
Health System Innovation in Lesotho

Design and early operations
of the Maseru public-private
integrated partnership

Healthcare public-private partnerships series, No. 1



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- Lesotho Ministry of Finance and Development Planning
- Millennium Challenge Corporation
- Netcare Limited
- Partners in Health
- Tsepong (Pty) Ltd
- The World Bank Group

UCSF®/PwC report series on public-private partnerships

About the report series

This report on the Queen ‘Mamohato Memorial Hospital and the public-private integrated partnership (PIIP) formed for the design, construction and operation of the hospital (including the provision of clinical services) is the first in a series of publications on public-private partnerships (PPPs) to be jointly authored by the UCSF® Global Health Group and PwC. This series aims to highlight innovative PPP models globally and to disseminate lessons learned and leading practices for the benefit of current and future projects around the world.

About the Global Health Group

The Global Health Group at the University of California, San Francisco (UCSF®), Global Health Sciences is an “action tank” dedicated to translating major new paradigms and approaches into large-scale action to positively impact the lives of millions of people. Led by Sir Richard Feachem, formerly the founding Executive Director of the Global Fund to Fight AIDS, Tuberculosis and Malaria, the Global Health Group works across a spectrum, from research and analysis, through policy formulation and consensus building, to catalyzing large-scale implementation of programs in collaborating low- and middle-income countries.

One of the Global Health Group’s programmatic focus areas is the role of the private sector in health systems strengthening. The Global Health Group studies a variety of innovative delivery platforms that leverage the strengths of the private sector to achieve public health goals. The Global

Health Group has identified public-private partnerships in general, and public-private integrated partnerships in particular, as a promising model to improve health systems globally, including in developing countries.

For more information about the Global Health Group, visit: globalhealthsciences.ucsf.edu/global-health-group.

About PwC

PwC is one of the largest healthcare professional services firms, advising governments and private enterprises on every aspect of business performance, including: management consulting, business assurance, tax, finance, advisory services, human resources solutions, and business process outsourcing services.

PwC’s Global Healthcare practice includes more than 5,000 health professionals with expertise in public-private partnerships, medicine, bioscience, information technology, clinical operations, business administration and health policy.

As healthcare becomes increasingly interconnected with other industries, PwC’s global reach and resources help governments, businesses and industry players accomplish their missions in a dynamic and competitive environment.

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About public-private partnerships

The past three decades have witnessed a growing tendency by governments of countries at all income levels to seek out long-term partnerships with the private sector in domains such as

transport, infrastructure and energy. While starting considerably later and much more cautiously, a parallel trend has emerged in the health sector. In the past ten years, there has been a rapid expansion and acceleration of interest in public-private partnership (PPP) models for health, across many continents and income levels.

PPPs are a form of long-term contract between a government and a private entity through which the government and private party jointly invest in the provision of public services. Through this arrangement, the private sector takes on significant financial, technical and operational risks and is held accountable to defined outcomes. PPPs can be applied across many sectors and typically seek to capture private sector capital or expertise to improve provision of a public service.

PPPs are characterized by the long-term nature of the contract (typically 20+ years), the shared nature of the investment or asset contribution and the transfer of some risk from the public to the private sector. These features distinguish a PPP from other contracts existing between governments and the private sector, which might not be considered PPPs.

PPPs provide governments with alternative methods of financing, infrastructure development and/or service delivery. Ideally, PPPs also give private parties the opportunity to “do well while doing good.”^{Ref 9} PPPs can make private capital investment more attractive to the private sector, reduce the risk profile for private investment in new markets or otherwise ease barriers to entry in new markets, all in service of defined public policy goals.

In healthcare, the public-private partnership approach can be applied to a wide range of healthcare system needs: construction of facilities, provision of medical equipment or supplies or delivery of healthcare services across the spectrum of care. While relatively simple “design, build, finance and maintain” models, like the British hospitals built under private finance initiatives (PFIs), remain the most commonplace, an increasing number of governments are experimenting with or considering more ambitious models, including public-private integrated partnerships (PPIPs), which include the provision of clinical services within the private sector scope of the PPP. ^{Ref 7,23}

About public-private integrated partnerships

This case study focuses on the Queen ‘Mamohato Memorial Hospital, a PPIP in the Kingdom of Lesotho.

PPIPs are a special form of PPP, designed to achieve significant and sustainable improvements to health systems at national or sub-national levels through both capital investment and service delivery. ^{Ref 7,23}

PPIPs position a private entity, or consortium of private partners, in a long-term relationship with a government to co-finance, design, build and operate public healthcare facilities and to deliver both clinical and non-clinical services at those facilities for a long-term period. PPIPs enable governments to prudently leverage private sector expertise and investment to serve public policy goals, specifically the goal of providing high-quality and affordable preventive and curative care to all citizens. PPIPs

aim to be “cost neutral” to patients, who incur the same out-of-pocket payments, usually zero or minimal, as they did in the previous, often dilapidated and perhaps poorly run public facilities. These facilities revert to government ownership at the end of the contract term, ultimately guaranteeing government ownership of the facilities. ^{Ref 7,23}

PPIPs are characterized by the following four key attributes:

- **A design, build, operate and deliver (DBOD) model:** The private partner or consortium designs, co-finances, builds, operates and delivers clinical care in one or more health facilities, often including a tertiary hospital and surrounding primary and secondary facilities. This model is commonly called a “DBOD”. Unlike other PPPs, PPIPs go beyond private investment in buildings and maintenance, as the private partners are also responsible for delivering all clinical services at the facilities, from surgery to immunization to ambulance services.
- **Government ownership of assets:** The healthcare facilities are ultimately owned by the government upon termination of the PPIP contract.
- **Long-term, shared investment:** A PPIP comprises a long-term commitment by both the government and the private partners to provide health services for a defined population. Both partners invest significant resources into the project, supporting long-term dedication and a common interest in successful outcomes.

A successful PPIP must exist for a decade or more to give both public and private partners sufficient time to develop sustainable systems, processes and overall operations based on informed strategic planning and improvement through feedback loops.

- **Risk transfer:** Under the DBOD model, the private partners, not the government, are responsible for meeting defined service quality benchmarks. In this way, the private partners assume risk for delays and cost overruns in the construction phase as well as ongoing operational risk including human resource issues and failure to achieve efficiency in service delivery. Governments remain involved in ensuring service quality through regulation, contract management and/or monitoring activities. ^{Ref 7,23}

PPIPs are further characterized by their motivating policy goals:

- **Quality of care:** Improved quality of care for all at the PPIP facility and possibly across the health system;
- **Equity of access:** Unrestricted access to PPIP facilities by all, regardless of income level or social status;
- **Cost neutrality:** No change in out-of-pocket costs for patients utilizing a PPIP healthcare facility and, in some cases, cost neutrality for the government’s annual expenditure for the PPIP facilities and services relative to conventionally built and operated facilities. Where both measures of cost neutrality are achieved, the PPIP has achieved “cost neutrality squared,” or “(cost neutrality)²”;

- Predictable government health expenditures: Fixed payments to support predictability in healthcare budgeting and stability of national health expenditures; and
- System-wide efficiency gains: High and transparent standards for service delivery and outcomes with the potential for raising performance expectations and accountability for the entire national healthcare system. ^{Ref 7,23}

Finally, effective management of inherently complex PPIPs necessitates careful monitoring being carried out independently when necessary. In an ideal model, a jointly appointed independent monitor routinely assesses project performance against metrics and outcomes mutually developed by both the public and private partners. Appropriate penalties and/or rewards are clearly tied to assessed performance. ^{Ref 7,23} In previous publications, the Global Health Group has noted that data collection around PPIPs is challenging. ^{Ref 7} In general, while showing a positive trend, the available academic literature is lacking analyses of—and even summary information on—PPIPs. Often there are commercial sensitivities and legalities that inhibit both public and private actors from revealing financial data, health outcomes and other project details. In high-income countries, political and regulatory factors (including national audit and

budgeting departments) can ensure that upon completion, cost-efficiency and other data from the project are made available to the public. In developing countries, project data have not been made publicly available, but greater transparency should be an important goal for future projects.

We hope that this report and associated publications, including future reports in this series, will enhance the literature and evidence base for PPIPs (and other innovative PPP models) and contribute to a growing understanding of this important alternative for improving healthcare infrastructure and clinical delivery around the world. Some have argued that PPIP solutions are not scalable or generally applicable, especially in very low-income settings. While low income settings will require careful specification of required services versus nonessential services and careful consideration of the long-term affordability of contract design, the example presented here clearly demonstrates that a PPIP solution is possible even in a resource poor environment. Still, each PPIP must be tailor-made for its unique purpose and circumstances. There are common lessons and themes, but there are also myriad details which are site- and context-specific. These details matter and getting them right is, and will continue to be, at the heart of success. ^{Ref 7,23}

Methodology

Between January and October 2012, study researchers conducted qualitative interviews in Lesotho, South Africa, and the United States. Participants included employees of Tsepong (Pty) Ltd, Netcare Limited, the Lesotho Ministry of Health and Social Welfare, the Lesotho Ministry of Finance and Development Planning, the World Bank Group and multiple non-governmental organizations (NGOs) with operations in Lesotho.

The authors of this publication also conducted grey and peer-reviewed literature reviews on PPPs, PPIPs and the Lesotho PPIP specifically to inform the development of this case study. Print and web references are listed at the back of this report, and citations throughout the document refer to sources by the numbers established in this list of references.

Audience

The primary audience for this report is the governments of low and middle-income countries (LMICs), including policymakers in ministries of health and ministries of finance. This report may also be helpful to others studying how best to leverage the private sector to strengthen health systems, including donor agencies, non-governmental organizations, academic institutions and private health entities.

Executive summary

After a decade-long planning effort, Queen 'Mamohato Memorial Hospital (QMMH) opened to serve the people of Lesotho on October 1, 2011. The project represented the first time a Public Private Integrated Partnership (PPIP) was established in sub-Saharan Africa and, moreover, in a lower income country anywhere in the world. The project was also the largest government procurement of health services in Lesotho history.

Lesotho is a small, mountainous nation of 11,720 square miles (30,335 sq km) entirely surrounded by the Republic of South Africa, with a population of around 2 million people. Lesotho's greatest healthcare challenge is the HIV/AIDS pandemic: 23% prevalence in the adult population. The Lesotho healthcare system is predominantly publicly funded (61% of total health expenditure, 57% public hospitals), and healthcare spending represents 11.1% of GDP.

In 2000, it became apparent that the national referral hospital and district hospital for Maseru (Lesotho's capital), Queen Elizabeth II (QEII) required replacement. After conducting a feasibility study and evaluating multiple alternatives, the Government elected to proceed with a PPP solution for hospital replacement. After engaging transaction advisors, the Government issued a tender for a PPIP project, posing the question to the private sector: for the same level of expenditure at QEII, how much more can the private sector provide in quality, breadth and volume of healthcare services?

Following a competitive tender process, Tsepong (Pty) Ltd, a consortium comprised of the private South African hospital operator Netcare and various local partners, was selected as the preferred bidder and ultimately contracted with the Government to design, build and construct a 425-bed (390 public beds, 35 private beds) hospital and attached gateway clinic, refurbish and re-equip three urban filter clinics and then provide all clinical and non-clinical services for the duration of the 18-year contract. Taken together, the hospital and filter clinics formed a health district that supported application of integrated care to improve efficiency and expand access to services for Maseru and the Kingdom of Lesotho. This ambitious project placed particular emphasis on health system strengthening and local economic development and, if successful, could provide a template for similar projects across the African continent.

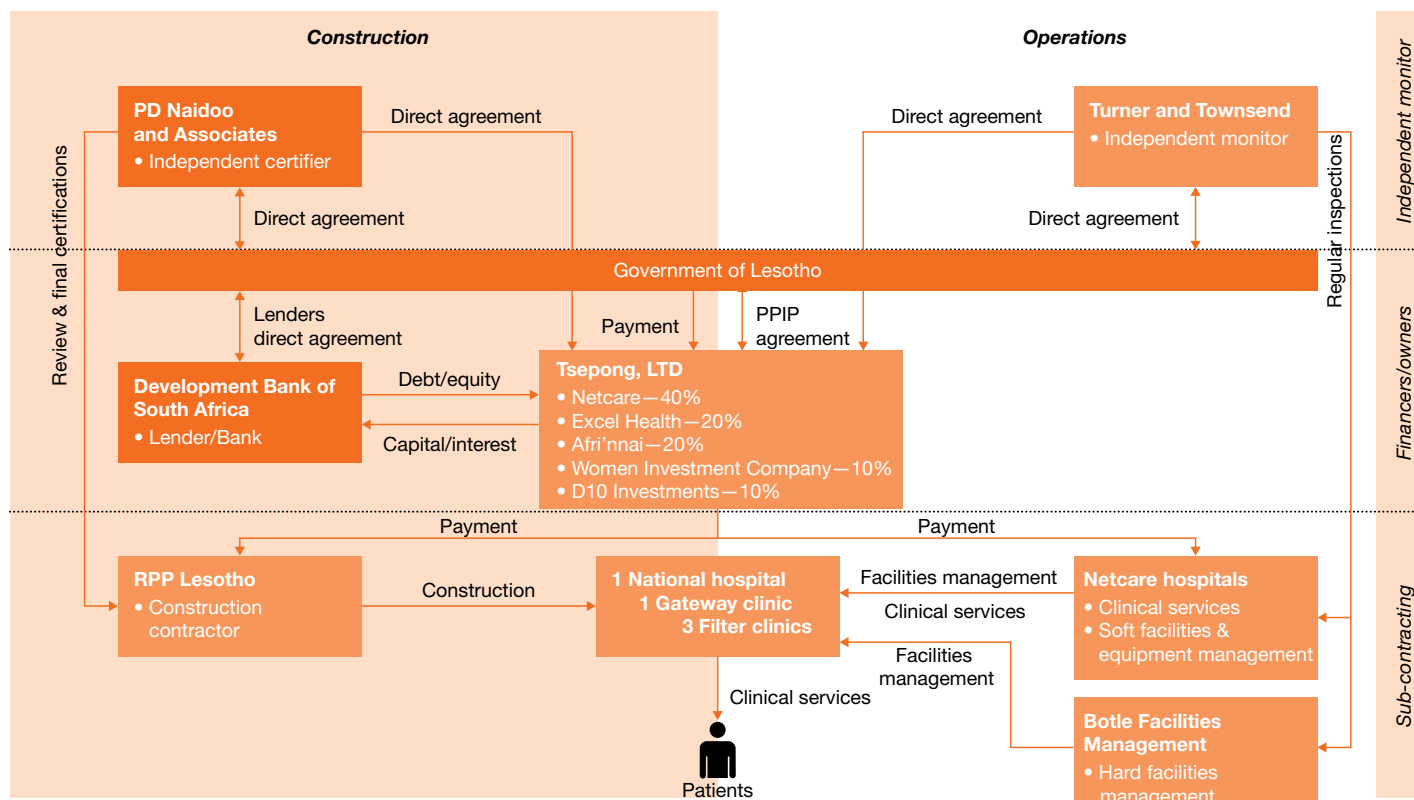
The Government made significant up-front payments for hospital construction and construction site preparation (approximately US \$58 million) so as to reduce the risk profile of the project and reduce downstream annual unitary payments. Approximately \$95 million in financing was arranged through the Development Bank of Southern Africa (DBSA) and the Tsepong

consortium contributed approximately \$500,000 in equity toward capital expenditures. Annual unitary payments of approximately \$30 million, which reimburse Tsepong's capital and operating expenses, were not scheduled to begin until hospital construction was complete, so a \$6.25 million grant from the World Bank's Global Partnership for Output-Based Aid (GBOPA) was arranged as part of the PPIP contract.

With the contract, the Government greatly expanded the scope, quality, and volume of services available through the new national referral hospital with an approximate 7.5% increase in annual operating cost as compared to QEII. User fees at QMMH were equal to fees at other public hospitals, so patients paid no more for significantly improved care at QMMH, which is accessible by referral only.

Independent monitors were appointed to evaluate the quality of both construction and operations phases, and formal structures were established in the PPIP contract for joint oversight by Tsepong and the Government.

Figure 1 – PPIP contractual design



While the hospital had only been open for one year at the time of our data collection visit, numerous lessons can still be learned through the Lesotho experience. Notable challenges to date include:

- Significant, immediate demand for healthcare services at the newly opened filter clinics and hospital that has greatly exceeded contract targets in the first year of operations;
- Payment delays (both the GBOPA grant and periodic unitary payments from the Government);

- Significant cultural change for nurses, physicians, and staff working at QMMH;
- Negative media reaction during the project's first months;
- Challenges for physician recruitment due to comparatively low salaries; and
- Delays in establishing PPP units in the Government and strengthening the Government's contract management capabilities.

Despite these challenges, both public and private parties reported significant early achievements,

including improved clinical outcomes for patients and an improved work environment for employees. Operations at QMMH have been transformed through application of strong management systems and leadership, installation of new equipment and current information technology. Early achievements include:

- Opening of the first Intensive Care Unit and Neonatal Intensive Care Unit in Lesotho;
- Reported improvement in maternal and infant mortality, post-surgical mortality, and clinical management of HIV/AIDS and related diseases;

- Establishment of guidelines and incentives that have translated into improved staff performance;
- Investment in significant training programs to enhance the skills of QMMH employees and strengthen the broader Lesotho healthcare system;
- Immediate reduction in costs associated with drug purchasing and the treatment abroad program; and
- Formation of a strong partnership between public and private parties.

Despite the early stage of the project, the Lesotho experience already holds many lessons for others considering

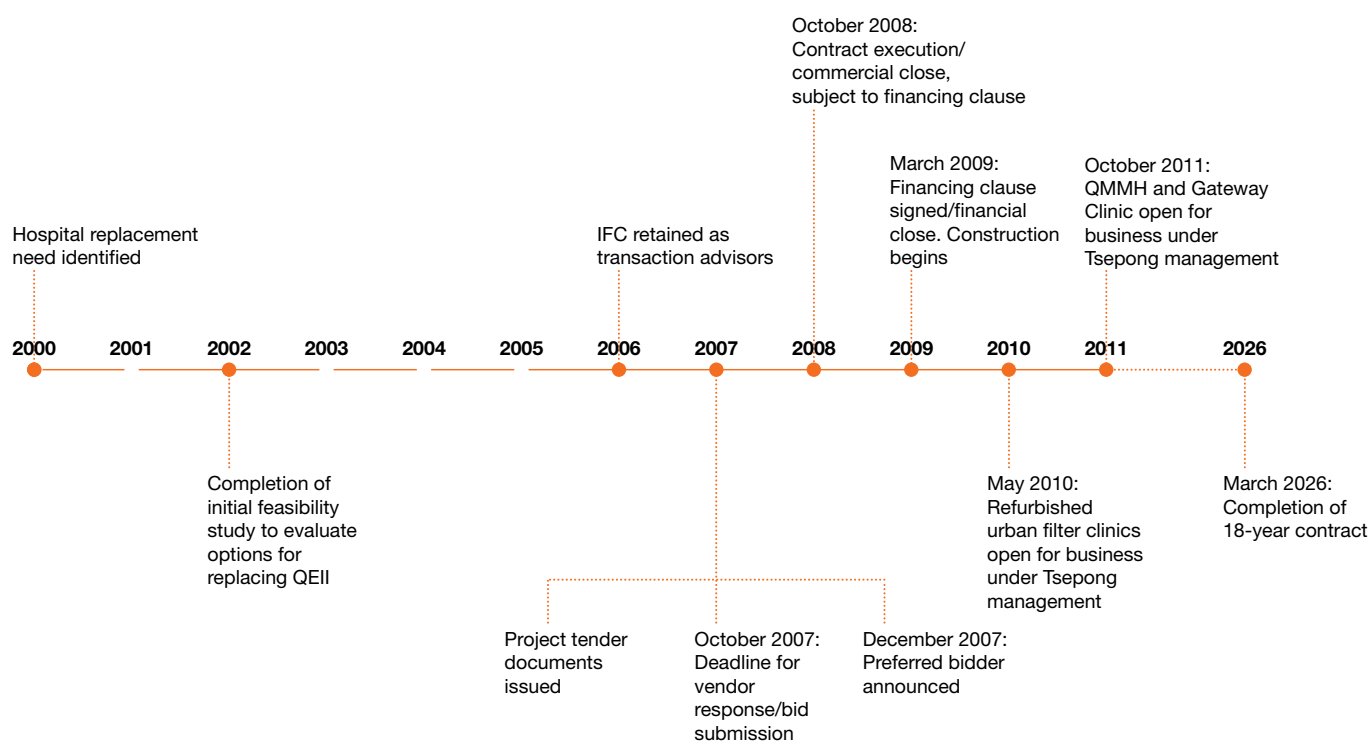
similar PPIP or PPP initiatives, including the need to:

- Customize the PPP solution to local healthcare needs, as established in comprehensive baseline or feasibility studies;
- Access broad, appropriate expertise, including local knowledge;
- Assign strong project leadership and develop a pipeline of next generation of public and private leaders early on;
- Develop extensive plans and training programs early in the project effort; and

- Build government capacity for contract management from the outset of the project.

Overall, the case study of QMMH demonstrates the ability of a lower income country to engage the private sector in new ways and, in a relatively short period of time, transform the quality of care being provided to its population. Future success will depend on the project’s ability to weather changes in public and private leadership and manage significant demand for healthcare services to avoid allowing QMMH to become “an island of excellence” within a struggling health system. Future evaluation and greater availability and transparency of project data will be essential to establish the impact and success or failure of the project.

Figure 2—PPIP timeline



Introduction

After a decade-long planning effort, Queen 'Mamohato Memorial Hospital (QMMH) opened to serve the people of Lesotho on October 1, 2011. The project was the first PPIP to be established in sub-Saharan Africa and, moreover, in a lower income country anywhere in the world.^{Ref 7} The project also represented the largest government procurement of health services in Lesotho history.^{Ref 1}

The PPIP replaced the aging national referral hospital, Queen Elizabeth II (QEII), which also served as the district hospital for the population of Maseru, the capital city. Similar to QEII, the new hospital also serves as the major clinical teaching facility for all health professionals in Lesotho. The ambitious project places particular emphasis on health system strengthening and, if successful, could provide a template for similar projects across the African continent. While the hospital had only been open for one year during our data collection visit, numerous lessons can still be learned from the Lesotho experience, from project conception to early execution.

This report describes in detail the history and structure of the Lesotho PPIP, comments on the project's early experience and extracts "lessons learned" for others considering similar initiatives to improve healthcare infrastructure and clinical services through a PPP. While the project has been described in snapshot documents and presented at conferences around the world, this report presents for the first time a comprehensive description of the project design and outlines the implementation experience to date.

Country profile: Lesotho healthcare system and population health status

National population and health status

Lesotho is a small, mountainous nation of 11,720 square miles (30,335 sq km) entirely surrounded by the Republic of South Africa. It has a population of around 2 million people (0.8% per annum population growth between 1996 and 2006; 2.194 million people in 2011).^{Ref 26} Local currency is the Loti (plural, Maloti, abbreviated M), which is pegged at a value equal to the South African Rand. Seventy percent of the population is employed in agriculture (often subsistence agriculture). Other local industry includes limited diamond mining and textile factories. The national unemployment rate is 25.3%^{Ref 26} and many seek work in surrounding South Africa. Lesotho earns a significant portion of its national revenue through a share in regional customs receipts distributed through the Southern African Customs Union (SACU) and the export of water from the Lesotho highlands to South Africa.

Divided into 10 administrative districts, Lesotho varies from western lowland river valleys to foothills to high mountains, where much of the country is accessible only via air or horseback. Lesotho is mostly rural, with only 27% of the population living in urban areas.^{Ref 26} Approximately 225,000 people live in or around Maseru, the capital city and home to the new QMMH. Official languages are English and Sesotho; and the population is 99% Basotho (singular Mosotho).

Lesotho's greatest current healthcare challenge is the HIV/AIDS pandemic. Lesotho has the third-highest HIV/AIDS prevalence rate in the world: 24% prevalence in the adult population.^{Ref 26} The pandemic has also contributed to high rates of tuberculosis infection (17% and 14% among male and female adults, respectively) and a significant decrease in life expectancy, which has decreased from 59 to 48 since 1990.^{Ref 26}

Rising maternal and child mortality rates are also a significant and increasing healthcare issue for Lesotho. Although 92% of pregnant women receive prenatal care and 62% of births are performed by medical professionals (up from 55% over the past five years), maternal and infant mortality rates (MMR and IMR, respectively) are the highest in southern Africa and appear to be trending upwards (MMR is at 1200 per 100,000 live births; IMR at 63 per 1,000 live births).^{Ref 26} Under-five mortality is also on the rise at 86 per 1,000 live births, with 80% of deaths occurring in the first year of life. HIV/AIDS is certainly one significant factor in this trend. Low rates of breast feeding and early introduction of supplemental foods may also contribute to stunting and malnutrition and impact health status; 39% of children under age five experience stunted growth and 15% experience severely stunted growth.^{Ref 26} Meanwhile, the fertility rate has declined over the past three decades, with a total fertility rate of 3.0, one of the lowest in sub-Saharan Africa.^{Ref 26}

Over time, with improved HIV/AIDS treatment and continuing demographic trends, Lesotho's health focus is expected to shift from infectious to non-infectious diseases. In planning for replacement of the QEII hospital, the Government of Lesotho ("Government") anticipated a rise in chronic diseases, including diabetes, heart disease and chronic treatment for HIV/AIDS patients who live longer on advanced treatment.^{Ref 2}

Healthcare system

The Lesotho health system is funded through a combination of domestic government and international donor funds. Lesotho spends \$109 per capita on health and the country's total expenditure on health is 11% of GDP.^{Ref 5, 26}

The Government is the major source of health funds, and has increased its contributions to health spending over the past decade. This contributes to the health system's relative sustainability compared to other countries in southern Africa. While the Government provides a high percentage of funding for antiretroviral drugs, donors still provide the majority of funding for HIV/AIDS programs, thus making the fight against HIV/AIDS vulnerable to donor withdrawal.^{Ref 5}

Public and private expenditures as a percentage of total health expenditure are 76% and 24% respectively, with private expenditure being almost entirely out-of-pocket (96%).^{Ref 5,26}

The distribution of hospitals is also primarily in the public sector (57%), with the non-profit and for-profit private sectors representing 38% and 5%, respectively.^{Ref 5} Since 2007, Christian Hospital Association of Lesotho (CHAL) non-profit hospitals have been financed primarily by the Government, such that these facilities are effectively government-funded but privately operated.

Each of Lesotho's ten administrative districts has a district hospital providing primary and some secondary services. Each district also has a network of primary health care centers or local clinics.^{Ref 5} Despite significant demand for hospital services, occupancy rates at the district and CHAL hospitals are regularly below 50%. Likely due to patients' perceptions of service quality, occupancy rates at CHAL hospitals are consistently higher than at Ministry of Health-run district hospitals.^{Ref 2}

Tertiary facilities in Lesotho, namely the QEII, its successor the QMMH, the Tuberculosis Hospital and the Mental Hospital, are all located in Maseru.

The Lesotho health system faces significant challenges in human resources for healthcare (HRH). There are insufficient numbers of health professionals in several cadres (pharmacists, medical doctors, dentists) and an inability to produce select cadres of staff (medical doctors, radiographers, physiotherapists, dental therapists) in the country. Furthermore, regional and international demand for HRH is causes scarce resources to emigrate. The lure of higher salaries for healthcare professionals in South Africa is particularly serious for Lesotho given the proximity and close economic ties between the two countries. The very high HIV prevalence rate and resulting increase demand for healthcare resources will continue to exacerbate Lesotho's HRH shortage.^{Ref 5}

Lesotho has been an early adopter of many programs and demonstrates a willingness to innovate in response to existing and emerging healthcare challenges. In recent years, the Ministry of Health has supported new programs aimed at addressing access problems due to challenging geography, new HIV/AIDS testing programs to support improved follow-up with patients who may test positive and new contractual relationships with private healthcare providers. The QMMH PPIP is the most recent and, perhaps, the most striking example of Lesotho's willingness to innovate through ambitious healthcare projects to improve the delivery of care to its citizens.

Summary statistics:

Table 1: LESOTHO SUMMARY STATISTICS

Population	2.194 million □
Median age	Male: 22.8 years ■ Female: 22.9 years ■ Total: 22.9 years ■
Percent urban / rural	Urban 27% □ Rural 73% □
Unemployment rate	25.3% ●
Adult literacy rate	Women: 95% □ Men: 83% □
Gross national income per capita	US \$1,220 □
Per capita total expenditure on health	US \$109.00 □
Total expenditure on health as percent of gross domestic product	11% □
Private expenditure on health as percent of total expenditure on health	24% □
Life expectancy at birth (male / female)	Male: 48 □ Female: 47 □
Maternal mortality rate (MMR) per 100,000 live births	1,200 □
Infant mortality ratio (IMR) per 1,000 live births	63 □
Under 5 mortality rate per 1,000 live births	86 □
Total fertility rate (TFR)	3.0 □
Pregnant women receiving prenatal care	92% □
Percent births attended by skilled health personnel	62 □
Prevalence of overweight in adults age 15+	Women: 71% □ Men: 30% □
HIV prevalence in adults age 15-49	24% □
TB prevalence rate (per 100,000 population)	402 □

Source Key

- Lesotho Bureau of Statistics: <http://www.bos.gov.ls/>
- CIA The World Factbook: <https://www.cia.gov/library/publications/the-world-factbook/>
- World Bank: <http://databank.worldbank.org/>

Health system need: Replacement of Queen Elizabeth II Hospital

In 2000 the Lesotho Ministry of Health undertook a comprehensive strategic planning exercise, which identified that the QEII hospital, the national referral hospital and district hospital for the population of Maseru, required either replacement or extensive refurbishment. The facility was plagued by dilapidated infrastructure, poor management systems and human resource shortages, all of which were contributing to a significant decline in service quality. Spending was inefficient and escalating at a fast pace: the operating budget for QEII had grown by 50% between 1995 and 2000, during the same period that service volumes and quality were declining.^{Ref 2} Rigid public service rules undermined an effective, responsive operation that might have better evolved to meet new healthcare challenges and correct operational inefficiencies. In the Lesotho Ministry of Health, these challenges included a highly centralized organizational structure that concentrated decision-making power in only a few individuals, a slow and burdensome personnel disciplinary process, a promotion and reward structure focused on educational credentials and seniority rather than skill advancement, a slow accounts payable process that often led to significant delays in vendor payment and a weak data collection and reporting process to support planning and operations.^{Ref 2}

Further, many services were unavailable through the Lesotho public health system and required referral for treatment in South African facilities at premium prices. In 2001 this treatment abroad program cost the Government M10 million (\$1.2 million)¹ and periodic price increases at contracted Bloemfontein facilities indicated this program would fast become unsustainable.^{Ref 2}

In response to this identified need, the Ministry of Health commissioned the Lesotho Boston Health Alliance (LeBoHA) to conduct a feasibility study to evaluate various options for replacement of the aging facility. The study confirmed the need to build a new facility to replace QEII and noted the limited management capacity of the Ministry of Health, which was judged insufficient to effectively operate a hospital as complex as the national referral hospital. This initial study, finalized in 2002, suggested that a private or parastatal entity should be contracted to manage hospital operations, and that an “arms-length” relationship between the Ministry and the new entity be established.^{Ref 2}

Prior to embarking on the QMMH PPIP, Lesotho had limited experience with public-private partnerships in any sector. No PPP framework or policy

¹ The OANDA currency calculator, available at www.oanda.com, was used to convert project costs into US dollars. Currency conversions are based on exchange rates in August 2012.

existed. Only a single PPP project had been executed prior to groundbreaking on the hospital project: at the suggestion of the Ministry of Finance, the Ministry of Health’s headquarters were consolidated into a single building that was constructed through a PPP and completed in November 2007. The project was deliberately pursued as a testing ground for future PPP projects and was seen as a success: the Ministry of Health’s headquarters were notably of higher quality than similar buildings and supported more efficient operations for the Ministry of Health without a significant up-front capital expenditure by the Government. This initial success on a smaller project and the experience gained through the process was sufficient to give the Government confidence to pursue a PPP option for replacement of the new hospital.

At the outset of planning, the capital cost for building a new hospital was estimated at M120 billion (\$14.2 billion), but the annual Ministry of Health capital budget was only M80 million (\$9.5 million). Given this capital constraint, four options for hospital replacement were considered:

1. Finance the full capital sum from the Government domestic budget with the Government overseeing the construction phase and subsequently managing clinical and non-clinical services in the new facility.

2. Borrow from the World Bank or other third party who might lend money on concessional terms with the Government overseeing construction and subsequently managing clinical and non-clinical services in the new facility.
3. Construct the new hospital building under a PPP arrangement similar to the Ministry of Health headquarters project with the Government managing clinical and non-clinical services following construction.
4. Tender for a single operator to design, build, partially finance and operate the hospital, including full provision of clinical and non-clinical services and employment of all personnel. ^{Ref 24}

In 2006, after evaluating alternative options, the Government elected to proceed with a PPIP model (Option 4 above) to replace QEII and engaged the International Finance Corporation (IFC) of the World Bank Group as transaction advisors.

The decision to pursue a PPIP model was bold given the Government's limited experience in managing PPPs, the lack of a legal framework for PPPs, and the complexity of the project under consideration. Nonetheless, the Government determined that a PPIP model would best serve the policy goals of the Government by offering:

- A comprehensive solution that made capital expenditures affordable in the short-term;

Transaction advisors

Transaction advisors are independent advisors often engaged by governments embarking on complex PPP arrangements. These advisors (individuals, firms or a consortium of firms and individuals led by a primary advisor) can provide a government with a range of transaction advisory services, including strategic planning, feasibility and market studies, project marketing, tender issuance and evaluation support, financial and commercial expertise and implementation and post-deal support. Transaction advisors may also be engaged by private sector parties responding to a tender. These private sector transaction advisors might support the private sector through feasibility studies, financial structuring, negotiation support, and implementation and post-deal services. In the case of the QMMH PPIP, the IFC served as the primary transaction advisor and drew on technical experts, such as LeBoHA researchers, as required to advise the Government throughout the PPP process.

- Government budget stability through defined and predictable expenditures over the long-term;
- Cost neutrality for patients;
- Transfer of risk to the private sector for construction delays or cost overruns on a significant and complex building project;
- Transfer of significant operational risk for a complex healthcare operation to the private sector, while capturing efficiencies from private sector management; and
- Opportunities for Basotho-owned businesses and local economic empowerment. ^{Ref 19}

The decision to pursue a PPIP approach was made by the Prime Minister and his entire cabinet. While the project was initiated and managed primarily by the Ministry of Finance and the Ministry of Health, the broader cabinet was consistently updated on project progress and educated on key issues related to the project. The Minister of Finance and Development Planning served as a strong champion of the project, working to build broad government support for the initiative. Additionally, he led relations with major external parties such as the World Bank / IFC and the Development Bank of Southern Africa.

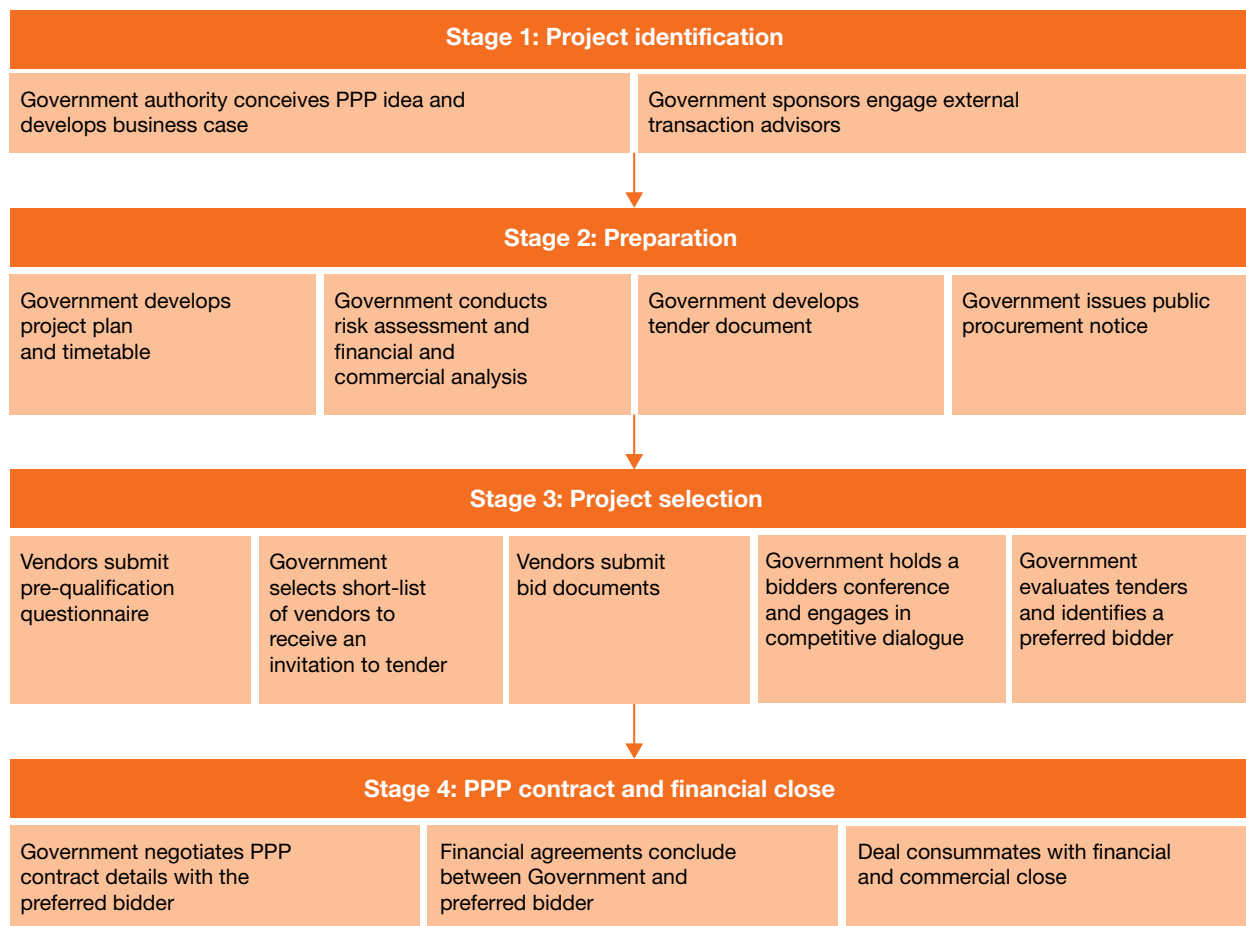
Table 2—Key players—Public sector & advisors:

Organization	Description	Role	Date of First Involvement
Ministry of Health and Social Welfare	<p>The mission of the Ministry of Health and Social Welfare is “to facilitate an establishment and system that delivers quality health care efficiently and equitably, and that will guarantee social welfare for all.”</p> <p>(http://www.gov.ls/health/)</p>	<p>The Ministry of Health initiated the assessment of alternatives replacement of QEII between 2002 and 2006. Once a PPIP approach was selected, the Ministry was extensively involved in planning for healthcare operations and delivery of care in QMMH. Now that the PPIP is operational, the Ministry provides primary operational oversight on behalf of the Government for QMMH operations.</p>	2002
Ministry of Finance and Development Planning	<p>The Ministry of Finance and Development Planning is a central coordinating Ministry in charge of:</p> <ul style="list-style-type: none">• Economic policy formulation, advice and analysis;• Operation of public financial management and financial reporting;• Collection, analysis and dissemination of statistical data;• National development planning, monitoring and evaluation;• Formulation and monitoring of Government budget;• Private sector capacity building, pension and medical aid scheme, maintaining a record of all government assets;• Provision of loan bursaries to students; and• Evaluation of internal controls and systems and advice. <p>(http://www.finance.gov.ls/home/)</p>	<p>The Ministry of Finance was instrumental in advocating for a PPIP solution for replacement of QEII and served as a major champion of the project at the Cabinet level. During the tender process, Ministry representatives spearheaded contractual negotiations and financing and led relations with the World Bank/IFC and other external stakeholders. Now that the PPIP is in operation, the Ministry participates in formal project oversight activities with a focus on controlling costs and ensuring project activities conform to contractual requirements.</p>	2006
Lesotho-Boston Health Alliance (LeBoHA)	<p>The collaboration of Boston University and Boston Medical Center activities in Lesotho is officially known as the Lesotho-Boston Health Alliance (LeBoHA), a registered public trust in Lesotho.</p> <p>LeBoHA aims to strengthen management, policy, planning and clinical capacity in the health sector of Lesotho.</p> <p>(http://www.bu.edu/lesotho/)</p>	<p>Initially hired by the Ministry of Health to evaluate various alternatives for replacing the QEII Hospital, LeBoHA eventually became consultants to the IFC and the Government throughout the PPP process. From 2002 to 2010, LeBoHA researchers developed multiple reports to establish health needs, health status baselines and cost baselines for the health system. Their 2002 report laid the groundwork for the hospital facility and services design and suggested an “arms-length” relationship between the Ministry of Health and the hospital operator.</p>	2002
International Finance Corporation (IFC)	<p>IFC, a member of the World Bank Group, is a development institution focused exclusively on the private sector in developing countries. Strategic priorities include addressing constraints to private sector growth in infrastructure and health in emerging markets.</p> <p>(www.ifc.org)</p>	<p>Engaged as transaction advisors to the Government, the IFC advisors consulted on and facilitated contract creation and financing arrangements. Following commercial and financial close, the IFC mobilized for consulting support and other arrangements to strengthen the Government’s ability to manage the QMMH PPIP.</p>	2006

PIIP procurement and contracting

Figure 3—PPP procurement process

Generally, PPP procurements proceed according to the following process: ^{Ref 6}



Bid design

With IFC engaged as a transaction advisor, the Government finalized its project concept and proceeded with the procurement process in 2006 and early 2007. Throughout the bid design process, the Government and its advisors balanced three competing demands:

- To procure as many services for as many people at the hospital and filter clinics as possible;

- To improve the quality of services; and
- To accomplish expanded access and improved quality within the Government’s affordability limit. ^{Ref 4}

Throughout the initial planning process, the Government worked to ensure that the outcome of the tender process would be affordable for future budget allocations over the lifetime of the PPIP contract. ^{Ref 4} This included

making some tough decisions, such as the size of the PPIP hospital. While LeBoHA projections anticipated that demand for hospital beds at the new PPIP hospital would reach 435 beds by 2006, and 653 beds by 2026, ^{Ref 2} the Government needed to balance this need against the affordability of the project in the near and long-term. In the end, the Government and its advisors elected to plan for just 425 beds.

To define the clinical services that should be included in the project tender, the Government and the IFC consulted with a broad range of stakeholders that included Ministry of Health staff, QEII clinical employees, private practitioners in Lesotho and international technical advisors (including LeBoHA researchers). This process helped to build broad support for the project while balancing affordability with expansion of services. ^{Ref 4}

In advance of formally issuing the tender, the Government and IFC facilitated discussions with the private sector to gauge and cultivate interest in the project. The final tender document was further refined through this market research and conversations with private sector parties with previous PPP experience.

The project was announced as a package comprising construction of a new 425-bed hospital and gateway clinic, refurbishment of three existing urban filter clinics and provision of both clinical and non-clinical services in these facilities over an 18-year contract (including the construction period). The tender required that any international respondents partner with local businesses for the bid response, with a goal of growing local private sector capacity through the project.

QMMH PPIP at a glance: Policy goals

In concept and design, the bid request furthered multiple policy goals defined by the Government and its transaction advisors. Through the project, the Government hoped to address the following:

Quality of Care:

- *Improvement in quality of services delivered to the population of Maseru and those referred to the national referral hospital from outlying districts;*
- *Expansion of clinical services available in Lesotho;*

Cost Neutrality:

- *Fees for patients relatively equal to fees at all other Ministry of Health facilities;*
- *Future healthcare expenditures at or near the current level of expenditure for QEII after adjusting for inflation;*

Efficiency to Expand Access:

- *Greater efficiency in deployment of healthcare resources, with the PPIP hospital treating more patients per annum than QEII with a similar budget;*
- *Expanded access to healthcare services and maximized value per healthcare dollar spent in the Maseru health district;*

Predictable Government Health Expenditures:

- *Future healthcare spending pegged to an annual unitary payment so other government funds can be devoted to other programs*

System-wide Efficiency Gains:

- *Remediation of national human resource shortages through improvement of the healthcare work environment, long-term improvement in compensation and both improvement and expansion of healthcare training programs;*
- *Systemwide efficiency gains driven by private sector management practices through training of health professionals, strengthening of national drug supply system;*
- *Local economic empowerment through project activity including capital expenditures, local private sector partner investment and escalating rates of local leadership at the new hospital.*

The project concept represented a significant shift in role for the Government: the Government would become a formal purchaser of health services rather than a provider of that care, with the goal of improving both the value for money of government spending and the quality of services provided to the people of Lesotho.

The project concept represented a significant shift in role for the Government: the Government would become a formal purchaser of health services rather than a provider of that care,² with the goal of improving both the value for money of government spending and the quality of services provided to the people of Lesotho. With this shift in role, the Government faced an immediate need to increase its role in private sector regulation, which required skills and experience in contract management and performance monitoring - all relatively new areas for both the Ministry of Health and Ministry of Finance.

The final tender outlined an annual unitary payment (roughly equivalent to the QEII operating budget plus capital expenditures), minimum patient volumes (16,500 inpatients and 258,000 outpatients per annum), a minimum package of services, and quality parameters for each listed service.^{Ref 20} The tender also included a list of optional services.

² In parallel to development of the PPIP, the Government expanded its participation in purchasing rather than delivering healthcare services: a Memorandum of Understanding with the Christian Health Association (CHAL) of Lesotho was established in 2007, whereby the CHAL facilities essentially function as public facilities and rely on the Ministry of Health for the majority of their budget. The facilities remain under private, not-for-profit management. This is a less comprehensive and defined arrangement than the QMMH PPIP, with far fewer performance standards and monitoring requirements established, but similarly reflects an expansion of the Ministry of Health's health purchasing activities.

In their response, bidders were required to propose a total package of services (required service plus any selected optional services) and propose maximum inpatient and outpatient volumes, all of which would be covered by the annual unitary payment established in the tender documents.^{Ref 4} In essence, the question posed to the private sector through the tender documents was: for the same level of expenditure at QEII, how much more can the private sector provide in quality, breadth and volume of healthcare services?

In essence, the question posed to the private sector through the tender documents was: for the same level of expenditure at QEII, how much more can the private sector provide in quality, breadth and volume of healthcare services?

Bid response

While initial interest was significant (the Government presented to 14 companies during an investors' conference during the tender period),^{Ref 11} ultimately only two consortia, both anchored by private South African hospital operators, submitted full tender responses by the October 2007 deadline.

Bid response expense:

Responding to PPP tenders is an expensive investment for the private sector; costs can total millions of dollars per bid response, even for bidders that are not successful. As a result, prior to responding, private parties conduct multiple assessments of a PPP tender to evaluate strategic benefits against risks and costs. Having a number of projects open for tender at a given time can distribute, and thereby reduce, the risk and expense of a failed bid. In the case of the QMMH PPIP, however, Lesotho issued a single, large project for tender. Thus, responding to the tender represented a high, concentrated risk for a private sector respondent. Given that this was the first project of its kind in Lesotho, and indeed across all of sub-Saharan Africa, the potential risk and cost for the responding bidders was particularly high, and almost certainly one driver of the limited number of vendor responses.

An ongoing challenge for governments considering issuing PPP tenders will be balancing policy needs, vision and practical requirements against creation of conditions that facilitate broader private sector engagement. Some governments offer varying degrees of bid cost reimbursement to encourage bidding, while others position specific tenders as “pilot” projects or otherwise indicate a pipeline of projects that can give the private sector confidence that the risk in responding will be reduced by the possibility of future opportunities. These approaches should be assessed on a case-by-case basis and considered in the context of the specific market and related projects.

Netcare, a private South African healthcare company, together with an assembled local consortium, was one of the respondents. Netcare reported pursuing the project primarily driven by corporate responsibility goals. At both the corporate and individual levels, Netcare leadership identified the Lesotho tender as an opportunity to expand quality services to an underserved population by leveraging their prior experience with PPP arrangements in the United Kingdom (UK).

Bid evaluation

To evaluate the bids, the Government and its transaction advisors assembled review committees comprising individuals with diverse skills and expertise selected from across the Ministry of Health, the Ministry of Finance and the IFC. These committees evaluated each bid according to three high-level technical criteria:

- **Service coverage:** Bidders' responses stated their commitment to provide all mandatory services as well as select optional services. The winning bid proposed to include 95% of optional services.
- **Patient volumes:** The bidder offering the highest maximum number of patients for the annual service payment received maximum points. The winning bidder committed to delivery of services to 20,000 inpatients and 310,000 outpatients per year.
- **Service delivery plan:** Bidders were evaluated on their approach to quality, effectiveness and efficiency; compliance with service standards; and the feasibility of the proposed plans. ^{Ref 4}

Bidders were required to submit separate, sealed, technical and financial proposals. Financial offers were opened only after technical evaluation was complete. ^{Ref 4}

Based on this evaluation process, the Government selected Netcare's consortium, Tsepong (Pty) Ltd as the preferred bidder in December 2007 (Tsepong means "a place of hope" or "hope" in Sesotho). Tsepong was a

special purpose vehicle (SPV)³ formed specifically for the project, comprising a group of equity shareholders, many of whom were also engaged as subcontractors for specific hospital functions:

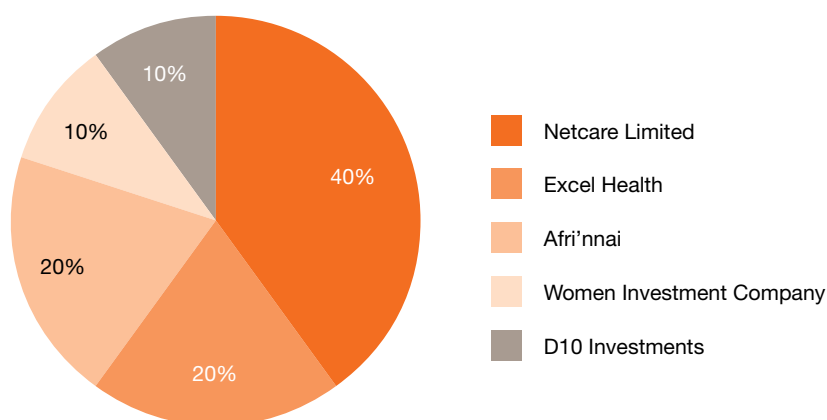
- **Netcare Limited (40%):** A for-profit, publicly traded South African healthcare company with operations in South Africa and the UK, where a subsidiary organization (General Healthcare Group) has operated

³ Special purpose vehicles (SPVs), also called special purpose entities (SPEs), are legal entities formed to fulfill narrow, specific or temporary objectives related to a specific project or investment, generally to insulate a parent company from the financial risk associated with the project. SPVs also might be formed to allow other investors to share in the risk of the project, bring management and technical capacity and/or to protect the interests of both lenders and investors. SPVs are generally prohibited from undertaking business outside the defined project. SPVs are a key feature of many PPPs. If both the government and the private party have invested in the SPV, then it is often considered a joint venture arrangement. ^{Ref 25}

multiple public-private partnerships within the UK National Health Service.

- **Excel Health (20%):** An investment company for doctors and medical specialists from Lesotho. Along with Afri'nnai, jointly responsible for supplying specialist physicians for QMMH operations.
- **Afri'nnai (20%):** An investment company for doctors and medical specialists from South Africa. Along with Excel Health, jointly responsible for supplying specialist physicians for QMMH operations.
- **Women Investment Company (10%):** An investment company for Basotho women. Sub-contractor for soft facility management (e.g., housekeeping) and other services for QMMH.
- **D10 Investments (10%):** The investment division of the local Chamber of Commerce. Sub-contractor for transportation and other services for QMMH. ^{Ref 24,7}

Figure 4—Tsepong equity stakeholders:



The local partners joining Netcare in the consortium were identified through two avenues. In the early stages of the bid process, the Ministry of Health hosted a bidders' conference that assembled a wide range of potential partners to learn about the project and allowed for connections among bidders. Additionally, a Netcare executive who had previously worked in the Free State (the South African province that borders Lesotho to the west; the capital of which is Bloemfontein) and had local connections in Lesotho was able to call upon his professional network to identify potential partners for the project.

To meet the requirements of the PPIP contract, over time, the equity investment in Tsepong will shift from Netcare to local partners through purchase of Tsepong shares held by Netcare. Local investment began at 40% in Year 1, and will increase to 45% in Year 8, and 55% by Year 13. ^{Ref 24}

Upon selection, the Government and Tsepong engaged in a 12-month negotiation process. Throughout this process, both Tsepong and the Government continued to draw on a broad range of expertise across their respective organizations to discuss details of the financial model, clinical and operational design and other contractual aspects. Defined committees convened on specific topics met regularly, reporting to a central coordinating Committee, which reported to the Prime Minister's Cabinet through the Ministers of Finance and Health to keep the Cabinet apprised of project progress. The parties reached agreement and commercial close on October 1, 2008.

Table 3—Key players—Private sector partners:

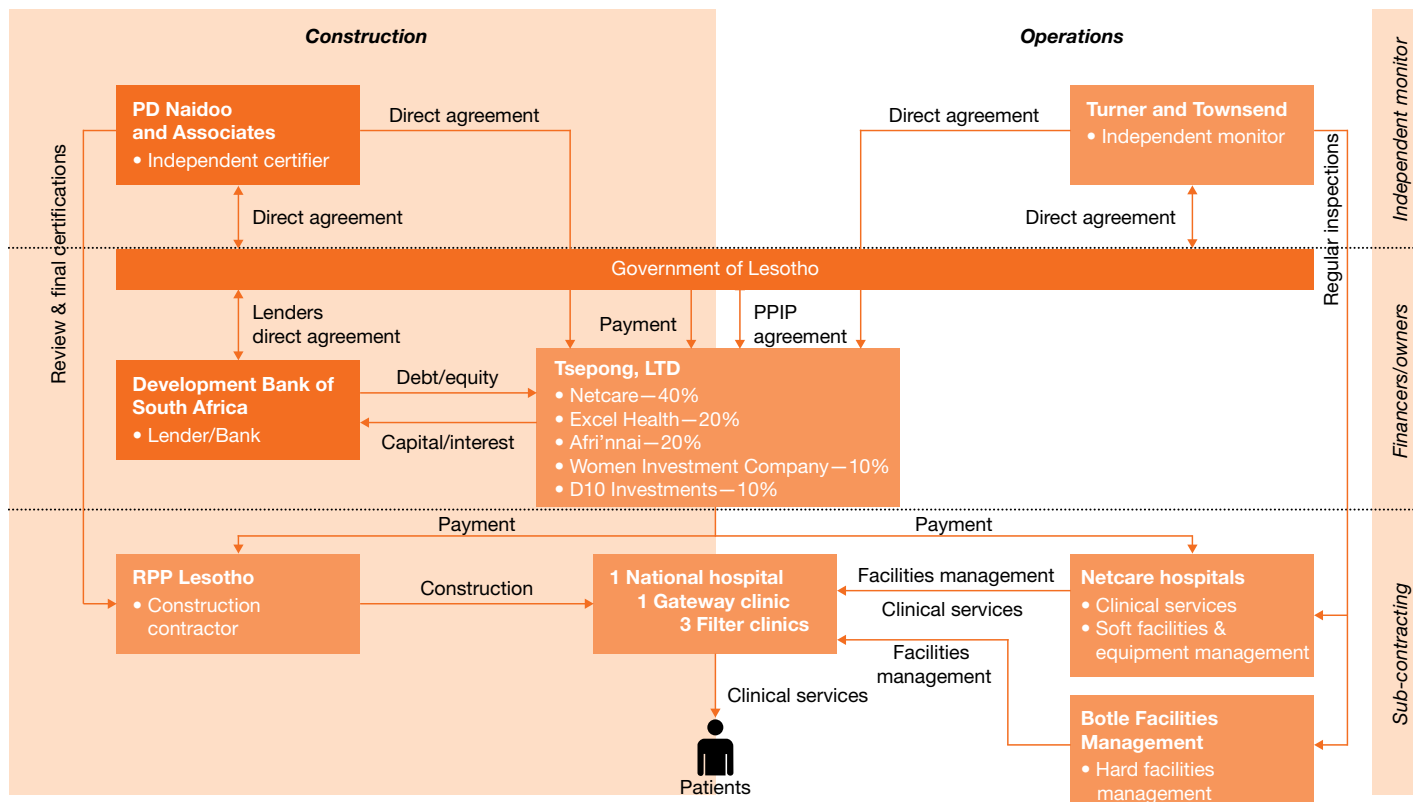
Organization	Description
Netcare (Ltd)	<p>A publicly traded company incorporated and listed on the Johannesburg Stock Exchange in 1996, Netcare operates a private hospital group, primary care network and medical emergency service in South Africa.</p> <p>Netcare also provides private acute care hospital services in the United Kingdom and is an independent service provider to the UK National Health Service (NHS).</p> <p>Before the Tsepong consortium, Netcare had prior experience partnering with governments on healthcare service delivery. In South Africa Netcare entered into PPPs with the Health Departments of the Free State and Eastern Cape as well as a number of private public initiative (PPI) contracts relating to healthcare delivery in South Africa. Netcare UK has also fulfilled several PPP contracts since 2001 on behalf of the UK National Health Service (NHS).</p>
Excel Health	An investment company formed by Lesotho-based general practitioners and specialists for the purposes of the Tsepong partnership.
Afri'nnai	An investment company formed by Bloemfontein-based specialists and general practitioners for the purposes of the Tsepong partnership.
Women Investment Company	An investment company for Basotho women established to encourage business and professional women to invest in profit-making ventures and financial instruments, and to assist rural women and girls in engaging in activities leading toward poverty eradication.
D10 Investments	<p>An investment arm of the Lesotho Chamber of Commerce and Industry (LCCI), a non-profit institution, which aims to serve and promote the interests of the Lesotho business community by playing a leading role in socio-economic development.</p> <p>Founded in 1976, LCCI is an independent and non-aligned organization; its members come from all political backgrounds and affiliations.</p> <p>(http://www.lcci.org.ls/)</p>
Tsepong (Pty) Ltd	The Tsepong consortium is governed by a Board comprised of directors from each of the investor organizations.

In parallel, the Government, Tsepong and their advisors worked to arrange capital finance through the Development Bank of Southern Africa (DBSA). Ultimately an M800 million (\$94.9 million) loan was made to Tsepong, with a Direct Lender agreement signed by the Government to improve the project's risk profile. Financial close followed in March 2009.

Initial interest rates had been estimated at 7%, but after the global economic crisis emerged during the course of negotiations, the final interest rate exceeded 9%. This increased cost of borrowing added more cost than initially anticipated during project planning.

PPIP contractual design

Figure 5—PPIP contractual design



The October 1, 2008 contract defines the structure, requirements and incentives for an 18-year contract between the Government and Tsepong. Totalling more than M2.2 billion (\$256.8 million)⁴ over the 18 years, the contract represented the single largest health procurement by the Government in the nation's history.^{Ref 1} The contract structures a district health system (including

the national referral hospital) to be independently managed by Tsepong with oversight by the Government and independent monitors.^{Ref 3} Through the contract, Tsepong committed to design, build and construct a new 425-bed hospital and attached gateway clinic, refurbish and re-equip three urban filter clinics, and then provide all clinical and non-clinical services for the duration of the contract. Taken

together, the hospital and filter clinics formed a health district that supports application of integrated care and population care principles to improve efficiency of healthcare delivery and expand inpatient hospital capacity in the Maseru district.^{Ref 4} The hospital also provides an upgraded and comprehensive tertiary referral facility for the whole nation.

⁴ Calculated based on net present value from financial close based on a 9.5% discount rate.

Financial terms

The terms of the PPIP contract require both public and private capital expenditure for construction, refurbishment and equipping of the hospital and the filter clinics as well as ongoing payments from the Government to Tsepong for the operation of these facilities. Both capital and operating expenses are bundled into a single unitary payment that flows from the Government to Tsepong.

Capital expenditure

Construction was jointly financed with public (37.7%) and private funds (62.3%). Public funds were made available at the outset of the project to reduce the capital repayment portion of the downstream unitary payments and therefore reduce future government expenditure over the life of the contract.

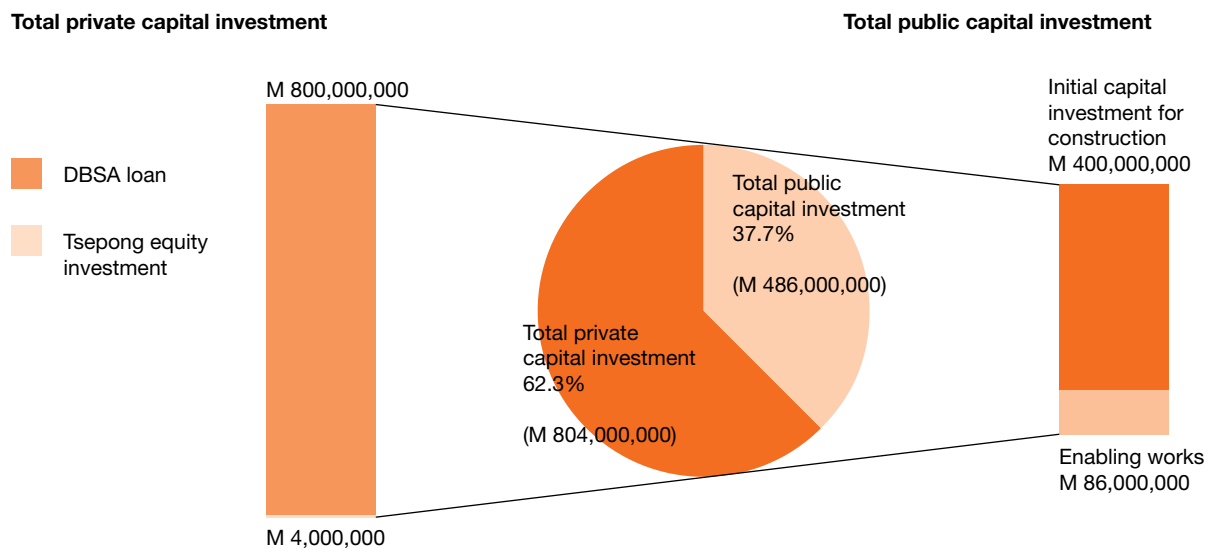
Public capital expenditure included both capital contribution to construction costs and to infrastructure improvements necessary to provide basic services to the hospital site:

- M400 million (\$47.5 million): Initial capital payment paid by the Government to reduce project debt (and, as a result, the unitary payment) and improve the project's risk profile for Tsepong; and
- M86 million (\$10.2 million): Additional expenditure for infrastructure improvements at the construction site (e.g., extension of sewers, water, electricity), commonly referred to as enabling works.^{Ref 24}

Private capital expenditure was largely funded through a loan from the DBSA, with a small equity contribution by the Tsepong consortium:

- M800 million (\$94.9 million): Loan to Tsepong from the DBSA with an approximate interest rate of 9.5%; Tsepong is responsible for repaying the loan (largely or wholly from funds received from the Government via the unitary payment), but to secure financing for the project the Government offered certain loan assurances to DBSA through a Direct Lenders Agreement; and
- M4 million (\$474,665): Equity capital investment by Tsepong. For local (non-Netcare) partners, shareholder loans from DBSA and Netcare Ltd were arranged to assist local partners in satisfying their equity requirements.^{Ref 24}

Figure 6— Capital investment:



Capital cost over-runs due to construction delays or other issues are the responsibility of Tsepong.

Operating expense and financial model

The initial financial model for the project was based largely on the results of the LeBoHA baseline studies, with total operating expense pegged to the annual recurring budget for QEII.

Perhaps due to limited availability of data, there were no specifications within the financial model based on services, case mix, or any other factors related to healthcare need or service delivery. Rather, financial model cost estimates for patient volumes bundled in the unitary payment (up to 310,000 outpatients and 20,000 inpatients per annum) as well as for incremental fees for treating patients above the agreed upon service levels, were estimated only by “inpatient” and “outpatient.”

Further details of the cost model were not available for review during preparation of this case study. In general, only limited financial information about the PPIP operations and cost is publicly available at this time.

Tsepong expects to break-even on its investment between the 10th and 12th years of the contract. Any deductions from the unitary payment based on performance penalties would impact dividends and therefore this break-even projection.

Unitary payment

The contract defined an annual unitary payment of M255.6 million (\$30.3 million) toward capital repayment and operating expenses. The contract prescribes upward adjustments to the annual unitary payment by an annual inflation index and potential deductions via performance penalties based on quarterly independent monitor reports.^{Ref 24} The unitary payment is based on treatment of a maximum of 310,000 outpatients and 20,000 inpatients per annum^{Ref 4} and the contract requires that any treatment of additional volume beyond these numbers be jointly approved with the Government before incremental payment according to negotiated rates. Minimum annual service levels for inpatients and outpatients (16,500 and 258,000, respectively^{Ref 4}) were also specified in the contract.

Unitary payment

Those involved in the QMMH PPIP assert that the operating budget at QMMH is approximately equal to that of QEII, therefore achieving cost neutrality for the Government (and also cost neutrality², given that user fees also have not increased in the transition between QEII and QMMH). The exact breakdown of the unitary payment into capital and operating components is considered proprietary and confidential, but some basic assumptions on capital cost confirm that operating expenses between QEII and QMMH remain relatively flat, as designed and repeatedly stated by the Government and Tsepong. In 2009, the recurring budget for QEII and the filter clinics was M135 million per year.^{Ref 24} Assuming 9.5% interest on the capital expenditure, the operating component of the unitary payment would be approximately M145 million per year, or a 7% increase from the 2009 budget. This 7% increase covers a significant increase in the type, quality and volume of services provided to the people of Lesotho and also presumably provides some return to the Tsepong consortium.

The apparent doubling of annual expense through the unitary payment (M255.6 million vs. M135 million) reflects repayment of the capital outlay required for hospital construction and clinic refurbishment, a capital expense that would have been required under a traditional procurement method as well, had the Government undertaken the project itself. Still, these capital expenses (M110 million per year in addition to the M486 million paid up front at financial close) represent a significant outlay by the Government that may pose a drain on future Ministry of Health budgets. In 2007, operating expenditure at QEII alone, excluding the filter clinics, represented nearly 40% of the Ministry of Health's operating budget.^{Ref 13} The QMMH budget will likely represent a similarly large expenditure in the years to come. One important point of future evaluation will be whether this large expenditure at a single national referral hospital impacts care in the broader health system. These impacts might be negative if too great a proportion of health spending is directed to QMMH, or positive if Tsepong and the Ministry of Health can achieve some of the health system strengthening goals outlined in the PPIP contract.

Table 4—Budget and service levels: QEII vs. QMMH

Taking our estimate of the operating component of the annual unitary payment as a proxy for operating budget at QMMH, we calculated that a 7.4% increase in the operating budget between QEII and QMMH yields a significantly larger increase in the volume of services provided through the application of a PPIP model.

	QEII	QMMH— Minimum Service Levels	% Change— Minimum Service Levels	QMMH— Maximum Service Levels	% Change— Maximum Scenario
Annual operating budget	M135 million	M145 million (estimated)	7.4%	M145 million (estimated)	7.4%
Annual inpatient admissions	15,465	16,500	6.7%	20,000	29.3%
Annual outpatient encounters (Hospital outpatient+filter clinics)	165,584	258,000	55.8%	310,000	87.2%

Unitary payments were not scheduled to begin until the hospital opened on October 1, 2011, however; thus the Tsepong consortium was required to use its own funds to cover operating expenses at the filter clinics and all other costs for nearly three years following commercial close.

To address this gap and the risk it presented, the parties arranged for additional funding from the outset of the project. The World Bank-housed Global Partnership for Output-Based Aid (GPOBA)⁵ committed a grant of \$6.25 million intended to cover Tsepong operating expenses during the

interim period when the refurbished filter clinics were operating but the hospital had not yet opened (May 2010 to October 2011). These funds were specifically arranged to improve the project’s risk profile for the private sector partner.

User fees

The contract required that user fees for all patients be charged in accordance with Ministry of Health policy, under which no user fees are collected for primary care services accessed at health centers. Generally, fees only apply to hospital or specialty services (e.g., dentistry, radiology).

Under the terms of the PPIP contract, Tsepong applies the Ministry of Health fee schedule, collects user fees on behalf of the Ministry of Health and returns these fees to the national Treasury (per Government policy, user fees are not retained by the Ministry of Health), just as public district hospitals and health centers do. Thus, fees at QMMH remain the same as at any

other public facility in the country, and patients pay no more than they paid previously for services at QEII.

Incentives in the PPIP contract provide for a small percentage of QMMH and associated clinics’ user fees to be retained by Tsepong if target collection rates are achieved.

Operational terms

Co-location of private services

Of the 425 beds at QMMH, 390 are public beds and 35 were built as private beds in a separate private wing. As of this case study’s publication, the private wing at QMMH had not yet opened.

Private and public beds were intended to differ only in their amenities (e.g., privacy, television) and source of payment. Private and public patients are expected to utilize the same shared facilities and medical staff. Specialists who visit patients in the private wing would also serve the patient population in the public hospital.

⁵ The Global Partnership on Output-Based Aid (GPOBA) is a partnership of donors and international organizations working together to support output-based aid (OBA) approaches. GPOBA’s mandate is to fund, design, demonstrate and document OBA approaches to improve delivery of basic infrastructure and social services to the poor in developing countries. The goal is to mainstream OBA approaches with development partners, including developing country governments, international financial institutions, bilateral donors and private foundations. (<http://www.gpoba.org/gpoba/about>).

The contract allowed for some revenue sharing with the Government through a percentage revenue allocation for use of shared services (e.g., radiology) by private patients. A rental fee for private wing space was calculated during contract negotiations and reduced the unitary payment amount paid to Tsepong on a prospective basis.

Access to hospital services

As established in the PPIP contract, patients can be seen at QMMH only by referral, either from filter clinics in the Maseru health district, or from other district hospitals or private practitioners. Because there is no gating system to access care at the urban filter clinics and no fees are assessed for clinic services, patients presenting for hospital services at QMMH must be first evaluated at the onsite QMMH gateway clinic, and be treated or referred to the hospital based on clinical assessment.

The QMMH referral system and filter clinics designated to support it are a key element of the PPIP design, and were developed to support a population-based care approach that allocates care delivery to the most appropriate and cost-effective setting and provides a mechanism for managing demand for hospital services. Referral protocols and requirements are defined in the PPIP contract based on Ministry of Health policy and are consistent with other referral requirements across the health system.

Excluded services

In certain cases, specific services were explicitly excluded from the PPIP contract. Exclusions were based on Ministry of Health assessment of cost and the utilization patterns for these services, largely based on the LeBoHA feasibility and baseline studies. In their 2002 report, LeBoHA researchers analyzed the cost and volume of specific treatments being referred to Bloemfontein, South Africa in 2002 and considered whether patient volumes would support a local treatment program in Maseru.^{Ref 2} They also considered ongoing operational costs of certain treatments (e.g., chronic renal dialysis) and whether these services could be supported within Lesotho's health system expenditure limits. Largely based on these studies, the Ministry of Health excluded a series of specific services from the tender, including:

- All transplants other than corneal transplants;
- All joint replacement other than hip replacements;
- Chronic (end stage) renal disease treatment;

- All elective cardiac and great vessels surgery;
- All chemotherapy and radiotherapy;
- In vitro fertilization (IVF) and advanced fertility treatments;
- Plastic surgery other than basic, essential reconstructive surgery with medical need; and
- Cosmetic dentistry.

Under the terms of the new PPIP contract, the treatment abroad program administered through referral to South Africa is jointly managed by Tsepong and the Ministry of Health. Both Tsepong leadership and Ministry of Health leadership review each case and both must approve referral for treatment to facilities in nearby Bloemfontein, South Africa. A review process and referral protocols were established in the contract.

The parties agreed that if treatment abroad data demonstrated sufficient need for specific additional services, services could be incorporated into the PPIP contract through the project variation process.

Treatment abroad programs

While the treatment abroad budget that supported referral care in South Africa was a factor during the Ministry of Health's assessment of the need for a new replacement hospital, the initial feasibility study conducted by LeBoHA determined that "despite the total cost . . . the volume of cases sent to any specific referral service in Bloemfontein is relatively low . . . most currently referred services are well below the critical volumes needed to support a standalone tertiary care service." Thus, in the final design of the PPIP contract, the Lesotho Treatment Abroad Program (TAP) was not a significant motivation for the PPIP project.

Many other countries, however, including most small, lower income countries, do have significant TAPs. These are often overlooked or poorly understood programs that support overseas care

at significant public expense, sometimes only for the most privileged citizens. In the Turks & Caicos Islands for example, the large TAP was a significant driver of that country's PPIP project and establishment of a national insurance scheme.^{Ref 23}

Even in Lesotho, where the TAP was not a primary focus of the PPIP, the private management of Tsepong has resulted in better management and stricter control over TAP spending. The PPIP contract requires joint management of TAP referrals by both Tsepong and the Ministry of Health, and Tsepong employees review invoices received from the South African facilities providing TAP care. Through this review, Tsepong has identified errors in billing and overcharging and thereby reduced the cost of TAP care through tighter management control.

Employment

Under the contract, Tsepong has full human resource responsibility for employees of QMMH and the filter clinics, including hiring, termination and performance evaluation. Full-time physicians are employees of Tsepong. This arrangement differs from Netcare's traditional business model under which the majority of their physicians in South Africa are independent contractors rather than salaried employees.

While an automatic and wholesale transfer of QEII employees to the employ of Tsepong was considered,

ultimately the Government decided to require an open application process for all positions at QMMH, which was described in the PPIP contract. Employees of the Ministry of Health (across all facilities and departments, not only QEII) were free to apply for posted positions at QMMH, as were non-Ministry of Health employees (although priority was given to current Ministry of Health employees). Employees of QEII and the filter clinics who did not wish to apply for positions at QMMH were transferred to other Ministry of Health facilities upon closure of the QEII and older filter clinics.

Broader impacts

Health system strengthening

The PPIP contract was designed to incentivize Tsepong to engage in health systems strengthening activities through and beyond QMMH operations. For example, QMMH and associated clinics were required to purchase 80% of all pharmaceuticals, by price, through the Lesotho National Drug Supply Organization (NDSO), with the intention of strengthening Lesotho's national drug supply chain.

The PPIP contract also required Tsepong to sponsor one medical student's fees and accommodation costs each year in an effort to build human resource capacity for the Lesotho healthcare system. Similarly, QMMH replaced QEII as the primary site for the training of healthcare professionals in Lesotho. Nursing students from Lesotho's multiple nursing schools, pharmacists, pharmacy technicians and other healthcare professionals all now complete their practical training at QMMH and its associated clinics.

Local economic empowerment

From its initial issue of the project tender, the Government clearly stated a requirement for local economic empowerment (LEE) through the PPIP project. Contractual requirements defined specific targets for LEE performance, which escalated over the duration of the 18-year contract. Across all contract years, 80% of staff employed at QMMH were required to be local. By Year 2 of the contract, 50% of management staff were to be local, increasing to 80% by Year 5. Further, 25% of management staff were required to be local women by Year 2, and 40% of management were to be local women by Year 5.

Thirty percent of all capital expenditures to be directed through local enterprises. In Years 1-5, 50% of operating expenditures to be directed through local enterprises, escalating to 70% of operating expenditure in Years 6-10, and 100% of all operating expenditure in Years 11-18.

Community development

The PPIP contract also required Tsepong to provide specific healthcare-related community development activities in addition to the broader health systems strengthening and local empowerment goals:

- Tsepong funds treatment of congenital heart disease, cleft lip and palate defects to an agreed cost each year;
- Extending the Netcare "Sight for You" program, Tsepong provides ophthalmology services to the local community; and
- At its own cost but in cooperation with the Government, Tsepong maintains and operates a Women and Rape Crisis Management center at QMMH.

Independent monitoring and certification

Independent monitors were established for both the construction phase (monitor: PD Naidoo and Associates) and the operations phase (monitor: Turner & Townsend). The independent monitors were jointly appointed by, and are responsible to both Tsepong and the Government.

The PPIP contract sets out a formal governance structure for the project and establishes two committees for oversight and management of project exceptions: the Joint Services Committee and Liaison Committee. These Committees, which include representatives of Tsepong and the Government (Ministry of Health, Ministry of Finance), are charged with reviewing the independent monitors' reports, overseeing the quality of project operations and revising contract terms as required over the course of the contract. They meet at least quarterly.

Independent monitoring and certification

Assignment of an independent monitor is a standard practice in capital infrastructure PPP projects to certify the satisfactory completion of the assets. The monitor serves as an independent reviewer and certifier of work performed based on contractual terms and the monitor's expert assessment. Often the independent monitor brings a higher level of technical expertise than may reside in the government, thereby augmenting the public sector's contract management program.

The QMMH PPIP not only assigned an independent certifier for the construction phase of the project but also assigned an independent monitor for the 15-year operations phase of the project when contract management demands on the Government and the contract expense to the

Government would be highest. This extension of the certifier role was crafted specifically for the QMMH project by the Government's transaction advisors.^{Ref 4} The independent monitor supports the Government's oversight of the project's operation phase much in the same way that the independent certifier supports the construction phase: bringing a higher level of technical expertise than may reside in the Government to support the public sector's contract management function. In countries where contract management capabilities are more established within the government, the monitor role is typically fulfilled by a government department or committee rather than an independently contracted monitor, although such arrangements can be less satisfactory in guarding the public interest than an independent monitor.

Table 5—Independent monitors for QMMH:

Organization	Description & Role
PD Naidoo & Associates	<p>PD Naidoo & Associates (PDNA) is a multidisciplinary consulting and engineering practice based in South Africa with 14 offices across the country. (http://www.pdna.co.za/)</p> <p>Scope: Certification of construction of hospital and refurbished clinics</p> <p>Reporting: Certification upon completion of construction programs for clinic refurbishment and hospital construction.</p>
Turner & Townsend	<p>Turner & Townsend is a global professional services firm with offices on 5 continents. They maintain South African offices in Johannesburg, Pretoria, Durban and Cape Town.</p> <p>In South Africa, Turner & Townsend provides commercial assurance services to public and private companies, including consultancy and contract management services. The QMMH project is the first time that the Firm has provided assurance services for clinical hospital operations. (http://www.turnerandtowntsend.com/southafrica.html)</p> <p>Scope: Independent monitoring of ongoing clinical operations of QMMH and associated filter clinics.</p> <p>Reporting: Quarterly inspections and reports issued to both Tsepong and the Government. Reports reviewed quarterly by the Joint Services Committee and may be escalated to the Liaison Committee, as required.</p>

Key monitoring terms and performance indicators for hospital and clinic operations were established in the PPIP contract and have been adapted to a model or formula by Turner & Townsend. Tsepong is required to generate quarterly performance reports and otherwise produce data for review by the independent monitor and the Joint Services and Liaison Committees. The independent monitors also conduct separate site visits to validate reported data.

Performance indicators were defined across a range of topics and areas to cover the range of QMMH operations and functions. Performance indicators were established for patient volumes, clinical quality standards, client satisfaction, equipment supply and maintenance, facilities management, information technology, and staff certification and training. Certain indicators were weighted more heavily than others.^{Ref 4} For example, Tsepong might receive a greater financial penalty for a failure on a clinical

performance indicator than on a facilities management indicator that less directly impacted patient care.

The hospital and clinics will be accredited by the Council for Health Service Accreditation of Southern Africa (COHSASA). After an initial ramp-up period, accreditation by COHSASA is a necessary requirement of the ongoing PPIP contract.

Table 6 – Sample performance indicators:

The LeBoHA baseline study provided initial performance indicators for the PPIP contract. The following are sample pre-accreditation targets (i.e., targets for the initial period of the PPIP prior to COHSASA accreditation) for a number of performance indicators.

In general, these are demanding targets that would far exceed care standards provided at QEII or similar public facilities. For example: in a typical public sub-Saharan African hospital, lab results are often never received by clinicians. At QMMH, Tsepong is measured on its ability to provide test results in less than 60 minutes in 90% of cases. QMMH Clinicians report vastly improved lab turn-around-time and a resulting improvement in the quality of care being provided.

Sample performance indicators:

Myocardial infarction treatment times: Percentage of patients with provisional or proven diagnosis of myocardial infarction who receive aspirin within 30 minutes of evaluation.

Initial (pre-accreditation) Target: at least 85%

Decubitus ulcer rate: Rate of hospital-acquired decubitus ulcers

Initial (pre-accreditation) Target: less than 10%

Laboratory services: Lab test turnaround time for six key lab tests to be agreed upon.

Initial (pre-accreditation) Target: less than 60 minutes in 90% of cases

Medical records availability: Medical records available

Initial (pre-accreditation) Target: at least 75% of cases

Information management & technology uptime: System uptime based on a three-month average period

Initial (pre-accreditation) Target: At least 99% over 3 months

Table 7 – Key contract terms:**Key contract terms:**

Contract duration	18 years
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Financial terms

Total capital expenditure	M1.29 billion / \$153.1 million
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Public funds	M486 million / \$57.7 million (37.7%)
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Private funds	M804 million / \$95.4 million (62.3%)
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Annual unitary payment	M255.6 million / \$30.3 million
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Total project cost, capital + operating (18 years, net present value)	>M2.2 billion / \$256.8 million ⁶
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Facility specifications

Built area	29,000 m ²
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Number of beds	425
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Number of public beds	390
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Number of private beds	35
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ICU beds	10
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Surgical theaters	8 major procedure rooms + 1 minor procedure room
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Affiliated clinics	3 filter clinics, 1 gateway clinic
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Annual patient volume requirements, per unitary payment	258,000 – 310,000 outpatients / 16,500 – 20,000 inpatients
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Table 8 – Summary of contracted risk and responsibility:

Risk or responsibility	Tsepong	Government	Notes
Enabling works		Owner	Government required to provide enabling works to hospital site.
Construction and design	Owner	Oversight	Tsepong responsible for all design and construction activities and risks; Tsepong passed along some of this risk to subcontractors to incentivize on-time completion.
Demand volume	Shared	Shared	Tsepong is contractually required to deliver services to up to 310,000 outpatients and 20,000 inpatients per year. Beyond this cap, additional treatment must be authorized by the Government and will be paid at predetermined rates established in the PPIP contract.
Case mix	Owner		The PPIP contract makes no allowances for case-mix adjusted payments. Tsepong must deliver care to established minimums and maximums regardless of case severity.
Technology change	Owner		Tsepong is required to provide and maintain equipment and information technology systems according to schedules established in the PPIP contract. Maintenance and replacement schedules were established such that equipment and technology will still be current at the end of the 18-year contract.
Human resources	Owner		Tsepong employs all employees and otherwise contracts directly for necessary services to meet PPIP service requirements.
Other operational risk	Owner		Tsepong owns all operational risk unless an issue raises to the level of a relief or compensation event or contract default, in which case the Government shares in the negative risk.
Service performance	Owner	Oversight	Tsepong is responsible for meeting service levels established in the PPIP contract. The Government serves in an oversight role and may participate in approving resolutions to any service deficits.
Treatment Abroad Program (TAP)	Shared	Shared	Both Tsepong leadership and Ministry of Health leadership may review cases for evaluation and approve referral for treatment to facilities in nearby Bloemfontein, South Africa. A review process and referral protocols are established in the contract.

⁶ Calculated based on net present value from financial close based on a 9.5% discount rate.

Construction and early implementation: Financial close to launch of hospital services

Construction

Construction of the hospital began in March 2009 on a designated greenfield site outside central Maseru in Botsabelo. Refurbishment of the filter clinics also began in March 2009 following financial close. In both cases, construction was sub-contracted by Tsepong to RPP Lesotho, a subsidiary of a South African construction company. RPP outsourced as much construction activity as possible to local Lesotho contractors but was reportedly limited by the expertise that existed within Lesotho firms.

Tsepong was fully at risk for construction budget over-runs or delays. To manage this risk, Tsepong passed these same risks to RPP Lesotho through a subcontracting agreement for construction services. The filter clinics opened in May 2010 and the new QMMH opened in October 2011. In both cases, construction was completed ahead of schedule.

Transfer of construction risk

The increased efficiency through private management of the construction process can be a significant benefit from a PPP arrangement; among Private Finance Initiative (PFI) projects in the UK, nearly 90% of construction projects were completed on time.^{Ref 10} In the case of QMMH, Tsepong did not receive unitary payments until hospital construction was completed and was responsible for any cost over-runs, as is the case in most PPP projects. Tsepong passed this risk onto its construction contractor, RPP Lesotho, to strengthen the incentive for on-time and on-budget completion. With proper incentives, private management of construction can avoid hidden costs due to delay or off-balance sheet costs that are often associated with traditional public procurements.

The Government, its transaction advisors and the Tsepong consortium initiated multiple initiatives that were active while hospital construction and clinic refurbishment were underway. Human Resource representatives toured the country to educate Ministry of Health employees on the new PPIP project, potential job opportunities, and projected impact on their positions. The Ministry of Health and Tsepong separately and jointly engaged in planning and communications efforts focused on the transition of patients, services and employees from QEII to QMMH and the filter clinics.

Opening of the filter clinics

Almost immediately upon opening in May 2010, the patient volume at the filter clinics exceeded anticipated demand, reportedly driven in part by patients' perceived improvement of care, now being delivered under Tsepong. New outdoor structures were promptly built to shelter the patients who lined up outside the clinics each morning to receive care.

Islands of excellence

From the outset of the QMMH PPIP project, all parties have been concerned about how to avoid establishing an “island of excellence” at QMMH that is soon overwhelmed by a sea of demand. Indeed, this is a concern for many PPIP projects in lower income countries. The initial demand at the Maseru filter clinics seemed indicative of this trend and concern. Similarly, QMMH was operating near full capacity almost from the day of opening. In the first year of the hospital operations, the volume of outpatient services at QMMH and the associated clinics significantly exceeded the maximum service volumes established in the PPIP contract and covered by the unitary payment.

Tsepong and the Ministry of Health are collaborating closely to manage the flow of referrals from district hospitals and to develop training programs for district physicians and staff. Many of the educational programs envisioned in the PPIP contract (e.g., nurse training programs, support of medical education for Basotho students) as well as others currently being considered (e.g., training for district administrators, rotational programs for Ministry of Health employees to orient them to QMMH operations) are aimed at broader health system strengthening to reduce the demand and burden at QMMH. While it is too early to determine whether these programs will be sufficient to manage the health system demand, the management of demand for Tsepong services is clearly a focus of both the public and private partners in Lesotho.

During the interim transition period, primary care and other basic services were provided at the refurbished filter clinics and patients were referred to QEII if more advanced care was required. During this time, Tsepong relied heavily on remote management from Netcare and its subsidiary companies based in South Africa to supplement a locally hired onsite manager and nurse leaders. As hospital opening approached, senior managers (Hospital Manager, Financial Manager, Pharmacy Manager) were seconded, assigned, or transferred from Netcare to Tsepong to plan for the opening of QMMH and to manage project operations going forward.

The PPIP contract anticipated a \$6.25 million grant from GPOBA to Tsepong to cover the significant expense of operating the urban filter clinics before the first unitary payment was made upon opening of the hospital. Unfortunately, these funds were not received during this period, and, as of Fall 2012, were still being pursued by Tsepong. In place of this grant, Netcare made loans to Tsepong to cover operations through October 2011 when unitary payments began.

Payment delays

Generally, significant payment or funding delays lead to contract default under many PPP agreements. Netcare's ability and willingness to loan money to Tsepong when the expected GBOPA grant was not received demonstrates its commitment to the PPP project and may not be typical of all projects. On at least one occasion, delays in receipt of the unitary payment from the Government have caused Tsepong to default on its financing agreement with the DBSA. The SPVs usually formed for PPP projects generally have few financial reserves and their sponsoring companies generally have a limited appetite for lending money to these limited recourse companies. Identification of the right private partner and a financing organization who are committed to the goals of a project, even at the expense of its margins, can be an important success factor, particularly for projects that might encounter early financial obstacles.

Transition from QEII to QMMH

QMMH opened for operations on October 1, 2011. Based on the plans co-developed by the Ministry of Health and Tsepong, patients, services and employees were transitioned from QEII to QMMH over the course of a single day. Additional transport was arranged to move inpatients from QEII to QMMH and employees were on hand at both sites to manage the transition.

Not unexpectedly, the transition between the facilities was challenging. To the extent possible, Tsepong employees had been trained and oriented to the new equipment and facilities at QMMH, but nurses, physicians and other staff necessarily faced steep learning curves while managing a heavy patient load, literally overnight.

Despite efforts to communicate to the health system and the public, neither referring physicians nor patients fully understood the referral process required to access care at the hospital. During the referral and admission process, patients were troubled by long waits due to new triage procedures and new data entry requirements associated with the advanced information technology systems in place at QMMH.

The Ministry of Health also faced challenges in managing this major transition. QEII employees who were

not hired by Tsepong were re-assigned to other district facilities that were not uniformly prepared to accept the new employees. In some cases, Ministry of Health employees found themselves unable to effectively perform in their new jobs for more than 6 months—a demoralizing situation for the employees and a drain on the Ministry of Health’s budget since salaries were still paid but the employees were unable to provide needed services.

The Ministry of Health also experienced delays in providing the necessary licensing and permitting of the hospital, which was required for QMMH to purchase certain drugs for patients and also to open the

private wing of the hospital. For a period, QMMH was unable to provide tuberculosis treatment or antiretroviral drugs, leaving a significant care gap for the Maseru Health District following the closure of QEII.

Overall, the first three months of hospital operation proved particularly challenging to employees and patients who were adjusting to new expectations, new work norms, new facilities, new equipment and other changes. In some cases, the transition caused gaps in care, but the Ministry of Health and Tsepong were able to work productively to address these gaps and resolve them as quickly as possible.

Transitions to new facilities

It is likely that these transitional challenges would have occurred in any transition between facilities, as the nature of the challenges is not unique to a PPP or PPIP arrangement but rather associated with the overnight transition between an old facility and a new hospital. In fact, evidence from Lesotho suggests that private sector management and expertise were essential in reducing and addressing the transitional challenges for QMMH staff. Similar transitional challenges for employees transferring from QEII to other Ministry of Health facilities were greater and more persistent than the transition experience for the operations of QMMH and the employees of Tsepong.

Queen Mamohato Memorial Hospital: The first year

With the opening of the new hospital, healthcare services available to the people of Lesotho in their own country (as opposed to via referral to South Africa) expanded in significant ways. The new hospital introduced:

- The nation's first Intensive Care Unit (ICU);
- The nation's first Neonatal Intensive Care Unit (NICU);
- 9 operating theaters (as opposed to QEII's 2 operating theaters) equipped for a wider array of surgical services (e.g., endoscopy);
- New imaging modalities including CT and MRI machines; and
- Other equipment to support modernized clinical operations (e.g., laryngoscopes to allow for intubation, which were not available to physicians at QEII).

Beyond the improvement in facilities and equipment, the introduction of strong management systems and leadership by the private sector has been transformative to the delivery of care and the experience of QMMH healthcare professionals. QMMH operations are marked by strong leadership and communication, empowerment of appropriate decision-making throughout the organizational structure, strategic training programs, well-defined operational norms and performance-based incentives for all staff. ^{Ref 14} In combination, these management systems incentivize

better individual performance, team work and coordination and uptake of new organizational models and technology. Netcare has assigned experienced managers to lead the project. This leadership team is implementing Netcare's best practice policies and procedures while educating and grooming QMMH staff toward future leadership and management roles.

As of this report's publication, operations at QMMH are very much a work in progress, as would be expected for any newly established hospital, let alone one testing an innovative arrangement for the first time. The discussion below focuses on the early achievements and challenges for QMMH operations during the first year of operations, October 2011 to October 2012. Statements and conclusions are based on in-person interviews, and previously published accounts of the project.

Human resources management

A senior Netcare Human Resources (HR) manager was seconded to Tsepong for a 1-year period to assist in the establishment of a strong HR infrastructure and to mentor local HR staff who will ultimately take over the leadership role. In a short period, the HR team made strides in establishing a new work culture and norms, implementing a strong performance management system, and establishing new performance expectations that,

Introduction of strong management systems and leadership by the private sector has been transformative to the delivery of care and the experience of QMMH healthcare professionals.

as reported by QMMH employees, have translated into improved patient outcomes. Further, all Tsepong employees interviewed, who previously worked at QEII, reported a vastly improved work environment. Benefits ranged from an increased sense of physical security, an improved ability to focus on patient care rather than administrative-related stressors, greater recognition, and a greater sense of accomplishment in daily work.

Staffing levels and recruitment

During the project ramp-up period, Tsepong recruited employees from across Ministry of Health facilities to positions at QMMH. External applicants were also evaluated and hired to appropriate roles. Recruitment was initially slow and extensive education was required to address employee concerns about risks, real or perceived, associated with a transition to Tsepong.

Also of note, significant financial incentives existed for more senior employees to remain in a Ministry of Health position. According to Government policies, pensions are paid in a lump sum to vested employees after age 50. As a result, most senior nurses and some senior

physicians from QEII elected to transfer to another Ministry of Health facility rather than join QMMH and forego their seniority vesting in the Ministry of Health pension program. No arrangements were made to credit Tsepong service toward a Ministry of Health pension and while Tsepong does offer a pension program for its employees, it is not paid as a lump sum. Thus, more senior employees were heavily incentivized to remain in Ministry of Health employ.

Over time, however, momentum built and a near-full staff complement was assembled. Netcare's reputation and the opportunity to work in a private environment within Lesotho were two major incentives reported by nurses who joined Tsepong from employers other than the Ministry of Health.

Recruitment continues for specialist physicians, but the leadership of QMMH has been able to ameliorate many of the staffing shortages experienced at QEII. Junior, non-specialist physician staffing is complete and has improved from QEII. Recruitment of specialist physicians is complicated by comparatively low salaries in Lesotho, but Tsepong has been able to hire multiple specialists to address pre-existing gaps from QEII, including anesthesiologists, intensivists and other internal medicine specialists. Recruitment continues for additional surgeons. Visiting specialists from South Africa cover some services not fully staffed by full-time, employed physicians.

Primarily due to the HR challenges experienced across the Lesotho healthcare system, the majority of physicians are expatriates from across Africa and around the world, with few Basotho physicians on staff (approximately 10% of physicians are Basotho). Over time, Tsepong aims to increase the proportion of Basotho physicians employed at QMMH. Nurse staffing is basically complete and almost all QMMH nurses are Basotho.

Policies and procedures

Employment policies and procedures at QMMH are notably different from established policies or traditions at QEII, and support significant improvements from QEII operations. Terms of employment at Tsepong are governed by Lesotho's Labor Code, whereas terms of employment at the Ministry of Health are governed by the Public Service Code. This shift prompted multiple changes for QMMH employees previously employed by the Ministry of Health, including the need for time reporting, overtime and leave allowances and the loss of a Global Fund salary supplement made to some Ministry of Health employees.

This change in legal code along with introduction of strong management principles resulted in significant changes in HR policies and procedures. Notable changes include:

- **Time and attendance accountability:** Whereas at QEII, employees reported that nurses and

physicians would often not report to work or would not work full shifts, employees of QMMH, including nurses and physicians, must hand swipe at installed terminals whenever entering and leaving the facility. This time reporting system impacts employees' pay if their absences exceed vacation and sick allowances or document fewer hours of attendance than required by their shift schedules. Supervisors review their direct reports' time and attendance and sign off on the data prior to submission for payroll processing. In acknowledgment of the significant cultural shift associated with implementation of a strict time and attendance system, QMMH leadership phased in this system over a six-month period. Employees used the system for the first six months although it was not linked to payroll systems during that time. As of summer 2012, the system was fully in effect for all employees.

- **Performance standards and accountability:** Performance standards have now been defined and are continuously enforced in a very different way than at QEII. Managers from QEII reported that the disciplinary system under the Lesotho Public Service Code is slow and cumbersome. Supervisors reported feeling powerless or ill-equipped to enforce standards for conduct and care. As a result, at QEII, negative behavior was rarely addressed in a formal way

and was often simply ignored. At QMMH, physicians are able to reassign nursing or clerical support members who are not performing to established standards; employees are formally notified of performance deficiencies; and, if these deficiencies are not addressed over a period of time, the poor performance may culminate in termination. QMMH has begun to develop, and continues to refine, performance standards for each employee role so that the performance system is transparent and consistent.

- **Performance incentives:** Patient satisfaction surveys are available on every inpatient ward and elsewhere throughout the hospital. Surveys are assessed regularly, and wards or departments with high patient satisfaction results are recognized for their efforts and success. Similarly, individual employees are recognized based on “employee of the month” awards and similar recognition programs. Staff were also thanked for their service through a year-end holiday party approximately two months after hospital opening. Similar programs were not available to staff when employed at QEII.

Training

Training has been a particular focus since opening of QMMH. To date, training programs have focused on remediation of identified skill gaps, including customer service, infection control, accident and emergency triage and specific clinical competencies. Training is conducted by local staff as

well as international experts who fly in for periodic courses. Training will continue as a priority during the first few years of facility operations, due to the comparatively large population of inexperienced nurses who will require extensive on-the-job training to expand their skills and experience, a desire to increase the skills of Tsepong physicians, and the need to improve data entry compliance among administrative staff to ensure data quality for performance monitoring and reporting.

In partnership with the Ministry of Health, Tsepong has opened its training programs to physicians based in the district hospitals. By supporting this system strengthening, Tsepong also seeks to address skill gaps that generate unnecessary referrals to QMMH. Future system-wide trainings are planned to continue this effort. Tsepong is considering establishing a rotational program through which clinicians assigned to other Ministry of Health facilities will practice at QMMH for a defined period of time, thereby enhancing their clinical skills and gaining a greater understanding of the operations of the national referral hospital. A training program for administrators from district facilities is also being considered.

Similarly, nurse training programs have been expanded to accommodate a greater number of nursing students completing practical training at QMMH. Tsepong has invested in hiring a greater number of nurse supervisors to participate in training of nursing students. At QEII, nursing students completed training programs only during the day, but at QMMH, student rotations have been established across

both hospital shifts to support quality training for all students assigned to QMMH.

Change management

The shift to a new management system and a new level of service represents a significant cultural change for the nurses, physicians and other staff previously accustomed to different policies and management systems at QEII. During our data collection visit, QMMH staff, almost universally, noted a high workload that was particularly demanding in the initial months of facility opening but improving over time. This sense of high workload has aggravated concerns around compensation.

In general, nurses, physicians and other staff are receiving equal or higher compensation to salaries paid at QEII. With overtime allowances (with approval), physician and staff salaries can reach 40-50% more than QEII salaries. Physicians are also permitted to maintain private practices in addition to their QMMH service. Expectations for salaries at QMMH, however, were very high. Despite communications to the contrary, many staff expected that they would receive payment in line with South African private hospital salary scales, which on average are significantly higher than salaries offered in Lesotho.

Over time, Tsepong hopes to address salary concerns but feels that current salaries are appropriate to the level of skill and experience possessed by each employee. Over the long-term, nurse managers and physicians feel that elevation of salaries may be required to prevent excessive staff turnover and resulting impact on care.

QMMH managers have addressed change management concerns through strong and accessible leadership. Staff interviewed universally stated that Tsepong management is accessible to them and is fair and supportive through a challenging time. They state that support from executive leadership for decentralized decision-making empowers staff, sets a high standard for performance, and allows for efficiency in responding to emerging challenges. While at times overwhelmed by the new challenges presented by the new facility, almost all staff and managers at QMMH report feeling motivated by the new challenges they face and the opportunities and support presented to them by hospital leadership.

Information systems

Tsepong has installed a fully integrated enterprise resource planning (ERP) system, SAP, which links financial and operational data to patient health records. This system is fully implemented at QMMH and is now being expanded to the filter clinics. This is an advanced system that is more sophisticated and advanced than many of the IT systems installed in Netcare's South African facilities. This system supports the first electronic medical record in Lesotho. Other public systems rely upon a paper-based health passport system (called a "bukana") to document and communicate patient treatment and medical histories. The QMMH medical record captures patient demographic information, all treatments and diagnostics given to a patient and the supplies utilized in their care. This sophisticated system also generates

much of the data required for quarterly performance reports issued to the independent monitors and the Government.

QMMH also has a full picture and archiving system (PACS) for radiology images and provides digital access to laboratory test results, which are managed by a laboratory sub-contractor. Overall, these new systems facilitate the flow of patient information, strengthen coordination of care, and support improved financial and clinical outcomes. Clinicians report that these improvements to clinical information technology systems have supported more precise treatments and resulted in a decrease in mortality among non-infectious patients on the medicine wards and ICU.

Currently, QMMH information systems do not extend beyond Tsepong facilities. QMMH employees must print reports and develop other manual work-arounds to deliver clinical information to other healthcare facilities in the health system, including referring facilities. The Millennium Challenge Corporation (MCC) is supporting the Ministry of Health in its refurbishment of facilities and information technology at health facilities around the country and additional PPPs are being considered to support maintenance of IT systems at Ministry of Health health centers and district hospitals. Further value may be extracted from QMMH's information systems if they are linked with IT systems installed across Lesotho's many primary care health centers and district hospitals.

The installation and ongoing maintenance of SAP and related systems is managed remotely by Netcare's IT team in Johannesburg. The PACS is similarly remotely monitored by the system vendor. Only one IT support staff is onsite at QMMH on a daily basis, primarily to troubleshoot hardware and other IT user "help desk" issues. Connectivity issues including limited bandwidth have limited Tsepong's ability to establish back-up systems.

Quality management and utilization management

The leadership of QMMH has begun to institute a quality program to continually improve quality of care and efficiency of operations. This includes extensive infection control training programs to address identified deficits in knowledge and practice, establishment of a recurring morbidity and mortality review for physicians and formal censure of clinical staff when inappropriate care or other issues are identified. Defined clinical protocols and policies and procedures are being implemented as Netcare's best practice policies are adapted to the local environment based on clinical and management review.

Significant improvements to clinical, quality, and utilization management have already been made, including the introduction of a triage system in the Accident & Emergency department, stricter management of the referral process from other facilities, improvement of information and laboratory systems, and enforced infection control standards. Taken together, this program represents

a profound change from QEII, which relied upon outdated nursing practices, lacked basic clinical oversight programs and enforced clinical policies and procedures, had few to no information technology systems, and lacked consistent enforcement of proper housekeeping or hand-washing techniques.^{Ref 2}

Improved availability of testing data has been a key input to increased quality and efficiency. For example, Tsepong outsources laboratory functions to a subcontractor and manages performance of that subcontractor to strict service level agreements. Certain tests must be delivered with a 60-minute turn-around-time unless adequate explanation is provided. Lab reports are readily available to physicians in a short period of time, which supports better clinical decision-making and more precise titration of treatments. Similarly, introduction of PACS for radiology procedures allows physicians to more easily and quickly access imaging results to guide treatment decisions. Integration of primary care clinics with the hospital operation permits outpatient lab testing and imaging, which has supported decreased lengths of stay.^{Ref 14}

While detailed outcomes data were not available for this case study, both nurses and physicians report improvement on clinical outcomes as a result of changes in HR policy, infection control programs, equipment and technological advances and improved facilities. These outcomes include increased survival of low birth-weight babies, increased

survival following major surgical procedures, and decreased mortality for non-infectious patients requiring intensive care treatment. After one year of hospital operations, QMMH Managers reported tangible reductions in patient mortality from 12% to 7% and a reduction of maternal mortality to less than half the national average (495/100,000 vs. 1,115/100,000). Overall, physicians we spoke to reported an improved ability to plan treatment and manage medications based on the greater range of investigative tools at their disposal and the timeliness of reporting at QMMH.

Supply chain management

Supply chain management of both medical supplies and pharmaceuticals has been improved at QMMH, as compared to QEII, through the application of rigorous management and leading practice policies and procedures.

As an example, under the oversight of a seconded Pharmacy Manager from Netcare, new inventory systems have been instituted in the pharmacy to expedite fulfillment of prescriptions, inventorying and re-ordering. Additionally, the fully integrated SAP system supports stock management by linking use of specific supplies and drugs to individual patient accounts. With these new systems, the QMMH pharmacy has reduced the number of stock-outs, a frequent occurrence that negatively impacted patient care at QEII. While stock-outs have been reduced, they have not been eliminated, and the pharmacy is working closely with clinical staff to

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define their supply and medicine needs and manage ordering proactively.

As compared to QEII and other Ministry of Health facilities, QMMH has a distinct advantage in ordering supplies and medicine due to its ability to order outside of the Ministry of Health systems. The Lesotho National Drug Supply Organization (NDSO) is often unable to place orders with suppliers due to significant payment delays or outstanding balances. This delay in payment is caused both by delays in the Government payment processing system and by delays in payment from client facilities (NDSO's primary income comprises fees paid by each district hospital and health center to the NDSO based on purchasing activity). This inability to make timely orders was a significant driver of stock-outs at QEII. While QMMH must direct the majority of its orders through NDSO (80% of all purchases by price), Tsepong can also access supplier relationships through

established Netcare relationships and issue payment through independent accounts payable systems. In the first six months of operation, Tsepong has exercised this option as required and has been diligent in making on-time payments to all vendors so that this alternate channel remains open for purchases.

These alternate purchasing arrangements, as well as a focus on coordinated planning, have allowed the QMMH pharmacy to support physicians with obtaining the best treatment for an individual patient. For example, specific antibiotics or other specialized treatments can now be ordered with shorter order timelines than were possible at QEII. QMMH has been able to share this benefit with other healthcare facilities across the Lesotho healthcare system as well. On occasions when the NDSO is unable to obtain a particular medication but QMMH is able to purchase the drug directly from manufacturers or distributors, QMMH has shared these drug purchases with other Lesotho healthcare providers (e.g. CHAL, Partners in Health), at cost.

The new, formalized and enforced systems at QMMH have also led to reduced shrinkage and waste. The NDSO has observed that the QMMH pharmacy is ordering lower quantities of drugs and supplies than were previously ordered by QEII. While some of this reduction may be tied to tighter inventory controls and discipline in purchasing, it is more

likely due to the QMMH practice of verifying deliveries against placed orders and requesting refunds of undelivered goods. This strong control against theft or loss of drugs and supplies while in transit has resulted in cost savings and greater efficiency.

Independent monitoring of clinical operations

Key monitoring terms and performance indicators were established in the PPIP contract for both construction and operations. While monitoring of the construction phase of the project did not experience many challenges, the application of independent monitoring to clinical operations has proven more complicated.

Prior to launching the QMMH PPIP, the Government had very limited experience with PPPs, and very little institutional experience to manage a complex PPP project. Since the initiation of the PPIP project, the Government has focused on building capacity in both the Ministry of Finance and the Ministry of Health to manage the complexity of the PPIP contract and ensure capacity of the Government to be a strong public partner. While progress has been made in this regard, more resources and focused investment in building government capacity will be essential to the long-term success of the project. Currently, knowledge of, and capacity for managing, the project remains

More resources and focused investment in building government capacity will be essential to the long-term success of the PPIP project.

concentrated in only a few individuals in the Ministry of Health and the Ministry of Finance.

While plans to build PPP units both within the Ministry of Health and the Ministry of Finance have been in place since project launch, resources and staff have not been made available to establish fully functioning units. At both ministries, the long-term leaders of the project are beyond retirement age and are serving in contract positions. To date, these leaders have been unable to assemble complete teams beneath them, relying on a few key staff members in each ministry. In our assessment, this lack of broad government capacity represents the biggest risk to the project's long-term success. A capable Government unit or units must be established to supplement the independent monitor function and manage this PPIP project and others going forward.

Despite these challenges, Government monitoring has proceeded during the

In our assessment, this lack of broad government capacity represents the biggest risk to the project's long-term success.

first year of hospital operations and the first two years of the project. Multiple independent monitor reports have been formally reviewed by the Joint Services and Liaison Committees and both public and private parties have engaged in productive discussions to adjust monitoring measures and address emerging concerns. Government representatives have particularly focused on managing deviations from the original contract design to guard against escalating project costs.

As noted from the outset of the project, the QMMH PPIP represents the first foray by the Government, its transaction advisors and the contracted independent monitor (Turner & Townsend) into a PPP design with such a broad scope of clinical operations.^{Ref 13} From the outset of performance indicator development, LeBoHA understood and acknowledged that many of the measures might require revision over the course of the 18-year contract.^{Ref 24}

That prediction proved true in the first six months of the project. Tsepong, the Ministry of Health and Turner & Townsend have met repeatedly to

discuss outcomes of the quarterly monitoring assessments and to adjust the monitor's findings and resulting financial penalties. At issue are specific performance indicators (or, in some cases, the lack of specific performance indicators) as well as Turner & Townsend's adaptation of those indicators to an evaluation model. The contract allows for flexibility in adapting the performance indicators through the Joint Services and Liaison Committees, and some revisions have already been made in the first year based on joint agreement between Tsepong and Government representatives serving on these committees. Changes will likely continue in the near-term until the independent monitor's evaluation model is fully tested against operational realities.

Partnership between Government and Tsepong

The Government and Tsepong have built strong relationships during a relatively short period. During our visits, we observed open lines of communication on emerging issues and a commitment to collaborative success on both sides. Together, the parties have been able to productively address some significant points of concern that have arisen over the first year or so of the project, including:

- **Physician salaries:** Concern was raised over the compensation of physicians, but a joint analysis showed that physician salaries are, on average, 30% higher than QEII salaries;

- **Specialist physicians:** Recruitment is ongoing and an area of continued focus for all parties. Some discrepancies exist between Government expectations and Tsepong's achievement of recruitment targets to date;
- **Clinic schedules:** Filter clinics are currently open only during weekdays for most services, and the cost model was based on this assumption. However, patient volume and Government expectations may call for weekend hours at the clinics.
- **Payment delays:** Payment from the Government to Tsepong has been delayed on more than one occasion, most likely due to challenges with Government payment systems in general rather than any issues specific to the PPIP project. On at least one occasion, this payment delay resulted in a loan default according to the terms of the financing agreement with the DBSA. Tsepong and Netcare have done their best to work collaboratively with the Government to resolve these delays which, over time, could significantly impact Tsepong's ability to deliver according to the cost model established in the contract.

These issues were jointly managed both through the formal governance structures established (Joint Services Committee, Liaison Committee) and through regular contact between Tsepong leadership and various leaders at the Ministry of Health,

This strong partnership bodes well for the ability of the combined project team to collaboratively confront and resolve emerging issues in the years to come.

including the PPP Coordinator, the Director General and the Minister of Health and Social Welfare. Ministry of Finance leaders have been primarily involved through the formal governance committees. Day-to-day management, monitoring and issue resolution have been primarily managed by the Ministry of Health and QMMH leaders, and these daily working relationships form the core of the partnership between Tsepong and the Government. This strong partnership bodes well for the ability of the combined project team to collaboratively confront and resolve emerging issues in the years to come. Continued commitment from both Tsepong and the Government will be required to maintain and nurture this collaborative relationship, and this commitment will require continuity across changing governments and leaders.

Public response

As the filter clinics and hospital opened, there was significant negative media coverage about the new hospital. Local radio stations known to highlight complaints against the

Government encouraged patients and employees of Tsepong to call the station and air their grievances and complaints. This media campaign highlighted long patient delays, the high workload for employees at Tsepong and specific instances of patient morbidity or mortality. In many cases, those working in the health sector (both Tsepong employees and non-Tsepong employees) perceive that these complaints against service at QMMH were strongly linked to a general dissatisfaction with the Government or government services.

In early stages of the project, the Ministry of Health and Tsepong issued multiple public communications to explain the PPIP project to the public of Lesotho. It seems that these messages had limited impact, however, as many patients arrived at QMMH not understanding how to access care (i.e., through being referred) and/or confused about whether the hospital was public or private.

Recognizing a need, QMMH has hired a Public Relations Officer who is developing a program to address public misconceptions and to better represent the care provided at Tsepong facilities.

Communication leading practices

In general, PPP projects will benefit from a comprehensive and proactive communications plan that aims to engage stakeholders and the public throughout all stages of the project life cycle. Many countries or regions with established PPP programs require a communications plan for all projects. These communication plans should be as inclusive as possible rather than narrowly focusing only on those stakeholders directly involved in the process or approval bodies.

PPP projects in many countries are treated with suspicion by various stakeholder groups and the media. While recognizing that some information may be of a sensitive commercial nature, it is only by being as open as possible that an informed debate about the merits of PPPs can take place.

Ongoing and future initiatives in support of the PPIP

The QMMH PPIP represents an ambitious, important step in the evolution of the Ministry of Health. For the first time, the Ministry of Health formally pursued its policy goals through a commissioning rather than a delivery strategy, moving forward as a purchaser rather than a provider of care. With this project, the Ministry of Health tested its ability to fulfill its mission through alternative and evolving models. The Government and its advisors recognized that, for the long-term success of this innovative PPIP model, further innovation and action are required to prevent an “island of excellence” from being swamped by healthcare demand across the system. Thus, the Government has already implemented multiple initiatives aimed at strengthening its capabilities in managing PPP projects, and the Ministry of Health’s ability to deliver effective care of increasing quality. These initiatives include:

- **PPP regulatory framework:** The Ministry of Finance, with support of the IFC, has completed a first draft of a PPP regulatory framework and policy to be applied to all future PPP projects in Lesotho, across all sectors;
- **MCC Health Center refurbishment:** The Millennium Challenge Corporation (MCC) is working with the Ministry of Health to refurbish health centers around the country. These centers play a primary role in HIV/AIDS prevention, TB treatment and maternal and child health services. Project activity focuses on design,

PPP regulatory framework

In general, existence of a regulatory or policy framework for public-private partnerships is cited as an important precursor to development of any PPP project or, at least, of any significant pipeline of projects. Lesotho has pursued multiple PPP projects without any regulatory or policy framework in place: the Ministry of Health headquarters construction, the QMMH PPIP and multiple PPP projects under consideration or in the tender process at the time of this report’s publication. However, the Ministry of Health and Ministry of Finance acknowledge the importance of a defined framework for long-term management of a PPP portfolio. The Government is in the process of defining a regulatory framework for PPPs and also working to establish dedicated PPP units in both the Ministry of Finance and Ministry of Health. This effort will be particularly important to ensure that the Government maximizes its negotiation strength by engaging with the private sector on a consistent basis, particularly where multiple line ministries are involved, and the same bidders are involved in multiple bids.

renovation, reconfiguration, expansion and construction of up to 138 health centers in order to bring all national health centers up to a common standard (www.mca.org.ls/projects/hcentres.php);

- **Health Center PPP for equipment and information technology:** With the support of the IFC, the Ministry of Health has initiated a PPP tender for equipping health centers around the country with equipment and information technology. The PPP also encompasses facilities maintenance to ensure the continued quality of the MCC-refurbished facilities and other health centers. No clinical

services will be provided through these PPP arrangements, but winning bidders will be required to provide ongoing non-clinical services including maintenance and equipment upgrades; and

- **Government capacity building:** The IFC has mobilized funds to engage consultants to assist the Ministry of Health in building their capacity for contract management and oversight. Consultants will work closely with the Ministry of Health to build systems for performance monitoring and other contract management activities.

Both the Government and Tsepong recognize that, over the long term, more expansive action will be required to address health system deficits for human resources. While QMMH has addressed some of the “push” factors (dilapidated facilities, lack of strong management structures, lack of professional development opportunities) that encourage local doctors and nurses to seek employment in South Africa and elsewhere, a large salary gap and other “pull” factors continue to draw Basotho healthcare professionals to South Africa and beyond. Addressing the salary gap and other issues will be essential to strengthening the health system more broadly, thereby benefiting both the QMMH PPIP and the broader health system. As a long-term goal, Lesotho also hopes to establish a medical school for Basotho students and build a pipeline of physicians for Lesotho health facilities. Again, such an initiative will benefit not only the QMMH PPIP but the broader health system and the population of Lesotho.

Beyond increasing the pool of local health professionals, other health system strengthening will also be required. A notable number of referrals to QMMH are due to resource shortages (e.g., no doctor present in the facility, no sutures available) at the district hospitals. Addressing these supply chain limitations and improving human resource allocation across the system will benefit QMMH as well as other healthcare facilities. Strengthening functioning at NDSO and developing strong management capacity at district hospitals will also be important to improved health system functioning and reduced pressure on QMMH. Potential expansion of a PPIP program to district hospitals and/or to district health centers, has been discussed by the Government, but no specific plans have been developed awaiting a more formal assessment of QMMH’s performance.

Lessons learned

The development of this case study report allowed for many of the actors involved in the development of the QMMH PPIP to reflect on what they might have done differently and what positive lessons were learned through the project experience. The following sections summarize these “lessons learned,” as reported by project participants in case study interviews or previously published analyses of the project. We hope this catalog of “lessons learned” assists in generalizing the details of this case study for the benefit of future PPPs and PPIPs in Lesotho and elsewhere.

Lessons learned: Appropriate expertise Engagement of skilled advisors is only the first step for project success:

Engagement of transaction advisors was essential for the Government, but Government project leaders realized quickly that other elements were required to ensure efficient decision-making and knowledge transfer back to Government staff.

- Once transaction advisors are engaged, clear roles and responsibilities must be defined between the Government sponsor and its transaction advisors. Establishing ground rules at the outset will better facilitate information flow and timely decision-making;^{Ref 19} and

- Further, discrete plans should be developed to ensure full knowledge transfer from expert transaction advisors to the Government partners that will manage the project going forward. Efforts were made in this regard for the QMMH PPIP, but participants report that broader and more complete knowledge transfer might have improved Government capacity for contract management.

Diversify project committees from an early stage: PPPs and PPIPs are complex projects that require a wide range of expertise, including knowledge and experience in finance, contracting, legal frameworks and a spectrum of healthcare operational disciplines. It is important to involve representatives with this diverse expertise in the earliest stages of a project. For example, failure to include hospital operations experts during contract design and negotiation might result in a final contract that is extremely difficult to implement. In Lesotho, effort was made to include diverse expertise during the planning and negotiation phases. Still, QMMH management encountered contract terms that were difficult to implement or not operationally sound, which required early revision to some contract terms such as performance indicators. Greater integration of more senior operational expertise during planning stages might have reduced or avoided these early revisions.

Think local: Local expertise is critical—knowledge of local conditions and traditions is important for adapting international leading practices to local needs, expectations and limitations. While transactional advisors can fill some of these roles, the project will benefit from widespread local involvement from the earliest stages of the project and early inclusion of leaders (both public and private) who will be responsible for project success post-financial close. The Lesotho project demonstrated this leading practices of widespread local involvement by assembling review committees with diverse expertise from both the public and private sectors. Reflecting on this effort, the Lesotho participants expressed their wish that involvement had been even more widespread and that a broader range of participants had been more deeply involved in key project decisions from the earliest stages. Such involvement would have produced greater institutional knowledge of the project, allowed for better integration of local knowledge at earlier stages, incorporated deeper operational expertise during negotiation and ultimately benefited the project in its implementation stages.

Lessons learned: Leadership
Engage the broader leadership team in project development:

Throughout the project, the Prime Minister's cabinet was engaged in decision-making about the PPP and kept abreast on project developments. Leaders of the QMMH PPIP identified this broad government support as a key success factor for the project's development, and consciously cultivated broad government buy-in with regular updates to the cabinet. Broad cabinet engagement supported the QMMH PPIP through political transition. For example, the appointment of, and transition to, a new Minister of Health during the project's early stages was relatively smooth due to the full Government's engagement and commitment.

Strong, experienced, dedicated public and private leaders are essential: Dedication of strong and senior leaders, both at Tsepong and in the Government, has been a critical success factor for the QMMH PPIP. The strong leaders at QMMH have bolstered the development of a solid partnership with the Ministry of Health, established strong relationships across the Lesotho healthcare system, won the confidence and support of QMMH staff, pioneered a new culture of performance and leadership at QMMH, preserved the financial viability of the project and overall established a robust foundation for future success. No less important, leaders at the Ministry of Health and Ministry of Finance conceived a bold new strategy for healthcare delivery and have since navigated the project through the political landscape,

demonstrating steadfast policy commitment and political leadership. Equally, these government leaders have remained dedicated to joint success during the challenging early months of hospital operation. Private and public sector partners in future PPP projects would be wise to assign senior, tested executives to support early project success. The Lesotho experience suggests that appointment of capable leaders at the outset of a project is a critical success factor for any PPIP project.

Develop a succession plan from Day One: A challenge for the QMMH PPIP will be sustaining the strength of management systems as operational needs evolve over an 18-year project. Succession planning and investment in leadership development have begun and will be significant areas of effort in the coming years. Initiatives to groom the next generation of leaders began with the hiring process prior to commencement of hospital operations and will continue.

Lessons learned: Plan early, plan often

Early identification of healthcare needs supports alignment of a realistic PPP design with healthcare system needs: The original feasibility study by LeBoHA provided important context and documentation of healthcare needs for the subsequent PPIP. This research team, very knowledgeable on the Lesotho healthcare system, continued to provide health systems and clinical analysis support to the Government throughout the PPIP effort, conducting four surveys

between June 2007 and June 2008.^{Ref 3} These findings documented the current state of services at QEII, helped to scope the current and future healthcare needs for Lesotho, and provided baseline utilization and cost data for services provided at QEII and the existing urban filter clinics. Similar health systems analyses would be essential to any future PPIPs to assess or validate healthcare needs, produce the necessary baseline data for scoping and costing the PPIP project and position a large project in a health systems context to support good policy decision-making. Without sufficient data on health system needs or current volumes and cost, neither Government nor the private sector can make informed decisions about PPP design or the appropriate cost model to support a long-term relationship. Indeed, a lack of such information would likely pose challenges to any provider (government or private sector) attempting to specify requirements for new healthcare facilities regardless of whether a conventional or PPP procurement model was used to realize those facilities.

Begin government capacity building at the earliest stages of PPP conception: For any government without strong contracting and management experience, building capacity to manage the complex, high value contracts necessarily associated with PPPs and PPIPs will require significant investment of time and resources. This investment is essential to ensure that contracts remain affordable over the project life cycle and deliver on the

policy goals stated at the outset of the project. Participants in the QMMH PPIP wished that the development of the Government partner's capacity had begun earlier, even at the project's first conception in 2000, and that those efforts had been more focused at earlier stages of the project. Efforts in Lesotho to build capacity are still in their infancy, more than 10 years after the first discussions of a possible hospital PPP.

Devote resources to planning and training early in the project, and hire accordingly:

The Lesotho experience demonstrates the need for significant implementation planning. In reflecting on the transition experience from QEII to QMMH, many expressed the wish that they had joined the project earlier and allowed more time to plan for operations, training needs and project launch logistics. The project teams engaged in extensive planning but still found the efforts insufficient. Lessons learned through missed opportunities include:

- Assign onsite project leadership early in the process, well before facilities open for operation;
- Develop a comprehensive communications and public relations plan; and
- Invest heavily in training and orientation for staff at the new facility.

These activities all represent an upfront cost for both the private operator and the Ministry of Health, which would require estimation and design during the contract negotiation process.

Develop a transition plan, then keep on planning: QMMH leadership developed an extensive transition plan that supported the nearly overnight transition from QEII to QMMH. This plan allowed for the transport of all patients in a single day and a near-instant activation of the new hospital. Not surprisingly, there were some issues not fully anticipated in this plan. For example, some equipment needed for clinical operations had to be transferred from QEII after the transition when clinicians realized the equipment was not available at QMMH. Tsepong employees also reported feeling overwhelmed and would have preferred to have patients be transferred in waves rather than all at once. Likely, no transition plan will be perfect, but investment in a strong transition plan will be essential to opening any new facility (whether or not a PPP facility). In the case of a PPP hospital, transition planning may be even more complicated due to greater coordination demands between governments and private contractors.

Set ground rules for new partners: Governance of the Tsepong consortium has presented challenges in the first year or so of project operations. Differences in business culture and experience exist between Netcare and its local partners, and many local partners have faced a steep learning curve on hospital operations and clinical standards. As the hospital operator, and to ensure the long-term financial health of the project, Netcare has had to renegotiate the service sub-contracts that were granted to Tsepong investors for specific services (e.g., security, ambulance transport)—a complicated endeavor for new partners in the consortium.⁷ Informal arrangements not formally documented in contracts or agreements have similarly caused controversy among the partners. To date, the end result: has been that Tsepong board meetings have focused more on financial matters than on questions of strategy or contract delivery. Formation of SPVs with new partners will necessarily require an adjustment period, and future projects may prefer to draft specific, formal agreements to govern all group interactions or otherwise anticipate the acclimation that will be required to bridge gaps across corporate and/or local cultures. The balance of control on the SPV Board is also a point for close consideration for future projects to ensure proper controls over consortium action.

⁷ These renegotiations did not impact cost to the Government but did affect the funds flowing to specific consortium members participating in the operating subcontracts.

Lessons learned: PPPs are not a panacea

Without systemwide planning, PPP projects can become “islands of excellence” soon overwhelmed by the sea of demand: Introduction of strong management systems and a well-designed PPIP have the potential to greatly improve the efficiency and quality of care provided to a population. PPIP projects, however, are still limited by the total resources available for the project and, moreover, to the entire health system. At the outset of the project, using the LeBoHA feasibility analysis and baseline studies, the Government and their advisors made difficult decisions about service levels and trade-offs necessary due to resource constraints. These tough decisions about excluded services, number of hospital beds, number of patients served and other considerations were necessary to ensure the project would remain affordable to the Government over the lifetime of the contract. The Government identified this realism about project scope and health system status and limitations as a critical success factor for the future of the QMMH PPIP.^{Ref 24} Not surprisingly, given these trade-offs, QMMH was operating near full capacity during its first month of operations. Over time, Tsepong and the Government will need to strengthen the broader health system to alleviate the intense demand at QMMH.

Do not underestimate the need for education of patients, the public and prospective employees: While Tsepong is now establishing a Public Relations program to address public misconceptions, patient confusion and employee concerns about QMMH, both the Ministry of Health and Tsepong would have preferred to start this program earlier. Future PPIP projects should account for the extensive public education campaign that may be necessary, especially if there is no precedent for a PPIP-like arrangement in the country or region of the project.

Lessons learned: Contractual flexibility

Contractual flexibility for long-term healthcare services contracts is necessary to cope with the rapid pace of change in healthcare technology, delivery systems and evolving healthcare needs of a population. This is likely especially true for Lesotho, given the relatively short negotiation timeframe and limited data availability.

One point of future renegotiation may focus on payment structures, both refinement to the existing cost model and addition of previously excluded services. Despite the extensive work of LeBoHA throughout the PPIP development process, availability of historical utilization and cost data was limited during cost model development. The current cost model for QMMH operations is based on either “outpatient” or “inpatient” treatment; over time it may be desirable to refine the cost estimates based on actual experience and service line-specific data, which has been collected by Tsepong on a prospective basis since hospital opening. Any addition of previously excluded services will also require negotiation of incremental payments to Tsepong from the Government.

Opportunities for future evaluation

As previously mentioned, given limited data availability and short duration of hospital operations to date, a formal evaluation of QMMH performance was not possible at this time. At a future date, however, a rigorous and independent evaluation of the PPIP's performance will be necessary on many levels: to address concerns raised publicly and privately about whether the cost of the project is justified, to evaluate QMMH performance against Ministry of Health facilities and policy goals and to judge success and failures with an eye towards improvement of future projects.

Possible points of evaluation include:

- Quality of care provided at Tsepong facilities;
- Sustainability of the annual unitary payment (and, when applicable, additional payments to Tsepong for either excluded services or additional patient volume beyond the negotiated package of services) in the context of the healthcare system;
- Impact of Tsepong facilities on human resource availability across the Lesotho healthcare system; and
- Achievement of policy goals, based on comparison to baseline LeBoHA studies, including:
 - Quality of care;
 - Cost neutrality;
 - Greater efficiency and expansion of access to care;
 - Predictable government health expenditures; and
 - System-wide efficiency gains.

The impact of a future evaluation of the project will be enhanced by improved transparency for project data and contractual details. A move toward greater public disclosure will allow for factual discussion of the PPIP project and its impact, as opposed to conjecture or suspicion based on misinformation. As Lesotho moves forward with an expanding PPP project pipeline, we strongly encourage greater transparency and public disclosure of project details and results.

Conclusion

Ongoing reporting and evaluation of the QMMH PPIP will be required to measure the long-term success or failure of the project and to determine whether the Lesotho approach may establish a new model for improvement of publicly provided care across Africa and indeed across the world. While early signs point to improvement in clinical services and management efficiency, continued dedication and effort will be required to maintain and expand these successes over the remaining 15 years of the PPIP contract.

Perhaps the greatest challenge in the near term will be maintaining performance despite leadership changes at many levels. Tsepong expects to transition leadership seconded from Netcare and from expatriate leaders to local management in two to three years. Another significant change is already underway: in May 2012, Lesotho witnessed its first peaceful transition of power through an electoral process, when the Prime Minister of 15 years ceded his post following a democratic election and formation of a coalition government led by Opposition leader, Tom Thabane. Prime Minister Thabane immediately implemented changes in Government policy, pledging improvement in services, greater

transparency and programs to address poverty across the country. The PPIP project weathered previous leadership transitions (specifically, a transition in Minister of Health in 2007), largely due to Cabinet-level buy-in for the project. Now with turnover across the entire Cabinet, including new Ministers of Finance and Health who were appointed in June 2012, the PPIP must educate and navigate the new Government leadership structure and build new working relationships quickly. As turnover in public and private leadership continues, establishment of strong PPP units and other oversight mechanisms will be extremely important.

Over the longer term, the project must grapple with the overwhelming demand for services experienced in the first year of operations at QMMH and its associated clinics. Without significant investment in the broader health system, and thoughtful coordination between QMMH and outlying district facilities, the QMMH PPIP will fast become unaffordable for both public and private partners and threaten the future of the project. While balancing the need for evaluation and Government capacity building, the Government must rapidly upgrade the surrounding health system to preserve and expand upon the early successes of QMMH.

Despite the inherent political and financial risks and implementation challenges,^{Ref 7, 23} PPIPs offer the potential for significant improvement in quality and efficiency in healthcare, at a time when many publicly-owned and run facilities are in poor shape. The case study of the Queen 'Mamohato Memorial Hospital demonstrates the ability of a lower income country to engage the private sector in new ways, and in a relatively short period of time transform the quality of care being provided to its population. While many challenges lie ahead and more time is needed to collect data and conduct a formal evaluation before the project can be judged a success, early signs indicate that the strong project concept and policy vision, coupled with strong management systems introduced by the private sector, are having an immediate impact.

References

1. Bicknell, W.J., Cunningham, E., Cafaro, C.J., Hann, K., Puglisi, R.J., Wilhelm, A.C. "Assuring the Quality & Affordability of National Health Services: A Comprehensive Quantitative, Utilization and Cost Baseline for the Lesotho Health Sector. A Study that Sets the Stage for Assessing and Managing the Impact of the New Public-Private Partnership (PPP) National Referral Hospital." Lesotho Boston Health Alliance. September 2010.
2. Bicknell, W.J., Feeley, R., Beggs, A., et al. "Economic Study of Referral Health Services in Lesotho: The Future of Queen Elizabeth II Hospital: Volume 1." Lesotho-Boston Health Alliance. June 2002.
3. Coelho, C.F., O'Farrell, C.C. "The Lesotho Hospital PPP Experience: Catalyst for Integrated Service Delivery." *World Hospitals and Health Services: The Official Journal of the International Hospital Federation*. 2011. 47(3):39-41.
4. Coelho, C.F., O'Farrell, C.C. "Breaking New Ground: Lesotho Hospital Public-Private Partnership—A Model for Integrated Health Services Delivery." *International Finance Corporation (IFC) SmartLessons*. July 2009.
5. Doherty, J., Hoohlo-Khotle, N., Kariisa, E., Kiwanuka-Mukiibi, P., Takondwa, M., Williamson, T. "Lesotho Health Systems Assessment 2010." Lesotho Ministry of Health and Social Welfare, Maseru, Lesotho. U.S. Agency for International Development (USAID). June 2010.
6. European PPP Expertise Center. "The Guide to Guidance: How to Prepare, Procure and Deliver PPP Projects." The European Investment Bank, Luxembourg. 1996.
7. The Global Health Group. "Public-Private Investment Partnerships for Health: An Atlas of Innovation." *Global Health Sciences*, University of California, San Francisco. August 2010.
8. The Global Health Group. "Public-Private Investment Partnerships: An Innovative Approach for Improving Access, Quality, and Equity in Healthcare in Developing Countries." *Global Health Sciences*, University of California, San Francisco. August 2009.
9. "Health PPPs." *Handshake: IFC's Quarterly Journal on Public-Private Partnerships*. International Finance Corporation (IFC). Issue 3, October 2011.
10. HM Treasury. "PFI: Meeting the Investment Challenge." July 2003.
11. "Lesotho: National Referral Hospital." *Success Stories: Infrastructure Advisory Services*. International Finance Corporation (IFC). June 2009.
12. Lesotho-Boston Health Alliance. "Program Summary." January 2012.
13. Lesotho-Boston Health Alliance. "Queen Elizabeth II and The New PPP Hospital: Baseline Study." 2009.
14. Marquez, P., St. Antoine, J.D., Yamashita-Allen, K. "Taking the pulse: The evolving health public-private partnership in Lesotho." *Blogs, The World Bank*. March 5, 2012. <http://blogs.worldbank.org/nasikiliza/taking-the-pulse-the-evolving-health-public-private-partnership-in-lesotho>.
15. "Millennium Challenge Account: Lesotho." *Health Centres*. Millennium Challenge Corporation. <http://www.mca.org.ls/home/>.
16. Ministry of Finance and Development Planning. *Government of Lesotho*. 2012. <http://www.finance.gov.ls/home/>.
17. Ministry of Health and Social Welfare. *Government of Lesotho*. <http://www.health.gov.ls/>.

18. Ministry of Health and Social Welfare. "Lesotho Demographic and Health Survey 2009." Maseru, Lesotho. Government of Lesotho. November 2010.
19. Mohapi, Mathundsane. "Lesotho Referral Hospital." Collaborative Africa Budget Reform Initiative (CABRI) 6th Annual Seminar, Mauritius. May 2010.
20. O'Farrell, C.C., Burduja, E. "Lesotho Hospital PPP: PPP Days 2012." International Finance Corporation (IFC), World Bank Group. Geneva. February 2012.
21. Ramatlapeng, M.. "Public Private Partnership for Replacing the National Referral Hospital." Ministry of Health and Social Welfare, Maseru, Lesotho. October 2007.
22. Reinikka, R. "A Small Country Bringing About Big Change." Blogs, The World Bank. October 24, 2011. <http://blogs.worldbank.org/nasikiliza/a-small-country-bringing-about-big-change>.
23. Sekhri, N., Feachem, R., Ni, A.. "Public-Private Integrated Partnerships Demonstrate The Potential To Improve Health Care Access, Quality, And Efficiency." Health Affairs. 30. 8. 2011.
24. Smith, Matthew. "Case Study: Financing a New Referral Hospital – Lesotho." Collaborative Africa Budget Reform Initiative (CABRI). May 2010.
25. United Nations Economic and Social Commission For Asia and The Pacific. "Guidebook on Public Private Partnership in Infrastructure." January 2011.
26. The World Bank. World Development Indicators. <http://data.worldbank.org/data-catalog/world-development-indicators>.

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