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Public-Private Partnership Options toward Achieving Universal Health Coverage in the Philippine Setting

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Philippine Institute for Development Studies
Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas

Public-Private Partnership Options toward Achieving Universal Health Coverage in the Philippine Setting

Eduardo P. Banzon et al.

DISCUSSION PAPER SERIES NO. 2014-48

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PUBLIC PRIVATE PARTNERSHIP OPTIONS TOWARDS ACHIEVING UNIVERSAL HEALTH COVERAGE IN THE PHILIPPINE SETTING

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Executive Summary

Public private partnerships (PPPs) are increasingly being utilized to meet development goals of many countries and there is much potential for PPPs to help address health inequities and advance universal health care (UHC). In support of these efforts, the paper will define PPPs and their role in the health system and will propose health PPP options that would support the pursuit of UHC.

The term PPP is a broad term describing a range of relationships between the public and the private sector. Other terms similar to PPP include private sector participation, privatization and public private interactions. There are also several basic PPP contract types namely, service contracts, management contracts, lease contracts, concessions, and build-operate-transfer contracts (BOT).

PPPs are usually pursued to improve service delivery with support from stakeholders critical to prevent opposition, delays, and even cancellations; and ensure the success and sustainability of PPP projects. Thus, successful PPPs require partnerships that clearly define each partner's responsibilities to guarantee transparency and accountability.

The World Health Organization (WHO) advocates universal health coverage (UHC) in order that all people obtain needed health services without suffering financial hardship. In pursuit of UHC, the Philippine government had included PPPs as among its strategies. It sees PPPs to help fund the immediate repair, rehabilitation and construction of selected priority health facilities. It also encourages the use of PPPs by the local government units to improve service delivery.

Given all this, it is important to define PPPs and distinguish them from all other forms of public private interactions.

The Global Health Group from University of California San Francisco described Public-Private Investment Partnerships (PPIPs) as a category of health-related PPPs that are potentially transformative for underperforming government-run health systems. PPIPs refer to a "special form of PPPs that comprise long-term, highly structured relationships between the public and private sectors designed to achieve significant and sustainable improvements to healthcare systems at national or sub-national levels."

The characteristics of PPIPs include expressly addressing Public Policy Objective/s and usually following the Design, Build, Operate and Deliver Model (or a minimal variation). It is expected to ensure delivery of quality health service with government retaining ownership of assets. There is government review and independent monitoring; and the investment is long-term. There is risk transfer to the private sector and predictable government payments while ensuring cost neutrality to patients. Finally, it aims for equity of access for all and system-wide efficiency gains. PPIPs, therefore, address all components of a system, and not just its parts, making it a more suitable strategy to further UHC.

PPPs that do not meet most of the characteristics of PPIPs are construed to be Pubic Private Interactions (PPIs). These may be considered minor PPPs as they attend to singular portions of health care service delivery – infrastructure, service, management, or concession type contracts, serving as stopgap measures instead of addressing the bigger problem.

Thirty-nine foreign health PPPs and twenty-four local health PPPs were reviewed. Foreign health PPPs ranged from design and construction partnerships, delivery of non-clinical services, primary care partnerships, provision of clinical support services, access to specialized clinical services, hospital

management, and combination of any of the above. Local health PPPs were mostly either providers of primary care services or clinical support services.

Upon evaluation, most of the health PPPs were not determined to be PPIPs. Only six foreign and one local health PPPs qualified as PPIPs. Given that PPIPs are the type of PPPs that appropriately support the pursuit of UHC, it is important that the country prioritizes PPIPs and consider the three PPIP options, namely healthcare delivery in the settings of primary care; hospital care; and an integrated system as it moves ahead with implementing health PPPs.

Primary healthcare PPIPs flourish in an environment where there is lack of supply in a community of high demand. Hospital-based healthcare PPIPs are appropriate when there are redundant public facilities wherein potential income can be generated, or when inefficient operations are detrimental to the sustainability of a public hospital. Integrated healthcare systems, consisting of hospitals and primary care centers, are an ideal set-up for any community. It lessens duplicity of visits and laboratory examinations; it provides seamless care appropriate to the needs of the patient.

A decision algorithm is proposed to guide the appraisal of which PPIP option be considered and developed. A prerequisite to applying this algorithm is that the proposed partnerships must be need-based with accompanying evidence and statistics, long-term in nature with a goal of achieving universal health coverage by improving access to healthcare and reducing the financial burden of out-of-pocket expenses. Furthermore, both the public and private sector must share risks and benefits, and an open dialogue on the design, scope and details of the partnership, must be present throughout the project.

The success of a PPP is not only measured at the project's culmination; rather, it is also determined by the preparation leading up to it. As such, there are certain elements that must be present for a PPP to thrive in. These include among others the presence of a comprehensive health plan that clarified the role of PPPs; a legal framework protecting the interests of both the public and private sector and to make them liable if the objective of the PPP is not attained; and both public and private sectors must be ready and willing to enter into the partnership. The essence of a partnership is collaboration, the partners must build on each other's skills, expertise and resources to reach the goal that, ultimately, cannot be done alone. Constant and clear communication must occur between the two sectors to ensure trust, accountability and transparency in the partnership throughout the project duration.

Although both PPIPs and PPIs are intended to improve the country's health outcomes, the former must be prioritized as it provides a concrete option to improve the overall efficiency of the system. Ultimately, PPIPs must be integrated within the health system to demonstrate the country's commitment to the pursuit of Universal Health Coverage.

Overview

Public private partnerships (PPPs) are increasingly being utilized to meet development goals of many countries. The inherent issues of the public sector's inability to meet social needs stem from its lack of resources, administrative roadblocks and management issues. Arrangements such as PPPs bring in the efficiency and expertise of the private sector to facilitate the attainment of social needs. As part of a comprehensive development network, PPPs are able to provide for the public good (Nishtar, 2004).

There is a global trend to collaborate with private sectors, and implement PPPs in various areas. Infrastructure, transportation and communication initiatives have been scaled up easily due to the clear objectives, roles, risks and benefits that the public and private sector share. Within the health system, there is much potential to address health inequities by harnessing the strengths of both public and private sectors.

Objectives

The objectives of this paper are to define what public private partnerships are and its application in the health sector. The paper will present representative case studies or models of PPP practices in health. Furthermore, it aims to provide a methodology for decision makers and stakeholders in developing health PPPs.

Specifically, the study shall:

1. Discuss the rationale of health PPPs
2. Define public private partnerships in health
3. Differentiate PPPs from other public private interactions
4. Provide representative case studies of PPP options in health
5. Propose mechanisms in approaching PPP development in health in various levels of care

Methodology

A literature search was undertaken, focusing on public private partnerships and not private sector participation (PSP) or privatization. The following search tools were used: academic databases (PubMed, Science Direct, and Google Scholar), search engines (Google and Yahoo) and sources of gray literature (government, educational and other institutional reports, research organization sites, conference papers and other topic specific databases). The global (non-Philippines) and local examples and experiences included PPPs under the following categories: design and construction, non-clinical services, primary care, clinical support services, specialized clinical services and hospitals/health facility management. The PPP contract types included but were not limited to the following: service contract, management contract, affermage/lease, Build-Operate-Transfer (BOT) and similar arrangements, concessions, joint ventures, hybrid arrangements.

Although a thorough search was done, not all PPP examples were reviewed as the focus was on three model scenarios – primary care, hospital setting and an integrated health care system. For the evaluation of these scenarios, a proposed assessment criteria composed of eight aspects to the research protocol were used, namely: the relationship between the public and private sectors, the nature of the

partnership, the financial arrangements, the structure, scope and functions of the services, the government policies that promote the partnership, the proposed and actual measured outcomes of effectiveness, the improvement of equity as a separate distinct outcome, and the identification of potential weaknesses in analysis – were used. Selected case studies were analyzed by the system and location of their health provision, namely, primary care services, hospital services and an integrated health care system (Barr, 2007).

Review of Related Literature

Defining Public-Private Partnerships

The term public private partnership is a broad term describing a range of relationships between the public and the private sector. Other terms similar to PPP include private sector participation, privatization and public private interactions.

A review of 28 existing PPP definitions by Da Rosa *et al* (2012) revealed that at least half included the following as key characteristics of PPPs: "have different societal backgrounds, share objectives, goals and problems, are for the provision of public goods, benefit from complementary resources and have partners which collaborate in an interdependent and interactive way." PPPs also present a framework that "acknowledge and structure the role for government in ensuring that social obligations are met and successful sector reforms and public investments are achieved" (Asian Development Bank, 2008). The partnership is designed to minimize costs while improving performance; and this is achieved by allocating risks to partners best able to manage them.

PPP Contract types

There are several basic PPP contract types as illustrated in the Asian Development Bank's Public-Private Partnership Handbook (2008) namely, service contracts, management contracts, lease contracts, concessions, and build-operate-transfer contracts (BOT).

Under a service contract, the government hires a private company to carry out specific tasks or services for a period. Only a portion of the operation is contracted out to a private partner. There is usually a competitive bidding process and a predetermined fee is paid for the service. This is a low-risk contract impacting operations and efficiency and is suitable if there is a clearly defined service need. Opportunities available under this contract include technology transfer and human capacity building. This particular contract type is not usually suitable for attracting investments.

In management contracts, services to be contracted out include the management and operation of the public service. Daily operations are assigned to the contractor but the overall responsibility remains with the public sector. There is a predetermined fee for the labor and other costs and incentives for performance improvements are usually given.

In a lease contract, the entirety of service, including obligations to quality and service, are contracted out. The operator provides the service at his expense and risk. Leases are longer in duration, typically 10 or more years. This contract does not involve any sale of assets. Furthermore, the public sector is still responsible for capital investments. The payment scheme of this contract type provides incentives for the operator to improve efficiency and sales. Drawbacks include covering the cost of assets, and determining tariff level that will balance profit targets and affordable service.

A concession makes the private sector operator responsible for the full delivery of services in a specified area. This includes operation, maintenance, collection, management, construction, rehabilitation, and financing of the system, with no transfer of assets. The public sector's role is that of establishing performance standards and as a regulator of price and quality of service. Contracts are long-term in order for the operator to have sufficient time to recover the capital invested and earn an appropriate return. It is an attractive option for private investors and encourages them to reach new levels of efficiency and effectiveness that readily translate into increased profits. However, the long-term nature of these contracts is politically controversial and complicates the bidding process, making it difficult to organize. Contracts need to ensure that the investments meet social needs and not only profit targets.

In BOT contracts, the private partner provides the capital to build the facility and operate it for a sufficient time set by the contract to recover investment costs, with a temporary transfer of assets. The public sector may purchase a minimum level of output produced by the facility or may pay a capacity and consumption charge. At the end of the contract, the public sector assumes ownership but has several options for the transfer of responsibilities. BOT generally involves large "greenfield" investments requiring substantial outside finance. There is notably less commercial risk because there is only one customer, the government.

Stakeholder interactions in PPPs

Stakeholders are critical to the success and sustainability of any project. Adequate support and participation provide opportunities for valuable input on the project and broad support encourages commitment. Consultation prevents opposition, delays, and even cancellations. Table 1 lists the different stakeholders and their identified roles in the PPP process.

Table 1. Role of different stakeholders in the PPP process

Stakeholder	Role
Political decision makers	• Initiate, enhance, and approve regulatory and legal framework • Establish, prioritize, and communicate goals of PPP • Approve recommended PPP option
Agency or institution management and staff	• Identify relevant and specific needs and goals of PPP • Assist in communications and due diligence process
Consumers/users	• Express priorities for quality and level of service • Identify existing strengths and weaknesses in service • Communicate the above to decision makers
Investors/private sector partners	• Provide feedback on attractiveness of different PPP options • Initiate possible partnerships in areas of expertise • Follow rules and procedures of competitive bidding process • Perform thorough due diligence resulting in competitive bidding
Strategic consultants	• Provide unbiased evaluation of options for PPP • Review existing framework and propose reforms • Act as facilitator for cooperation among stakeholders

Source: Heather Skilling and Kathleen Booth, 2007 from ADB, 2008

Along with these roles, stakeholders also have interests, both overt and covert, with potential partnerships. Table 2 lists these down.

Table 2. The interests of different stakeholders in PPPs

Stakeholder	Interests
Government	• Provide and ensure access to and affordability of basic services • Improve public welfare while maximizing revenue • Promote fair competition and attract investors
Investors	• Ensure a stable, transparent, and regulatory process • Adaptable structures that favor efficient operations
Employees	• Expansion of career prospects and improvement in efficiency and morale
Consumers	• Fair pricing, improved quality and consistency of service • Increased accountability and responsiveness

Source: Heather Skilling and Kathleen Booth, 2007 from ADB, 2008

Taking note of the roles and interests of various stakeholders, a communication strategy has been cited to be an important tool in building support for PPP. This would involve opinion research, consultation with stakeholders, and public awareness and education campaigns. It is emphasized that communication efforts involve not only top management but rank-and-file staff of concerned government agencies as well.

Defining a successful PPP

Different studies put forth their own criteria in ensuring the success of a PPP. The table below summarizes these enabling factors.

Table 3. Enabling factors for PPP success

Literature	Criteria
The Global Health Group (2010)	• Political will and capacity • Commitment from the private sector • Ensuring trust between sectors • Independent monitoring and evaluation
Research protocol to evaluate the effectiveness of Public-Private Partnerships as a means to improve health and welfare systems worldwide (Barr, 2007)	• Relationship between public and private sectors • Nature of the partnership between public and private sector participants • Financial arrangements • Structure, scope and function of enhanced health and welfare services • Government policy to promote partnership efforts • Measuring effectiveness of the PPP • Assessing issues of equity
Nikolic and Maikisch (2006)	• Justification • Preparation • Implementation • Monitoring and Adjustment
What is needed for successful Public Private Partnerships in the Social Sector? (as cited in Mitchell, 2008)	• Legal and regulatory framework • Transparency and accountability • Suitable public policies • Commitment to public good • Common understanding • Sharing of resources • Consumers and community.

In general, a successful PPP requires a joint effort between the public and private partners to improve health outcomes. This partnership must be clearly defined, outlining each one's responsibilities to guarantee transparency and accountability. A legal and regulatory framework should be in place to make PPPs successful. Aside from the political environment that will allows PPPs, policies must be put into place to ensure the profit of private investors. Finally, monitoring and evaluation is necessary to measure the impact of the project and to adjust operations accordingly.

Results and Discussion

The Philippine Health System: Pursuing Universal Health Coverage and Health PPPs

The WHO advocates universal health coverage (UHC) in order for all peoples to obtain needed health services without suffering financial hardship. Financial risk protection is an important aspect of UHC. Without it, the sick will be pushed into poverty to pay for health services. UHC is critical in the development of a community and in reducing its poverties and social inequities. The WHO described UHC as the "hallmark of a government's commitment to improve the wellbeing of all its citizens (World Health Organization [WHO], 2012)." UHC calls for improving the three coverage dimension – population coverage, quality of services, and cost of services. (WHO, 2010).

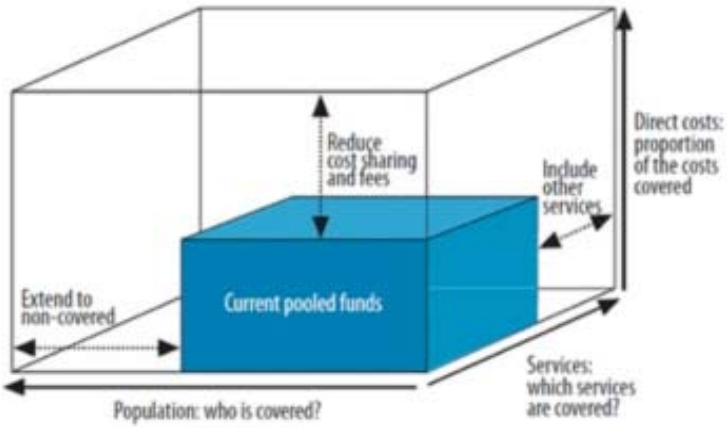

Figure 1. The Universal Health Coverage cube (WHO, 2010)

The Department of Health (DOH) in line with the mandate of President Aquino to achieve universal health care for all Filipinos, provided in its Administrative Order 2010-0036 the guidelines, approaches and resources needed to affect and influence public-private partnerships (Department of Health [DOH], 2010). It further states the use of PPPs especially in services needing heavy capital investments such as the immediate repair, rehabilitation and construction of selected priority health facilities. It encourages the use of PPPs by the local government units to organize community health teams and service delivery networks and when appropriate, supplement services that cannot be delivered by existing public providers (Ibid).

PPPs in Health: Moving towards PPIPs

Given that PPPs are commonly viewed as a middle ground between traditional procurement and privatization, it is important to define PPPs and distinguish them from all other forms of public private interactions. The draft health charter of South Africa (2006) has introduced the term public private interaction (PPI) and defines it broadly to encompass outsourcing and other interactions that involve the private sector.

> "*A public private interaction in terms of which one or more persons or entities involved in health care within the public sector interact with one or more persons or entities involved in health care within the private sector or the NGO sector with the object of achieving a mutual benefit or goal and includes but is not limited to a PPP; PPIs include: public financing of health services provided by the private and/or NGO sectors; private financing of publicly provided health services; innovative healthcare delivery models and business models for health practices; delivery models aimed at skill retention and effective distribution and utilization of skills; use of public assets for the provision of health services by the private sector; use of private assets for the provision of health services by the public sector (*The South African National Department of Health, 2006)*."*

Worldwide, there is no single accepted definition of public private partnership (Marin, 2009). Loosely defined, it involves collaboration between public and non-public entity, including private and non-government organizations to achieve a commonly-agreed social goal through pooling of resources – financial, human, technical or information (Itika, Mashindano and Kessy, 2011). This collaboration spans a spectrum of non-formal to formal arrangements ranging from simple grants to elaborate contractual relationships. PPPs have been extensively used in transportation, communication, and utilities sectors, but have seen limited application in health. Health has always been considered as a complex social good and long considered a fundamental human right, repeatedly emphasized in the World Health Organization constitution and the declaration at Alma Ata.

The Global Health Group from University of California San Francisco coined the term Public-Private Investment Partnerships (PPIPs) to set apart a category of health-related PPPs that are potentially transformative for underperforming government-run health systems. PPIPs refer to a "special form of PPPs that comprise long-term, highly structured relationships between the public and private sectors designed to achieve significant and sustainable improvements to healthcare systems at national or sub-national levels." The mechanism allows a private entity or a consortium of private partners to co-finance, design, build and operate public healthcare facilities; enables the government to utilize private sector expertise and investment to achieve public policy goals while maintaining ownership of the assets throughout the duration of the partnership; and ensures high-quality and affordable preventive and curative care for the citizenry, who should incur the same, minimal or zero out-of-pocket payment, as they did in previous poorly run public facilities. As such, there is a transfer of substantial and financial risk to a private entity, which is bound by contract to deliver a bundled package of service that includes construction, maintenance, clinical care, preventive and supplementary services such as procurement and training (Global Health Group, 2010). By describing a PPIP, the Global Health Group set the bar for a quality public-private partnership that would impact health outcomes.

Although PPPs are now a strategy in the Philippines to achieve UHC, there is no clear description of what it is and how it can be utilized to better health outcomes. Taking cue from The Global Health Group, the following definition of public-private partnerships in health is proposed to end confusion on the matter. The proposed definition is as follows:

*A **health public private partnership** is a contract between the public sector and one or more private sectors, organized as a legal entity, with a common goal to provide a public health service, while sharing substantial financial and operational risk. The private entity employs their expertise in innovating, building, maintaining, and/or managing delivery of agreed upon services over a specified contract period. The government provides the purchasing power and may serve to oversee and monitor the project. The potential of shared cost savings and the achievement of a public good are mutual goals and benefits for both sectors.*

There are four main elements in this definition. First, the temporal profile of a health PPP is lengthy in nature to provide adequate time for attainment of health goals and a return of investment. Second, the sharing and transfer of risk highlights the difference of PPPs from traditional procurements. Risks must be explicit and understood by all sectors involved. Third, the stakeholders understand their strengths and their responsibilities in relation to the project and work within those limits. Fourth, the explicit goal of providing a publicly needed health service must be the motivation of a health PPP.

Expounding further, health PPPs can be classified into two: Public-Private Investment Partnerships (PPIPs) and Public-Private Interactions (PPIs). PPIPs have a larger scale and greater impact compared to PPIs. In a way, PPIPs are major PPPs and PPIs are minor PPPs. The distinguishing characteristics between the two will be elaborated on later in the paper. From this point on, the appropriate terminology will be utilized. PPP is the broad term indicating an interaction between the public and private sectors, and PPIPs and PPIs are kinds of PPPs. The relationship between the three is depicted in the figure below.

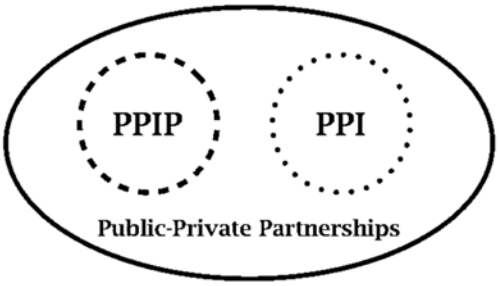

Figure 2. Relationship between PPPs, PPIPs and PPIs

Public-Private Investment Partnerships (PPIPs)

Based on the literature review, the researchers chose ten vital characteristics that qualify what a Public-Private Investment Partnership (PPIP) is. Future emerging models must be able to deliver these elements. These characteristics distinguish the PPIP from just a mere public and private sector interaction.

Table 4. Summary of vital characteristics in public-private partnerships

Vital Characteristics in PPIPs
1. Addresses Public Policy Objective
2. Follows the Design, Build, Operate and Deliver Model (or a minimal variation)
3. Delivers quality:
a. Integrated Clinical Services
b. Non-clinical Services
4. Government has ownership of assets
5. Presence of the following:
a. Government review

b. Independent monitoring 6. Investment is: a. Long-term b. A combination of public and private funding 7. Risk transfer to the private sector 8. Expenditures a. Cost neutrality to patients b. Predictable government health expenditures 9. Equity of access for all 10. System-wide efficiency gains

1. *Public Policy Objective: Universal Health Coverage*

The success of a PPP requires that the population be covered under a financing scheme, whether social health insurance (PhilHealth) or another kind, in order to receive the needed services with minimal or no financial risk. Although the private sector will deliver these services, the initiative to cover the population must come from the public sector, as it is their mandate to provide health insurance or similar health financing scheme to its constituents.

Table 5. Breakdown of criteria in universal health coverage

Goal of Universal Health Coverage (Evans, Saksena, Elovainio and Boerma, 2012)	**Criteria**
Coverage with needed health services	Availability of services Equitable access to services Quality of services Efficiency of service and systems
Coverage with financial risk protection	Cost neutrality

2. *Design Build Operate Deliver model*

This model provides the most complete approach to delivering health outcomes as compared to contract types that are smaller in scale and stopgap measures. In this setup, the private partner designs, co-finances, builds, operates, and delivers clinical care throughout a health system.

3. *Delivery of quality integrated clinical and non-clinical services*

Similar to PPIs, PPIPs must deliver a service whose quality is at par or exceeds that of traditional public procurement and service delivery models. An integrated model is seen as the way forward due to rising chronic, non-communicable diseases and need for efficiency savings (Barlow et al, 2012).

4. *Government ownership of assets*

PPIPs are in the middle of traditional public procurement and privatization. An important characteristic of PPIPs is the absence of a sale of public assets. "PPIPs are carefully designed vehicles for achieving public healthcare policy goals, they do not relinquish control or ownership of assets to the private sector" (Global Health Group, 2010).

5. *Government review and independent monitoring*

The government is tasked to provide a public social need and must take it upon them to monitor and ensure that the goal is met. Third-party monitors and evaluators may also be employed if agreed upon

by both sectors. The presence of third-party monitors preserves the integrity of the project evaluation and creates room for growth and improvement.

6. *Long-term and shared investment*

A long-term commitment by both the government and the private partners to provide health services is needed in a PPIP. Investing significant resources into the project helps to ensure dedication and shared interest in producing successful outcomes. Additionally, its long-term nature gives the partners time to develop sustainable processes and improve using feedback loops (Ibid).

7. *Risk transfer*

The risk of meeting service quality benchmarks is transferred to private partners. The private sector also assumes risk for infrastructure delays, human resource issues, and failures in efficiency. The government is not completely devoid of risk for it is their responsibility to meet the social needs of the public and that the financial commitments to the private sector have been made.

8. *Cost neutrality to patients and predictable government expenditures*

Cost-neutrality means that PPIPs must not bear any additional cost to patients utilizing health services. This is in line with the UHC goal of financial risk protection. PPIPs may also as cost-neutral as possible to the government in ensuring that expenditures remain within predictable limits.

9. *Equity of access for all*

All PPIP facilities must provide access to all and should not discriminate based on a patient's income level or social status. This assumes that the health facility has adequate resources to serve all those that wish to avail of the services.

10. *System-wide efficiency gains*

PPIPs are designed to "operate within, and improve, existing systems" (Ibid). Contracting completion of the DBOD model may be helpful to ensure that high and transparent standards for service delivery and outcomes are met. Consistent attainment of these standards will raise the bar for the entire health care system.

Public-Private Interactions

Public private interactions are comprised of PPPs that do not meet the characteristics of PPIPs. These may be considered minor PPPs since they attend to smaller portions of health care service delivery – infrastructure, service, management, or concession type contracts. Similar to PPIPs, PPIs may be long-term, do not engage in any sale of assets, allocate risk appropriately, and maintain the government's role of reviewer and monitor. The difference lies in the overall impact that PPIs make. Unlike the systemic impact of PPIPs, PPIs may likely be stopgap measures that address fragments of the real problem due to its small-scale nature.

Table 6. Summary table of PPIP and PPI differences

	PPIs	PPIPs
Term	Variable	Long-term, at least ten years
Characteristics	• Objective is partially contributory to	• Objective of attaining UHC

	achieving UHC • BOT, Service, Management, Concession contracts • Government ownership of assets • Government review and independent monitoring • Long-term and shared investment • Risk transfer	• DBOD model • Delivery of quality and integrated services • Government ownership of assets • Government review and independent monitoring • Long-term and shared investment • Risk transfer
Impact	Variable and fragmented	Cost neutrality Equity of access for all System-wide efficiency gains

Challenges in PPPs

Barlow, Wright, and Roehrich (2012) during the 15th European Health Forum in Gastein discussed the emerging healthcare challenges that new generation PPPs will have to face. They identified several advantages and disadvantages to PPPs reviewed from their literature search. Advantages include PPPs providing a solution for shortage in public capital, introducing private sector efficiency, adopting new technology and management ideas, and focusing the concentration of healthcare providers on clinical services. Disadvantages include the presence of higher costs in transacting, monitoring and setting-up of projects, the lack of integration between clinical models and infrastructure design and difficult relationship management over extended periods of time.

Table 7. Advantages and disadvantages of PPPs

Advantages	Disadvantages
• Solution for shortage in public capital • Introduction of private sector efficiency into the public sector • Adoption of new technology and management ideas • Concentration of focus for health providers	• Presence of higher costs in transacting, monitoring and setting-up of projects • Lack of integration between clinical models and infrastructure design • Difficult relationship management over extended periods of time

Additionally, they proposed that emerging PPPs must address two important challenges: an integrated service approach, and a community-centered approach. An integrated service approach adopts a coordinated approach to health service delivery. This approach is seen as a way forward for health in light of the rising incidence of chronic disease. Different services are integrated – health care with social care, support services, financial protection, and even a continuum of care from the primary level to that of tertiary hospital care. Another challenge is to approach the rising trend of community health care that shifts the focus from the hospital to the home, family and community. PPPs are then challenged to be innovative in light of these trends.

PPIPs are able to address these challenges since they follow a Design, Build, Operate and Deliver Model that sees through the whole project with a mandate for quality integrated clinical and non-clinical services. With the challenges presented by Barlow et al (2012), PPIs are seen to merely cover gaps in health service delivery. They fail to address the public policy objective of achieving UHC head-on. Given this, the paper will focus only on PPIPs options, as these have greater impact on health outcomes.

Review of Foreign and Local Health PPPs

An extensive literature review using filter and manual search strategies on various internet search engines yielded a total of sixty-three health PPPs. Of the sixty-three, thirty-nine were foreign while twenty-four were local. The following sections offer a brief overview of the health PPPs. A more detailed description is attached as Annexes 1 and 2. These partnerships involve outsourcing of clinical, technical or support services to private enterprises or organizations; contracting the direct provision of a health facility or certain health services with a private provider; collaboration with the private sector to develop or deliver health services for a specific disease or to a specific group of areas; and contracting or integrating private insurance schemes to cover specific populations. The different types of health PPPs have been clustered in the following manner: design and construction, non-clinical services, primary care, clinical support services, specialized clinical services, hospital management, and combination types.

Foreign health PPPs

From the thirty-nine foreign cases reviewed, there were seven models for design and construction, four for non-clinical services, six for primary care, nine for clinical support services, seven for specialized clinical services, four for hospital management, and two combination models.

PPPs can be seen in all types of countries, whether low income, lower middle income, upper middle income or high income. Majority of those reviewed were from South Asia (12) and Europe and Central Asia (9).

Health PPPs under design and construction varied in contract types and were large in scale requiring substantial investments from one or both sectors. All projects involved either the construction or management of a hospital. Lessons gathered from these studies stressed the importance of feasibility studies, creating standardized guidelines, and establishing success indicators for monitoring performance. On the other hand, PPPs for hospital management harnessed the expertise of the private sector in management and efficiency to better serve social needs. This was employed in hospitals in California, India and Brazil to improve efficiency in operations and clinical services.

For non-clinical services, the projects ranged from waste treatment and disposal (Bihar, India) to robotic Automatic Guided Vehicles (AGVs) that will aid service delivery (Royal Adelaide Hospital in Australia). The Inkosi Albert Luthuli Hospital in South Africa, however, was the only one in this review and the first in its country, to enter into a PPP for all its non-clinical services. To improve primary care services, PPPs were employed to improve primary care centers such as that in Costa Rica, Belo Horizonte primary care centers in Brazil, contracting out of primary care to nongovernmental organizations in Cambodia, and outsourcing of urban health centers in Bihar, India. Additionally, nutrition services contracts were seen in Bangladesh and a community based pain clinic was established in the United Kingdom. These initiatives improved clinical services at an affordable cost.

Clinical support services are services that lead to comprehensive, efficient, and improved care for the patient. PPPs for these may be in the form of laboratories, such as the one in Colentina, Romania or diagnostic centers, like the ones in Andhra Pradesh and Bihar, India. In addition, medical transport was addressed in Gambia through a partnership with Riders for Health to ensure that there is transportation available for all health-related needs. For specialized clinical services, that require field specialists to attend to the glossary of diseases and disorders, PPPs improved access at an affordable cost. Examples of these were the dialysis centers in Romania, neurosurgery, urology and nephrology services at Mowassat,

Kuwait, obstetrics and gynecology services at Smouha, Egypt, a radiotherapy center in Moldova, eye units in Bihar, India, and a center for translational molecular medicine in the Netherlands.

There are instances when a partnership involved a combination of services and a number of facilities. For the Alzira Model in Spain and the Lesotho health system, the contracts covered not only the construction of health facilities but also the overall management of the health system. This ensured efficient operations and a seamless referral mechanism within the system. In these two examples, integration was a key aspect in ensuring its success, relevance, and consistency.

Local health PPPs

Of the twenty-four cases studied, majority of projects fell under primary care (10 cases) and clinical support services (4 cases). Although, unlike the global cases, primary care projects did not involve primary care centers but rather focused on the access to services. Following these were non-clinical services (4 cases), hospital management (3 cases), specialized clinical services (2 cases), and design and construction (1 case).

Most of the programs were conducted locally as the initiative came either from the provincial/municipal government or private entities in the community. There were also a few, such as the Private Sector Mobilization for Family Health (PRISM) and *LakbayBuhayKalusugan (LBK)* Caravan, that were financed by donor agencies (Center for Health Market Innovations, 2011). Maternal and child health was the most frequent health problem that these projects addressed.

Generally, the reviewed health PPPs were either in the startup/pilot phase or existing/expansion stage. Although, it was noted that projects that involved the construction or management of a health facility were still in the preliminary stage, either in the planning, bidding or construction phase. Examples of these are the Philippine Orthopedic Center (Public Private Partnership Center, n.d.), Sarangani Medical Center (Sarangani Information Office, 2011) and the Research Institute for Tropical Medicine Vaccine Production Project (Research Institute for Tropical Medicine, n.d.), among others.

Determining which PPPs are PPIPs

The foreign and local health PPPs were then evaluated using the PPIP characteristics enumerated in the paper to determine whether or not it was a PPIP by definition. Annexes 1 and 2 include an analysis of which projects possess which of the ten key criteria for PPIPs. Of the ten criteria found on Table 4, the following were considered more important when classifying case studies as PPIPs – DBOD model, delivery of integrated clinical services, government as the owner of assets, risk transfer, cost neutrality, and equity of access.

Of the foreign PPPs reviewed, only 6 out of 39 qualify as PPIPs. This means that the rest are PPIs. Of the local PPPs reviewed, only 1 out of 24 has the potential to be classified as PPIP, that of the Northern Samar public healthcare projects. Although this project seems to qualify as a PPIP on paper, it is still in its preliminary stages and may be evaluated at a later stage. The project is also comprised of smaller ventures that may differ in contracting schemes. Most primary care projects involved funding from foundations or other donors with the sustainability of these projects a concern once the donor agencies stop funding. Many local projects were in the start-up phase. It seems that it takes time for large-scale projects involving construction to take off compared to the smaller initiatives, most likely due to the added resources and risk involved. This may also be why majority of the health PPPs are small scale.

However, admittedly, the scale of the project isn't proportional to the impact it makes. Some cases, such as Blue StarPilipinas: Social Franchising for Health and Botikang Bayan, started out small but eventually expanded because of their proven success.

The largest health PPP experience of the Philippines thus far is that of the Hemodialysis Center of the National Kidney and Transplant Institute (NKTI). It is a lease contract with the government as the lessee and has been recognized as a top PPP in emerging markets. The PPP involved an innovative procurement of equipment to address the annual budget deficit that hindered a proper service delivery for a rising need. As a result of entering a lease contract, NKTI provides the highest level of hemodialysis service serving more than 120 patients per day while being relieved of the responsibility of acquiring new equipment. However, based on the definition proposed by the paper, this project falls under PPIs.

Thus, it seems that there has yet to be a PPP in the Philippines that encompasses the description that this paper presents for PPIPs, as the current projects right now only partially fulfill the stated criteria. However, the Philippine Orthopedic Center, the largest PPP initiative of the government to date, was not included in this evaluation as it is still in the preliminary (bidding) stage. This initiative, which is a build operate transfer project with the hospitals transferred to the DOH after 25 years may, well be the first real PPP to fit the description proposed by this paper given that it will be built and managed by a private partner; however, its impact including the implications of the allocation of 30% or 210 beds as private beds has yet to be determined. That being said, the researchers searched for possible models that the country can use as a guide in establishing PPIPs.

PPIP Options for the Philippines

Three approaches in terms of focus and scale – healthcare delivery in the settings of primary care, hospital care, and an integrated system – were taken to narrow down case studies to serve as models. Table 8 summarizes these models and Annex 3 discusses them in detail.

The primary care model: Cambodia and Costa Rica

An increasing number of developing countries have looked into or have implemented contracting-out schemes to provide and scale-up health services through non-governmental providers. Proposed benefits to this approach include scaling up health initiatives, bypassing limited quality and efficiencies of centralized services and addressing the shortage of public health care personnel and facilities. It remains controversial due to the criticism that it may not reach objectives; it presents an unrealistic administrative cost, and the government's weaknesses in stewardship (Liu, Hotchkiss and Bose, 2007). Two case studies in primary health care delivery will be discussed and analyzed using Barr's (2007) protocol.

Cambodia, over four years from 1999 to 2003, contracted primary health care services to cover about 1.26 million people. The short-term nature of the set-up was an experiment designed to determine the effectiveness of contracting in and contracting out of health services. Contract-out models involved the government tendering management of government health services to private bidders. These private contractors were required to provide all preventive, promotional, and simple curative health care services mandated by the Ministry of Health. Contract-in models maintained government managed health systems in their district. The two designs aimed to test the two variants of the contracting approach in terms of control, budget process and effectiveness. Eight health service indicators were set, most related to maternal and child health. The experiment yielded better outcomes for all districts monitored with the contract-out model performing better than the contract-in model (Bhushan et al., 2002). Improvement in efficiency led to similar improvements in accessibility with Bhushan et al. (2002) notably concluding that "efficiency gains in the provision of health services do not come at the expense of equity." While short-term, the experimental nature of the set-up in Cambodia can still be classified as a genuine PPIP due to

the investment of the private sector in increasing access and expanding health services in the remote areas with proper sharing of roles and risks by the public and private partners. Furthermore, it improved healthcare services of the districts involved, improved access for the lower socioeconomic classes, reduced disability time and decreased out-of-pocket expenses.

Costa Rica also entered into a partnership with the private sector in the form of performance contracts. A set of twenty-three indicators, all related to primary health care, were set and proposals to cover nearly 110,000 people were requested. Herein resulted positive competition to reach improvements in quality and efficiency in health services delivery. Contracts required reaching at least 85 percent of the targets or a bond would be forfeited and private providers duly penalized. Existing service providers were not exempt from these new performance indicators. Contracted providers showed more general practitioner visits per capita, conducted fewer lab tests and dispensed less medication translating to lower expenditures. Whether this translated to actual better health outcomes and improved equity was not stated. Costa Rica's performance contracts for primary health care are true public private investment partnerships since it involved active investment and management from the private sector, and regulation from the public sector. Contracted providers responded to meeting the standards for coverage and quality while lowering the cost of care. The impact of the contracted model on access was significant in terms of raising general practitioner visits per capita and in reducing unnecessary diagnostic and therapeutic costs. The contracted model was also clear in distinguishing itself from a privatization model. No sale of assets was made and the private sector executed a public function under regulation and financing of the government. All services were available to all, free of charge. More impressively, Cercone in the Bulletin for the World Health Organization (2003) said, "for every dollar invested, US$ 1.5 has been returned to the population in terms of improved health status, greater productivity and better quality."

The hospital model: São Paulo and Bloemfontein

In the late 1990s, São Paulo had finished constructing new hospitals in underserved neighborhoods. An open competition was held to identify the best operators and would then enter a "five-year renewable operating contract with performance specifications, which in turn were linked to payments" (La Forgia and Harding, 2009). The sixteen facilities opened for bidding were all general hospitals, averaging 200 beds, in low-income neighborhoods in heavily urbanized municipalities. The contract specified services to be rendered and targets to be attained including volume targets, quality processes and benchmarks, and reporting requirements on daily operations. A performance-based global budget was given in two parts: 90 percent linked to service provision targets and 10 percent linked to compliance with reporting and quality indicators. La Forgia and Harding (2009) concluded that "from a value-for-money perspective, the results demonstrate that PPP hospitals represent major improvements over traditional public hospitals in Brazil. The PPP hospitals are performing much better on efficiency and productivity, with no evidence of quality shortfalls." Overall, the case of São Paulo demonstrated the preservation of the public mission of providing quality and efficient health care in a radically altered system of structure, governance and financing in the hospital set-up. Although there was no large investments or capital outlay, the long-term nature of the contract and the risk undertaken, as well as the shared responsibilities support this project as a true public private partnership.

In South Africa, another hospital partnership with the private sector has been undertaken in the state of Bloemfontein. The case study is a co-location PPP. This is a collaboration of public and private sectors to operate a similar service creating a win-win situation. The public sector receives revenue and the private sector generates profit. This set-up can occur when the public sector "has redundant assets and the private sector has sound commercial reasons for the utilization of these excess state assets." This co-location scheme is long-term, carries substantial capital and operational costs. The government wanted to resolve problems of duplication, inefficiency and inequity. Three Bloemfontein hospitals were realigned by assigning National Hospital to become a district level hospital, Pelonomi, a regional level hospital and

Universitas Hospital, a tertitary level provincial hospital. This reassignment reduced the number of beds but left the government with excess, under-utilized infrastructure. The two sectors entered into a 20-year concession to operate a private hospital in Universitas Hospital and inject capital towards the upgrading of a public ward, theatre and ICU block of the Pelonomi Hospital. The State retains ownership, and also gains revenue from a percentage of turn-over generated by the private hospital. Overall, this type of co-location partnership may be considered a public private investment partnership due to its long-term nature, magnitude of capital outlay, improvement in efficiency and access, and control of user fees. There are also noted gains in new employment and transfers of knowledge and skills.

The integrated health care model: Alzira and Lesotho

In the late 1990s, the health management company Ribera Salud proposed an integrated health care model in department of Alzira in the region of Valencia, Spain. An integrated system has many benefits. For patients, this provides a higher level of privacy and comfort, greater accessibility, a choice in treatment providers and up-to-date technology. For professionals, the integrated system provides stable employment, opportunities for career development, teaching and research, and a good working environment. For the regional government, this model has value for money, allows for investments throughout the concession period, and provides for financial risk transfer and innovation in technology and systems (NHS Confederation, 2011). Through a management concession contract, this partnership provided a health system for Alzira integrated with the existing National Health System for a university hospital, 4 integrated health centers and 46 primary health centers. A unified information system was set in place to ensure that a comprehensive clinical and drug history and diagnostic data would always be available to all physicians, reducing any duplications and having a trail of accountability. There is a professional management approach with delegated responsibility and external performance targets. Ownership remains with the government, and clauses in the contract must be complied with else government can pose sanctions. The private provider commits itself to ensuring the proper delivery of service. The payment system is a capitation model where a fixed price per inhabitant for the duration of the contract. The payment model also includes a percentage of the yearly increase in health budget. This fee covers for all expenses including service, amortizations, payroll, consumables and utilities. Physicians received incentives for target outcomes and patient volumes reached as well. A four-pronged approach – public control, public property, public funding, and private management – coupled with the "money follows the patient" incentive ensured quality and patient satisfaction. The success of this arrangement led the Government of Valencia to establish PPIPs for four other hospitals – Hospital de Torrevieja (a paperless and technologically advanced hospital, where patients can SMS the hospital to obtain real-time waiting times and doctors have remote electronic access to records at all times), Hospital Dénia Marina Salud, Hospital de Manises (where specialist units are included in the system) and Hospital del Vinalopó (a hospital providing both primary and specialist care – labeled one of the most technologically advanced hospitals in Europe). This model is a true PPIP, and a model for an integrated healthcare system. The long-term nature of the contract, the shared roles, risks and benefits, the increase in coverage, healthcare quality, and security of a no user fee policy points to one that supports universal health coverage.

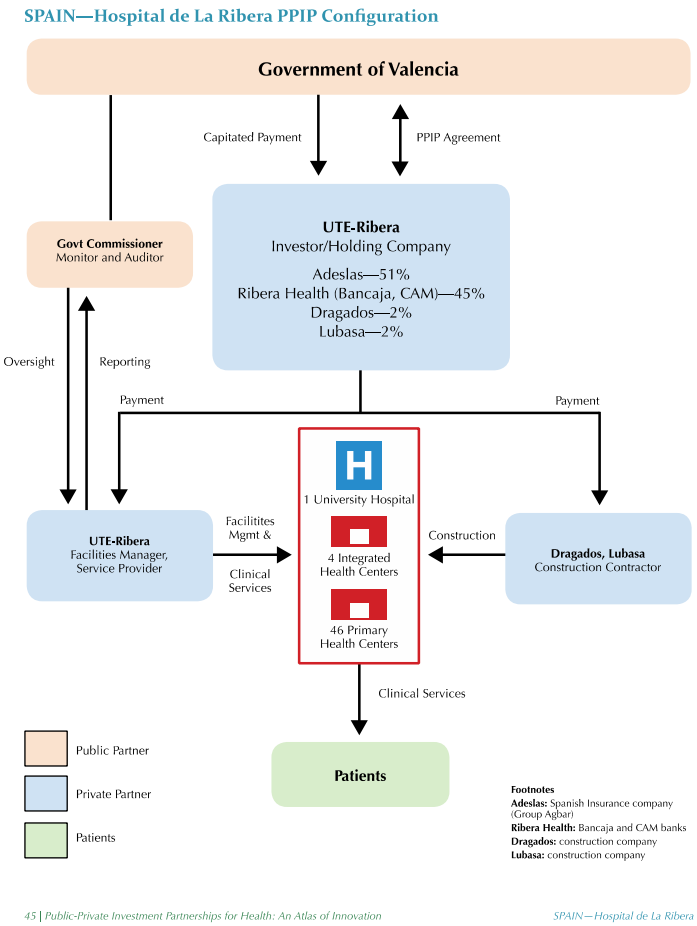

Figure 3. Alzira health system model (Global Health Group, 2010)

In 2006, Lesotho constructed an integrated health service delivery model to replace its main public hospital. The model consisted of a new hospital, adjacent gateway clinic, three filter clinics, and the management and operations of all of these services for at least 18 years. The scope of services includes complete health care services delivery from health professionals, to medical equipment and pharmaceuticals. Furthermore, as part of the integrated model, they also refurbished, re-equipped and operated primary health care clinics in the area. The private operator agreed to treat all patients presenting at the hospital and filter clinic regardless of condition, up to 20,000 inpatients and 310,000 outpatients per annum. There is an annual fixed service payment for delivery of all services that may escalate with inflation. The agreement included typical monitoring in terms of payment and penalties related to facilities management, equipment and other nonclinical outcomes. Apart from this, there is a detailed list of clinical and facility performance indicators that must be met before receiving payment. This public private partnership can be said to be a true PPIP because of the substantial risk and complex contract arrangement entered by both the public and private sectors. There was a large capital outlay, it was long-term and involved a systems approach to ensuring better access and improved quality of services, and there was no extra cost to the patient.

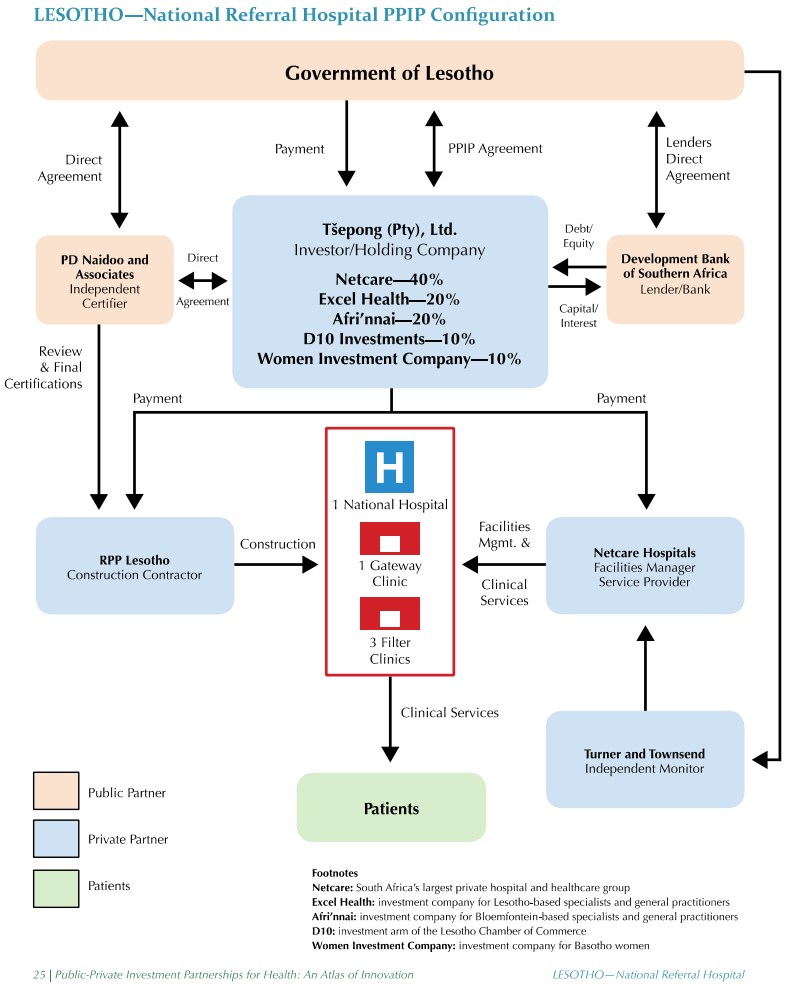

Figure 4. Lesotho's integrated health system (Global Health Group, 2010)

Key Lessons

The following table summarizes the key lessons that can be surmised from the six case studies presented.

Table 8. Key lessons from the representative case studies

Primary Care	**Cambodia**	Setting explicit health service indicators allowed proper evaluation. Efficiency gains in the provision of health services through PPPs do not come at the expense of equity. Contracted out models yielded better outcomes.
	Costa Rica	Under performance contracts, contracted providers responded to meeting the standards for coverage and quality while lowering the cost of care. The experience illustrated improvements in access through increased general practitioner visits per capita and reduced

		unnecessary diagnostic and therapeutic costs.
Hospital	**São Paulo**	The PPP hospitals are performing much better in terms of efficiency and productivity and there is no evidence of quality shortfalls. Innovative use of PPPs preserved the public mission of providing quality and efficient health care.
	Bloemfontein	PPP can be pursued when the public sector has redundant assets and the private sector has sound commercial reasons for the utilization of these excess state assets.
Integrated Health Care	**Alzira**	An integrated health care system reduces duplications and establishes a trail of accountability. A per capita payment approach with an incentive for target outcomes and patient volumes is effective in ensuring citizens' health needs are attended to and keeping physicians committed to service delivery.
	Lesotho	An annual fixed service payment for delivery of all services, with room for escalation with inflation, can work. A long-term, systems approach to health care ensures better access and improved quality of services at no extra cost to the patient.

Table 9. Evaluasting the effectiveness of the model case studies

Criteria (Barr, 2007)	Primary Care		Hospitals		Systems Approach	
	Cambodia Bloom et al., 2006 Schwartz and Bhushan, 2005 Bhushan et al., 2002	**Costa Rica** Cercone et al., 2005 de Bortodano, 2003	**Sao Paolo, Brazil** La Forgia and Harding, 2009	**Bloemfontein, South Africa** Shuping and Kabane, 2007	**Alzira Model, Spain** NHS Confederation, 2011	**Lesotho** Coelho and O'Farrell, 2009, 2011 Downs et al., 2013
Role of public sector	Monitor and evaluate, purchase health services	Purchase health services through the government and social security arm	Contract negotiation and performance monitoring	Contract negotiation	Purchase health services, monitor and control manner of provision	Contract negotiation, purchase health services
Role of private sector	Range of roles from management to total autonomy in operations and management	Provision of health services	Limitation to private nonprofit operators; full managerial autonomy	Investment, provision of health services	Responsibility of the health care of an entire departmental region	Deliver complete health services to a district – hospital, gateway clinic and filter clinics
Nature of the partnership	Termed "contracting-in" and "contracting out"	Termed "compromise de gestion" or performance contracts	Performance based contracts	Co-location – collaboration of both sectors to provide a similar service	Integrated healthcare concession contract	Integrated healthcare concession contract
Financial arrangement	Sourced from ADB; Payments withheld if progress was not satisfactory	Performance guarantee bonds to achieve at least 85 percent of targets before payment or risk penalties	Performance based global budget – 90 percent for service provisions and 10 percent for reporting and quality compliance	Private operator have private wards in the hospital with a percentage of revenue going to the government annually plus a monthly rental fee	Capitation payment with a percentage of the yearly increase in health budget; incentives available for physicians	Annual fixed service payment for delivery of all services that may increase with inflation; performance indicators must be met before payment
Structure, scope and function of the services	Standard bundle of care services mandated for all health districts in Cambodia	Provision of quality care, organization, management, and proper documentation of cost and volume of services	Operations and management of sixteen new facilities in low-income neighborhoods	Private operations within the public hospital; renovations and upgrading of shared private and public use (operating theatres, diagnostics)	Vertical integration, unified information system, delegated responsibility and external performance targets	Delivery of services from professionals to medical equipment and pharmaceuticals; primary health care clinics will also be refurbished and re-equipped
Government policies	Enabling	Enabling	Enabling	Enabling	Enabling	Enabling
Outcomes of effectiveness	Eight health service indicators, most related to maternal and child health	Twenty-three indicators all within the scope of primary health care	Improvements in bed occupancy, turnover, length of stay and a better staff-mix; savings from efficiency were invested into management improvements	Significant capital outlay, possibly unmatched by the government at one time, job creation, empowerment of local enterprises; improvement in health care service quality, skills and efficiency	Quality targets set – process indicators, clinical outcomes, patient experience – and safety; Less delays in patient care and increase in satisfaction surveys	Clinical and facility performance indicators set and must be met before payment or risk a percent penalty deduction in payment
Improvement of equity	Increase in health care utilization from lower socioeconomic classes	No mention	No mention	Increase in jobs with empowerment of local enterprises; no	No mention however payment scheme covers for all inhabitants and	No mention

				discrimination to those in public health care due to shared use of services	user fees are not a hindrance to achieve healthcare	
Potential weaknesses	Political situation and shortage of facilities unique to the country and amenable to contracting	Model works with a well-developed health financing system	Lack of bonuses or incentives; involved nonprofit private operators and may not be a good model to attract capital	Risk of negative perspectives by mixing private and public in one infrastructure	This model was ideal for a region without a tertiary hospital and allowed ingenuity to perform a systems approach	PPPs are not panaceas and must be seen as a stepping-stone to improve the rest of the health landscape
Major goals of UHC	Increase in access Decreased out of pocket expenditures	Increase in access and coverage Decreasing the cost of care No user fees	Increase in access No user fees	Increase in access Control of user fees	Increase in access Control of user fees	Increase in access Control of user fees
Minor gains	Increase in public health usage and spending	High patient satisfaction Retention of residual income to benefit all employees	Improvements in efficiency Sense of accountability among all workers	Improvements in efficiency Gains in employment Knowledge and skills transfers	Improvements in efficiency Knowledge and skills transfers through vertical integration	No mention
PPIP by definition	Yes	Yes	Yes	Yes	Yes	Yes

PPIP Options Appraisal

Although the six cases presented are successful PPPs in their home countries, these are just models that must still be modified according to local knowledge and experience in a country. Furthermore, public private partnerships must be contextualized to the political landscape, economic situation, private sector interest, and commitment level of the stakeholders involved. PPPs must be consistent and coherent with the national health mandate and strategy in order to avoid scattered initiatives that clutter the landscape and confuse the key players in healthcare. As Widdus (2001) says, PPPs "show promise but are not panaceas." The following questionnaire will help stakeholders determine whether or not PPPs are the right solution for the problem at hand.

Table 10. Inception questionnaire for interested stakeholders in PPPs

Questionnaire
1. For which aspect of your health system are you interested in creating a PPP? __ Primary care services __ Hospital-based services (If this is your option, proceed to No. 2.)
2. Is your project large in scale? __ Yes (Proceed to No. 3.) __ No (PPIPs may not be for you.)
3. Are you interested in playing an active role in the project? __ Yes (Proceed to No. 4.) __ No (Consider sale of assets or outsourcing.)
4. Is the project comprehensive for the hospital? __ Yes (Proceed to No. 5.) __ No (Proceed to No. 6.)
5a. Are you interested in a greenfield project? __ Yes (DBOD contract variations may be suitable.) __ No (Consider concession contract variations.) 5b. Are you interested in integrating the healthcare provided and gain value for money? __ Yes (Consider integration with primary care facilities in the community.) __ No
6. Which aspect of hospital-based services will you focus on? __ Infrastructure (BTO contract variations may be suitable.) __ Clinical Services (Service, management contract variations may be suitable.) __ Non-clinical Services (Service, management contract variations may be suitable.)

With this in mind, it is recognized that in the Philippine health landscape where there are many existing health care providers, an integrated and system-approach to PPIP may not always be the best solution. In spite of this, it is still important to keep the ideal PPIP in perspective and consider that this may be achieved in increments.

To further aid these stakeholders, a decision tree is presented below in approaching PPPs. A prerequisite to applying this algorithm is that proposed partnerships must be need-based with accompanying evidence and statistics, long-term in nature with a goal of achieving universal health coverage by improving access to healthcare and reducing the financial burden of out-of-pocket expenses. Furthermore, both the public and private sector must share risks and benefits and an open dialogue on the design, scope and details of the partnership, must be present throughout the project.

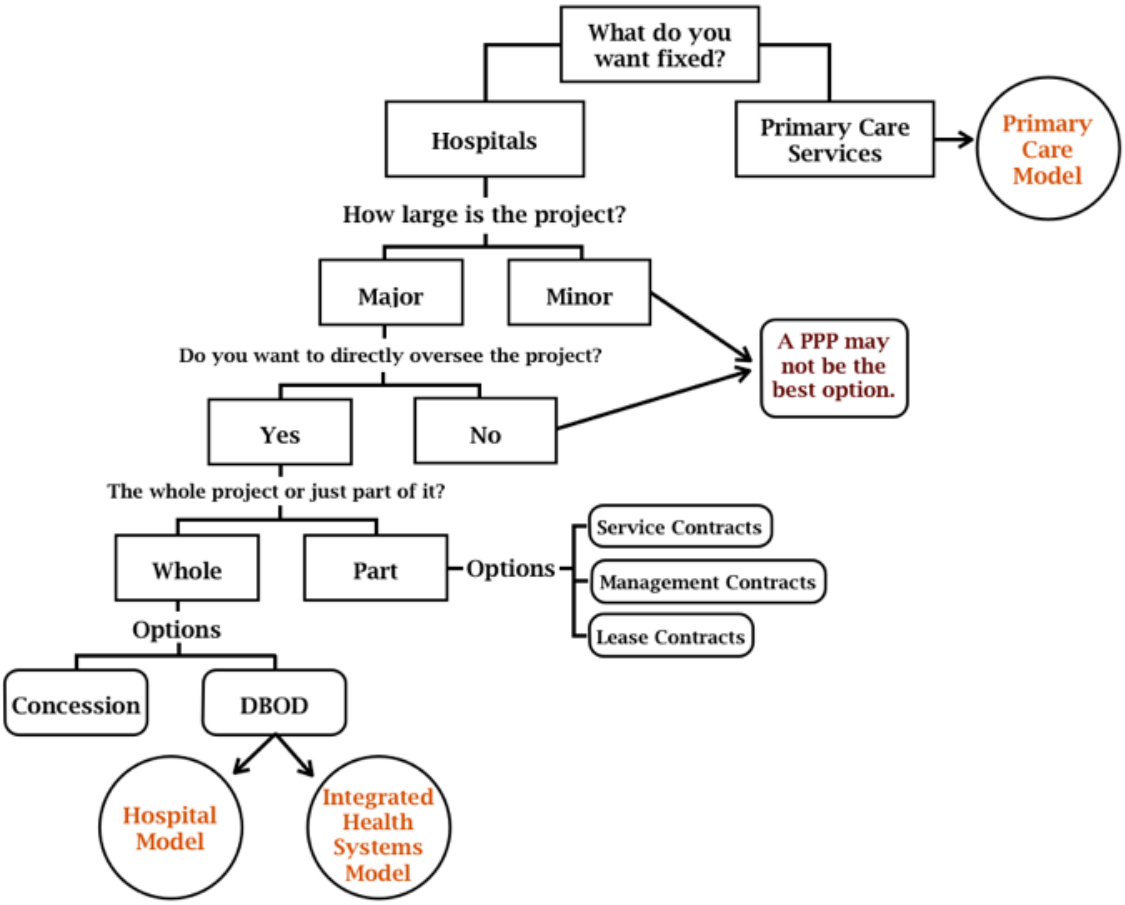

Figure 5. PPP decision tree for stakeholders

The first question policy and decision makers should ask is what aspect of their healthcare system for which they want to create a PPP. Two choices in the Philippine setting include primary care services and hospital services.

For hospital services, they must next decide if the project or partnership is large in scale or not. Small-scale projects do not strictly fall under a public private investment partnership. They may be public private interactions, as most bids and contracts are; however, they are not a health PPIP in the strictest definition. These smaller scale projects may push through and need less coordination than larger projects. Furthermore, public sectors that do not wish to directly administer their partnerships must look into the possibility of entering a different contract type. Active participation between both the public and private sector are essential in a PPP.

Large projects can be administered either in part or in whole. Comprehensive administration of partnerships is seen in concession or BOT-type contracts. These contract types allow for greater systems change within the hospital. Those administered in part are usually partnerships for particular portions of hospital operations such as infrastructure, clinical services, or nonclinical services. These smaller partnerships may improve efficiency, leading to better quality of care.

Additionally, taking into account the three approaches presented earlier – primary care, hospital-based care, and an integrated healthcare system – one must look at the relevance and success factors that will help stakeholders choose one model over another. Table 10 summarizes these.

Primary healthcare PPIPs flourish in an environment where there is lack of supply in a community of high demand. Demand may be measured from untreated morbidities and/or overcrowding of secondary and tertiary care facilities. Demand is not measured by political will. The Declaration of Alma Ata (1978) includes at least the following in primary healthcare: "education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs." These eight items comprise the goals of primary healthcare PPIPs, and must be measured and monitored regularly. Primary healthcare PPIPs are considered successful when they meet the goals and criteria of universal health coverage (see Table 5) such as the availability and equitable accessibility of quality services, improved efficiency, and cost neutrality. Furthermore, retention of patients in the community and a decrease in morbidities, are good indicators of success and potential savings.

Hospital-based healthcare PPIPs are appropriate when there are redundant public facilities wherein potential income can be generated, or when inefficient operations are detrimental to the sustainability of a public hospital. They may also be applied in situations where a public hospital is needed in a community but will be difficult and expensive for the government to set-up. These PPIPs are flexible and can work as green-field projects or as renovation and concession projects. Key factors to its success include improving employees' accountability, obtaining a more efficient staff-mix, and including certain incentives for good performance.

Integrated healthcare systems are an ideal set-up for any community. It lessens duplicity of visits and laboratory examinations; it provides seamless care appropriate to the needs of the patient. They may be approached as PPIPs in a community that is amenable to major changes from their status quo. In the Philippines where there is a large private healthcare presence and citizens have autonomy in choosing their providers, this may be difficult. With a growing population, more rural communities will experience immigration and the need to strengthen their systems may arise. These PPIPs unify information systems, deliver services in all levels of care, and ensure both horizontal and vertical integrations. Key factors to the success of these PPIPs include a sound national health insurance program, political cooperation among local leaders, and innovative investors.

Table 11. Relevance and success factors of PPIP models

	Primary healthcare	Hospital-based healthcare	Integrated healthcare systems
When is it appropriate	High demand, low supply High morbidities	Redundant hospital facilities Inefficient hospital operations	Presence of strong political will and cooperation of local leaders and innovative investors; Sound national health insurance program
Success factors	Ensuring the criteria of UHC is met – accessibility, availability, efficiency, and cost neutrality	Improve employees' accountability; obtain a more efficient staff-mix, and include certain incentives for good performance	Unify health information systems, provide seamless services across different levels of care, communicate the integration to constituents

Conclusion and Next Steps

Revised Definition of Health PPPs

In its Administrative Order 2010-0036, the Department of Health called for greater partnership with the private sector to meet the Aquino health agenda to achieve universal health care for all Filipinos. The administrative order used the term PPP, defined as "a cooperative venture between the public and private sectors, built on the expertise of each partner, that best meet clearly defined public needs through the appropriate allocation of resources, risks and rewards. This partnership may range from health care provision to logistics management, from information and communication technology to capacity building of health providers" and indicated their participation in projects requiring large capital. The definition is general and does not contextualize its relationship to health. Adopting the terms of PPIPs and PPIs may delineate the scale and requirements of various projects, highlighting its relevance and importance.

The proposed definition of a health PPP provides a clearer description of its components and goals.

A health public private partnership is a contract between the public sector and one or more private sectors, organized as a legal entity, with a common goal to provide a public health service, while sharing substantial financial and operational risk.

The three types of PPIPs should also be defined and described as to the appropriate settings that they can be considered. The options appraisal decision tree and questionnaire can be incorporated in the revised AO.

It must be noted that primary healthcare PPIPs flourish in local governments where there is lack of supply in a community of high demand. Hospital-based healthcare PPIPs are appropriate when there are redundant government health facilities. They are also applicable in situations where a public hospital is needed in a community but will be difficult and expensive for the government to set it up. Integrated healthcare systems are ideal set-ups for the devolved set of the country as they provide seamless care to the patients and address the fragmentation brought about by devolution. These PPIPs unify information systems, the delivery of health care services in all levels of care, and ensure both horizontal and vertical integrations of health care providers.

Enabling PPPs

Ultimately, public private partnerships, whether PPIPs or PPIs, are intended to improve a country's health outcomes. The success of a PPP is not only measured at the project's culmination; rather, it is also determined by the preparation leading up to it. As such, there are certain elements that must be present for a PPP to thrive in.

1. Comprehensive health plan. A comprehensive health plan that clarifies the role of PPPs in the health system and in attaining UHC. A long-term plan will inform the government as to what projects they should be prioritizing and who they should be collaborating with. This ensures that projects are accounted for to avoid duplication and integrated within the system for sustainability. Moreover, this will also help the private sector understand how they can contribute to improving health outcomes.

2. Legal framework. A legal framework is necessary to protect the interests of both the public and private sector and to make them liable if the objective of the PPP is not attained. Policies should be in place to serve as guidelines on how to go about the partnership, ensuring that there is enough incentive for private investors. Additionally, the legal framework should define health financing arrangements that minimize the financial risk of the population, but in the same time are suitable for a PPP. Political will is necessary for this to come in fruition.

3. Regulatory framework. A regulatory framework – specifically a controlling body, is essential to keep track of projects, to police partners, and to assist in technical aspects of the partnership, among others. An independent body is also needed for unbiased and consistent monitoring and evaluation of projects.

4. Readiness of public and private sectors. Both public and private sectors must be ready and willing to enter into the partnership. This means that the public sector has the capacity to handle the technical requirements of the project including regulation and enforcement, and the private sector can meet the quality standards required to achieve better health outcomes. Moreover, as the essence of a partnership is collaboration, the partners must build on each other's skills, expertise and resources to reach the goal that, ultimately, cannot be done alone (Roy, 2003). Constant and clear communication must occur between the two sectors. Finally, there must be trust, accountability and transparency in the partnership throughout the project duration.

PPIPs and Universal Health Coverage

Public-private investment partnerships provide a concrete option towards achieving universal health coverage. Its integrated approach works within the system of healthcare delivery therefore improving overall efficiency instead of simply bridging gaps. It brings about private sector participation and accountability as the usual PPIP's design-build-operate-deliver model with risk transfer to the private sector. Maintaining government ownership of assets during the life of the PPIP will ensure the presence of robust government review and independent monitoring. With the expanding population coverage of PhilHealth converting charity patients into insured patients with third party payors, maintaining government ownership of the assets no longer automatically translate into a lack of financial viability brought about by the requirement of the old Hospital law (Republic At 1939) to maintain 90% of government hospital beds as charity beds. PPIPs clearly aim for system-wide efficiency gains, and the delivery of integrated clinical services and nonclinical services without putting the patient at risk of financial hardship while providing predictable costs to government in a long-term investment that combines public and private funding. Properly implemented, PPIPs may responsively address the three dimensions of universal health coverage.

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Annexes

Annex 1. Summary tables of foreign health PPPs

Health PPP *Status*	Contract type	Country Region	Country's Income	Health Option or Focus	Impact and Lessons	Key Characteristics (see Table 4 of main paper)
Design and Construction						
Goztepe Training and Research Hospital *Project to be completed in 2015* (Istanbul Project Coordination Unit, 2012)	Management	Turkey Europe and Central Asia	Upper middle income	The hospital building will be a seismic base isolated building with multi-storied comprising in-situ reinforced concrete construction and equipped with sophisticated electrical and mechanical services, including lifts, heating, ventilation/air-conditioning, sanitary and medical support systems.	Infrastructure strengthening; facility improvement	4
Hospital do Suburbio *Completed in 2010* (International Finance Corporation, 2013)	Concession	Brazil Latin America and the Caribbean	Upper middle income	Ten-year concession contract that transferred the hospital's operation and management—including clinical and non-clinical services—to the private partner. The concessionaire also has the responsibility of equipping and maintaining the hospital, ensuring that technology standards meet those of the best private hospitals in the country. The hospital has a catchment area of 1 million.	Impact: Improvement of clinical services; expansion of coverage - since it opened in 2010, the hospital has performed more than 1.8 million medical procedures, including 680,000 emergency procedures; professional knowledge sharing and teamwork; Lessons: presence of key performance indicators based on quantitative and qualitative targets, create incentives for high levels of performance; regular monitoring for performance and finances key to making necessary operational adjustments.	1, 3b, 4, 5a, 6a, 6b, 7, 8a, 9, 10
Hospital co-location *Completed in 2005* (Shuping and Kabane, 2007)	Concession	South Africa Sub-Saharan Africa	Upper middle income	Renovation of Pelonomi hospital and upgrading of Universitas hospital ; Provision of better level of healthcare to all South Africans; Option of private healthcare in Bloemfontein at a reduced cost through a lease of beds and operating theatres in public hospitals	Impact: Expansion of coverage; improvement of clinical services; professional knowledge sharing and teamwork Lessons: Public finance management act to secure transparency, accountability and sound management of the revenue, expenditures, assets and liabilities of institutions involved; the upgrades and renovations to Pelonomi have ensured that the building with much history will continue to survive and; by removing the redundant services, this historically black hospital and Universitas Hospital are able to reach and treat all citizens without services based on race.	1, 2, 3a, 4, 5a, 6a, 6b, 7, 8a, 9

Victorian Comprehensive Cancer Centre *Project to be completed in 2016* (Victorian Comprehensive Cancer Centre, 2013)	Hybrid	Australia	High income	The Victorian Comprehensive Cancer Centre (VCCC) Project is a $1 billion world-class cancer center that will drive the next generation of progress in the prevention, detection and treatment of cancer.	Impact: Improvement of clinical services Lessons: The private sector consortium is responsible for financing, designing, constructing and maintaining the facility. The public sector is responsible for operation of medical services, staffing and teaching/research.	4, 6a, 6b, 7
Sunshine Coast University Hospital *Project to be completed in 2016* (Queensland Government, 2013)	Hybrid	Australia	High income	Exemplar Health will design, construct, finance, commission and maintain the hospital buildings and grounds for a period of 25 years from late 2016 when the hospital opens. It requires the facilities to be maintained to a high standard throughout the contract term.	Impact: Improvement of clinical services; facility maintenance and improvement	4, 6a, 7
Interior Heart and Surgical Center *Ongoing* (Interior Health, 2010)	Joint venture	Canada North America	High income	Construction of a new 12,970 square-metre (139,590 square-foot) building to house the Interior Heart and Surgical Centre.	Impact: Facility improvement	4, 6a
PPP Health Project *Completed in 2012* (Abrantes de Sousa, 2012)	Build-finance-operate	Portugal Europe and Central Asia	High income	Large scale partnerships to build and operate four hospitals	Impact: Expansion of coverage; facility improvement; improvement of clinical services Lessons: Have a pilot study to begin with; Understand proper risk allocation, together with financial institutions; Avoid delays because these expose projects to more market risks, interest rate, underwriting risk; An integrated model with clinical services allows more innovation and efficiency gains expected, with synergies and whole-life costing while infrastructure models have lower political sensitivity and risks but have higher cost overruns; Budget sustainability will become the key constraint and will depend as much on contract management as on contract design, favoring simpler, transparent contracts; Keep PPPs the exception, not the rule, as a form of financing public investment and public services, below 25% of relevant public investment; Include PPP contract obligations in public investment expenditure and public debt.	2, 3a, 4, 6a, 7, 9
Non-Clinical Services						
Services of Hospital Waste Treatment and Disposal in all Government Health Facilities	Service	India South Asia	Lower middle income	The state has outsourced the Biomedical Waste Management system for all the Government hospitals. 1) Provide service of Hospital Waste Treatment and Disposal in all Medical Colleges, District	Impact: Improvement in waste management; knowledge building among health workers	2, 3b, 6a, 7

(Health Department Government of Bihar, n.d.)				Hospitals, Sub-Divisional Hospitals, Referral Hospitals and PHCs of the State. 2) Install, Operate and maintain appropriate Common Biomedical Waste Treatment facility, as per the Biomedical Waste (Management & Handling) Rules, 1998 and subsequent amendments in it. 3) Provide one day orientation training to all the health service providers. 4) Maintain the above-mentioned arrangement for a period of minimum 10 years.		
Mapping of Urban Areas for facilitating Urban Health Planning (Health Department Government of Bihar, n.d.)	Service	India South Asia	Lower middle income	Mapping of all the health service providers especially service providers within and around the slums. This is to be done with an intention to identify likely referral services available.	Impact: Improvement in census for expansion of coverage	3b
Inkosi Albert Luthuli Hospital *Completed in 2002* (United States Agency International Development, 2008)	Concession	South Africa Sub-Saharan Africa	Upper middle income	The first hospital in South Africa, a 846-bed, tertiary care, referral-only hospital situated in Durban, to enter into a PPP for the delivery of all its non-clinical services.	Impact: Provision and management of all non-clinical services (equipment replacement, IT systems, facility management, hospital management, cutting edge technology) Lessons: Outputs for medical equipment and IM&T have to be produced using state of the art equipment and industry best practices with regular replacements; A complex and rigorously designed and essentially self- monitoring penalty system is helpful. A help desk for performance measurement tracking may be required.	3b, 5a, 5b, 6a
Royal Adelaide Hospital *Project to be completed in 2016* (Spotless, n.d.)	Management	Australia	High income	Spotless will deliver 14 facility management services when the hospital is operational. Notably, robotic Automatic Guided Vehicles (AGVs) will aid service delivery by transporting food, linen and stores throughout the hospital. In doing so, the AGVs will also reduce the risk of manual handling injuries and allow staff to spend more time undertaking patient-centered duties.	Impact: Provision and management of all non-clinical services Lessons: Transfer support services to those with expertise so manpower can focus on clinical services.	3b, 7
Primary Care						
Primary care in Costa Rica (Cercone et al., 2005 de Bortodano, 2003)	Service / performance	Costa Rica Latin America and the Caribbean	Upper middle income	The intended outcome of the performance contracts was to reach a set of 23 indicators, all within the scope of primary health care. Targets were specific and measurable. A target level of	Impact: The impact of the contracted model on access was significant in terms of raising general practitioner visits per capita and in reducing unnecessary diagnostic and therapeutic costs. All services given free of charge.	1, 3a, 3b, 4, 5a, 5b, 6a, 6b, 7, 8a, 8b, 9, 10

				85 percent was set and comparisons with centers not contracted-out ensured that the gains were attributable to the performance contracts.	Lessons: Allow full autonomy in decision-making providing flexibility in management; Encourage healthy competition with providers meeting set services and standards at the lowest price per capita awarded as winners; Retain residual claimant conditions translating to profits and benefits for all employees	
Contracting out of primary care clinics to NGOs (Bloom et al., 2006 Schwartz and Bhushan, 2005 Bhushan et al., 2002)	Management	Cambodia East Asia and Pacific	Low income	Four-year management contracts with nongovernment organizations were put in place in primary health care facilities in 12 districts. The contractor has full-line management responsibility and must respond to performance targets including achievements in immunization, antenatal care, family planning, and services to the poor.	Impact: Expansion of coverage; Improvement in clinical services at an affordable cost Lessons: Contracts piloted out to different NGOs; Identification of poor and ensuring their coverage in terms of immunization; Study methods were organized and coverage was well documented.	1, 3a, 3b, 4, 5a, 5b, 6a, 6b, 7, 8, 9, 10
Belo Horizonte Primary Care Center *Completed in 2011* (International Finance Corporation, n.d.)	Design-build-finance-operate	Brazil Latin America and the Caribbean	Upper middle income	The operator will be responsible for the design and construction/renovation of 147 primary care clinics. The operator will also be responsible for imaging and laboratory testing, pharmacy and materials distribution, and other support services of the primary care network.	Impact: Facility improvement; Provision and management of clinical support services Lessons: Transfer support services to those with expertise so manpower can focus on clinical services.	1, 2, 3a, 3b, 4, 5a, 5b, 6a, 7, 9
Nutrition Services *Completed in 2002* (Osman, n.d.)	Service	Bangladesh South Asia	Low income	Government contracted NGOs to control areas with no organized nutrition services. Initially, 15 million people covered with the cost of $0.96 per person. Malnutrition rates declined by 18% (compared with 13% in publicly covered areas). Program has now expanded to cover 30 million.	Impact: Expansion of coverage; Improvement in clinical services at an affordable cost Lessons: Irregularities of the program such as frequent changes in program direction caused discontinuity in the flow of funds; Procedure of renewing contracts with NGOs was complicated and length. At times, faulty NGOs were selected. Furthermore, monitoring and supervision of performance was ineffective; Government is over dominant and inefficient. Partnership becomes clumsy.	4, 5a, 5b, 7, 8a, 9
Outsourcing of Urban Health Centers on Rental Basis (Health Department Government of Bihar, n.d.)	Lease	India South Asia	Lower middle income	Improve the health status of the urban poor community by provision of quality Primary Health Care Services: Services – Free OPD, Immunization, Antenatal care, child health services, treatment of minor ailments, delivery services & family planning services.	Impact: Improvement in clinical services at an affordable cost	1, 3a, 4, 5a, 5b, 7, 8a, 9, 10
A combined nurse-pharmacist managed pain clinic: joint venture of public and private	Joint venture	United Kingdom Europe and Central Asia	High income	The limited capacity of general practitioners to manage chronic pain and long waiting time for secondary care referrals add to the complexity of chronic	Impact: Improvement in clinical services at an affordable cost	2, 4, 5a, 5b, 7, 8a, 9

sectors (Hadi, Alldred, Briggs and Closs, 2012)				pain management. Community based combined nurse-pharmacist managed pain clinic serves as an example of public-private partnership in healthcare.		
Clinical Support Services						
Laboratory services of 1,000-bed Hospital (International Finance Corporation, 2010)	Service	Romania Europe and Central Asia	Upper middle income	Hospital tendered for a private operator to take over, centralize, renovate, equip and operate all laboratory services for the hospital. The operator would be reimbursed according to a specified fee schedule. Investments made to upgrade and re-equip the laboratory, as well as for staff training, increasing the accuracy and efficiency of the hospital's laboratory and clinical services.	Impact: Facility improvement; Improved clinical services at an affordable cost; Professional training on efficiency	4, 7, 8a, 9, 10
Improvement of clinical support services of 120 bed regional secondary hospitals in Toluca, the state capital, and Tlalneplantla (International Finance Corporation, 2011)	Concession	Mexico Latin America and the Caribbean	Upper middle income	Operator is responsible for construction, financing, equipping, facility management of clinical support services (radiology, lab services) and only one specialized clinical service (dialysis) under a 25 year contract. The public sector is responsible for most clinical services. The private sector operator will receive a fixed payment and a variable payment which is performance dependent.	Impact: Facility improvement; Improved clinical services at an affordable cost; Expanded coverage Lessons: Payment is based on a clear performance-based mechanism which will improve the quality of service for patients. This also improves the financial position for the state's Social Security Institute by reducing the hospital's overall costs by one-third; Government will be in charge of clinical services - doctors, staff, supplies, while the winning bidder will oversee construction and provide facility and equipment management as well as delivery of most of the diagnostic services for the 25-year duration of the contracts.	2, 4, 5a, 5b, 6a, 7, 8a, 8b, 9, 10
Diagnostic imaging centers in government medical colleges in Andhra Pradesh (International Finance Corporation, 2011)	Concession	India South Asia	Lower middle income	Refurbishment of existing facilities and new construction, equipping, capital financing and operation of imaging centers in four teaching hospitals attached to public medical colleges in Kakinada, Kurnool, Vishakhapatnam, and Warangal.	Impact: Facility improvement; Improved clinical services at an affordable cost; Expanded coverage Lessons: Responsibility of the private partner for building facilities, staffing, and providing services to all patients referred by doctors from the hospital; Providing the PPP with the opportunity to leverage unutilized capacity for services to private patients (fees-at-service) though priority to public referral patients is a must during certain time- frames; Enabling public medical students to be trained on state-of-the-art equipment through co-location with an existing teaching hospital; Requiring the PPP to seek, obtain, and maintain the most recent quality accreditation in India throughout the contract, which few facilities nationwide have obtained.	2, 4, 5a, 5b, 6a, 6b, 7
Medical Diagnostic	Design-build-	Uzbekistan	Lower	The centers will offer diagnostic imaging,	Impact: Facility improvement; Improved clinical	2, 4, 7, 8a, 9

Centers in four cities of Uzbekistan (International Finance Corporation, 2010)	finance-operate	Europe and Central Asia	middle income	laboratory tests, and specialist outpatient care to an estimated 300,000 people a year. The contract will be for 7 years.	services at an affordable cost; Expanded coverage	
New diagnostic imaging center at the national referral hospital (International Finance Corporation, n.d.)	Design-build-finance-operate	Moldova Europe and Central Asia	Lower middle income	Separate PPP transactions for a new radiotherapy (cancer treatment) center at the national cancer hospital (Oncology Hospital) and a new diagnostic imaging center at the national referral hospital (Republican Hospital). The operator is responsible for design, construction, equipping, capital financing, and all services (clinical and non-clinical).	Impact: Facility improvement; Improved clinical services at an affordable cost; Expanded coverage; Provision and management of all non-clinical services	2, 4, 7, 8a, 9
Setting Up of Ultra-Modern Diagnostic Centers in Regional Diagnostic Centers (RDCs) and all Government Medical College Hospitals (Health Department Government of Bihar, n.d.)	Lease	India South Asia	Lower middle income	The State Government has created the buildings for Regional Diagnostic Centers. Spaces are provided in the premises. The agency provides everything from equipment & machine, logistics, consumable, personnel. The following services will be catered: Pathology, Biochemistry, Radiology- Digital x-ray, CT scan, MRI, ECG, and Mammography. Revenue sharing is adopted.	Impact: Facility improvement; Improved clinical services at an affordable cost	2, 4, 7, 8a, 9
Public-Private Partnership Strengthens Global Laboratory Systems (Division of Global HIV/AIDS (DGHA), Centers for Disease Control and Prevention, 2010)	Management	Multiple African nations Sub-Saharan Africa	Low income; lower middle income; upper middle income	In the fight against HIV/AIDS in Africa, a strong laboratory system is critical to supporting prevention, treatment, and care interventions. One strategy being employed by PEPFAR (US) to strengthen sustainable, integrated laboratory systems that provide quality diagnostic services is the establishment of strong public-private partnerships. The partnership, providing support of up to $18 million, is being initiated in eight African countries: Côte d'Ivoire, Ethiopia, Kenya, Malawi, Mozambique, South Africa, Tanzania, and Uganda.	Impact: Facility improvement; Improved clinical services at an affordable cost; Professional knowledge sharing Lessons: Country-specific laboratory strengthening programs were done based on National Laboratory Strategic Plans; Fellowship programs were available for partners; Short-term technical assistance was available; Equipment upgrading combined with proper training is a good sustainable strategy to achieving health goals.	2, 3a, 4, 5a, 6a, 9, 10
Government hospitals to tie up with private diagnostic labs (Hindustan Times, 2012)	Joint venture	India South Asia	Lower middle income	Regional health-care providers are being given the opportunity to collaborate in specialty health-care services thereby ensuring the clinical laboratories' role in providing quality health care to our communities.	Impact: Improved clinical services at an affordable cost Lessons: Partnering with private companies to provide support services such as diagnostics and laboratories is sustainable.	2, 4, 7, 8a, 9
Riders for Health (African Health Forum,	Lease	The Gambia Sub-Saharan	Low income	The Gambia partnered with Riders for Health, a not-for-profit, to provide	Impact: Provision of clinical support services Lessons: The contract is based on an agreed cost	4, 7, 8a, 9

2013)		Africa		transport management and, eventually, full fleet management for all trucks, cars, motorcycles and ambulances.	per kilometer, covers "last mile" space, and includes provisions for preventative maintenance and training for the 100% local staff. Contracts may also include vehicle leasing for renewal.	
Monitoring and Evaluation Data Centre at Multiple Levels (Health Department Government of Bihar, n.d.)	BOT	India South Asia	Lower middle income	The State has One Data Centre which collects data from all levels of health care in 38 districts on monthly basis through Fax / E-mail. The collected data are stored and maintained in a computerized format and they are sent to respective program officers.	Impact: Provision of clinical support services	4, 7, 8a, 9
Specialized Clinical Services						
Dialysis Centers (International Finance Corporation, 2012)	Management	Romania Europe and Central Asia	Upper middle income	Improved service quality and facilities of 8 existing dialysis centers covering 25% of the country's dialysis patients. To address unmet demand, aging facilities, shortage of trained staff, and lack of national standards, operators receive per treatment payments.	Impact: Improved clinical services at an affordable cost; High performance standards Lessons: Operators receive per treatment payments, with full responsibility over facilities, staff and treatment; New best-practice national standards are developed and implemented.	4, 5a, 5b, 6a, 7, 8a, 9
Neurosurgery, Urology and Nephrology Services at Mowassat Specialized University Hospital (International Finance Corporation, 2012)	Concession	Egypt Middle East and North Africa	Lower middle income	The Mowassat Specialized University Hospital will be a 224-bed facility providing neurosurgery, urology and nephrology services. Egypt is facing a crisis in prevention and treatment of chronic non-communicable diseases.	Impact: Improved clinical services at an affordable cost; High performance standards; Expanded coverage	4, 5a, 5b, 7, 8a, 9
Obstetrics and Gynecology Services at Smouha Maternity University Hospital (International Finance Corporation, 2012)	Concession	Egypt Middle East and North Africa	Lower middle income	Smouha Maternity University Hospital is planned as a 200-bed gynecology and obstetrics center with a blood bank facility.	Impact: Improved clinical services at an affordable cost; High performance standards; Expanded coverage	4, 5a, 5b, 7, 8a, 9
New radiotherapy center at the national cancer hospital (International Finance Corporation, n.d.)	Design-build-finance-operate	Moldova Europe and Central Asia	Lower middle income	The operator will be responsible for design, construction, equipping, and capital financing.	Impact: Improved clinical services at an affordable cost; Expanded coverage	4, 5a, 5b, 7, 8a, 9
Operating and Maintaining Eye Units in all District/ Sub-Divisional Hospitals (Health Department Government of Bihar, n.d.)	Lease	India South Asia	Lower middle income	The State Government will provide spaces in state hospitals for setting up of Eye Units. The private sector has to provide everything from equipment & machine, logistics, and ophthalmological services.	Impact: Improved clinical services at an affordable cost; Expanded coverage Lessons: The agency has to provide everything from equipment and machines, logistics, consumables etc. to personnel along with space for storage at a nominal monthly rent payable to district hospital. Rates for OPD charges and operations to be reimbursed on a monthly basis	4, 5a, 5b, 7, 8a, 9

					as prescribed by the government.	
Bihar Private Specialists (Health Department Government of Bihar, n.d.)	Service	India South Asia	Lower middle income	Provision of Private specialists in Eye, ENT, Orthopedics, Pediatrics, Gynecology and Surgery in District Hospitals.	Impact: Improved clinical services at an affordable cost; Expanded coverage Lessons: Personal recruitment of quality physicians, being compensated on a daily basis.	8a, 9
Center for Translational Molecular Medicine *Completed in 2011* (Center for Translational Molecular Medicine, n.d.)	Joint venture	The Netherlands Europe and Central Asia	High income	The Center for Translational Molecular Medicine (CTMM), the Netherlands' Top Institute for research in molecular techniques for the early diagnosis and treatment of especially cardiovascular disease and cancer, today announced the launch of a new 16 million Euro project called TraIT (Translational research IT).	Impact: Expanded services; Professional knowledge sharing Lessons: CTMM operates by inviting, assessing and funding multidisciplinary projects that involve active participation by Netherlands-based academia and industry. All CTMM projects are judged by an independent International Advisory Board and approved by a Supervisory Board based on their significant potential to translate research knowledge into clinical practice. The CTMM is funded by the Dutch government (50%), academia (25%) and industry (25%). Additional funding is provided by supporting foundations on behalf of patients.	4, 5a, 5b, 7, 8a, 9
Hospital Management						
Provision for HR Consultancy Services (Health Department Government of Bihar, n.d.)	Service	India South Asia	Lower middle income	SHSB has invited offers from Human Resource Consultancy Services for assisting State Health Society in selection and recruitment of doctors, nurses, paramedical staffs and other managerial and clerical staff under guidance and direction of State Health Society	Impact: Improved employment processes and standards. Lessons: Outsourcing consultancy allows for more efficient selection and recruitment of health care worker.	None
Private management of hospitals in California (Rundall and Lambert, 1984)	Management	USA North America	High income	Manages operation of clinical and non-clinical services of existing public hospitals.	Improved clinical services; Provision of all non-clinical services.	3a, 3b, 10
Rajiv Gandhi Super Specialty Hospital (Rajiv Gandhi Super Specialty Hospital, 2013)	Joint venture	India South Asia	Lower middle income	Improving the hospital that lacks facilities and supplies and required expenditures of time and money. The government provided the building while Apollo provided the medical facilities for operating the hospital. A governing council reviewed the performance periodically.	Impact: Improved clinical services; Expanded coverage. Currently not in use. Lessons: Accountability and responsibility is taken by the private partner, Apollo; Adapting to changes (from primary care to specialty referral hospital).	2, 5b, 7
Improvement of 298-bed emergency hospital serving a catchment area of one million people in Bahia, the state capital of Salvador	Concession	Brazil Latin America and the Caribbean	Upper middle income	The project was structured as a ten-year concession contract that transferred the hospital's operation and management—including clinical and non-clinical services—to the private partner. The concessionaire also has the responsibility	Impact: Improved clinical services; Expanded coverage; Provision of all non-clinical services	2, 3a, 3b, 4, 6a, 6b, 7, 9, 10

(International Finance Corporation, 2013)				of equipping and maintaining the hospital, ensuring that technology standards meet those of the best private hospitals in the country.		
Combination/Integrated Services						
Lesotho hospital *Completed* (Coelho and O'Farrell, 2009, 2011 Downs et al., 2013)	Design-build-finance-operate	Lesotho Sub-Saharan Africa	Lower middle income	Design and construction of a new 425-bed hospital and adjacent gateway clinic, the renovation of three strategic filter clinics, and the management of facilities, equipment, and delivery of all clinical care services for 18 years	Impact: Expansion of coverage; improvement of clinical services; facility improvement; affordable user-fees Lessons: Evaluation of bids serves to enhance outcomes and affordability; Defining clinical services is necessary, even if it has to be a highly consultative process; Integrated service delivery is essential at every level; Value for money is about more than just project cost and risk transfer.	1, 2, 3a, 3b, 4, 5a, 5b, 6a, 6b, 7, 8a, 9, 10
Alzira Model *Completed* (NHS Confederation, 2011)	Joint venture	Spain Europe and Central Asia	High income	The Alzira model has relegated the responsibility of healthcare for the region to a single, integrated provider. There is an integrated working ecosystem between all levels of care – from primary care doctors to specialists in the tertiary hospital.	Impact: A set of targets for quality – process indicators, clinical outcomes, and patient experience – and safety were set. There are less delays in patient care – consults, diagnostics, surgery, emergency response time – in Ribera Salud hospitals and satisfaction surveys indicate the hospitals' effectiveness in retaining patients. Lessons: Four keys to this model: public funding, control and ownership, and private provision.	1, 2, 3a, 3b, 4, 5a, 5b, 6a, 6b, 7, 8a, 8b, 9, 10

* Foreign health PPPs highlighted blue are considered public private investment partnerships having fulfilled the more important criteria of a PPIP namely – DBOD model, delivery of integrated clinical services, government as owner of the assets, risk transfer, cost neutrality and equity of access for all.

Annex 2. Summary tables of local health PPPs

Health PPP *Status*	Contract type	Scale	DOH/LGU Setting	Health Option or Focus	Impact and Lessons	Key Characteristics (see Table 4 of main paper)
Design and Construction						
Research Institute for Tropical Medicine (RITM) Vaccine Production Project: Vaccine Self-Sufficiency Project Phase II *Preliminary stage* (Ona, 2010)	BOT	National	DOH Health facility	This project will build a cGMP compliant refilling and production facility for Pentavalent Vaccines, Tetanus Toxoid and Single dose Hepatitis B.	Impact: Vaccine security and self-sufficiency; timely provision of vaccines; low-cost vaccines	2, 6a, 6b, 7
Non-Clinical Services						
Secured Health Information Network and Exchange *Pilot/Start-up Phase* (Center for Health Market Innovations, 2011)	Service	Local	LGU Non-health facility	This system uses mobile phones and internet to facilitate the tasks of health service delivery, specifically in recording, reminding, reporting and referral.	Impact: Improved data management and collection of 25,000 patient records; patient communication and compliance	3b, 7, 9
Tarlac Wireless Access for Health (WAH) *Expansion phase* (Center for Health Market Innovations, 2012)	Service	Local	LGU Non-health facility	This is an electronic health system, which uses 3G wireless broadband to make viewing, recording and reporting of patient information from community health workers to the municipal or provincial health officer easier. This innovation enables reliable health data transmission for speedier decision-making and action.	Impact: Faster retrieval of patient records; wireless transmittal of data; easy access to information by policy planners; established in 19 Rural Health Units	3b, 7, 9
TexTB *Existing/expansion phase* (Center for Health Market Innovations,	Others	Local	LGU Non-health facility	This is a supply information system that allows health workers to order tuberculosis drugs through SMS. It aims to improve management and supply of quality anti-TB drugs to prevent wastage	Impact: Constant supply of quality TB drugs at the rural level; Piloted in 151 Rural Health Units in 5 provinces	3b, 7, 9

2009)				and expiry of drugs at the rural level.		
Tingog 2015 *Start-up phase* (Center for Health Market Innovations, 2011)	Others	Local	LGU Non-health facility	This is a Citizen Monitoring and Tracking system used to improve the Local Government Unit's capacity to monitor the MDGs. Citizens can report on maternal health care services being provided by the government through SMS or the internet.	Impact: Improved maternal health services; immediate corrective response to complaints	3b, 7, 9
Primary Care						
Health Education Advocacy on Radio (HEAR) Program *Pilot/start-up phase* (Center for Health Market Innovations, 2011)	Others Foundation funded	Local	Non-health facility	This radio program is used to educate the general population, particularly those living in remote areas, regarding common health issues, good quality health care, proper maternal and child care, infectious diseases and lifestyle diseases.	Information dissemination, translated from Tagalog to mixed Tagalog-Visayan; leveraged for local narrowcasting and community empowerment	7, 8a, 9
Ipon ni Mommy, Buhay ni Baby (A Buntis Baby Bank Project) *Existing/expansion phase* (Center for Health Market Innovations, 2009)	Others Foundation funded	Local	Non-health facility	This project aims to change behavior of soon-to-be-mothers towards saving money for delivery and seeking health care by providing them with baby banks.	Impact: Changed behavior of mothers as well as the perspective of local leaders in terms of ownership and responding to the issue; 50% coverage in all barangays; expanded service by providing maternity kits and perks; adopted by 3 other municipalities	7, 8a, 9
Lakbay Buhay Kalusugan (LBK) Caravan *Pilot/start-up phase* (Center for Health Market Innovations, 2011)	Others Donor funded	Local	Non-health facility	This caravan provides health services, specifically maternal and child health focused consultations and examinations, to geographically isolated and disadvantaged areas (GIDAs). Interactive health promotion activities are also conducted to educate people about basic health care.	Provide health information and services to people in GIDAs; 3,000 clients served in 2011	7, 8a, 9
Mother Bles Birthing Clinics *Existing/expansion* (Center for Health Market Innovations, 2010)	BOT	Local	LGU Health facility	This project aims to provide accessible and affordable maternal and infant health services to poor women by ensuring birthing clinics are accredited by PhilHealth and managed properly.	Impact: Improved maternal health services with the help of the municipal government, private practicing midwives and KaKaK Foundation, a non-profit private partner; 16 clinics	4, 5a, 7, 8a, 9
Private Hospitals MOA with DOH in Handling Leptospirosis Cases *Existing/expansion* (Center for Health Market Innovations, n.d.)	Others	National	DOH Health facility	Through this initiative, private hospitals fill in the gap by treating cases of leptospirosis that government hospitals cannot handle.	Impact: Treatment of leptospirosis patients; management of overflow	3a, 5a, 8a, 9

Public-Private Mix DOTS *Existing/expansion* (Center for Health Market Innovations, 2003)	Hybrid	National	DOH Health facility	This project aims to increase case detection and harmonize Tuberculosis management among all health care providers.	Impact: Increased detection rate	3a, 5a, 6b, 8a, 9, 10
Strengthening Approaches on Family Health Efforts by Motivated Midwives (SAFEMOM) *Existing/expansion* (Gonzales, 2010)	Others	Local	LGU Health facility	This project aims to provide quality and affordable family planning services, as well as upgrade the practice of midwifery.	Impact: Increased clients by 60% and revenues by 40-60%; expanded referral system; provided policy inputs Lessons: Applied business concepts; maximized partnerships for services and resources; contractual agreements work best	7, 8a, 9
Kilusan Ligtas Malaria: Movement Against Malaria *Existing/expansion* (Arceo-Dumlao, 2011)	Others Co-funded	Local	Non-health facility	This initiative aims to control the incidence of malaria through information campaigns, as well as strengthen the early detection and prompt treatment of malaria cases.	Impact: 64% decline in malaria mortality; established microscopy centers in 344 barangays	7, 8a, 9
Private Sector Mobilization for Family Health Phase 2 (PRISM 2) *Existing/expansion* (United States Agency International Development. n.d.)	Others Donor-funded	National	Non-health facility	This project taps into the private sector to improve the service delivery of family planning services to the poorer population. In addition, it aims to make private providers more effective in communicating and encouraging FP and MCH services. PRISM 2 will also facilitate the creation of clear, specific and formal local and national policies.		3a, 7, 8a, 9
Blue Star Pilipinas: Social Franchising for Health *Existing/expansion* (Center for Health Market Innovations, 2008)	Others Franchising	National	Health facility	This family planning franchise aims to increase availability of accessible and affordable quality FP services through existing private providers. In addition, they train providers in state-of-the-art service delivery and monitor the quality to ensure that standards are met.	Impact: 302 franchised-midwives; 282 clinics; 150,585 clients served in 2011	3a, 5b, 7, 8a, 9
Clinical Support Services						
Botika ng Bayan (BNB) and Botika ng Bayan Express *Existing/expansion* (Center for Health Market Innovations, 2004)	Franchising	Local	Health facility	This project aims to provide consumers with low-cost and high-quality medicines through a partnership between a pharmaceutical company, local government and private institutions.	Impact: 2,256 outlets since 2010; low-cost and high-quality medicines	5a, 7, 8a, 9
Davao City Central 911 Emergency Response Center *Existing/expansion*	Service	Local	Non-health facility	Central Communications and Emergency Response Center or Central 911 is the country's first fully integrated response service using GIS technology. This	Impact: Immediate emergency response	4, 5a, 6b, 8a, 9

(Center for Health Market Innovations, 2002)				innovation uses light posts to locate emergency cases and to serve as markers for ambulances in rural areas.		
Southern Philippines Medical Center Drug Consignment *Existing/expansion* (Center for Health Market Innovations, 2001)	Service	Local	Health facility	Through an agreement with various pharmaceutical suppliers, this project uses drug consignment to provide drugs to a public hospital.	Impact: Steady supply of drugs	4, 7, 8a, 9
Planet Drugstore *Existing/expansion* (PPP in Health, 2012)	Management	Local	Health facility	This project addresses the unstable supply of urgently needed drugs and supplies. The drugstore is currently situated in Ospital ng Makati and Northern Samar Provincial Hospital.	Impact: Touted as one of the best PPP practices in the country; provides pharmacy-management services	4, 7, 8a, 9
Specialized Clinical Services						
Hemodialysis Center at the National Kidney Transplant Institute (NKTI) *Existing/expansion* (Center for Health Market Innovations, 2011)	BOT	National	DOH Health facility	This project is a long-term lease agreement to furnish the hospital with state-of-the-art machines for patients suffering from end-stage renal diseases.	Impact: Latest technology in dialysis treatment; expanded services to treat more patients (41,372); more affordable treatments	2, 4, 5a, 5b, 6a, 6b, 7, 8a, 9
Philippine Orthopedic Center *Preliminary* (Public Private Partnership Center, n.d.)	BOT	National	DOH Health facility	This facility aims to be the country's primary center for bone and joint diseases with efficient hospital operations.	Impact: Largest PPP contract thus far as both the facility and operations are handled by the private partner	2, 4, 5a, 5b, 6a, 6b, 7, 8a, 9
La Union Medical Center *Existing/expansion* (Center for Health Market Innovations, 2011)	Joint venture	Local	LGU Health facility	Initially completely subsidized by the provincial government, this hospital was converted into an enterprise model in 2002 to ensure its economic sustainability. It outsources vital hospital equipment and provides equivalent service to all patients regardless of income.	261,538 patients, retained hospital income, developed its own hospital financing and auditing system	1, 2, 4, 5a, 5b, 6a, 7, 8a, 9
Sarangani Medical Center groundbreaking *Preliminary stage* (Sarangani Information Office, 2011)	Management	Local	LGU Health facility	This tertiary facility aims to be the premier medical center for the entire SOCCSKARGEN with a 200-bed capacity.		2, 4, 6a, 7, 8a
Northern Samar Public Hospitals	Management	Local	LGU	Renovation of Northern Samar Provincial Hospital, upgrading of eight district	Lessons: Local code amenable to PPP projects.	1, 2, 3a, 3b, 4, 5a, 6a, 6b, 7, 8a,

Preliminary stage (Sun Star Tacloban, 2012)		Health facility	hospitals into secondary and primary hospital facilities, hospital and interlocal health zone-based diagnostics and laboratory. Clinical support services and primary care facilities will also be improved.		9

Annex 3. Detailed evaluation of PPIP models

The WHO Centre for Health Development in Kobe, Japan, recognized in 2002 the need for partnerships among communities, civil societies, the private sector and government to improve the availability of health and welfare services in developing countries. They also noted the current limitations on the analysis of the effectiveness of such partnerships. Donald Barr's (2007) research protocol presents eight aspects to the research protocol namely: the relationship between the public and private sectors, the nature of the partnership, the financial arrangements, the structure, scope and functions of the services, the government policies that promote the partnership, the proposed and actual measured outcomes of effectiveness, the improvement of equity as a separate distinct outcome, and the identification of potential weaknesses in analysis. This paper will adopt the criteria for the analysis of individual models. In addition, the study will comment on the structure of the partnership and if it meets the definition of a true public private partnership or not. Furthermore, the major and minor impact of the partnership will be identified. Selected case studies will be analyzed by the system and location of their health provision, namely, primary care services, hospital services and a "large-scale"/systems provision of health care (Barr, 2007).

2.1 The primary care model

2.1.1 Contracting primary health care services in Cambodia

During the Vietnamese regime in Cambodia, public health facilities were few and far in between and poorly equipped. In 1993, a move towards a market economy allowed private medical practice to flourish. Bhushan, Keller and Schwartz (2002) noted the sharp contrast of the low health status of the country with the high level of health expenditure. It was clear that the expenditures were not translating to better care but rather funneled into inefficiency and costly pharmaceuticals, further contributing to poverty. The Ministry of Health of the government decided to look into alternatives to deliver health services. The contracting of health services ran from 1999 to 2003, covering about 11% of Cambodia's population or 1.26 million people. The contract was an experiment to determine the difference in effectiveness of contracting in and contracting out health services.

Bloom, Bhushan, Clingingsmith, Hong, King, Kremer, Loevinsohn, and Schwartz (2006) illustrated the design. The public sector in this partnership referred to the government and the Ministry of Health. The private sector involved non-governmental organizations, consulting firms and university-affiliated groups. Bidders submitted proposals which were subjected to technical criteria including the prior experience of the contractor, the quality of the key staff to run the project and the quality of the management plan. The technical scores combined with the bid price with the highest combined score were awarded the contract.

The contract design and structure aimed to test two variants of the contracting approach differing in degree of control and the process of budgeting. The two variants were called contracting-in and contracting-out. Contracting-in districts provided management support to existing staff and costs were covered by the government. Loans allowed an additional operational supplement of which contractors had full control. Contracting-out districts had full responsibility over the delivery of services, employment of staff and management control. Funds were sourced from the Asian Development Bank for both contract types. The scope of the contract involved provision of the standard bundle of care services mandated for all health districts in Cambodia. This is known as the minimum package of activities. Explicit targets were set for eight health-service indicators, most related to maternal and child

health: childhood immunization, administration of vitamin A to children, antenatal care for pregnant women, child delivery by a trained professional, delivery in a health facility, the knowledge and use of birth control and the use of public facilities when seeking curative care. Target levels were between 160% and 450% of the baseline levels to be achieved within four years. A monitoring group from the Ministry of Health was provided to survey the progress contracted districts quarterly. Payments were withheld if progress was not satisfactory (Bloom et al., 2006).

The focus of the public health services was directed to the vulnerable group of women and children. Bhushan et al. (2002) also noted increased health care utilization by contracted districts for households of low socioeconomic status, increasing twelve fold in contract-out districts and six fold in contract-in districts. The increase in utilization can be attributed to improved access, reduction in travel expenditures, and reduction in costs of services.

Overall public health spending increased per capita for contracted districts, 61-85% more than non-contracted districts. Private health spending also decreased by seventy percent for the bottom half of the population. User-fee systems were implemented to contribute to payment of staff salaries and incentives and it was set at 60% of the prevailing market price. Even with the implementation of user-fees, the actual out-of-pocket payments decreased considerably. Contracting-out had a strong negative effect on out-of-pocket health spending while contracting-in had no statistically significant effect.

The experiment yielded better outcomes for all districts monitored, however the contracted districts performed significantly better for the indicated target outcomes and exhibited large gains in coverage. Contract-out model performed better than the contract-in model (Bhushan et al., 2002). Contract-out districts implemented performance-based incentives, augmenting government salaries. These districts had more freedom in management allowing them to make greater strides. Management positions were mostly filled by expatriates, with an advantage of being less subject to political pressures than locals, and that of having different managerial views and capabilities (Bloom et al., 2006). Bhushan et al. (2002), also noted that there was a decrease in productive lost due to illness by patients and their caretakers, more so for the contract-out model than the contract-in. This points to the efficiency of the contract-out model.

The Cambodia example is unique and valuable due to the randomized design. Their predetermined and objective performance indicators, political support, and management by results contributed to its success. However, this pilot study limited the possible policy alternatives to two options and the set-up makes it hard to validate externally. The political situation of the country at that time, and the shortage of health facilities also were conducive to a contracting scheme but make it difficult to be generalized to other countries (Schwartz and Bhushan, 2005). Bhushan et al. (2002) notably concluded that “efficiency gains in the provision of health services do not come at the expense of equity. Rather improvement in efficiency appears to also lead to better access of health services by the poor, relieving them of the burden to health care expenditures.” The structure of the partnership is that of a true public private investment partnership due to the investment of the private sector in increasing access and expanding health services even in remote regions of Cambodia, and also to the operations and management involvement of the various NGOs. The government shared in the risk by providing the finances and played its role in monitoring the project. Overall, it improved the healthcare services of the districts involved, improved access for the lower socioeconomic classes, reduced disability time, and decreased out-of-pocket expenditures.

2.1.2 Primary health care services in Costa Rica

In the late 1980s, the Costa Rican government formulated long-term strategies to address health care system reforms. They successfully shifted health care provision to their social security arm (*Caja Costarricense de Seguro Social*) and the Ministry of Health took over regulation and policy oversight. Still, in 1994, access, efficiency, quality, accountability, and expenditures were real issues that needed solutions. They increased participation of the private sector as a provider of the services. The social security arm will be able to tap into the investment capacity and management experience and flexibility of the private sector. The aims were to introduce organizational, financing and service delivery reforms while improving value for money, coverage and efficiency and increasing the capacity of the primary care network. They maintained universal coverage and public financing throughout the process (Cercone, Briceño, and Gauri, 2005).

The public sector refers to the government of Costa Rica and the social security arm while the private sector refers to private providers, universities and other cooperatives. Outsourcing is not new to Costa Rica and they have various cooperative models in play since 1988. In 2000, they introduced a new phase to the scheme by requesting proposals to extend health coverage to nearly 110,000 people. The key result of this new phase was the generation of positive competition through improvements in quality and efficiency. The public sector is the purchaser of health services while the private sector is the provider of services (Cercone et al., 2005).

The *compromise de gestion* (performance contracts) were the legal instrument to be used for contracting public and private providers. The contract was performance based defining the coverage and services to be provided. It outlined four main categories of performance indicators: provision – coverage rates and protocol compliance; quality – technical and perceived quality of services; organization and management; billing – proper documentation of cost and volume of services provided. The contract also establishes monitoring, evaluation, incentives and sanction guidelines. There was a performance guarantee bond stating that at least 85 percent of the established targets should be achieved otherwise the bond is collected by the social security arm and privately managed providers may be penalized. Existing publicly managed providers were not exempt from the performance indicators and risked 2.5 percent of their budget against low performance.

The intended outcome of the performance contracts was to reach a set of 23 indicators, all within the scope of primary health care. Targets were specific and measurable. A target level of 85 percent was set and comparisons with centers not contracted-out ensured that the gains were attributable to the performance contracts. In general, contracted providers showed more general practitioner visits per capita and fewer specialist visits as compared to traditional clinics. They also conducted fewer lab tests and dispensed less medication translating to lower expenditures per capita. There was no mention on extra measures taken to ensure that equity in access was achieved.

The performance contracts demonstrated in Costa Rica are true public private partnerships since it involved active investment and management from the private sector, and regulation from the public sector. Contracted providers responded to meeting the standards for coverage and quality while lowering the cost of care. The impact of the contracted model on access was significant in terms of raising general practitioner visits per capita and in reducing unnecessary diagnostic and therapeutic costs. The contracted model was also clear in distinguishing itself from a privatization model. No sale of assets was made and the private sector executed a public function under regulation and financing of the government. All services were available to all, free of charge. More impressively, Cercone in the Bulletin for the World Health Organization (2003) said, “for every dollar invested, US$ 1.5 has been returned to

the population in terms of improved health status, greater productivity and better quality." As an adjunct, the model also allowed full autonomy in decision-making providing flexibility in management, encouraged healthy competition with providers meeting set services and standards at the lowest price per capita awarded as winners, and retained residual claimant conditions translating to profits and benefits for all employees. User surveys also demonstrated high satisfaction in contracted models.

2.2 The hospital model

2.2.1 The case of São Paulo, Brazil

In the late 1990s, São Paulo was finishing construction of new hospitals in underserved neighborhoods. They viewed this as an opportunity to introduce a new operations and management scheme that would address the poor performance and lack of accountability of publicly managed hospitals but go beyond the experience of contracting models which were passively run and ultimately lacked accountability.

Their new public private partnership model involved the government as the public sector and private nonprofit operators, such as universities and philanthropic organizations, as the private sector. The government surrendered control and direct management and assumed their role of contract negotiation and performance monitoring. The private sector had full managerial autonomy and held accountable via performance contracts. These nonprofit operators, newly organized as a public interest organization created by law in 1998, were legally independent and not bound by government contracting and procurement laws. An open competition was held to identify the best operators and would then enter a "five-year renewable operating contract with performance specifications, which in turn were linked to payments" (La Forgia and Harding, 2009). The sixteen facilities opened for bidding were all general hospitals, averaging 200 beds, in low-income neighborhoods in heavily urbanized municipalities.

The contract specified services to be rendered and targets to be attained including volume targets, quality processes and benchmarks, and reporting requirements on daily operations. A performance-based global budget was given in two parts: 90 percent linked to service provision targets and 10 percent linked to compliance with reporting and quality indicators. It is important to note that the contract was not implemented using the performance indicators due to lack of information. This was later on remedied by installation of information systems in all hospitals. The government throughout the implementation was also able to perform its role well as an oversight and regulatory board, with actual instances of withholding variable budgets for hospitals that failed to reach performance targets. In 2007, a contract was also cancelled due to noncompliance with terms.

Efforts were made to analyze the performance of the PPP hospitals compared to similar, publicly managed facilities. La Forgia and Harding (2009) found that "there were no significant differences between the two groups in demographic characteristics such as the average number of beds, types of services, total spending, spending per bed, or number of professionals per bed. The hospitals were also similar in terms of patients' illness complexity, age, and sex. Finally, the research was constrained by the lack of verifiable information in the hospitals under public management. Data were usually incomplete, limiting the breadth of quality indicators we could use for comparative purposes."

Another analysis on efficiency and quality was done with a sample of 428 facilities and it showed better efficiency in PPP hospitals as measured by bed turnover rate, bed substitution rate, bed

occupancy and length of stay. The analysis of La Forgia and Harding (2009) also revealed that PPP hospitals use one-third less physicians and one-third more nurses possibly contributing to a better staff-mix. Half of PPP hospitals also received accreditation by 2008 while none of the publicly managed hospitals have sought this out. The São Paulo experience did not charge fees to all patients. They also spent less per bed-day and per discharge than publicly managed facilities. La Forgia and Harding (2009) have concluded that "from a value-for-money perspective, the results demonstrate that PPP hospitals represent major improvements over traditional public hospitals in Brazil. The PPP hospitals are performing much better on efficiency and productivity, with no evidence of quality shortfalls." The improvement of equity and accessibility was not discussed.

Some noted weaknesses in the model are the lack of bonus or incentive payments due to the hard budget constraints and annual audits and oversight in including depreciation costs in the global budget. Savings from efficiency were retained as investment in service improvements but not in capital outlay. This model involved only social nonprofit organizations and this set-up may not be ideal to increase capital in the health sector. It also involved new hospitals and its application to existing ones is uncertain.

Overall, the case of São Paulo demonstrated the preservation of the public mission of providing quality and efficient health care in a radically altered system of structure, governance and financing in the hospital set-up. Their key components involved autonomous authority, flexible human resource management, strategic purchasing, contract monitoring and enforcement and information and transparency (La Forgia and Harding, 2009). The underserved locations of hospitals provided greater access to the poor and there were zero user fees. It also improved efficiency which led to greater financial savings and established a sense of accountability among all workers in the hospital. Although there was no capital outlay, the long-term nature of the contract, the risk undertaken by both sectors and the meticulous monitoring support this project as a true public private partnership.

2.2.2 Pelonomi and Universitas Hospital co-location in Bloemfontein, South Africa

Public private partnerships in the South African context is regulated by the National Treasury which mandates that each PPP should be conceptualized, planned, and executed as a project, in accordance with the steps outline in the PPP manual, to ensure full compliance. The South Africa case study is a co-location PPP. This is a collaboration of public and private sectors to operate a similar service creating a win-win situation. The public sector receives revenue and the private sector generates profit. This set-up can occur when the public sector "has redundant assets and the private sector has sound commercial reasons for the utilization of these excess state assets." A co-location is long-term, carries substantial capital and operational costs. In South Africa, the National Treasury acts as facilitator to ensure affordability to the public, risk transfer to the private, and value for money for the public entity. (Shuping and Kabane, 2007).

In 1998, the Free State Department of Health transformed the health care delivery process and wanted to resolve problems of duplication, inefficiency and inequity. Three Bloemfontein hospitals were realigned by assigning National Hospital to become a district level hospital, Pelonomi, a regional level hospital and Universitas Hospital, a tertitary level provincial hospital. This reassignment reduced the number of beds but left the government with excess, under-utilized infrastructure. The unique situation of private health care in South Africa, that of, limiting the norms and standards for the number of beds per region, created an opportunity for the private sector to take part. The public sector would be the Free State Department of Health and the private sector was that of Community Hospital Management

Limited. The two sectors entered into a 20-year concession to operate a private hospital in Universitas Hospital and inject capital towards the upgrading of a public ward, theatre and ICU block of the Pelonomi Hospital. The State retains ownership, and also gains revenue from a percentage of turnover generated by the private hospital.

The structure of this co-location combined the strength of both sectors – the public sectors resources, and sharing both sectors technology and specialists. It allowed the private sector to invest funds to be used by private patients, public patients, or both, thus generating income that would benefit both sectors. The co-location generated employment and improved the appearance of public facilities.

Shuping and Kabane (2007) analyzed the effectiveness of the project four years after initiation using both quantitative and qualitative methods. Quantitatively, the capital investment of parties, the economic empowerment and equity benefits from the partnership, and the income gained from fees and turnover rates were measured. Capital outlay was significant – one that the government could not have allocated through budget – and ultimately, the ownership remains with the State. More jobs were created from construction, and subcontracts were given to enterprises from different disadvantaged communities. The contract also stipulates a monthly rental fee apart from a small percentage of the annual turnover to be paid back to the government. Qualitatively, the factors to be assessed included economic growth contribution, poverty alleviation, improvement of health care service quality, and improvement of skills and efficiency. These qualitative factors were not available in reviewed papers. However, the set-up itself has many unique benefits such as interaction and knowledge building capacity between public and private providers and retention of high quality specialist workforce due to the co-location.

Overall, the co-location partnership is a true public private partnership due to its long-term nature, magnitude of capital outlay, improvement in efficiency and access, and control of user fees. There are also noted gains in new employment and transfers of knowledge and skills.

2.3 The integrated healthcare model

2.3.1 The Alzira model

The health care of Spain is divided into areas or departments which are responsible for the management of facilities, benefits and health service programs in their territory. In the late 1990s, department 11 in the Valencia region was without a local hospital. The demand for provision plus the new laws set in place to cooperate with the private sector compelled a new integrated health PPP model to be formed. Ribera Salud, the health management company running this model has cited benefits for patients, professionals and the regional government. For patients, this provides a higher level of privacy and comfort, greater accessibility, a choice in treatment providers and up-to-date technology. For professionals, the integrated system provides stable employment, opportunities for career development, teaching and research, and a good working environment. For the regional government, this model has value for money, allows for investments throughout the concession period, provides for financial risk transfer and innovation in technology and systems (NHS Confederation, 2011).

The Alzira model has relegated the responsibility of healthcare for the region to a single, integrated provider. There is an integrated working ecosystem between all levels of care – from primary care doctors to specialists in the tertiary hospital. A unified information system was set in place to ensure that a comprehensive clinical and drug history and diagnostic data always be available to all

physicians, reducing any duplications and having a trail of accountability. There is a professional management approach with delegated responsibility and external performance targets.

Ribera Salud provides four keys to this model: public funding, control and ownership, and private provision. The payment system is per capita. Ownership remains with the government, and clauses in the contract must be complied with else government can pose sanctions. The private provider commits itself to ensuring the proper delivery of service. The financial arrangement is a capitation model where a fixed price per inhabitant for the duration of the contract. The payment model also includes a percentage of the yearly increase in health budget. This fee covers for all expenses including service, amortizations, payroll, consumables and utilities. Physicians received incentives for target outcomes and patient volumes reached as well.

Vertical integration in this system by ensuring proper medical links with consultants and general practitioners, to facilitate knowledge sharing and minimize inappropriate hospital referrals. More services were brought to the general practitioners in the form of onsite diagnostics and emergency equipment to solve medical problems closer to patients. Medical care pathways were also integrated for proper preventive and follow-up care. Free access policy – meaning patients can choose where they wish to receive healthcare – was set into play. Hospitals were encouraged to maintain high standards to keep their patients' loyalty. In the case where patients sought healthcare elsewhere, management paid for up to 80 percent of their healthcare costs.

A set of targets for quality – process indicators, clinical outcomes, and patient experience – and safety were set. There are less delays in patient care – consults, diagnostics, surgery, emergency response time – in Ribera Salud hospitals and satisfaction surveys indicate the hospitals' effectiveness in retaining patients (NHS Confederation, 2011). There was no mention of active strategies to decrease health inequities but the payment scheme covered for all inhabitants of department 11 of the Valencia region, ensuring equal access to such healthcare.

This model is a true PPP, and a model for an integrated healthcare system. The long-term nature of the contract, the shared roles, risks and benefits, the increase in coverage, healthcare quality, and security of a no user fee policy points to one that supports universal health coverage. The NHS Confederation (2011) goes beyond and discusses issues moving forward including political uncertainty, involving patients in governance and decision-making and educating them to take responsibility for their own care, virtual and vertical integration, staff and skill mix.

2.3.2 The Lesotho Hospital Public-Private Partnership

In 2006, the government of Lesotho adopted the PPP approach to replace its main public hospital, a 100-year-old aging facility functioning at a minimal level. The International Finance Corporation advised the use of the PPP approach to construct an integrated health service delivery model – a new hospital, adjacent gateway clinic, three filter clinics, and the management and operations of all of these services for at least 18 years. The private sector in this partnership was with a consortium headed by a leading South African health care provider.

The scope of services includes complete health care services delivery from health professionals, to medical equipment and pharmaceuticals. Furthermore, as part of the integrated model, they also refurbished, re-equipped and operated primary health care clinics in the area. The private operator agreed to treat all patients presenting at the hospital and filter clinic regardless of condition, up to

20,000 inpatients and 310,000 outpatients per annum. There is an annual fixed service payment for delivery of all services that may escalate with inflation. The winning bidder committed to provide all mandatory services plus 95 percent of optional services, to delivering above the set minimum patient volumes, and presented plans that were realistic in delivering quality, effectiveness and efficiency.

The agreement included typical monitoring in terms of payment and penalties related to facilities management, equipment and other nonclinical outcomes. Apart from this, there is a detailed list of clinical and facility performance indicators that must be met before receiving payment. The penalty for not meeting a performance indicator is a deduction from total service payment. The importance of a performance indicator is indicated by the percent penalty deduction it carries. There is also a mechanism that increases penalty deductions with repeat offenses. A third party, one with specialized experience with PPPs and hospital management, was hired by the government and the private consortium to perform the quarterly audit. The agreement also stipulated an accreditation to be obtained for the Lesotho hospital. There is also a set-up provided by the government and the private sector to review performance and adapt to the relevant health issues of the country (Coelho and O'Farrell, 2009). There was no discussion of efforts to achieve equity through the project.

This public private partnership can be said to be a true PPIP because of the substantial risk and complex contract arrangement entered by both the public and private sectors. There was a large capital outlay, it was long-term, it involved a systems approach to ensuring better access, improved quality of services, at no extra cost to the patient. There was not much mention of equity gains either in Coelho and O'Farrell's (2009) report, and that of the Global Health Group (2013). It is important to note however that the Global Health Group noted significant lessons learned throughout the planning and implementation of this PPP. First, an important step towards success is to engage the appropriate skilled advisors for the project, to diversify committees early on and to encourage local expertise participation. Second, leadership that is strong, dedicated, and has a clear succession plan is essential for both the public and private sectors. Third, planning early is as important as planning often. Fourth, PPPs must not be seen as panaceas but rather should be used as a stepping-stone to improve the remainder of the landscape else risk being overwhelmed by demand and suffering depreciation. In relation to this, the government is working with the Millennium Challenge Corporation to fund a program to refurbish 150 more health facilities in Lesotho, 138 of which are primary health care centers (Coelho and O'Farrell, 2011). Fifth, contracts must be flexible to cope with the rapid pace of healthcare.