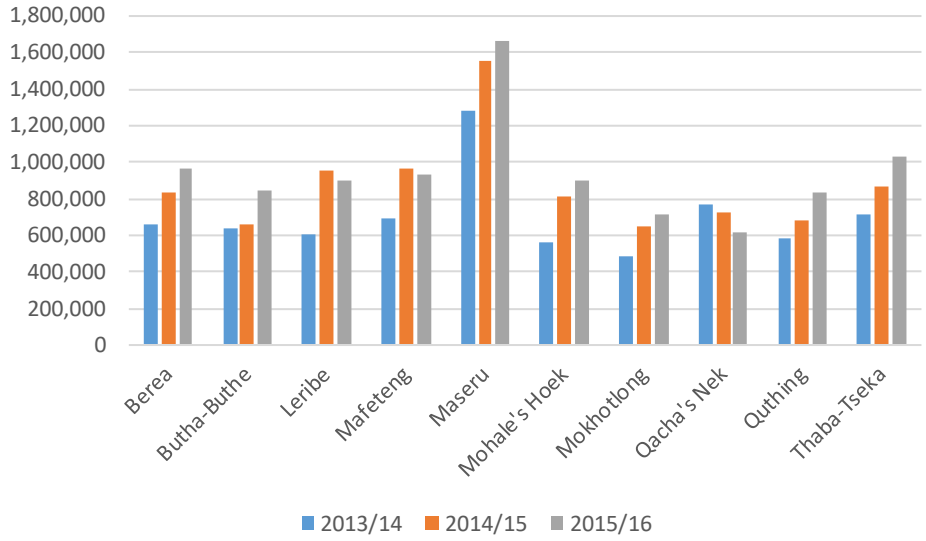
District	2013/14	2014/15	2015/16	Average
Berea	11,809,142	15,106,179	17,453,426	14,789,582
Butha-Buthe	8,892,406	9,225,209	11,913,135	10,010,250
Leribe	16,819,875	26,848,929	25,372,324	23,013,709
Mafeteng	13,877,838	19,262,825	18,703,305	17,281,323
Maseru 1**	81,164,404	97,804,532	105,025,587	94,664,841
Maseru 2**	50,505,000	58,035,000	54,210,000	54,250,000
Mohale's Hoek	9,486,164	13,861,761	15,376,259	12,908,061
Mokhotlong	5,800,110	7,790,012	8,548,407	7,379,510
Qacha's Nek	10,008,642	9,505,707	8,069,608	9,194,652
Quthing	7,061,210	8,229,282	10,080,166	8,456,886
Thaba-Tseka	10,796,254	13,075,029	15,519,994	13,130,426

Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.

[38] Expenditure by filter clinics is not properly disaggregated in the QMMH data, so we made an approximation that 15 percent of total QMMH expenditure is allocated to the filter clinics.

Notes: 1. The color coding in the table illustrates higher values in green and lower values in yellow/orange/red, with a sliding scale between the two.
2. Maseru 1 here is calculated as all the Maseru clinics, including the three Tsepong filter clinics, which are assumed to cost 15 percent of the total Tsepong operating costs. Maseru 2 excludes these clinics and their costs.

Figure 2.18: Per primary health center spending by district



Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and QMMH annual accounts.

Table 2.22: Per primary health center spending by district (LSL)

District	2013/14	2014/15	2015/16	Average
Berea	656,063	839,232	969,635	821,643
Butha-Buthe	635,172	658,944	850,938	715,018
Leribe	600,710	958,890	906,154	821,918
Mafeteng	693,892	963,141	935,165	864,066
Maseru	1,288,324	1,552,453	1,667,073	1,502,617
Mohale's Hoek	558,010	815,398	904,486	759,298
Mokhotlong	483,343	649,168	712,367	614,959
Qacha's Nek	769,896	731,208	620,739	707,281
Quthing	588,434	685,773	840,014	704,741
Thaba-Tseka	719,750	871,669	1,034,666	875,362

Sources: IFMIS expenditure tracking system and CHAL annual expenditure reports.
Note: The color coding in the table illustrates higher values in green and lower values in red, with a sliding scale between the two.

Average expenditure across districts over the three-year period was 755,787 LSL per primary health center, excluding QMMH filter clinics. As we can see, there is quite significant variation in spending by health center across various districts. While Thaba-Tseka and Maseru are well

resourced and even potentially overfunded, Mokhotlong and other districts suffer from comparatively lower spending per primary health center.

Note that primary care financing (as well as hospital financing) for government facilities is input based (so much for staff, so much for equipment, so much for medicines, and so on), and based on historical allocations. However, a new project supported by the World Bank is introducing an innovative way of financing primary care (and, more recently, hospitals), called Performance Based Financing (PBF), with extremely promising initial results, as presented in Box 1.

Box 1: PBF and the Health Sector Performance Enhancement Project (HSPEP)

PBF experience in Africa. The PBF approach to financing is meant to **c**reate incentives for health facility managers and health workers to expand utilization of important public health services and improve their quality by linking facility payments to service delivery and quality indicators, and offering health workers bonuses linked to facility performance.
There are promising indications from countries in Sub-Saharan Africa that suggest that PBF may be a useful approach to addressing the types of challenges faced in Lesotho. PBF has been implemented in a growing number of countries. Many studies around the world have shown a positive association between PBF and health service utilization, and some with improvement in quality. In Africa, to date, only two experimental studies of the impact of PBF on health service provision and utilization have been completed and formerly published, in Rwanda and the Democratic Republic of the Congo. In Rwanda, PBF proved an efficient way to increase health service quality and utilization, resulting in improved child health outcomes. In the Democratic Republic of the Congo, Elise Huillery and others (2013) found that financial incentives improved effort from health workers to increase targeted service provision, but demand for health services was not responsive to these incentives.[39] In urban areas of Cameroon, results have also shown that the PBF had a positive and significant impact on most essential aspects of quality of care.[40]

HSPEP (previously Maternal and New-born Health Project [MNH-PBF]). With support from the World Bank, the MNH-PBF has been in place since 2014 to increase the use and improve the quality of health services by:

- Allowing facilities to retain PBF funds for use at the operational level, and giving facilities some management autonomy on how to use these funds;
- Improving governance and accountability through better verification and oversight of performance and introducing incentives for good performance; and
- Improving the alignment between resource allocation and maternal and child health needs by purchasing priority service delivery indicators at higher rates.

[39] Huillery, E., and others, 2014. *Performance-Based Financing, Motivation and Final Output in the Health Sector: Experimental Evidence from the Democratic Republic of Congo,* Working Paper, Sciences and Economics Discussion Papers.
[40] Zang, O., and others, 2015. *Impact of performance-based financing on health-care quality and utilization in urban areas of Cameroon, African Health Monitor,* Issue 20, October.

A mid-term assessment of the project has shown improvement on quality. On average, health facility quality-of-care scores in the target districts increased from 59.6 percent at the baseline (2013 for the two pilot districts and 2015 for the four-remaining phase II districts) to 70.7 percent as of June 2016. As the quality improvement process in the project is thought of as iterative, a planned revision of the quality checklist started in 2016 to make it more stringent through better process verification and the introduction of simulation exercises and vignettes.

Since December 2016, the MNH-PBF project in Lesotho has been substantially restructured and renamed Health Sector Performance Enhancement Project (HSPEP) to encompass broader health system issues. The modifications in the project design were meant, among other things, to increase its focus on clinical quality. Nevertheless, the restructuring has kept the PBF approach as its key feature and has adjusted its component at the district hospital level to focus more on the quality of services and provision of individual bonuses to hospital staff. In addition, the revised design has expanded the scope of activities to provide additional capacity-building support mainly to improve the integration of the QMMH network into the rest of health system.

Operation research is being conducted to assess the effect of the project on quality improvement and efficiency in the health system.

Key Takeaways: Expenditure by Hospitals and Primary Health Centers

- The average total expenditure over the three-year period was 37,386,750 LSL per hospital. Calculating the average excluding QMMH, we find that expenditure was 20,509,880 LSL per district hospital.
- Among district hospitals, Motebang Hospital in Leribe had the highest average total expenditure over the period, at 42,762,401 LSL, and Tebellong Hospital had the lowest total expenditure, at 11,521,942 LSL.
- Berea, Maluti, and Tebellong hospitals have the highest total expenditure per inpatient in the country. Machabeng, Motebang, and Paray hospitals have the lowest expenditure per inpatient, which we believe represents underfunding for the number of patients being seen.
- Average expenditure over the three-year period was 755,787 LSL per primary health center. Maseru has the highest absolute expenditure for its primary health centers, while Mokhotlong has the lowest. Measuring spending per primary health center, Thaba-Tseka and Maseru are well resourced and even potentially overfunded, and Mokhotlong appears to have underfunded primary health centers.

- The introduction of financial incentives for increasing service delivery and improving quality through the Health Sector Performance Enhancement Project is showing promising results.

3. Administration and Purchases of Health Services

3.1 Breakdown of Administration Payments

As noted in Section 2, the cost center Administration accounts for the highest nominal expenditure for the MoH. The term *Administration,* however, does not clearly describe the true use of these funds (Table 3.1). More than 90 percent of the cost center is consistently made up of purchases of health services or outsourced health services, which are subvention payments that the MoH makes to various private providers, including NGOs, and other individual healthcare service providers, including payments for the referral of patients to tertiary-care South Africa hospitals. The remaining <10 percent represents primarily the leasing of office buildings (29 million LSL in FY 2015/16) and salaries for administrative personnel (17 million LSL in FY 2015/16).

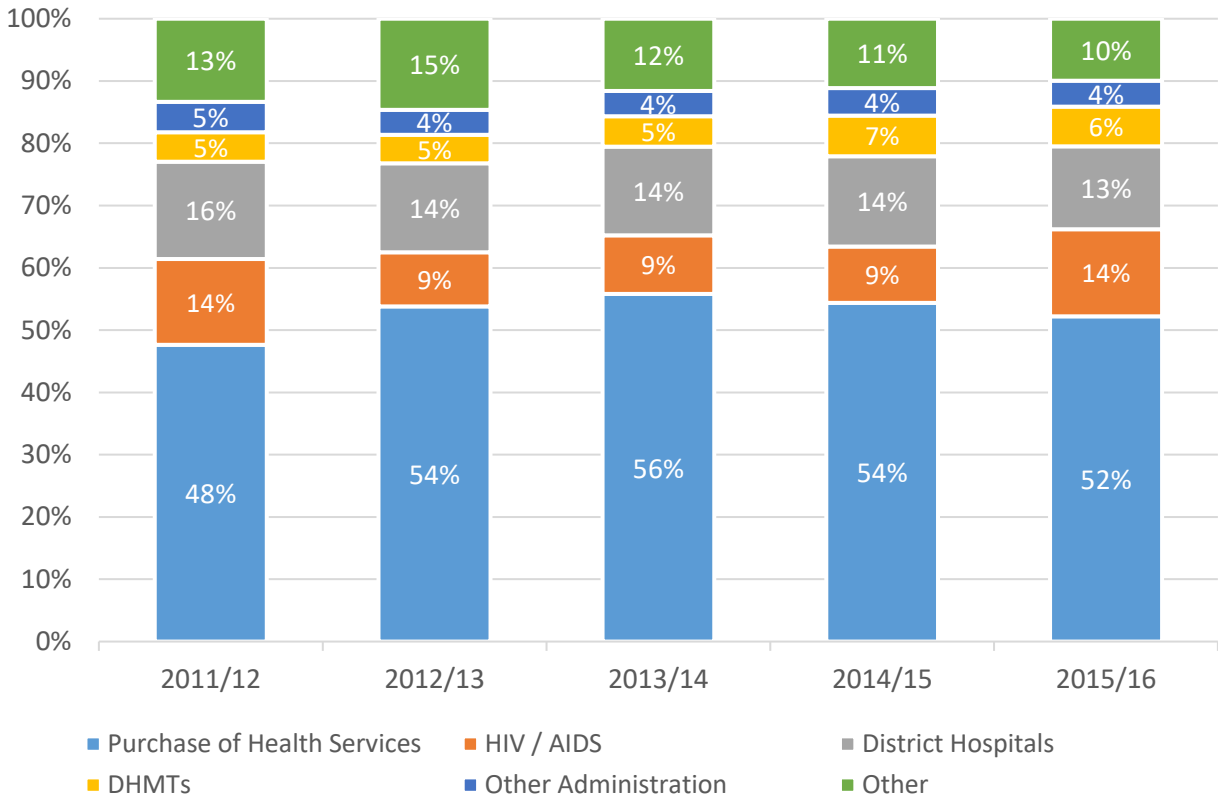
Table 3.1: Breakdown of administration expenditure

	2011/12	2012/13	2013/14	2014/15	2015/16
Purchase of Health Services	455,620,869	637,840,216	856,668,898	837,852,000	869,640,547
Growth (%)	-	*40%*	*34%*	*-2%*	*4%*
% of total	*91%*	*94%*	*93%*	*92%*	*93%*
Other	46,597,434	47,621,122	62,195,099	68,467,676	69,416,074
Total Administration Expenditure	502,218,303	685,461,338	918,863,997	906,319,676	939,056,621
Growth (%)	-	36%	34%	-1%	4%

Source: IFMIS expenditure tracking system.
Note: FY 2011/12 numbers are adjusted to include all payments to Tsepong, which were partly allocated to a separate cost center in FY 2010/11.

As shown in Figure 3.1, the government has consistently paid upward of 50 percent of its recurrent budget on outsourced health services, which accounted for 52 percent in FY 2015/16.

Figure 3.1: Percentage of government recurrent budget paid to all outsourced service providers



Source: IFMIS expenditure tracking system.

In FY 2015/16, the MoH maintained subvention arrangements with 10 separate non-governmental healthcare providers, paying a total of 869.6 million LSL. While some of these smaller relationships have changed from year to year, the majority are longstanding partnerships with well-recognized service providers.

Table 3.2: Breakdown of purchase of health services

Healthcare Providers	2011/12	2012/13	2013/14	2014/15	2015/16	FY2012/FY 2016 Nominal Increase
Tsepong (Pty) Ltd	312,076,632	463,349,852	533,405,726	555,112,309	517,005,650	12%*
Christian Health Association of Lesotho	121,360,788	150,973,504	181,163,819	236,987,841	268,919,165	121%
Baylor International Pediatric AIDS Inst	16,345,260	16,474,072	23,463,944	31,498,088	31,498,088	93%
Universitas Hospital	0	0	26,942,810	0	30,000,000	-
Pelonomi Hospital	0	0	0	0	7,905,133	-

Lesotho Red Cross Society	3,000,000	2,287,954	4,800,000	3,600,000	5,800,000	93%
Blue Cross Thaba Bosiu	1,073,262	2,926,824	4,571,560	4,547,694	5,625,000	424%
Riders for Health	1,740,960	1,828,008	3,053,912	3,053,912	3,556,001	104%
Commonwealth Regional Health Community	0	0	0	0	1,368,332	-
Partner 4 Life	0	0	0	0	7,343	-
Chinese Doctors	0	0	0	40,000	0	-
Pioneer Office National	23,968	0	0	0	0	-100%
Unspecified Deductions/Rounding	-1	2	32,578,494	-3	-1,125,000	-
Total Payments to Healthcare Providers	455,620,869	637,840,216	856,668,898	837,852,000	869,640,547	91%

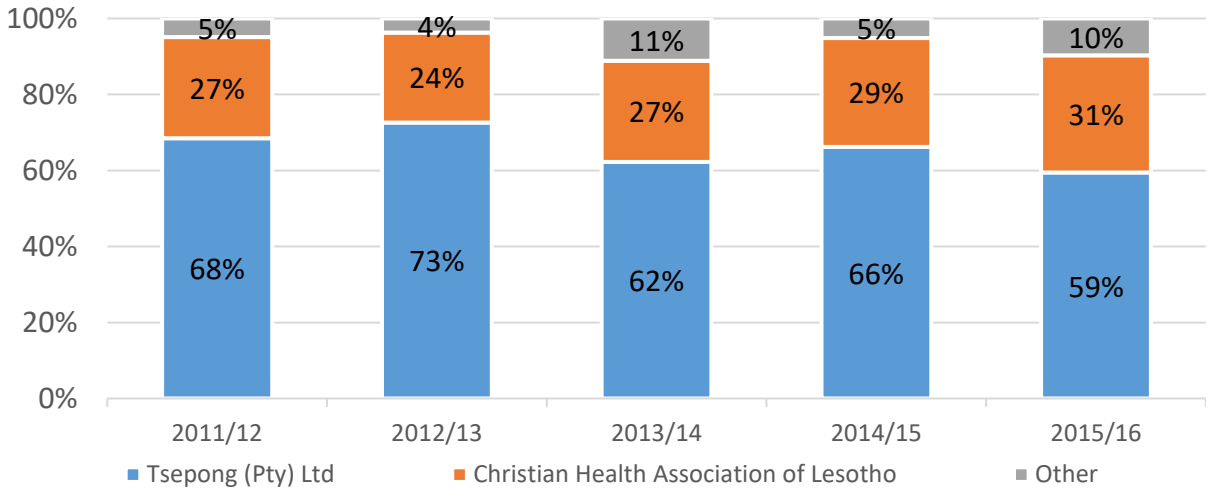
Source: IFMIS expenditure tracking system.
Note: Tsepong's percentage increase covers FY 2013/FY 2016 to be in line with the first full year of operation of QMMH.

Since its inauguration, a large share of the payments to non-government healthcare providers have gone to Tsepong, the consortium operating QMMH, its gateway clinic, and the three primary-level health facilities in Maseru. Over the period covered in this report, Tsepong and CHAL together have consistently accounted for at least 90 percent of outsourced health provider payments. Payments to CHAL have increased by 121 percent over the period. Payments to Tsepong have increased by 12 percent in nominal terms since its first year of full operation, and by a CAGR of 3.7 percent.

Besides these two providers, the government has maintained longstanding relationships with other significant partners (Figure 3.2). The third largest partner in FY 2015/16 was the Baylor International Pediatric Aids Institute (31.5 million LSL subvention). Baylor is an international healthcare provider that in Lesotho operates the Baylor College of Medicine/Bristol-Myers Squibb Children's Clinical Centre of Excellence for pediatric HIV, as well as five Baylor College of Medicine/Texas Children's Hospital/Bristol-Myers Squibb Satellite Centers of Excellence in the Botha-Bothe, Leribe, Mohale's Hoek, Mokhotlong, and Qacha's Nek districts. Baylor also provides medical expertise and clinical training and mentorship to MoH hospitals and health centers throughout the country.

Because there are some health services that are not offered by any hospital facility in Lesotho (cancer treatment, for example), the MoH funds the provision of these services at Universitas and Pelonomi hospitals in Bloemfontein. Payments to Universitas came to 30 million LSL in FY 2015/16, making it the fourth largest service provider. Payments to Pelonomi totaled 7.9 million LSL in FY 2015/16, making it the fifth largest service provider.

Figure 3.2: Breakdown of purchase of health services by different private providers



Source: IFMIS expenditure tracking system.

Key Takeaways: Breakdown of Administration Payments

- The government has consistently paid upward of 50 percent of its recurrent budget on outsourced health services, as they accounted for 53 percent in FY 2015/16.
- CHAL and Tsepong have consistently accounted for at least 90 percent of outsourced health provider payments.
- Payments to CHAL have increased by 121 percent over the period, which is in line with the nominal increase in DHMTs, but not GoL district hospital expenditure (135% for the former, 31% for the latter, with FY 2012/13 as the baseline). Payments to Tsepong have increased by 12 percent in the period FY 2012–FY 2016, or by a CAGR of 3.7 percent.

3.2 Expenditure on Queen Mamohato Memorial Hospital

The Queen Mamohato Memorial Hospital (QMMH) is a 425-bed national referral hospital operated by a private consortium (Tsepong) on behalf of the Government of Lesotho. This public–private partnership (PPP) was signed to replace the previous national referral hospital, Queen Elizabeth II (QE-II). The primary goal of the agreement was to leverage private sector know-how and funding to construct and run a new tertiary hospital facility, meant to become the referral hospital for the whole country. The final PPP arrangement included both the construction and operation of QMMH and an adjacent gateway clinic for patient triage and delivery of outpatient services, and refurbishment and operation of three filter clinics in the Maseru district: Likotsi, Mabote, and Qoaling. This initiative was financed by a loan from the Development Bank of South Africa, contributions from the GoL (400 million LSL), and small equity capital investment by Tsepong shareholders.

The GoL makes monthly payments to Tsepong based on a contractual agreement that the hospital and its filter clinics provide health services for up to a maximum threshold of 20,000 inpatients and 310,000 outpatients per annum. Payments to Tsepong are bundled payments that cover annual operating expenses for QMMH, the gateway, and the three filter clinics, debt repayment for the bank loan, management fees, and all over overhead costs.

In years when patient volumes exceed the maximum threshold, Tsepong is entitled to additional payments for each patient beyond the maximum, termed “extra services.” These are based on a predetermined tariff rate per patient, which is adjusted yearly based on inflation. In most years, the maximum threshold has been reached in September or October, and so all services provided in the last months of the year have been paid as extra services.

After the opening of QMMH in October 2011, early analyses of its performance indicated higher levels of utilization, quality, and patient satisfaction in comparison to the previous national referral hospital, QE-II (Box 2). [41]

[41] Taryn, V., and others, 2013. *End line study for Queen Mamohato Hospital Public Private Partnership*. Centre for Global Health and Development, Boston University; Department of Family Medicine, Boston University; Lesotho Boston Health Alliance, Maseru. September.

Box 2: Performance survey of QMMH and QE-II

Background. A comparative survey between the early operation of QMMH and QE-II, conducted by Boston University, provided quantitative and qualitative results for key health indicators as part of the Global Program for Output Based Aid grant completion process. The data were collected for the 2012 calendar year for the QMMH network (hospital and clinics), while the QE-II and filter clinic baseline data were collected for the 2007 fiscal year. Some of the main results of this study include the following:

*Utilization: t*he QMMH network of facilities (hospital, gateway clinic, and three filter clinics) exceeded the outputs observed for QE-II in multiple aspects:

- 346 visits per day at QMMH outpatient clinic (includes gateway on hospital grounds but not filter clinics) versus 265 for QE-II;
- 374,000[42] annual outpatient visits (including filter clinics) versus 165,000 for QE-II (126 percent increase); and
- 23,300 annual inpatient admissions versus 15,400 for QE-II (51 percent increase), including 7,400 deliveries versus 5,100 for QE-II (45 percent increase) for the year.

Patient outcomes: The QMMH network exceeded QE-II in health outcome results:

- 41 percent decline in overall mortality (from 12 percent at QE-II to 7.1 percent at QMMH);
- 29 percent of deaths within 24 hours of admission at QMMH, with enhanced access to life-saving medicines, surgery, and emergency care, versus 35 percent at QE-II (17 percent decline);
- 65 percent decline in pediatric pneumonia death rate (from 34 percent at QE-II to 12 percent at QMMH);
- 22 percent decline in hospital-based stillbirths (50 percent decline including filter clinics);
- 10 percent decline in maternity death rate; and
- 70 percent survival of low-birth-weight infants (<1,500 grams) at QMMH, virtually all of whom would have died earlier at QE-II.

The report indicates that if QE-II could have performed as well as QMMH, approximately 683 additional lives would have been saved per year.

Accreditation: The QMMH network including the hospital and three filter clinics has been fully accredited by the Council for Health Service Accreditation of South Africa[43]. This accreditation was not previously attained by any health facility in Lesotho, and by only one other public hospital in SSA besides South Africa.

[42] After this report was finalized, Tsepong provided data that were revised due to system problems at the filter clinics. Revised estimates provided a lower figure of total outpatient visits of 348,782.

[43] Detailed information is available at http://www.cohsasa.co.za/health-quality-improvement-international.

The preliminary cost analysis also showed that, overall, QMMH was delivering better quality health services to a larger number of patients for 22 percent less cost per Inpatient Day Equivalent (IDE)[44] than QE-II.

Such evaluations, with a focus on quality of care and health outcomes, have unfortunately not been repeated in more recent years. The focus has instead shifted to QMMH fiscal costs, and concerns have been raised about the financial sustainability of the contract, especially because of the unexpected extra patient demand, leading to extra fees.

We conducted an analysis of expenditure on Tsepong from FY 2012/13 to FY 2015/16[45]. Table 3.3 shows that actual expenditure on Tsepong increased consistently in the first three full years of operation (FY 2012/13–FY 2014/15), but dropped by almost 9 percent in FY 2015/16. The drop in the last year occurred mainly because the GoL had not yet paid the extra services claimed by Tsepong; these are still due per the contract (see below). If these extra services were considered, the hospital would have continued to increase its budget by 7 percent between FY 2014/15 and FY 2015/16.

Table 3.3: Actual annual expenditure on Tsepong (LSL)

Financial Year	Invoiced Amount	Actual Expenditure (gross of VAT)	Actual Expenditure (net of VAT)	% Annual Increase in Actual Expenditure
2012/13	435,551,863	463,349,854	409,861,029	-
2013/14	575,292,187	533,405,726	463,580,208	13.1%
2014/15	598,116,105	555,112,308	482,436,248	4.1%
2015/16	641,992,321	517,005,650	439,433,548	-8.9%

Source: Invoices submitted by Tsepong to the MoH.

Using this information, we can estimate the share of the recurrent health expenditure and total health expenditure absorbed by the health network PPP, with the numerator being the actual net payments to Tsepong in each fiscal year (column 2 in Table 3.4), and the denominator being recurrent and total MoH expenditure (columns 3 and 5).

[44] IDEs are a standard measure of service efficiency.
[45] QMMH started operations in October 2011.

Table 3.4: Proportion of recurrent and total MoH expenditure accounted for by net payments to QMMH (LSL)

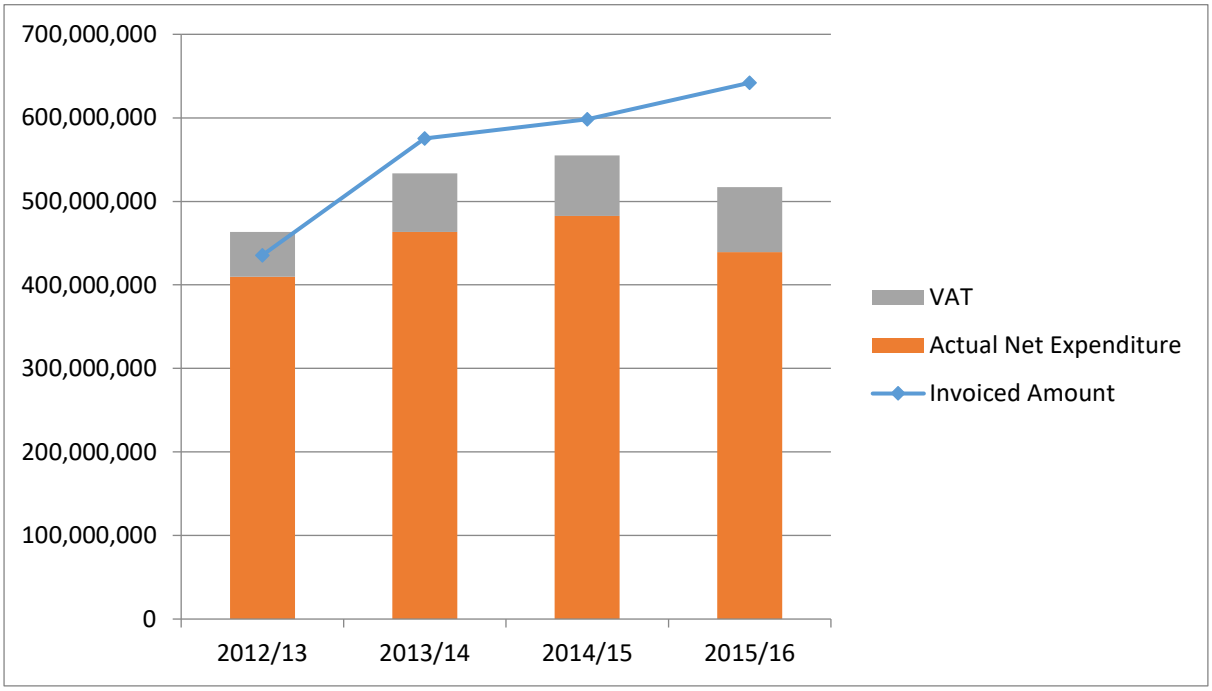
Year	Payments to Tsepong Actual (net of VAT)	Recurrent MoH Expenditure	Payments to Tsepong as % of MoH Recurrent Expenditure (net of VAT)	Total MoH Expenditure	Payments to Tsepong as % of Total MoH Expenditure (net of VAT)
2012/13	409,861,029	1,185,607,703	34.57%	1,659,967,396	24.69%
2013/14	463,580,208	1,534,099,067	30.22%	1,753,053,462	26.44%
2014/15	482,436,248	1,540,337,501	31.32%	1,645,175,033	29.32%
2015/16	439,433,548	1,665,112,630	26.39%	1,728,067,324	25.43%
Average	448,827,758	1,481,289,225	30.62%	1,696,565,804	26.47%

Source: Authors' calculations based on Tsepong, MoF, and MoH information.

Table 3.4 shows that Tsepong has absorbed on average 30.6 percent of total recurrent MoH expenditure and 26.5 percent of total MoH health expenditure since QMMH started its operation. If we use invoiced amounts (net of VAT) instead of paid amounts, Tsepong has absorbed on average 33 and 29 percent, respectively, of total recurrent and total MoH health expenditure. Since FY 2013/14, the amount paid by the government has been lower than the amount invoiced by Tsepong[46], and the difference is highest for FY 2015/16, when no extra services were paid, as Figure 3.3 indicates.

[46] In FY 2012/13 the GoL paid Tsepong more than claimed during the year to reimburse the hospital for some of its initial activities carried out and claimed in FY 2011/12.

Figure 3.3: Invoice and expenditure trends for Tsepong PPP

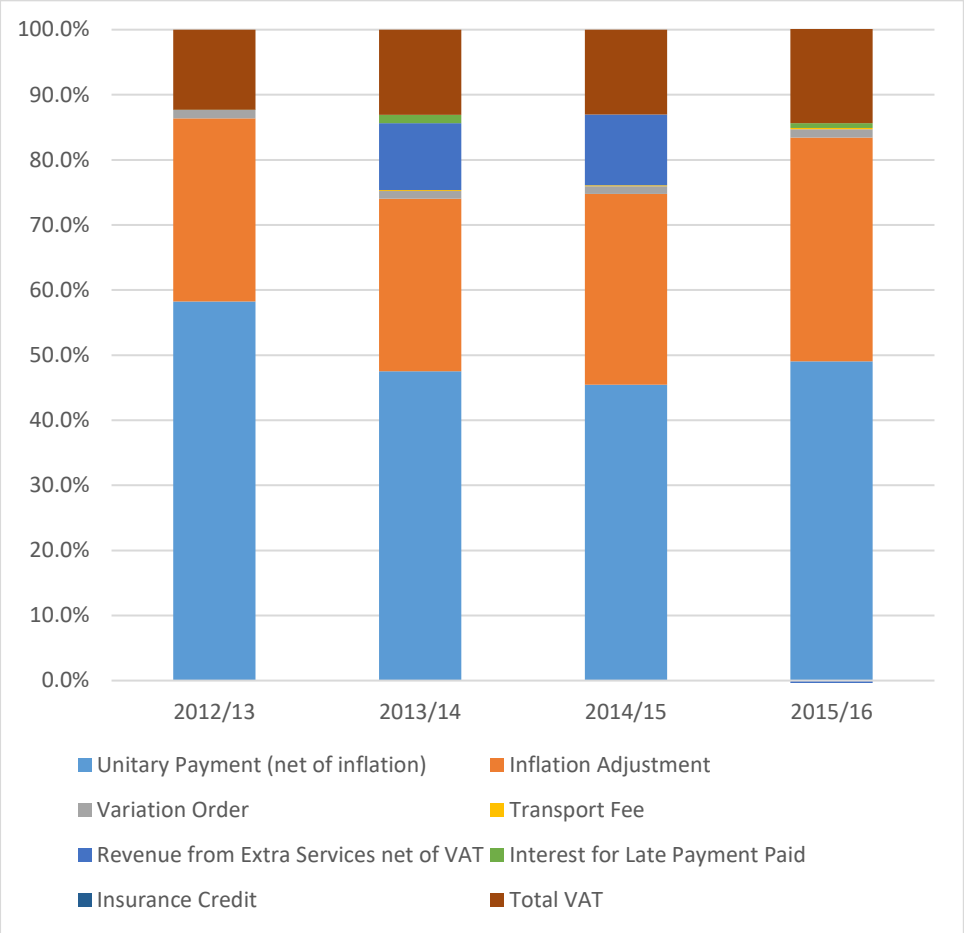


Source: Invoices submitted by Tsepong to the MoH.

3.3 Main Components of Tsepong Payment

Based on the information received, it is also possible to present the different components of the payment to Tsepong. Figure 3.4 sheds some light on the composition of Tsepong's revenue and how it has changed over time. Examining Figure 3.4, we see that the unitary payment, the inflation adjustment, and the extra services are the main components of Tsepong's revenue, while other items are of minor financial significance.

Figure 3.4: QMMH revenue breakdown



Source: Authors' calculations based on Tsepong and MoH information.

Unitary payment: The contract is formally a "block contract" (UK terminology), where the private operator committed to provide 260,000–310,000 outpatient visits and 16,000–20,000 inpatient visits annually in exchange for a lump sum, or "unitary payment," equal to 253.57 million LSL in 2008.

Inflation indexation: Each year since 2009 the unitary payment has been adjusted for inflation and medical inflation. Specifically, when the contract was signed, it was agreed that in addition to the adjustment to the Lesotho consumer price index, the unitary payment (and the extra payment for "extra" services) to the Operator would be adjusted to a measure of medical inflation (in fact, the difference between medical and general inflation) and utilities inflation, per a weighted formula[47].

[47] The unitary payment is escalated annually by a composite inflation index (CI) formula:

Payment for extra services: The cost of treating "extra patients" (those above the maximum thresholds of 20,000 inpatients and 310,000 outpatient cases prescribed in the PPP agreement) is paid on a per case basis (50 LSL for each extra outpatient and 8,326 LSL for each inpatient case treated at 2007 prices; these payments are equivalent to 84.43 LSL and 14,059.57 LSL, respectively, in 2015 prices). Each year since 2011 the Operator has exceeded these thresholds by approximately 15–20 percent. On average, since FY 2013/14, extra services accounted for approximately 19 percent of the total invoiced amount made out to the Government of Lesotho.

Note that expenditure on the PPP may be subject to future correction, mainly because there are significant payments for extra services (137,919,290 LSL as of 2016), invoiced by Tsepong, but not yet paid. The MoF has not budgeted ex ante the amount of extra services to be paid, and it has only partially paid them or paid them with delay. In addition, there are several matters that are now subject to arbitration because the government and Tsepong disagree on the payment terms and amount. These contested matters include, among others, interest charged on late payments, certain components of the payments for extra services (linked to 35 beds for privately paying patients that were never opened[48]), the annual inflation rate of escalation for patient tariffs, and the raise in health workers' salaries in 2013.[49]

CI = (A x 0.38) + (B x 0.57) + (C x 0.03) + (D x 0.02)—where A = Lesotho CPI variation vis à vis base (April 1, 2007); B = composite medical index variation vis à vis base = CPI+ (SA Med CPIX - SA CPIX); where SA Med CPIX is South Africa medical care and health expenses inflation index and SA CPIX is South Africa CPI for metropolitan and urban areas; C = medical products and equipment inflation index; D = utility index.

[48] Early in the PPP operation, Tsepong informed the government that it did not intend to offer these beds to paying patients, but rather wanted to use them as public beds (in addition to the existing capacity of 390 beds) to treat inpatient cases under the PPP, and charge government extra services for these patients. The GoL asserts that Tsepong is contractually required to operate the private ward, and the GoL intended to receive a share of the revenue from these private patients. In addition, the unitary payment is currently reduced to account for rental of private spaces to Tsepong and the cost of shared services.

[49] In spring 2013 the government significantly increased salaries for doctors (by 40 percent), assistant nurses (by 70 percent), and confirmed nurses (by 50 percent). The Operator claimed that this was "unforeseen conduct" by the GoL, and made a claim for compensation. In addition, the Operator decided not to follow the government's lead, and did not increase its own staff salaries equally. That created staff retention problems for the hospital.

3.4 Queen Mamohato Memorial Hospital Productivity

We compared the share of the budget absorbed by QMMH to the share of patients treated as a gross measure of productivity. We found that QMMH is the dominant facility nationwide in terms of the number of inpatients who seek care there, although the percentage varies depending on which inpatient metrics are used. By using inpatient fees as a proxy for inpatients/hospital admissions (Section 2.5 and footnote 37), we can see that in FY 2015/16 QMMH accounted for 33 percent of all the inpatients in Lesotho, compared to 52 percent for the 12 government facilities combined and 15 percent for the eight CHAL facilities combined (Table 3.5).

Table 3.5: QMMH inpatient fees (LSL, millions) as a percent of total

Facility	In-patient Fees (LSL, m)	% of Total
Government	5.46	52%
QMMH	3.53	33%
CHAL	1.58	15%
Total	**10.6**	**100%**

Sources: IFMIS expenditure tracking system, CHAL annual expenditure reports, and Tsepong user-fee report.

As described in Table 3.6, using the patient fees revenue metric, QMMH spends more per inpatient then GoL hospitals, but less than CHAL. This holds across both total expenditure and expenditure on HR. It is not surprising that QMMH spends more than government hospitals. Given its status as the only national tertiary hospital, QMMH would seemingly see more complex cases, thus we can assume that those services need additional resources and specialization. The facility spends less per patient than CHAL, however, a finding that needs further investigation.

Table 3.6: FY 2015/16 hospital expenditure comparison (LSL)

2015/16 Metrics	Government	CHAL	QMMH
Total Hospital Spend	221,666,611	159,970,931	307,190,000
Total HR Spend	132,232,511	112,029,377	110,925,000
Total Inpatient Fees	5,460,426	1,580,145	3,534,856
Total Spend per Inpatient Fee	41	101	87
Total HR Spend per Inpatient Fee	24	71	31

Source: Invoices submitted by Tsepong to the MoH.
Note: QMMH costs do not include the three filter clinics, which represent an estimated 15 percent of total QMMH operating costs.

Using another metric for inpatients, that is, the LDHIS2 data, over the period 2012–14, QMMH treated approximately half of the total number of patients who sought inpatient treatment in Lesotho[50]. Results are presented in Table 3.7.

Table 3.7: Inpatient admissions to QMMH as a share of all Lesotho hospitals

Financial Year	Total Number of Inpatients	Number of Inpatients in QMMH and Clinics	% of Total Inpatients	Number of Inpatients in Government and CHAL Hospitals	Of which CHAL Hospitals	Of which GoL Hospitals
2012	49,195	24,591	50%	24,604	12,828	11,776
2013	48,815	25,848	53%	22,967	7,721	15,346
2014	45,960	24,638	54%	21,322	7,607	13,715

Sources: LDHIS2, MoH, Planning Unit, CHAL accounts, and Tsepong.

In conclusion, whichever metric is used, QMMH appears to be the dominant hospital service provider in Lesotho, and its unit costs of provision seem to be in line with the unit costs of other hospitals because of the large volume of patients who seek care at QMMH. Given that QMMH accounts for less than 20 percent of the total number of hospital beds in the country, these results suggest that productivity is higher at QMMH than in the rest of the hospital system. It is worth repeating that the evidence presented in this section is just suggestive, as we cannot draw any final conclusions without information on the case mix, quality of services, and other data points.

Key Takeaways: Expenditure on Queen Mamohato Memorial Hospital

- The QMMH PPP has been a source of opposing views since its inception, with some of its advocates pointing at positive clinical results and efficiency gains, and detractors emphasizing its cost trajectory. In reality, we do not have recent assessments based on clinical outcomes, while in terms of the fiscal costs, Tsepong has absorbed approximately one-third of the total recurrent expenditure of the MoH. Overall, based on the data available to date, we could perhaps say that the cost trajectory has been within the norm and on par with the share of the services provided by the hospital.

[50] Over the same period, CHAL hospitals and clinics (a total of 81 facilities) treated on average roughly 40 percent of the number of inpatient cases treated at QMMH and associated clinics.

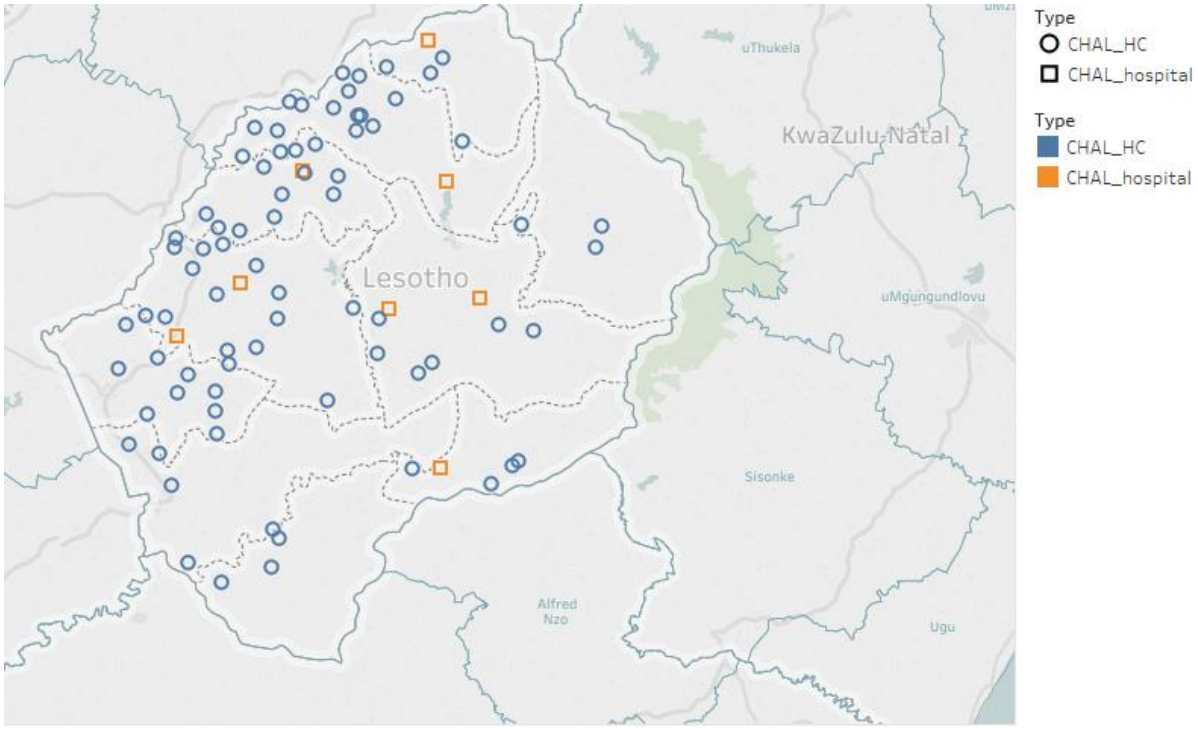
- Tsepong is entitled to additional payments for each patient beyond the maximum upper limit. In most years, the maximum for both inpatients and outpatients has been reached in September, and these extra payments account for around 19 percent of Tsepong's total subvention payment. These added costs and the contested payments now subject to arbitration could impact the sustainability of the contract.
- There is a need to obtain better information to reach final conclusions on the PPP efficiency. For example, the hospital does not seem to be over-utilized (the occupancy rate at QMMH during FY 2015/16 was 74 percent). However, more in-depth analysis of the inpatient cases treated at QMMH is needed to understand whether most hospitalized cases were appropriate or could instead have been treated more cost-effectively elsewhere. It is also necessary to assess whether unitary payment for extra inpatient services is or is not in line with marginal (as opposed to average) costs of provision.

3.5 Expenditure on CHAL Subvention Agreement

CHAL is an NGO that consists of six separate churches that, since 1973, have provided health services. Together, the churches operate 61 primary health centers across the country, as well as eight district hospitals and four teaching facilities (Figure 3.5). The group accounts for 23 percent of the primary health centers in Lesotho. The MoH has a Memorandum of Understanding (MoU) with CHAL that dictates that a lump-sum financial transfer be paid in the form of a subvention payment on an annual basis. The MoU provides for harmonized service provision, salaries, compensation for abolished user fees[51], and certification of CHAL facilities. The facilities are entirely dependent on transfers from the MoH recurrent budget.

[51] User fees were abolished in primary health centers in 2008.

Figure 3.5: Distribution of CHAL health centers and hospitals



Source: *Lesotho health facilities and geographic coordinates report*, CDC, October 2016.

An agreed funding formula between the GoL and CHAL sets out the proportion of funding that CHAL will derive from various sources. The government contribution is set at 80 percent. The actual contribution has nonetheless been significantly more than this percentage in each of the past three years, as donations and other contributions have consistently fallen short of expectations (Table 3.8). For example, in FY 2015/16 the government subvention payment accounted for 90 percent of CHAL's income and 101 percent of its operating expenditure.

The CHAL subvention is paid quarterly over the course of the year. The actual subvention amount is based on an expected budget submitted yearly by CHAL to the GoL. In FY 2015/16 the government contribution came to 269 million LSL (an increase of 12 percent over FY 2014/15), which made CHAL payments second in size to Tsepong in terms of payments made to outsourced healthcare providers.

Table 3.8: Actual annual income and expenditure at CHAL (LSL)

Financial Year	Total Income	Government Contribution	% of Total Income	Total Expenditure	Government Contribution as a	Surplus

					% of Total Expenditure	
2013/14	210,700,300	181,163,819	86%	185,179,548	98%	12%
2014/15	257,460,660	236,987,841	92%	229,947,164	103%	11%
2015/16	298,444,990	268,919,165	90%	271,523,824	99%	11%

Source: CHAL annual expenditure report.

CHAL is free to allocate its funding among all its facilities. CHAL operates 61 primary health centers, which account for 28 percent of its total expenditure in FY 2015/16, with 13 percent going toward CHAL health training institutions, and the remaining 59 percent dedicated to its eight secondary district hospitals.

Expenditure on health training institutions has the highest growth rate over the period considered, at 32 percent 2014–2016 CAGR, while over the same period, expenditure on hospitals rose by 13 percent and expenditure on primary health centers rose by 23 percent. Overall expenditure rose 16 percent in FY 2015/16.

Table 3.9: CHAL expenditure by facility FY 2013/14 –FY 2015/16

Facility	**2013/14**	**2014/15**	**2015/16**
Primary Health Centers	49,947,610	62,237,178	75,732,450
Growth (%)	-	*25%*	*22%*
% of Total	*26%*	*27%*	*28%*
Hospitals	124,234,762	145,314,033	159,970,931
Growth (%)	-	*17%*	*10%*
% of Total	*64%*	*62%*	*59%*
Schools	20,591,837	26,651,733	35,820,443
Growth (%)	-	*29%*	*34%*
% of Total	*11%*	*11%*	*13%*
Total	194,774,209	234,202,944	271,523,824
Growth (%)	-	*20%*	*16%*

Source: CHAL annual expenditure report.

In terms of expenditure across districts, Maseru receives the largest amount of funding, with 35 percent of the total, which reflects the fact that a significant share of CHAL facilities (including 16 of CHAL primary health facilities, three of its hospitals, and two of its schools) are in the Maseru district. Overall, CHAL's resources are quite heavily concentrated in four main districts: Berea, Leribe, Maseru, and Thaba-Tseka—with 86 percent of its total expenditure going to these districts alone.

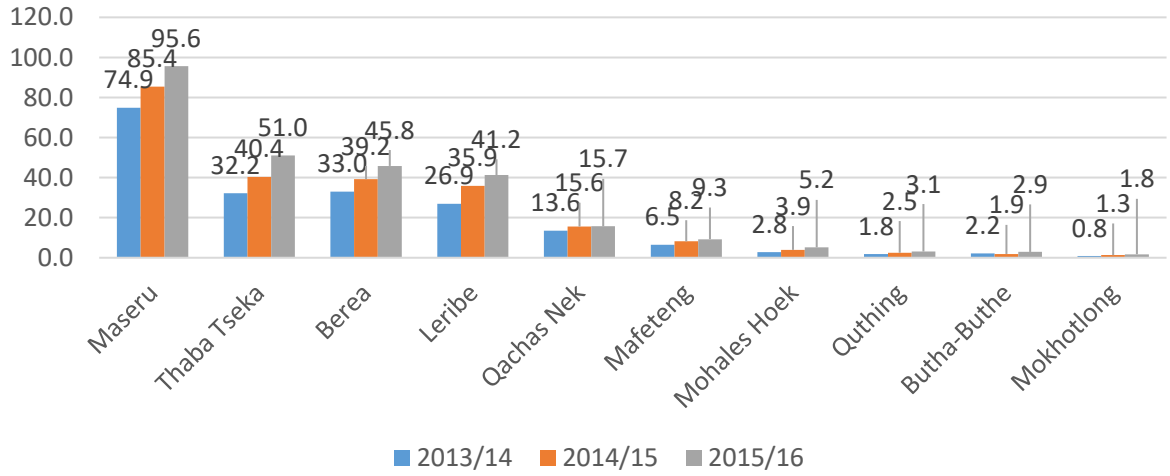
Table 3.10: CHAL expenditure by district and facility FY 2015/16

Districts	Primary Health Centers	Hospitals	Schools	Total	% of Overall Spending
Maseru	17,337,602	60,156,361	18,086,184	95,580,147	35%
Thaba Tseka	4,606,991	34,534,097	11,887,813	51,028,901	19%
Berea	11,290,122	28,702,650	5,846,446	45,839,218	17%
Leribe	16,700,820	24,528,398	0	41,229,218	15%
Qacha's Nek	3,631,365	12,049,425	0	15,680,790	6%
Mafeteng	9,255,526	0	0	9,255,526	3%
Mohale's Hoek	5,159,936	0	0	5,159,936	2%
Quthing	3,093,093	0	0	3,093,093	1%
Butha-Buthe	2,904,792	0	0	2,904,792	1%
Mokhotlong	1,752,203	0	0	1,752,203	1%
Total	**75,732,450**	**159,970,931**	**35,820,443**	**271,523,824**	**100%**

Source: CHAL annual expenditure report.

Figure 3.6 shows that there has been a high level of consistency in expenditure in each district, with all receiving increases in their funding for each of the past three years.

Figure 3.6: CHAL expenditure by district (LSL, millions) FY 2013/14–FY 2015/16



Source: CHAL annual expenditure report.

It is useful to compare expenditure and allocative efficiency between CHAL and GoL district hospitals (Table 3.11), as both serve similar clientele, have the same inpatient and outpatient fee structures, and are expected to provide similar clinical services. The efficiency analysis is not completed without understanding the health outcomes achieved by each hospital (to see, for example, if higher HR spending per patient is leading to better health outcomes), but it is

a useful first step. Over the three-year period considered, on average CHAL spent 3 percent less per hospital and 35 percent more per primary health center than did the GoL.

Table 3.11: CHAL/GoL expenditure by facility

Metrics	2013/14	2014/15	2015/16
Average Government Spend per Hospital	18,203,035	18,596,109	18,472,218
Average CHAL Spend per Hospital	15,529,345	18,164,254	19,996,366
CHAL Spend per Hospital as a % of Government Spend per Hospital	85%	97%	108%
Average Government Spend per Primary Health Centre	537,596	717,409	757,998
Average CHAL Spend per Primary Health Center	723,878	901,988	1,097,572
CHAL Spend per Primary Health Center as a % of Government Spend per Primary Health Center	135%	126%	145%

Sources: CHAL annual expenditure report and IFMIS expenditure reporting system.

Table 3.12 looks at absolute expenditure by CHAL and MoH hospitals broken down by economic classification. On average, MoH hospitals spent more on drugs than CHAL hospitals did, by around 32 percent in FY 2015/16. CHAL spent 27 percent more on HR on average then MoH hospitals did in FY 2015/16. This reflects the fact that, as shown in the table, government hospitals appear to be noticeably busier than CHAL hospitals, as reflected by the far higher fees collected.

Table 3.12: CHAL/GoL per hospital expenditure by category

Category	2013/14	2014/15	2015/16
CHAL Drug Spend per Hospital	1,260,809	1,384,301	1,378,864
Government Drug Spend per Facility	1,716,023	2,139,807	2,039,206
CHAL Drug Spend per Hospital as a % of Government Drug Spend per Hospital	73%	65%	68%
CHAL HR Spend per Hospital	10,992,058	12,400,913	14,003,672
Government HR Spend per Hospital	10,336,496	11,289,330	11,019,376
CHAL HR Spend per Hospital as a % of Government HR Spend per Hospital	106%	110%	127%

Sources: CHAL annual expenditure report and IFMIS expenditure reporting system.

The relative efficiency of hospital and CHAL facilities is illustrated in Tables 3.12 and 3.13. On average, GoL hospitals collect more than three times what CHAL facilities collect in inpatient fees. While CHAL hospitals averaged only 8 percent per hospital higher expenditure than the

MoH district hospitals in FY 2015/16, CHAL hospital spending per inpatient fee was more than double the MoH district hospitals, at 101.2 LSL per inpatient fee compared to 40.6 LSL.

CHAL hospitals spent more on both drugs per inpatient fee (7 versus 4 LSL) and HR per inpatient (71 versus 24) when compared to GoL facilities. The difference in HR spending per patient is a significant one, as CHAL hospitals spent nearly three times more per patient than the MoH.

Table 3.13: Total CHAL/GoL relative hospital expenditure by category

2015/16 Metrics	Government	CHAL
Total Hospital Spend	221,666,611	159,970,931
Total Drug Spend	24,470,469	11,030,910
Total HR Spend	132,232,511	112,029,377
Total Inpatient Fees	5,460,426	1,580,145
Total Spend per Inpatient Fee	40.6	101.2
Total Drug Spend per Inpatient Fee	4	7
Total HR Spend per Inpatient Fee	24	71

Sources: CHAL annual expenditure report and IFMIS expenditure reporting system.

As we can see from Table 3.14, CHAL spends significantly more per primary health center than does the GoL. This result is noticeably consistent across all categories of spending (for example, HR and drug spending). If we look at efficiency, however, using the proxy of outpatient and dental services (OPD) data in 2015 (sources are LDHIS2 and CHAL data), then we can see that in fact the government facilities spend slightly more per individual patient than CHAL facilities do, in contrast to the results seen for the hospitals. This could indicate that CHAL primary care facilities are slightly more efficient than government facilities. However, it could also mean that CHAL's lower fixed costs, due to their smaller number of clinics, allow them to spend less per patient while still delivering the same services as the government facilities.

Table 3.14: CHAL/GoL per primary health center (PHC) expenditure by category

Category	2013/14	2014/15	2015/16
CHAL Total Spend per PHC	723,878	901,988	1,097,572
Government Total Spend per PHC	537,596	717,409	757,998
CHAL Total Spend per PHC as a % of Government Total Spend per PHC	135%	126%	145%

CHAL Drug Spend per PHC	120,538	150,109	169,265
Government Drug Spend per PHC	71,493	97,494	112,881
CHAL Drug Spend per PHC as a % of Government Drug Spend per PHC	169%	154%	150%
CHAL HR Spend per PHC	470,254	605,411	741,188
Government HR Spend per PHC	255,420	454,273	490,066
CHAL HR Spend per PHC as a % of Government HR Spend per PHC	184%	133%	151%

Sources: CHAL annual expenditure report and IFMIS expenditure reporting system.

Table 3.15: Total CHAL/Government relative health center expenditure by category

2015/16 Metrics	**Government**	**CHAL**
Total Spent on Primary Care	106,119,760	75,732,450
Total OPD Patients	520,841	519,063
Total Spend per OPD Patient	203.7	145.9

Sources: CHAL annual expenditure report, the LDHIS2 data, and IFMIS expenditure reporting system.

Key Takeaways: Expenditure on CHAL Subvention Agreement

- CHAL facilities are entirely dependent on transfers from the MoH recurrent budget. For example, in FY 2015/16 the government subvention payment accounted for 90 percent of CHAL's income and 99 percent of its operating expenditure.
- CHAL is free to allocate its funding across all their facilities. Although CHAL operates 61 primary health centers, they only accounted for 28 percent of CHAL's total expenditure in FY 2015/16, with 13 percent going toward CHAL health training institutions and the remaining 59 percent dedicated to its eight secondary district hospitals.
- We recommend that the MoH reconsider its oversight rights in the CHAL agreement, as CHAL facility funding decisions are currently beyond the control of the MoH, are not allocated in coordination with the MoH, and, more importantly, are not linked to any measure of performance.
- Since FY 2011/2012, subvention payments to CHAL have seen a nominal increase of 121 percent. They are now roughly half of what is paid to Tsepong each year.
- Over the three-year period, we considered (FY 2013/14, FY 2014/15, and FY 2015/16), on average CHAL spent 3 percent less hospital and 35 percent more per primary health center than the GoL.

- On average, MoH hospitals spent more on drugs than CHAL hospitals did, by around 32 percent in FY 2015/16. CHAL spent 27 percent more on HR on average then did MoH hospitals in FY 2015/16.
- On average, GoL hospitals collect over three times what CHAL hospitals collect in inpatient fees (fees are used here as a proxy for inpatient volume). While CHAL hospitals averaged only 8 percent higher expenditure then the MoH district hospitals in FY 2015/16, their spending per inpatient was more than double that of the MoH district hospitals, at 101.2 per inpatient fee compared to 40.6 for the MoH. Overall, the data lead one to conclude that GoL hospitals are either underfunded significantly, considering the number of patients they see, or that they are more efficient in service delivery than CHAL hospitals.
- Looking at primary health centers, CHAL spends significantly more per facility than does the GoL. This result is noticeably consistent across total spending, HR, and drug spending. If we look at efficiency, however, using the proxy of OPD data in 2015, then we can see that in fact the government facilities spend slightly more per individual patient than CHAL facilities, in contrast to the results seen for the hospitals.

4 Conclusion

The Government of Lesotho (GoL) has made considerable strides in the past five years to address the problems concerning accessibility of services and quality of its primary health infrastructure. The accomplishment this report focuses on is the increase in government financial resources devoted to the health sector. The recurrent budget had a real CAGR 9 percent over the five-year period. This yearly growth is a positive trend, and makes clear that the government is committed to increasing financing for health care.

Unfortunately, while the level of government funding has been increasing, the health outcomes on major indicators have not improved as much. Lesotho has one of the highest TB incidence rates and MMR and IMR rates in the world, and the HIV prevalence and incidence rates are improving but not rapidly enough. These outcomes point to systematic failures that go beyond the aggregate level of finance. Moving forward toward reaching the objective of universal health coverage, the challenge for the GoL is to improve the quality and cost-effectiveness of health care, and increase access to underserved populations—and to achieve this within the context of extremely tight budget constraints.

As noted, the report pays special attention to MoH expenditure on outsourced health services, specifically to the Christian Health Association of Lesotho (CHAL) and Tsepong. CHAL, a non-government organization, plays an important role in health service provision in Lesotho, operating 61 primary health centers, eight district hospitals, and four teaching facilities. CHAL is funded by GoL but run independently. Tsepong operates four primary care facilities and the Queen Mamohato Memorial Hospital (QMMH), the only multi-specialty tertiary hospital in Lesotho.

The Tsepong–MoH PPP has come under criticism for consuming a disproportionate share of Lesotho's health expenditure, but evidence does not support this. The data related to MoH expenditure on outsourced health services reveal that over the past four years, QMMH has accounted for approximately 29 percent of total MoH expenditure and that this proportion has been stable. It shows that QMMH has provided healthcare services for nearly half of all the inpatients in Lesotho each year and has been treating one quarter of the country's

outpatients. However, there remain several issues affecting the PPP between Tsepong and the MoH that are currently under arbitration and could have significant financial implications for the MoH.

Payments to CHAL have increased by 121 percent over the period studied. This is in line with the nominal increase seen for government-run District Health Management Teams (DHMTs), which are responsible for delivering primary healthcare services and managing primary healthcare centers across 10 districts. In fact, large nominal expenditure increases of over 100 percent were seen for DHMTs (135 percent), Laboratories (126 percent), Planning (163 percent), and Pharmaceuticals (162 percent). Increases in DHMT expenditure is especially significant given GoL's emphasis on allocating more funding to the districts to aid decentralized service delivery.

However, data on budget utilization rates across the health sector reveal sharp differences. The Administration cost center, which includes Tsepong, spent roughly 99 percent of its budget each year over the period studied. District hospitals performed below this in terms of their absorptive capacity, with an average budget use of about 90 percent. This average hides sharp differences in the performance of district hospitals, with Mafeteng Hospital consistently utilizing about 95 percent of its budget, while Machabeng Hospital has been using less than 70 percent of its budget (only 63 percent in FY2015/16).

We acknowledge the major efforts made by the Government of Lesotho over the past few years to address gaps in people's access to health services by increasing financial resources and committing to providing universal health coverage. But improvements in health outcomes continue to be slow: maternal and neonatal mortality rates in Lesotho are among the highest in the world, with rates of 1,024 per 100,000 and 59 per 1,000, respectively, and approximately one in 10 children dying before his or her fifth birthday.

Addressing the under-utilization of health funds and increasing efficiency in health sector management should be a priority for the Government of Lesotho. This would help increase healthcare services by making full use of the MoH's existing fiscal resources. The main priority for MoH should be to strengthen its control systems both for compliance as well as

performance, which now appear extremely weak. The health system looks very fragmented, with several pools of resources from donors and government and different service providers operating according to different rules, and without any accountability for results.

Key recommendations of this review include opportunities for GoL to:

i. *Improve the institutional capacity to collect, validate, and utilize evidence* on health outcomes, service delivery performance, and health expenditure allocations and utilization at all levels to guide decision making.

ii. *Improve allocative equity of funding across districts and district hospitals,* as current funding is skewed on both an absolute and per capita level. This could be done by using a new capitation and need-based formulas to allocate resources across districts.

iii. *Change the payment system for hospitals and provide greater autonomy in the day-to-day management of individual hospital facilities*. Allocations to individual hospitals should be based on some measure of the services (in terms of volume and quality) delivered by the same health facilities, and not input-based norms. It is worrisome that bed occupancy rates of most district hospitals (both government and CHAL owned) are abysmal (32 percent), signaling service quality and reliability issues that need to be addressed.

iv. *Improve efficiency and equity in funding for primary health centers,* as there are large variations in funding per health center and per medical visit across Lesotho. In a first phase, allocations to individual primary health centers could be based on capitation, with adjustments related to gender and age of the patients living in their catchment areas.

v. *In each health facility, staffing should depend on services provided, patient demand, and workload*, and not be fixed according to rigid input-based norms. Some thought should be given to the redeployment of health workers across Lesotho, which currently seems unbalanced. For example, primary health centers seem understaffed, while some hospitals have excess staff given their workload. Maseru has the highest concentration of doctors and specialists, whereas some other districts lack enough doctors.

vi. *Create the institutional capacity necessary within the MoH to exercise oversight of its outsourced services* given the large share of the budget they absorb. Currently only two full-time employees directly manage these contracts, which account for over 52 percent of the total spent by the Ministry of Health.

vii. *Revise the CHAL Memorandum of Understanding to ensure greater accountability and oversight of funds and health outcomes.* The current agreement with CHAL involves a lump-sum payment that it applies across the entire organization, and the GoL has little control over how the funding is allocated. Given that CHAL is being paid to operate over 20 percent of the primary health centers and 40 percent of the hospitals in Lesotho, and that its facilities have significant efficiency disparities with its GoL counterparts, we advise changing the structure of the contract to increase GoL leverage, and link at least some of the payment to service delivery results.

viii. *Conduct further studies on efficiency and quality within QMMH* to ensure funds are being used well. We also recommend revisiting the key rationale of the PPP contract and the role that QMMH should play within the broader health system. *Consider renegotiating certain aspects of service delivery* (services included and excluded), as well as payment for extra inpatient services.

ix. *Conduct further recommended studies listed below to arrive at specific recommendations to improve major problem areas:*

- Comparison of cost per patient and efficiency between CHAL, other private providers, and MoH primary healthcare facilities;
- Absorptive capacity/ bottleneck analysis and payment process mapping for MoH recurrent budget spending;
- Referral analysis between district hospitals and QMMH with the aim of improving the referral system;
- Repeat "Endline Study for Queen Mamohato Hospital Public Private Partnership" quality and performance study conducted by Boston University; and
- Conduct a qualitative study into the annual fall in development budget expenditure, and understand how donors' contributions to the sector can be better coordinated.

If these opportunities are explored further, conclusions can be reached that may lead to improved funding efficiencies and equity in Lesotho, in turn leading to improved health outcomes for all Basotho people.