Business Plans for Camarines Sur Provincial Hospital and Northern Samar Hospital Pharmacy Management
and
A Guide for Assessing the Financial Feasibility of Birthing Facilities

Business Plan

Camarines Sur Provincial Hospital

INTRODUCTION

This Business Plan has been prepared to assess the financial feasibility of the proposed establishment of the Camarines Sur Provincial Hospital ("CSPH", the "Hospital" or the "Project"). To be owned by the Provincial Government of Camarines Sur ("PGCS" or the "LGU"), CSPH is currently in the conceptualization stage and planned to become operational in 2015. The Project is estimated to cost P418.9 million to construct and furnish, and will be operated as a 200-bed Level Two hospital with service enhancements catering specifically to the characteristics of the main catchment area. PGCS plans to outsource the management of CSPH through a Public-Private Partnership (PPP), and in so doing, acquire the level of expertise it needs to achieve performance standards beyond levels it has been able to provide in the past. PPP is also being undertaken as part of PGCS's efforts to strengthen the governance structure of the health sector of the Camarines Sur (the "Province") and to improve the health conditions of its citizens particularly in the areas of maternal and child health, control of communicable diseases, and basic health care. This study assumes that PGCS will implement universal healthcare on a province-wide basis; as such, it will assume the cost of medical treatments of its indigent population by underwriting their premium payments to the Philippine Health Insurance Corporation (Philhealth). To enhance the viability of the Project, PGCS will work closely with Philhealth to optimize Philhealth availment rates within the Province, and to streamline the reimbursement process for Philhealth-covered transactions.

This Business Plan has been written as an assessment of the financial feasibility of the Project from the perspective of the LGU as an owner-investor providing capital to the Project, net of any grants that may be obtained from the National Government (NG) through the Department of Health (DOH).

EXECUTIVE SUMMARY

Description of the Business CSPH will be operated in full compliance with all DOH requirements for a Level Two hospital with additional service enhancements intended to address specific unmet needs of the immediate catchment area of the Hospital. The Project will be situated within a four-hectare property owned by PGCS in Banasi, Bula, the current location of the Provincial Health Office. CSPH will operate with an authorized bed capacity of 200 beds.

Ownership CSPH will be wholly owned by the PGCS. PGCS plans to outsource the management PPP either through a management contract or joint venture with a private partner with the capability to manage CSPH at Level Two standards.

Project Uses and Sources The Project will cost P418.9 million to construct and furnish. The allocation for medical equipment is based on DOH Level Two estimates with an additional provision for equipment costs for the aforementioned service enhancements. Equity funding for the Project will be provided by PGCS, net of a grant from the DOH which is assumed to amount to P1.2 million per bed.

Products and Services Consistent with DOH guidelines for Level Two hospitals, CSPH will provide general clinical care (in medicine, pediatrics, obstetrics and gynecology, and surgery and anethesia), along with emergency and outpatient services. CSPH will also provide nursing services, clinical laboratory, radiology, and pharmacy services. It will provide for necessary administrative services to support the operations including all personnel, accounting, medical records, housekeeping, ambulance, security, dietary and social services. In addition, specialized services based on the catchment population disease profile will be offered including ambulatory hemodialysis and cataract day-surgeries.

Target Market The Hospital will cater to the general population of Camarines Sur, devoting the better part of its capacity towards serving the indigent sector of the population. Given its location, however, CSPH considers as its main catchment area the nearby municipalities of Baao, Balatan, Bato, Bula and Nabua and Iriga City. CSPH will serve as the core referral facility for all primary and secondary health facilities in the Province; this will help to decongest the overcrowded Bicol Medical Center (“BMC”) in Naga City and allow it to concentrate on providing tertiary health care services to the province.

Health Sector Profile Health services in the Province are provided by 16 government and 14 private hospitals, 49 rural health units, and 339 barangay health stations. Utilization rates at Level One and Level Two government hospitals fall well below the PHO's target utilization rates, which is in sharp contrast with the overcrowded Bicol Medical Center. Among other factors, the imbalance is attributed to the absence of adequate Level Two facilities in the Province.

Camarines Sur is on track with the Philippines' Millennium Development Goals except for maternal deaths. Further gains in the overall indices can be achieved if provincial health facilities are upgraded with better equipment and personnel, particularly for emergency care for both children and mothers. With non-communicable lifestyle-related diseases accounting for a significant portion of the Province's diseases the establishment of an integrated program for the prevention and control of non-communicable lifestyle diseases is required.

Operations PGCS plans to enter into a PPP contract with a qualified private sector party to operate and manage CSPH. Under such an arrangement, the private partner will be granted the exclusive right to manage and operate the Hospital for a mutually agreed period. It will be responsible for undertaking all activities necessary to ensure that the Hospital complies fully with all DOH requirements and guidelines for a Level Two hospital, as well as with Philhealth accreditation standards.

From a risk minimization standpoint, CSPH stands to benefit from certain obligations that PGCS will perform as a counterparty to the PPP contract. Foremost among these are PGCS's obligation to pay for hospital services rendered to indigents, and to work with CSPH to ensure the expeditious processing of reimbursement claims against Philhealth.

Competitive Advantage and Strategy CSPH will be the largest hospital facility within its main catchment area; as such, it has the potential to operate with a lower cost structure than its competitors. CSPH's location and service configuration make it an ideal referral facility for secondary cases which helps to ensure cost-effective occupancy levels for the Project. Being PGCS-owned, CSPH has access to development funds which improve the Project's prospects for generating a positive return on the capital invested in the Project.

The competitive environment presents many challenges. As a government-owned hospital, CSPH is required to adhere to public procurement processes which can often be costly and inefficient. CSPH will face competition from new entrants (e.g., specialist clinics) and existing

players (e.g., BMC when it completes a planned 500-bed expansion and strives to fill the new capacity).

Derived mostly from the indigent sector who rely solely on Philhealth coverage to pay for their hospital bills, the Project's revenues will essentially be capped by the case rates promulgated by Philhealth, putting pressure on its cost management capabilities. Disease profiles may change over time and render specialized equipment obsolete, as well as require new capital investments to ensure hospital services are relevant to the market. Additional capital may also be required if the Philhealth reimbursement process is improperly handled. Lastly, CSPH's long term viability rests on sustained implementation of universal health care, and the ability of PGCS to underwrite Philhealth premium payments on behalf of its indigent sector.

To position itself against these challenges, CSPH must manage its capital requirements well. It will need to minimize front-end investments by maximizing the DOH grant component of its Project funding, and avail of the lending facilities provided by development financial institutions. CSPH will need to devote adequate resources towards effectively managing the Philhealth reimbursement process to minimize working capital being tied up in idle receivables. Outsourcing arrangements for the pharmacy, laboratory and diagnostics, and other ancillary operations of the Hospital should be explored.

CSPH must contain its cost structure by achieving scale quickly by taking advantage of its natural market position as a referral facility and working with PGCS to proactively address changes in the market's disease profile through adjustments to its service capabilities. It should pursue cooperative arrangements with the private sector to acquire the latter's expertise and help it achieve operating efficiencies. CSPH must adhere to a disciplined capital cost budget process to ensure that funds from operations are continually allocated towards maintaining the Hospital's operating standards.

To enhance its viability, CSPH will need to upstream excess cash flow to PGCS for the express purpose of helping sustain the latter's Philhealth premium payments.

Financials The Project will generate average yearly revenues of P471 million during its first ten years of operation. Net cash flows will average P68 million after personnel costs, other operating costs and capital costs. The Project requires an equity commitment of P269 million (net of the DOH grant) which is recoverable within seventh year of the Project (or the fifth year

of operation). The Project is bankable from a credit standpoint, and yields an internal rate of return (IRR) of 22.5%.

Assuming private sector participation in ownership, thereby subjecting the Project cash flows to corporate income tax, after-tax IRR is 17.7%. Equity capital would be recovered two years later than if the Project is purely publicly-owned.

The Project cash flows were sensitized by varying the base case length of stay assumption of 3.5 days (i.e., to 3.75 days to derive a pessimistic case, and 3.0 days for the optimistic case). Based on probabilities subjectively assigned to the scenarios, the Project yields an expected after-tax IRR of 18.9%.

CAMARINES SUR PROVINCIAL HOSPITAL

Description of the Business

CSPH will be operated in a manner fully compliant with DOH requirements and guidelines for a Level Two hospital[1] with additional capabilities aimed towards addressing specific unmet needs of the immediate catchment area of the Hospital. These additions include a 4-bed ambulatory intensive care unit, a hemodialysis unit, and an ambulatory operating room for cataract treatment.

As the site of the Project, the PHO has selected its current location which is within a four-hectare property owned by PGCS in Banasi, Bula. Upon completion, CSPH will operate with an authorized bed capacity of 200 beds.

Ownership

CSPH will be wholly owned by PGCS. To acquire the expertise to operate the Hospital, PGCS plans to outsource the management of CSPH either through a management contract or joint venture with a private partner with the capability to manage CSPH at Level Two standards.

Project Uses and Sources

The Hospital is estimated to cost approximately P418.9 million to construct and furnish up to a Level Two standard. The allocation for medical equipment is based on DOH Level Two estimates with an additional provision for equipment costs based on the aforementioned service enhancements. Table 1 provides a summary of project costs and assumptions.

This study assumes that funding for the Project will be provided by PGCS, net of a grant from the DOH set at P1.2 million per bed.[2]

Products and Services

Consistent with DOH guidelines for Level Two hospitals, CSPH will provide general clinical care (in medicine, pediatrics, obstetrics and gynecology, and surgery and anethesia), along with emergency and outpatient services. In addition to these Level Two capabilities, CSPH will have

[1] See "DOH Licensing Requirements for Level 2 Hospital, February 2006".
[2] Based on exploratory discussions of the Province of Sarangani with DOH for a similar provincial hospital.

a four-bed ambulatory intensive care unit, a hemodialysis facility, and an ambulatory operating room for cataract cases. The enhancements are aimed at specific needs of the main catchment area.

CSPH will provide nursing services up to the level of intermediate care and management, and ancillary services which include a secondary-level clinical laboratory, first-level radiology, and a pharmacy. It will provide for necessary administrative services to support the operations including all personnel, accounting, medical records, housekeeping, ambulance, security, dietary and social services.

CSPH will comply with all the requisite personnel requirements attendant to these services, including their administrative, clinical and nursing aspects. It will also comply with all physical plant, equipment and instrument requirements stipulated by DOH.

Target Market

CSPH will be located in a 4-hectare government-owned lot in Banasi, Bula, Camarines Sur, the same location which currently houses the PHO. The site is reachable by travel approximately 45 minutes by land from Naga City.

The Hospital will cater to the general population of Camarines Sur. As a government-owned facility, it will devote the better part of its capacity towards serving the indigent sector of the population.

Based on current hospital bed counts and population figures, Camarines Sur currently posts a bed-to-population ratio (BPR) of 1:1,220 (see Table 2). Using historical population growth rates for the Province and assuming CSPH is completed in 2015 along with the planned 500-bed expansion of BMC in Naga City, the province's BPR in that year is projected to increase to of 1:894. Reckoned against the World Health Organization's guideline BPR of 1:500, the establishment of CSPH can be justified from a market demand perspective.

Although it will cater to the entire Province, given its location, CSPH considers as its main catchment area the nearby municipalities of Baao, Balatan, Bato, Bula and Nabua and Iriga City. These are among the most densely populated areas in Camarines Sur, with population densities exceeding the provincial average of 309 persons/km^2.

Table 3 profiles the main catchment area in terms of its current hospitals and population counts. Assuming that CSPH becomes operational in 2015, the BPR associated with this more narrowly

defined catchment area is estimated at 1:924. Based on the current hospital sector profile given in Table 3, it can be surmised that the selection of Banasi, Bula as Project site is an appropriate one given that the immediate catchment area is being served almost entirely by private hospitals (the only exception being a 10-bed public hospital), and has no public hospital in the Level Two category. Once operational, CSPH can serve as the core referral facility for primary and secondary health services and help to decongest the overcrowded BMC, allowing the latter to concentrate on providing the tertiary health care services to the Province that it is indended for.

The Province of Camarines Sur[3]

The Province of Camarines Sur is geographically located at the center of the Bicol Peninsula which forms the southeastern part of the Island of Luzon. It is approximately 450 km away from Manila and bounded on the north by the Province of Quezon, Camarines Norte, San Miguel Bay and the Pacific Ocean on the south, by the Province of Albay and Lagonoy Gulf on the east, and by Rabay Guld on the west by Ragay Gulf. Table 4 shows a map of the Province.

Camarines Sur is the largest among the six provinces comprising the Bicol Region with a total land area of 548,160 hectares, 30% of the total regional area. It also has the largest population with 1,693,821 as of the 2007 census year. Its population density is 309 persons/km^2, third highest in the Region. From 2000 to 2007 census years, Camarines Sur's annual population growth rate was 1.26%.

The Province is subdivided into five Congressional districts, composed of two cities - Naga, a chartered city, and Iriga, a component city. It has 35 municipalities and 1,063 barangays.

Economy

The economy of Camarines Sur is largely agricultural with close to 62% of its land area devoted to crop production. Camarines Sur contributes almost 50% of the region's cereal output. Coconut is planted to about 18% of the Province's land area. Rootcrop is also one of its agricultural products. The Province is flanked by some of the richest marine fishing grounds in the Philippines, making fishery a major source of economic activity. Camarines Sur sits on vast tracts of metallic and non-metallic mineral deposits. Mineral reserves are estimated at 5.1 million metric tons, 82% of which are gold ore deposits. Non-metallic mineral reserves are

[3] Information provided by PHO.

estimated at 3.5 billion metric tons composed mainly of limestone, sandstone, calcaceous clastics, marble and ball clay.[4]

Income and Poverty Incidence

The latest (2008) annual average family income of Camarines Sur at 2000 prices was estimated at P102,349.00 and per capita income at P21,219.00; both figures are higher than the regional averages for the same period.[5] Poverty incidence and the number of poor people in the province, however, have increased at rates higher than the national average. In 2009, poverty incidence in Camarines Sur stood at 47.0% compared with the national average of 26.5% and the Bicol regional average of 45.1%. This translated to 232,685 persons experiencing poverty in the province in 2009, 34,102 persons or an increase of 4.5%.[6]

Health Sector Profile of Camarines Sur

Health services in the province are provided by 16 government and 14 private hospitals, 49 rural health units, and 339 barangay health stations. Operations are staffed by 5,139 hospital and RHU workers, and 3.590 barangay health workers.

Focusing on the hospital sector, government hospitals comprise thirteen Level One, two Level Two, and one Level Four. (See Table 5.) Of the private hospitals, five are Level One, seven Level Two, one Level Three, and one Level Four.

Bed occupancy rates (BOR) at Level One and Level Two government hospitals averaged 51% and 69%, respectively from 2009-10, respectively, which are well below the target of 85% that the PHO aims for, and in sharp contrast with BMC's BOR which ran at 161% in 2010. Except for those in the Level One category, the private hospitals fared somewhat better, posting averages of 75.8%, 61.7% and 88.5%, respectively for Levels Two through Four.

The notable imbalance in utilization rates, particularly among government hospitals, is attributed by the PHO to the absence of adequate Level Two facilities in the province; excluding Bicol Sanitarium which specializes in leprosy treatment, there are only 25 beds in the public Level Two category. Private hospitals that offer secondary level services helped to fill some of the

[4] NSO (http://www.nscb.gov.ph/ru5/overview/camsur/default.htm)
[5] This section derived from "part 1 dbp june 23 provincial na.docx", p. 24
[6] "House Bill No. 4820 – An Act Creating the Province of Nueva Camarines, A Presentation to the Senate", November 15, 2011 (http://www.slideshare.net/duwangcamarines/nc-for-senate-dec2)

gaps in terms of service delivery, but most of the cases have been referred to BMC which partially explains the latter's high BOR.

Trends in average length of stay (ALOS) tend to corroborate this last point, e.g., ALOS averages for all hospital service classifications fall below 3.0 days compared with BMC's 6.0 days.

Challenges for the Health Sector

Based on its 2011 health indices, Camarines Sur is for the most part on track with the Philippines' Millennium Development Goals. As shown in Table 6, the province achieved infant and under-4 mortality rates of 11.8 and 6.4, respectively, which are well ahead of the MDGs of 19.0 and 26.7 for these indicators. Camarines Sur's crude rate for maternal deaths, however, stood at 59.1 which lags the 52.3 MDG for this indicator.[7] According to the PHO, further gains in the overall indices are achievable provided provincial health facilities are upgraded with better equipment and personnel, particularly for emergency care for both children and mothers.

Non-communicable lifestyle-related diseases account for a significant portion of Camarines Sur's diseases. This is evident in the Province's disease profile (Table 7) which shows acute respiratory infection and essential hypertension as the leading causes of morbidity in Camarines Sur, together accounting for 52% of the total. Among the recommendations of the PHO, therefore, is the establishment of an integrated program for the prevention and control of non-communicable lifestyle diseases. Such a program would include a health risk management component that, among others, employs health promotion strategies and interventions at the family and community levels where the causal risk factors for these diseases can be proactively addressed.

The PHO enumerates other areas in the health sector that can be improved particularly with the establishment of CSPH:

1) As earlier mentioned, public Level One and Two hospitals are being under-utilized while BMC operates well beyond its capacity. The PHO attributes much of the imbalance to the uneven distribution of hospital capacity within the province where most Level One and Two hospitals are concentrated in the first and fourth districts leaving BMC in the third district as the sole de-facto referral hospital.

[7] Target MDGs are based on "Presentation of 4th MDG Progress Report (Cayetano Paderanga)", 8 September 2010.

2) An ineffective referral system in which patients bypass the lower level hospitals in favor of the medical centers also contributes to overcrowding at BMC. A breakdown of patient demographic profiles at BMC (in Table 8) shows that of the total admitted patients at this facility, 27.1% could have instead accessed a secondary hospital along the way, say in Bula. Similarly, Table 9 shows that of the total outpatients at BMC, 25.8% might have been more conveniently served by a facility en route to BMC.
3) Lastly, inadequate funding at the lower level hospitals has further exacerbated the problem.

Operations

PGCS plans to enter into a PPP contract[8] with a qualified private sector party (the "Hospital Manager") to operate and manage CSPH.

By turning to PPP, the LGU seeks to address two main constraints - a lack of expertise in hospital management and budgetary limitations. Entering into a partnership with the private sector through say a management contract allows PGCS to acquire the operating and decision-making processes that typify private companies. By expanding the involvement of the private sector through joint venture and other PPP structures that entail private equity participation, PGCS hopes to share the burden of capitalizing the Project while sharing the risks and rewards associated with it.

Early in 2012, PGCS passed the "Province of Camarines Sur PPP Code" duly approved by the Sangunniang Panlalawigan which provides the basis on which the LGU can legally enter into PPP contracts. Sourced from the 1991 Local Government Code of the Philippines, the ordinance establishes the operative principles which will govern PGCS's involvement in PPP:

1) Additionality (or the acceleration of the provision of services to the general populace);

2) Feasiblity and bankability (in that projects must be proven to be commercially viable and capable of being financed by banks and other funding sources);

3) Assignment of risks to the contracting party most capable of managing that risk;

4) Project evaluation that encompasses both economic and social benefits;

5) Competitive selection and procurement;

[8] For purposes of this study, the PPP modality assumed is a management contract.

6) Contract management (to monitor and evaluate performance, risks and partner relationships)

By adhering to these principles, PGCS hopes to avoid the common pitfalls that beset other PPP contracts (e.g., adverse audit rulings which lead to the suspension of contracts because these are deemed disadvantageous to government) and thereby ensure that CSPH delivers its intended results.

Under the PPP contract for CSPH, the Hospital Manager will be granted the exclusive right to manage and operate the Hospital for a mutually agreed period. It will be responsible for undertaking all activities necessary to ensure that the Hospital complies fully with all DOH requirements and guidelines for a Level Two hospital, as well as the Philhealth accreditation standards.

The Hospital Manager will have the following specific major operating responsibilities:

1) manage and operate the Hospital and assume full responsibility for all its administrative and clinical aspects (the latter to include operation of the medical, nursing and ancillary services (such as the pharmacy, laboratory, medical technicians);
2) operate and manage the Hospital with due regard to safety, quality care, operational efficiency, and environmental compliance;
3) adopt appropriate policies and procedures that ensure the quality and competency of professional services;
4) train and supervise medical technicians and other medical staff in order to achieve optimal quality health care consistent with the Hospital's policies, financial resources, and location of the Hospital;
5) secure and maintain all appropriate licenses and permits needed to operate a Level Two facility, including accreditation with DOH, Philhealth and other applicable regulatory agencies, as well as environmental clearances and permits necessary for the operation;
6) operate and manage the Hospital in accordance with pertinent laws, rules and regulations.

The Hospital Manager will have the following general responsibilities:

1) provide medical, clinical, laboratory and pharmacy services at locally competitive prices;
2) implement a management and accounting system that is based on generally accepted accounting principles, and compatible with Philhealth accounting systems (the latter, to ensure prompt and efficient processing of Philhealth claims);

3) manage, audit, and implement procedures and clinical practice guidelines to ensure operational efficiency in both administrative and professional medical matters;
4) select, hire, and train a sufficient number of qualified staff to ensure operational objectives are always met;
5) procure sufficient insurance for any liability to third parties arising from the management and operation of the Hospital.

From a risk standpoint, CSPH stands to benefit from certain obligations that the PGCS will perform as a counterparty to the PPP contract. Foremost among these is the obligation by PGCS to pay for hospital services rendered to indigents by assuming the latter's premium payments to Philhealth. This essentially insulates CSPH from potential losses from rendering its services primarily to this sector. PGCS is also obligated to work with CSPH to ensure measures are undertaken to facilitate the expeditious processing of reimbursement claims against Philhealth; this will help minimize funds of the operation being tied up in receivables. Lastly, PGCS is obligated to undertake measures to help insulate CSPH from unfair competition. This includes, for example, requiring government-employed doctors assigned to the Hospital to prescribe only those products that are listed in the Hospital's therapeutic list. By doing so, PGCS will help to minimize instances where the Hospital pharmacy is bypassed because patients are prescribed medicines that can only be found in pharmacies outside of the Hospital many of which are owned by the doctors themselves.

Competitive Advantages and Implications on Strategy

At 200 beds, CSPH will be the largest hospital facility within its primary catchment area (and second largest in Camarines Sur[9]). By virtue of its size, CSPH has the ability to operate with a lower cost structure than its competitors most of whom are in the 25-50 bed category. Its scale also gives it the ability to extract larger discounts and other concessions from suppliers than its smaller competitors, the ability to negotiate better financing terms from banks, and employ the better talent to man its operations.

CSPH's location and service configuration are major advantages as this ideally situates the Hospital to function as the main referral facility for secondary cases for its market. Catering primarily to the indigent market who have little or no discretion when it comes to choosing where

[9] Excluding Bicol Sanitarium which specializes in the treatment of leprosy cases.

to seek treatment, i.e., they will go where PGCS directs them, only helps to ensure healthy occupancy levels.

Being PGCS-owned is an advantage in that this gives CSPH access to development funds that may not be readily available to private hospitals. Such funds, which include grants from the DOH and loans from development financial institutions, significantly improve the Project's prospects for generating a positive return on the capital invested in the Project. This in turn makes it possible for the Project to attract private parties who can provide capital as well as expertise to the Project.

Given these advantages, prospective new entrants, lured perhaps by improved payment risks in the sector brought about by universal health care, will hesitate to put up the large investment required to match CSPH's scale and effectively compete with it.

The competitive environment, however, presents many challenges. The flipside of being government-owned is that CSPH is required to adhere to public procurement processes which can often be costly and inefficient, and thus adversely affect its ability to deliver services in a sustained manner and at competitive prices. Being part of the LGU network also makes the Hospital susceptible to political pressure; succumbing to these may translate into added costs (e.g., employing unqualified/unneeded personnel).

Despite the high capital barrier, CSPH will continue to face competition from new entrants and existing players. The former takes the form of specialist clinics which require smaller investments and can thus compete with CSPH along specific service lines, e.g., dialysis clinics, diagnostic centers, etc.. Competition from BMC itself could intensify when the latter completes its planned 500-bed expansion and strives to fill the new capacity.

Derived mostly from indigents who rely solely on Philhealth coverage, the Project's revenues are effectively capped by the case rates promulgated by Philhealth. This imposes pressure on management to control costs to achieve operating margin improvements.

Disease profiles may change over time and render specialized equipment obsolete, as well as require new investment to ensure hospital services are relevant to the market. Additional capital may also be required if the Philhealth reimbursement process is mishandled, typing up cash in idle receivables.

Lastly, CSPH's long term viability rests on sustained implementation of universal health care, and the ability of PGCS to underwrite Philhealth premium payments on behalf of its indigent sector.

The following are strategic measures that CSPH can undertake to address these challenges. In the area of capital management, CSPH will need to minimize front-end capital investments by maximizing the DOH grant component of its Project funding; it can also avail of term loans from development financial institutions such as the Development Bank of the Philippines (through the latter's Credit for Better Health Program). CSPH will need to devote adequate resources to actively manage the Philhealth reimbursement process to ensure payments are made within Philhealth's 60-day policy guideline. Outsourcing arrangements for the pharmacy, laboratory and diagnostics, and other ancillary operations of the Hospitals should be explored.

To lower its cost structure, CSPH will need to achieve scale as quickly as possible by maximizing its BOR. While its natural market position as a referral facility helps to ensure occupancy, CSPH should monitor trends in the provincial disease profile and work with PGCS to proactively address through adjustments to its service capabilities. It will need to adopt clear operating performance benchmarks e.g., maximum length of stay per type of disease types) and monitor adherence to these. It should pursue cooperative arrangements with the private sector to acquire the latter's expertise and ensure operating efficiencies are achieved. These measures will also minimize patients gravitating towards private hospitals. Alliances with the private sector also helps to insulate the Project from political pressure associated with being LGU-owned. CSPH must adhere to a disciplined capital cost budget process to ensure that sufficient funds from operations are allocated towards maintaining the Hospital's efficient operation.

To enhance its own viability, CSPH will need to upstream excess cash flow (after capital costs) to PGCS to help the latter sustain Philhealth premium payments. It must also closely work with DOH and PGCS to monitor the performance by CSPH and BMC to ensure they perform their respective functions as end-referral facilities within the health sector in order to minimize market overlaps between the two facilities.

Financial Projections

Base Case

The following assumptions were used to develop base case projections for the Project:

Service level DOH standard for Level Two hospital, with enhancements comprising a 4-bed intensive care unit, a hemodialysis unit, and an ambulatory operating room for cataract treatment

Capacity 200 beds

Building construction costs P182.0 million (based on 2010 DOH estimates for a 200-bed facility, inflated through the construction period) (Table 1)

Building equipment and services P48.1 million and P84.2 million, respectively (based on 2010 DOH estimates for a 200-bed facility, inflated through the construction period) (Table 1)

Medical equipment costs P104.6 million (set at 150% of the 2010 DOH estimate for medical equipment costs of a 100-bed Level Two hospital, plus equipment costs for the above-mentioned service enhancements; inflated through the construction period) (Table 1)

Capital costs 15% of total of personnel costs and other operating costs[10]

Occupancy rate 70% during the first year of operation, increasing by 10% annually, and stabilizing at 90%[11] during the third year of operation

Average length of stay (ALOS) 3.5 days[12], the weighted average ALOS associated with the disease profile of BMC (Table 10) which has been used as the proxy profile for CSPH

Inpatient volume 18,771 inpatients, based bed capacity, occupancy rate and length of stay assumptions above; it is further assumed that 75% of inpatients will be indigent, relying solely on Philhealth coverage for which premiums will be paid by PGCS; the balance of 25% of inpatients will be pay their own way

Outpatient volume 38,650 outpatient visits, based on an outpatient-to-inpatient ratio 3.23[13]

[10] Public tertiary hospitals average 20% based on "Costing Study for Selected Hospitals in the Philippines". The downward adjustment to 15% accounts for CSPH being a Level Two facility.
[11] Based on average occupancy rates of Ifugao General Hospital, Gov. Roque Ablan Sr. Memorial Hospital, Oriental Mindoro Provincial Hospital, Veterans Regional Hospital, Mariano Marcos Memorial Hospital and Medical Center, and Batangas Regional Hospital.
[12] Estimated average length of stay associated with the disease profile of Bicol Medical Center.
[13] Average outpatient/inpatient ratio of Ifugao General Hospital, Gov. Roque Ablan Sr. Memorial Hospital, Oriental Mindoro Provincial Hospital, Veterans Regional Hospital, Mariano Marcos Memorial Hospital and Medical Center, and Batangas Regional Hospital.

Inpatient and outpatient revenue P14,618/inpatient and P2,193/outpatient (derived as shown Table 11)

Depreciation period Useful life of 30 and 10 years for building and equipment, respectively

Income tax rate 0% if 100% CSPH is PGCS-owned; 30% if partially privately owned

Personnel costs Starts at P1,387/bed/day in the first year of the Project (based on 2010 DOH estimates for Level Two hospitals; inflated)

Other operating costs Starts at P920 pbd in the first year of the Project (based on 2010 DOH estimates for Level Two hospitals, plus 6% to account for the service level enhancement)

Management fees 5% of revenues (representing the amount paid by CSPH to a private company to operate and manage the Hospital); 0% if the Project is undertaken with private participation in equity ownership

Rent expense 0% of 100% PGCS-owned; 5% if the Project is undertaken with private participation in equity ownership

Operating cash 2% of revenues

Collection period 75 days[14]

Inventory, other current assets and non-current assets 4%, 1% and 2% of revenues, respectively[15]

Days payable 45 days[16]

Interest-bearing debt Zero

DOH grant P1.2 million/bed or P233.3 million, inflated over the construction period; the grant is reflected as a reduction in the carrying values of the building, building equipment and services, and medical equipment assets based on their pro-rata share of the asset distribution (see Table 12 which replicates the projects costs in Table 1 but with the resulting net carrying values);; capital costs are assumed to be exempt from the grant

[14] Assumes PHIC reimbursement is received for public-pay patients after 90 days, while private patients settle accounts after 30 days.
[15] Average of selected private hospitals - Western Mindanao Medical, St. Elizabeth and Gen. Santos Doctors.
[16] Average of selected private hospitals - Western Mindanao Medical, St. Elizabeth and Gen. Santos Doctors.

The forecast further assumes that universal health care is sustained throughout the projection period. The methodology uses a net capital stock line as balancing item such that year-to-year changes in this account represent owners' cash flow.

Tables 13-15 show the base case income statement, balance sheet, cash flow forecasts for CSPH. (The first 12 years of the Project are shown to include the 2-year construction period and the first 10 years of operation.)

Table 16 provides a summary of the base case by presenting its key financial ratios and operating highlights. As shown, CSPH will generate average yearly revenues of P471 million during its first ten years, and post average operating cash flows of P103 million after personnel costs, other operating costs, and management fees. After spending for capital costs to maintain its planned service level – which average P34 million annually – and other working capital requirements, the Project will yield an average net cash flow to owners of P68 million annually.[17]

The Project requires an equity commitment of P269 million from PGCS (net of the DOH grant) which is disbursed during the two-year construction period.

The Project is bankable from a credit standpoint, posting an average current ratio of 1.5, and total liabilities-to-equity ratio of 0.4x during the first ten years.

The Project yields an internal rate of return (IRR) of 22.5% (using a 30-year cash flow). Equity capital is recovered during the seventh year of the Project (or the fifth year of operation).

Table 17 shows a scenario where a private sector entity takes an equity participation in CSPH, thereby subjecting the Project cash flows to corporate income tax. In a nutshell, average net cash flows to owners would be reduced by 26.5%, resulting in an after-tax IRR of 17.7%. Equity capital would be recovered during the ninth year of the Project, two years later than if the Project were purely publicly-owned.

[17] The derivation herein of net cash flow to owners excludes the cost of PHIC premiums paid by PGCS for indigents and other indirect costs (e.g., foregone tax revenues as business transfers from private hospitals to CSPH). The LGU needs to prepare a cost-benefit analysis in which these costs are balanced against similarly indirect benefits (e.g., gains in labor productivity) that may accrue to the community due to the establishment of CSPH to determine the Project's viability from its broader socio-economic perspective.

Sensitivity Analysis

The Project cash flows were sensitized by varying the base case ALOS assumption of 3.5 days[18]. Specifically, ALOS was increased to 3.75 days to derive a pessimistic case, and reduced to 3.0 days for the optimistic case. Project ratios and IRRs for each case were recomputed on an after-tax basis while holding all other assumptions the same. The resulting financial ratios for the pessimistic and optimistic scenarios are shown in Tables 18-19.

The table below summarizes the resulting after-tax IRRs:

Scenario	After-tax IRR	Probability	Weighted after-tax IRR
Worst Case	13.3%	25.0%	3.3%
Base Case	17.7%	50.0%	8.8%
Optimistic Case	27.0%	25.0%	6.7%
Expected after-tax IRR			18.9%

Based on subjectively assigned probabilities – 25% each to the pessimistic and optimistic scenarios, and 50% to the base case – the expected after-tax IRR of the Project is 18.9%

[18] Among the assumptions, ALOS, BOR and case rates have the greatest impact on IRR. ALOS was selected as the basis for the sensitivity analysis as it tends to vary to a greater extent than BOR and case rates being subject to changes in disease profiles, management/operational abilities, etc.. The 90% occupancy rate is generally supported by the sample mentioned herein of similar-sized public hospitals. Case rates, on the other hand, are likely to change with an upward bias.

Table 1

Project Costs and Assumptions

Cost Components:[1]	Amount (Php)	
Building:		
Building construction (6,177 sqm @ P24,000/sqm)	160,345,037	
Land development cost	21,632,000	181,977,037
Building equipment and furniture (30% of building cost)		48,103,511
Building services (P12,600 per sqm)[2]		84,181,144
Total infrastructure		314,261,692
Medical equipment, instruments, office equipment:		
DOH requirement for 100-bed Level 2	51,885,434	
Cost of service enhancements [3]	17,846,400	69,731,834
Factor for expansion from 100 to 200 beds[4]		1.5
Total medical equipment, instruments, office equipment:		104,597,750
Total		418,859,443

Notes:

1 - Costs of construction, land development, building equipment and services are based on DOH estimates per "Budgetary Requirements for Construction of Hospitals and Other Health Facilities, as of June 2010", National Center for Health Facility Development. The estimates above are in 2012 prices, and are further inflated at 4% p.a. over the construction period.

2 - Source: DLS Handbook 2011

3 - TA Team estimate consisting of 4-bed ICU (P10 million), hemodialysis unit (P5 million), and ambulator OR for cataract treatments (P1.5 million).

4 - Medical equipment costs are based on the DOH estimates for a 100-bed Level 2, plus 50% to reflect economies of scale of a 200-bed facility.

Table 2

Camarines Sur - Bed-to-Population Ratio

Name of Hospital	Bed Capacity
Devolved Hospitals:	
Libmanan District Hospital	25
Ragay District Hospital	25
Sipocot District Hospital	25
Partido District Hospital	15
Ocampo Municipal Hospital	10
Tinambac Medicare Hospital	15
Garchitorena Municipal Hospital	15
Siruma Municipal Hospital	10
Carmaoan Municipal Hospital	10
Buhi Community Hospital	10
San Ramon Municipal Hospital	10
Sub-total	170
Municipal Govt. Hospital:	
Tinambac Municipal Hospital	10
Tigaon Infirmary Hospital	10
Sub-total	20
National Government Hospitals:	
Bicol Sanitarium	450
Bicol Medical Center	450
Sub-total	900

Name of Hospital	Bed Capacity
City Hospital:	
Naga City hospital	16
Private Hospitals:	
Salvacion Clinic	10
Mother Seton Hospital	150
St. John Hospital (Naga City)	60
St. John Hospital (Goa)	20
Nilo Roa Hospital	30
St. Vincent de Ferrer Hospital	12
St. Jude Clinic	15
St. Raphael Hospital	16
Dr. Robosa Hospital	25
Lourdes Hospital	25
Our Lady of Mediatrix Hospital	50
Sta. Maria Josefa Foundation Hospital	50
Rinconada Medical Center	36
Don Henrico General Hospital	14
Sub-total	513
Total hospital beds, current	1,619
Add new developments:	
Bicol Medical Center	500
Camarines Sur Provincial Hospital	200
Total hospital beds, projected 2015	2,319

Population, 2007	1,822,371
Growth rate, 2000-10	1.62%
Population, projected 2012	1,974,844
Population, projected 2015	2,072,384

Bed-to-population ratio, current	1,220
Bed-to-population ratio, projected 201	894

Sources: Population data and growth rates from NSCB; hospital data provided by Camarines Sur PHO.

Table 3

Bed-to-Population Ratio - Primary Catchment Area

Name of Hospital	Location	Ownership/	No. of beds
St. Jude Clinic	Sta. Cruz, Baao	Private/1	15
St. Raphael Hospital	San Nicolas, Baao	Private/1	16
Dr. Robosa Hospital	Sta. Cruz, Baao	Private/2	25
Lourdes Hospital	San Roque, Iriga	Private/2	25
Our Lady of Mediatrix Hospital	San Jose, Iriga	Private/2	50
Sta. Maria Josefa Foundation	Francia, Iriga	Private/2	50
San Ramon Municipal Hospital	San Ramon, Iriga	Public/1	10
Rinconada Medical Center	Sta. Elena, Baras, Nabua	Private/2	36
Don Henriso General Hospital	San Francisco, Nabua	Private/1	14
Camarines Sur Provincial Hospital	Banasi, Bula	Public/2	200
Total			441

Population	
Municipality/City:	
Baao	52,466
Balatan	25,982
Bato	44,437
Bula	62,024
Nabua	75,422
Iriga City	97,983
Total population, 2007	358,314
Historical population growth rate (Camsur)	1.62%
Total population, 2015	407,472
Bed-to-population ratio	924

Sources:
Population data and growth rate from NSCB
Hospital data from Camarines Sur PHO

Table 4

Map of the Province of Camarines Sur

Source: Google maps

Table 5

Camarines Sur - Hospital Sector Profile

		2009		2010		2010-11 Ave.	
		BOR	ALOS	BOR	ALOS	BOR	ALOS
GOVERNMENT HOSPITALS (1096 beds)							
Level One (171 beds)	No.of beds						
1 Naga City Hospital	16	93.7	3.5	94.0	3.4	93.9	3.5
2 Ragay District Hospital	25	67.0	3.0	68.0	3.0	67.5	3.0
3 Sipocot District Hospital	25	83.0	3.0	75.0	3.0	79.0	3.0
4 Partido District Hospital	15	70.0	4.0	71.0	3.0	70.5	3.5
5 Ocampo Municipal Hospital	10	45.0	2.0	30.0	2.0	37.5	2.0
6 Tinambac Medicare Hospital	15	32.0	3.0	20.0	4.0	26.0	3.5
7 Garchitorena Municipal Hospital	15	19.0	2.0	18.0	2.0	18.5	2.0
8 Siruma Municipal Hospital	10	10.0	1.0	6.0	3.0	8.0	2.0
9 Carmaoan Municipal Hospital	10	45.0	4.0	34.0	1.0	39.5	2.5
10 Buhi Community Hospital	10	14.0	2.0	2.0	2.0	8.0	2.0
11 Tinambac Municipal Hospital	10	37.0	1.0	42.0	1.0	39.5	1.0
12 Tigaon Infirmary Hospital	10	n/a	n/a	n/a	n/a	n/a	n/a
Weighted Average		53.3	2.7	48.8	2.7	51.0	2.7
Level Two (475 beds)							
1 Libmanan District Hospital	25	18.5	2	29.0	2.0	23.8	2.0
2 Bicol Sanitarium	450	73.2	3	70.0	3.0	71.6	3.0
Weighted Average		70.3	2.9	67.8	2.9	69.1	2.9
Level Four (450 beds)							
1 Bicol Medical Center	450	n/a	n/a	161.0	6.0	161.0	6.0
PRIVATE HOSPITALS (513 beds)							
Level One (67 beds)							
1 Salvacion Clinic	10	24.7	0.4	28.5	5.0	26.6	2.7
2 St. Vincent de Ferrer Hospital	12	27.7	0.7	26.7	2.0	27.2	1.3
3 St. Jude Clinic	15	6.8	0.5	5.9	1.9	6.4	1.2
4 St. Raphael Hospital	16	n/a	0.8	n/a	2.2	n/a	1.5
5 Don Henrico General Hospital	14	n/a	n/a	n/a	n/a	n/a	n/a
Weighted Average		18.4	2.3	18.8	2.6	18.6	2.4
Level Two (236 beds)							
1 St. John Hospital Goa	20	n/a	2.0	138.0	2.0	138.0	2.0
2 Nilo Roa Hospital	30	44.0	3.0	47.0	3.0	45.5	3.0
3 Dr. Robosa Hospital	25	30.3	2.5	32.5	2.4	31.4	2.4
4 Lourdes Hospital	25	67.3	2.8	72.0	2.8	69.7	2.8
5 Our Lady of Mediatrix Hospital	50	102.0	3.0	92.0	1.0	97.0	2.0
6 Sta. Maria Josefa Foundation Hospital	50	104.0	1.5	100.0	4.0	102.0	2.8
7 Rinconada Medical Center	36	n/a	n/a	26.6	3.2	26.6	3.2
Weighted Average		78.1	2.4	73.5	2.7	75.8	2.5
Level Three (60 beds)							
1 St. John Hospital Naga	60	61.0	2.8	62.3	2.9	61.7	2.8
Level Four (150 beds)							
1 Mother Seton Hospital	150	87.0	n/a	90.0	n/a	88.5	n/a

Source: Camarines Sur PHO

Table 6

Camarines Sur - Vital Health Indices, 2011

Indicator	Male	Female	Total	Crude Rate
Livebirths	16,445	15,681	32,126	20.0
Deaths	3,851	3,084	6,935	4.3
Infant Deaths	188	192	380	11.8
Child Deaths (1-4)	110	95	205	6.4
Perinatal Deaths	39	40	79	2.5
Under Five Deaths	298	287	585	18.2
Maternal Deaths	0	19	19	59.1

Note: Live births and deaths are per 1,000 population; all death rates are per 1,000 live births except for materal deaths which is per 100,000 live births.

Source: Camarines Sur PHO

Table 7

Camarines Sur - Twenty Leading Causes of Morbidity, 2011

Rank	Causes of Morbidity	Male	Female	Total	% of Total
1	Acute respiratory infection	30,082	28,537	58,619	42.9
2	Essential hpertension	4,955	7,423	12,378	9.1
3	Wounds	6,440	5,704	12,144	8.9
4	Acute bronchitis and acute bronchiolitis	4,628	5,061	9,689	7.1
5	Influenza	3,180	3,424	6,604	4.8
6	Fever of unknown origin	3,029	3,250	6,279	4.6
7	Diarrhea and gastroenteritis of presumed infectious origin	2,525	2,678	5,203	3.8
8	Asthma	2,161	2,098	4,259	3.1
9	Urinary tract infection	1,567	2,064	3,631	2.7
10	Iron deficiency anaemia	1,138	2,394	3,532	2.6
11	Pneumonia	1,859	1,519	3,378	2.5
12	Allergy	847	975	1,822	1.3
13	Migraine and other headache syndromes	544	1,059	1,603	1.2
14	Rheumatoid arthritis and other inflammatory polyarthropathies	621	934	1,555	1.1
15	Other diseases of the musculoskeletal system and connective tissue	654	808	1,462	1.1
16	Gastric and duodenal ulcer	552	522	1,074	0.8
17	Dental caries	424	505	929	0.7
18	Respiratory tuberculosis	511	385	896	0.7
19	Gastritis and duodenitis	501	364	865	0.6
20	Other diseases of the respiratory tract	385	397	782	0.6
	Total	66,603	70,101	136,704	100.0

Source: Camarines Sur PHO

Table 8

Bicol Medical Center – Inpatient DemograPhilhealth Profile, 2010

	Total	% to total
Within the province:		
First District	2,049	6.8%
Second district	5,953	19.9%
Third district	7,580	25.3%
Fourth district	3,613	12.1%
Fifth district	3,204	10.7%
Iriga City	947	3.2%
Naga City	5,502	18.4%
Sub-total	28,848	96.3%
Outside of Camarines Sur:		
Camarines Norte	383	1.3%
Albay	311	1.0%
Sorsogon	118	0.4%
Masbate	220	0.7%
Catanduanes	23	0.1%
Sub-total	1,055	3.5%
Towns/cities outside of region:		
Quezon Province	37	0.1%
Northern Samar	11	0.0%
Manila	5	0.0%
Laguna	1	0.0%
Surigao del Norte	2	0.0%
Leyte	3	0.0%
Sub-total	59	0.2%
Total - inpatients	29,962	100.0%

27.1%

Source: Camarines Sur PHO

Table 9

Bicol Medical Center – Outpatient Demographic Profile, 2010

	Total	% to total
Within the province:		
First District	5,758	9.4%
Second district	6,791	11.1%
Third district	13,159	21.4%
Fourth district	6,895	11.2%
Fifth district	5,304	8.6%
Iriga City	1,697	2.8%
Naga City	17,099	27.8%
Sub-total	56,703	92.3%
Outside of Camarines Sur:		
Camarines Norte	1,419	2.3%
Albay	1,311	2.1%
Sorsogon	941	1.5%
Masbate	832	1.4%
Catanduanes	158	0.3%
Others	55	0.1%
Sub-total	4,716	7.7%
Total - outpatients	61,419	100.0%

25.8%

Source: Camarines Sur PHO

Table 10

Bicol Medical Center – Analysis of 2010 Disease Profile

Rank	Cause of Admission	No. of cases[1]	% of total	Estimated ALOS[2]	Wtd. ALOS	Case Rate[3]	Wtd. Ave. Case Rate
1	Pneumonia	1,692	6.4%	7.0	0.45	15,000	957
2	Acute Gastroenteritis	875	3.3%	2.0	0.07	6,000	198
3	Abortion	870	3.3%	2.0	0.07	11,000	361
4	Cardiovascular Disease	621	2.3%	5.0	0.12	9,000	211
5	Dengue	568	2.1%	5.0	0.11	16,000	343
6	Cerebro Vacular Diseases	563	2.1%	5.0	0.11	10,801	229
7	Sepsis Neonatorum	560	2.1%	7.0	0.15	15,000	317
8	Appendicitis	432	1.6%	3.0	0.05	24,000	391
9	Malignmant Neoplasm	373	1.4%	7.0	0.10	22,000	309
10	Pre-eclampsia	307	1.2%	5.0	0.06	9,000	104
11	ESRD	293	1.1%	0.0	0.00	4,000	44
12	Neonatal Pneumonia	269	1.0%	5.0	0.05	15,000	152
13	Hypertension	271	1.0%	5.0	0.05	9,000	92
14	Upper Gastrointestinal Bleeding	236	0.9%	5.0	0.04	10,801	96
15	Urinary Tract Infection	233	0.9%	3.0	0.03	5,217	46
16	Bronchial Asthma	209	0.8%	2.0	0.02	9,000	71
17	Cataract	184	0.7%	0.0	0.00	16,000	111
18	CGN	180	0.7%	3.0	0.02	5,217	35
19	Febrille Convulsions	168	0.6%	5.0	0.03	10,801	68
20	Pulmonary Tuberculosis	120	0.5%	1.0	0.00	4,000	18
21	NSD[4]	4,874	18.4%	2.0	0.37	9,000	1,654
22	Caesarian Section[5]	2,413	9.1%	3.0	0.27	19,000	1,728
23	Others	10,214	38.5%	3.7	1.41	10,801	4,159
	Total/Weighted Average	26,525	100%		3.55		11,695

Notes:

1 - BMC data provided by Camarines Sur PHO

2 - ALOS are TA Team estimates

3 - Case rates are those published by PHIC in 2011; where no published case rates are available, the average PHIC payments in 2010 were used.

3 - Case rates are those published by PHIC in 2011; where no published case rates are available, the average PHIC

4,5 - Although not causes of morbidity, NSD and CS were included in this list for purposes of deriving a weighted average case rate.

Table 11

Average Inpatient and Outpatient Revenue (Php per capita)

	Rate	Weight	Wtd. Ave.
Average public inpatient expenditure[1]	11,695	75%	8,771
Average private inpatient expenditure[2]	23,389	25%	5,847
Weighted average IP expenditure			14,618
Average OP expenditure[3]			2,193

Notes:
1 - P11,695 is the weighted average case rate derived by applying PHIC case rates to BMC's disease profile (see Table 10)

2 - Private patients are assumed to pay a rate twice that of public patients.
3 - Outpatients are assumed to consume an amount equivalent to 15% of the weighted average inpatient case rate

Table 12

Project Costs (Net of DOH Grant)

Cost Components:[1]	Amount (Php)		% of Total	DOH Grant	Net Carrying Value[5]
Building:					
Building construction (6,177 sqm @ P24,000/sqm)	160,345,037				
Land development cost	21,632,000	181,977,037	43%	101,373,645	80,603,391
Building equipment and furniture (30% of building cost)		48,103,511	11%	26,796,943	21,306,568
Building services (P12,600 per sqm)[2]		84,181,144	20%	46,894,650	37,286,494
Total infrastructure		314,261,692	75%	175,065,238	139,196,454
Medical equipment, instruments, office equipment:					
DOH requirement for 100-bed Level 2	51,885,434				
Cost of service enhancements [3]	17,846,400	69,731,834			
Factor for expansion from 100 to 200 beds[4]		1.5			
Total medical equipment, instruments, office equipment:		104,597,750	25%	58,268,095	46,329,655
Total		418,859,443	100%	233,333,333	185,526,109

Notes:

1 - Costs of construction, land development, building equipment and services are based on DOH estimates per "Budgetary Requirements for Construction of Hospitals and Other Health Facilities, as of June 2010", National Center for Health Facility Development. The estimates above are in 2012 prices, and are further inflated at 4% p.a. over the construction period.

2 - Source: DLS Handbook 2011

3 - TA Team estimate consisting of 4-bed ICU (P10 million), hemodialysis unit (P5 million), and ambulator OR for cataract treatments (P1.5 million).

4 - Medical equipment costs are based on the DOH estimates for a 100-bed Level 2, plus 50% to reflect economies of scale of a 200-bed facility.

5 - Carrying values are at the start of the construction period and subject to inflation over the construction period.

Table 13

CSPH, Forecasted Income Statement, Base Case (Php millions)

Project year	1	2	3	4	5	6	7	8	9	10	11	12
Inpatient revenue	0	0	240	285	334	347	361	376	391	406	422	439
Outpatient revenue	0	0	74	88	103	107	112	116	121	125	130	136
Total revenue	0	0	314	373	437	454	473	492	511	532	553	575
Drugs and medical supplies	0	0	-79	-93	-109	-114	-118	-123	-128	-133	-138	-144
Personnel costs	0	0	-114	-118	-123	-128	-133	-139	-144	-150	-156	-162
Other operating costs	0	0	-76	-79	-82	-85	-88	-92	-96	-99	-103	-108
Management fees	0	0	-16	-19	-22	-23	-24	-25	-26	-27	-28	-29
Operating income	0	0	30	64	101	105	109	114	118	123	128	133
Depreciation expense	0	0	-20	-26	-32	-38	-45	-46	-47	-49	-50	-52
Profit before interest expense	0	0	11	39	69	67	64	67	71	74	78	81
Interest expense	0	0	0	0	0	0	0	0	0	0	0	0
Profit before tax	0	0	11	39	69	67	64	67	71	74	78	81
Provision for tax	0	0	0	0	0	0	0	0	0	0	0	0
Net income	0	0	11	39	69	67	64	67	71	74	78	81
Statement of retained earnings:												
Retained earnings, beginning	0	0	0	11	49	118	185	249	317	388	462	539
Net income	0	0	11	39	69	67	64	67	71	74	78	81
Retained earnings, ending	0	0	11	49	118	185	249	317	388	462	539	621

Table 14

CSPH, Forecasted Balance Sheet, Base Case (Php millions)

Project year	1	2	3	4	5	6	7	8	9	10	11	12
ASSETS												
Cash	10	71	6	7	9	9	9	10	10	11	11	12
Accounts receivable	0	0	65	77	90	93	97	101	105	109	114	118
Inventory	0	0	13	15	18	19	19	20	21	22	23	24
Other current assets	0	0	3	4	4	5	5	5	5	5	6	6
Current assets	10	71	87	103	121	126	131	136	141	147	153	159
Building and improvements, net	50	85	82	79	77	74	71	68	65	62	60	57
Furniture and fixtures, net	18	63	56	50	44	38	31	25	19	13	6	0
Medical equipment, net	0	50	45	40	35	30	25	20	15	10	5	0
Capital costs, net	0	0	23	41	54	62	64	67	69	72	75	78
Other non-current assets	0	0	9	11	13	14	14	15	15	16	17	17
Total non-current assets	69	198	216	222	222	217	206	195	184	173	162	152
Total assets	79	269	303	325	343	342	336	330	325	320	315	311
LIABILITIES AND EQUITY												
Accounts payable	0	0	52	61	72	75	78	81	84	87	91	95
Other current liabilities	0	0	6	7	9	9	9	10	10	11	11	12
Total current liabilities	0	0	58	69	81	84	87	91	94	98	102	106
Capital stock	79	269	234	207	144	73	0	-77	-157	-240	-326	-416
Retained earnings	0	0	11	49	118	185	249	317	388	462	539	621
Total equity	79	269	245	256	263	259	249	240	231	222	213	205
Total liabilities and equity	79	269	303	325	343	342	336	330	325	320	315	311

Table 15

CSPH, Forecasted Cash Flow Statement, Base Case (Php millions)

Project year	1	2	3	4	5	6	7	8	9	10	11	12
Net income	0	0	11	39	69	67	64	67	71	74	78	81
Add: depreciation	0	0	20	26	32	38	45	46	47	49	50	52
Operating cash flow	0	0	30	64	101	105	109	114	118	123	128	133
Inc. - Accounts payable	0	0	52	10	10	3	3	3	3	3	3	4
Inc. - Other current liabilities	0	0	6	1	1	0	0	0	0	0	0	0
Total operating sources	0	0	58	11	12	3	3	3	4	4	4	4
Sale of equity	79	190	-35	-28	-62	-71	-74	-77	-80	-83	-86	-90
Total non-operating sources	79	190	-35	-28	-62	-71	-74	-77	-80	-83	-86	-90
Total sources of funds	79	190	54	48	50	37	39	40	42	44	45	47
Accounts receivable	0	0	65	12	13	4	4	4	4	4	4	5
Inventory	0	0	13	2	3	1	1	1	1	1	1	1
Other current assets	0	0	3	1	1	0	0	0	0	0	0	0
Total operating uses	0	0	81	15	16	4	5	5	5	5	5	6
Inc. - Other non-current assets	0	0	9	2	2	1	1	1	1	1	1	1
Inc. - Building and improvements, cost	50	35	0	0	0	0	0	0	0	0	0	0
Inc. - Furniture and fixtures, cost	18	44	0	0	0	0	0	0	0	0	0	0
Inc. - Medical equipment, cost	0	50	0	0	0	0	0	0	0	0	0	0
Inc. - Capital costs	0	0	28	30	31	32	33	35	36	37	39	40
Total non-operating uses	69	129	38	31	33	32	34	35	37	38	40	41
Total uses of funds	69	129	118	47	49	37	38	40	42	43	45	47
Cash, beginning	0	10	71	6	7	9	9	9	10	10	11	11
Inc. (dec.) in cash	10	61	-65	1	1	0	0	0	0	0	0	0
Cash, ending	10	71	6	7	9	9	9	10	10	11	11	12

Table 16

CSPH, Forecasted Financial Ratios and Key Operating Results, Base Case

Project year	1	2	3	4	5	6	7	8	9	10	11	12	Average*
Return on equity	n/a	n/a	4.4%	15.1%	26.3%	25.8%	25.8%	28.1%	30.6%	33.4%	36.4%	39.7%	26.6%
Return on sales	n/a	n/a	3.4%	10.4%	15.8%	14.7%	13.6%	13.7%	13.8%	13.9%	14.0%	14.1%	12.7%
Sales/assets	n/a	n/a	1.0	1.1	1.3	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.5
Assets/equity	1.0	1.0	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.4
Collection period	n/a	n/a	75	75	75	75	75	75	75	75	75	75	75
Inventory/revenues (days)	n/a	n/a	15	15	15	15	15	15	15	15	15	15	15
Accounts payable/revenue (days)	n/a	n/a	60	60	60	60	60	60	60	60	60	60	60
Current ratio	n/a	n/a	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Liabilities/equity	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.4
Revenues (Php millions)	n/a	n/a	314	373	437	454	473	492	511	532	553	575	471
Personnel costs (Php millions)	n/a	n/a	1,560	1,623	1,688	1,755	1,825	1,898	1,974	2,053	2,135	2,221	1,873
Personnel costs (pbd)	n/a	n/a	114	118	123	128	133	139	144	150	156	162	137
Other operating costs (Php millions)	n/a	n/a	1,035	1,077	1,120	1,164	1,211	1,259	1,310	1,362	1,417	1,473	1,243
Other operating costs (pbd)	n/a	n/a	76	79	82	85	88	92	96	99	103	108	91
Capital costs (Php millions)	n/a	n/a	28	30	31	32	33	35	36	37	39	40	34
Capital costs (pbd))	n/a	n/a	1,560	1,623	1,688	1,755	1,825	1,898	1,974	2,053	2,135	2,221	1,873
Management fees (Php millions)	n/a	n/a	16	19	22	23	24	25	26	27	28	29	24
Operating cash flow (Php millions)	n/a	n/a	30	64	101	105	109	114	118	123	128	133	103
Net cash flow (to owners) (Php millions)	-79	-190	35	28	62	71	74	77	80	83	86	90	68
					Pre-tax IRR		**22.5%**						

** Average of first 10 years of operation.*

Table 17

CSPH, Forecasted Financial Ratios and Key Operating Results, Base Case (after-tax)

Project year	1	2	3	4	5	6	7	8	9	10	11	12	Average*
Return on equity	n/a	n/a	3.1%	10.6%	18.4%	18.1%	18.1%	19.7%	21.4%	23.4%	25.5%	27.8%	18.6%
Return on sales	n/a	n/a	2.4%	7.2%	11.1%	10.3%	9.5%	9.6%	9.7%	9.8%	9.8%	9.9%	8.9%
Sales/assets	n/a	n/a	1.0	1.1	1.3	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.5
Assets/equity	1.0	1.0	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.4
Collection period	n/a	n/a	75	75	75	75	75	75	75	75	75	75	75
Inventory/revenues (days)	n/a	n/a	15	15	15	15	15	15	15	15	15	15	15
Accounts payable/revenue (days)	n/a	n/a	60	60	60	60	60	60	60	60	60	60	60
Current ratio	n/a	n/a	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Liabilities/equity	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.4
Revenues (Php millions)	n/a	n/a	314	373	437	454	473	492	511	532	553	575	471
Personnel costs (Php millions)	n/a	n/a	114	118	123	128	133	139	144	150	156	162	137
Personnel costs pbd	n/a	n/a	1,560	1,623	1,688	1,755	1,825	1,898	1,974	2,053	2,135	2,221	1,873
Other operating costs (Php millions)	n/a	n/a	76	79	82	85	88	92	96	99	103	108	91
Other operating costs pbd	n/a	n/a	1,035	1,077	1,120	1,164	1,211	1,259	1,310	1,362	1,417	1,473	1,243
Capital costs (Php millions)	n/a	n/a	28	30	31	32	33	35	36	37	39	40	34
Capital costs pbd	n/a	n/a	389	405	421	438	455	474	493	512	533	554	467
Operating cash flow (Php millions)	n/a	n/a	27	53	80	85	90	93	97	101	104	108	84
Net cash flow (to owners) (Php millions)	-79	-190	31	16	42	51	54	56	59	61	63	65	50

After-tax IRR 17.7%

** Average of first 10 years of operation.*

Table 18

CSPH, Forecasted Financial Ratios and Key Operating Results, Pessimistic Case (after-tax)

Project year	1	2	3	4	5	6	7	8	9	10	11	12	Average*
Return on equity	n/a	n/a	-1.6%	5.9%	13.2%	12.5%	12.1%	13.2%	14.5%	15.8%	17.4%	19.0%	12.2%
Return on sales	n/a	n/a	-1.4%	4.3%	8.4%	7.5%	6.7%	6.8%	6.9%	6.9%	7.0%	7.1%	6.0%
Sales/assets	n/a	n/a	1.0	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.8	1.4
Assets/equity	1.0	1.0	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.4
Collection period	n/a	n/a	75	75	75	75	75	75	75	75	75	75	75
Inventory/revenues (days)	n/a	n/a	15	15	15	15	15	15	15	15	15	15	15
Accounts payable/revenue (days)	n/a	n/a	60	60	60	60	60	60	60	60	60	60	60
Current ratio	n/a	n/a	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Liabilities/equity	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.4
Revenues (Php millions)	n/a	n/a	293	349	408	424	441	459	477	496	516	537	440
Personnel costs (Php millions)	n/a	n/a	114	118	123	128	133	139	144	150	156	162	137
Personnel costs (pbd)	n/a	n/a	1,560	1,623	1,688	1,755	1,825	1,898	1,974	2,053	2,135	2,221	1,873
Other operating costs (Php millions)	n/a	n/a	76	79	82	85	88	92	96	99	103	108	91
Other operating costs (pbd)	n/a	n/a	1,035	1,077	1,120	1,164	1,211	1,259	1,310	1,362	1,417	1,473	1,243
Capital costs (Php millions)	n/a	n/a	28	30	31	32	33	35	36	37	39	40	34
Capital costs (pbd))	n/a	n/a	389	405	421	438	455	474	493	512	533	554	467
Management fees (Php millions)	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0
Operating cash flow (Php millions)	n/a	n/a	16	41	66	70	74	77	80	83	86	90	68
Net cash flow (to owners) (Php millions)	-79	-189	21	4	28	36	39	41	42	43	45	47	35

After-tax IRR 13.3%

** Average of first 10 years of operation.*

Table 19

CSPH, Forecasted Financial Ratios and Key Operating Results, Optimistic Case (after-tax)

Project year	1	2	3	4	5	6	7	8	9	10	11	12	Average*
Return on equity	n/a	n/a	13.2%	21.8%	30.9%	31.3%	32.3%	35.0%	37.8%	40.9%	44.3%	47.9%	33.6%
Return on sales	n/a	n/a	9.0%	13.2%	16.5%	15.8%	15.2%	15.2%	15.3%	15.4%	15.4%	15.5%	14.6%
Sales/assets	n/a	n/a	1.1	1.3	1.4	1.5	1.5	1.6	1.7	1.8	1.9	2.0	1.6
Assets/equity	1.0	1.0	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.6	1.4
Collection period	n/a	n/a	75	75	75	75	75	75	75	75	75	75	75
Inventory/revenues (days)	n/a	n/a	15	15	15	15	15	15	15	15	15	15	15
Accounts payable/revenue (days)	n/a	n/a	60	60	60	60	60	60	60	60	60	60	60
Current ratio	n/a	n/a	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Liabilities/equity	0.0	0.0	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.4
Revenues (Php millions)	n/a	n/a	367	436	510	530	551	573	596	620	645	671	550
Personnel costs (Php millions)	n/a	n/a	114	118	123	128	133	139	144	150	156	162	137
Personnel costs pbd	n/a	n/a	1,560	1,623	1,688	1,755	1,825	1,898	1,974	2,053	2,135	2,221	1,873
Other operating costs (Php millions)	n/a	n/a	76	79	82	85	88	92	96	99	103	108	91
Other operating costs pbd	n/a	n/a	1,035	1,077	1,120	1,164	1,211	1,259	1,310	1,362	1,417	1,473	1,243
Capital costs (Php millions)	n/a	n/a	28	30	31	32	33	35	36	37	39	40	34
Capital costs pbd	n/a	n/a	389	405	421	438	455	474	493	512	533	554	467
Management fees (Php millions)	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0
Operating cash flow (Php millions)	n/a	n/a	53	83	116	122	128	133	139	144	150	155	122
Net cash flow (to owners) (Php millions)	-79	-194	55	45	76	88	93	96	100	104	108	112	88

After-tax IRR 27.0%

** Average of first 10 years of operation.*

Business Plan

Scope: Hospital Pharmacy Management

Market: Northern Samar

This Business Plan has been prepared in connection with the prospective outsourcing of the management of the pharmacies of the nine hospitals owned and managed by the Provincial Government of Northern Samar (PGNS) (the "Hospital Pharmacies") to private service providers. Outsourcing is among the initiatives being undertaken by PGNS to strengthen the governance structure of the health sector of the province and improve the health conditions of its citizens particularly in the areas of maternal and child health, control of communicable diseases, and basic health care. As part of these efforts, PGNS has implemented province-wide universal coverage, paying out P13.6 million in premiums to Philippine Health Insurance Corporation (PHIC) in 2010 to cover the entire indigent population of the province. PGNS also achieved a substantial reduction in the reimbursement period for PHIC payments, which has helped to improve the PHIC availment rates in the province.

By outsourcing the management of the Hospital Pharmacies, PGNS hopes to tap the expertise and access to capital of private service providers, and thereby achieve standards in the delivery and quality of services of the Hospital Pharmacies beyond the levels it has been able to provide in the past.

The Business Plan is written from the perspective of the private service provider (the "Pharmacy Manager" or the "Company") with whom PGNS will contract – subject to a public bidding process - the management and operation of the Hospital Pharmacies (the "Contract"). Although the case discussed herein contemplates a province-wide exercise for Northern Samar, the underlying analysis may be applied to other provinces with similar healthcare needs and to single-site exercises.

1) Executive Summary

The Company The Pharmacy Manager will have characteristics that can be gleaned from the qualifying criteria cited in the terms of reference for Northern Samar Hospitals Pharmacy Management. Among these are the ability to concurrently operate pharmacies in multiple locations, and capitalize the volume of sales that the province-wide operation is expected to generate.

Description of the Business Upon effectivity of the Contract, the Company will be granted by PGNS with the exclusive right to manage and operate the Hospital Pharmacies located within the nine hospitals owned by the PGNS (the "Northern Samar Hospitals"). As part of its obligations under the Contract, the Pharmacy will make available on twenty-four hours and

seven-days-a-week basis all the pharmaceutical products listed in the therapeutic lists (the 'NSTL") that will be prepared and periodically updated by each of the Hospitals. Products will be sold at locally competitive prices.

Its other operational responsibilities are the maintenance of a sufficient stocks of inventory, the selection and hiring of qualified pharmacy staff (with a proviso that must give the first priority in such hiring decisions must be given to staff that may be displaced as a result of the outsourcing of the management of the Hospital Pharmacies), and the assumption of operating costs, and taxes. The Comany will pay rent to PGNS based on a percentage of net sales (to be pre-agreed with the PGNS under the Contract).

The Pharmacy Manager must also adhere to specific governance obligations under the Contract such as the lawful preparation/dispensing of pharmaceutical products, securing appropriate licenses and permits, coordination with the Northern Samar Hospitals to ensure quality assurance and the improvement of patient outcome. The Pharmacy Manager will implement a point of sale monitoring system that reflects its selling prices and is compatible with the accounting systems of the Northern Samar Hospitals.

Role of PGNS From a risk management standpoint, the Pharmacy Manager stands to benefit from certain obligations that the PGNS will perform under the Contract. Foremost among these is the grant of exclusive rights to the Pharmacy Manager to sell pharmaceutical products within the Northern Samar Hospitals. PGNS has also agreed to pay for drugs and medicines prescribed to indigents, thus insulating the Pharmacy Manager from potential losses from sales to this sector. PGNS will ensure the immediate processing of reimbursement claims against Philippine Health Insurance Corporation (PHIC) which will help minimize the Pharmacy Manager's outlays for working capital. Lastly, PGNS will monitor the prescribing patterns of doctors employed by PGNS to ensure they prescribe only those products listed in the NSTL; this will help mitigate competition from pharmacies located outside the Hospitals some of which are owned by Hospital doctors.

Market The Pharmacy Manager will operate in Northern Samar, one of the poorest provinces in the country. Northern Samar has an overall maternal mortality that is relatively high at 174/100,000 live births. The province is also characterized by high infant mortality (950/100,000 LB) and under-five mortality (1,946/100,000 LB) rates which are attributed to incomplete immunization of children under 5 years old, the high prevalence of malnutrition, a lack of essential drugs at health facilities, poor caring behavior of the community on child bearing/rearing, among others.

The needs of the Northern Samar Hospitals are reflected in the priorities of the Northern Samar Provincial Hospital (NSPH): the decongestion of the NSPH; enhancement of referral systems from the various provincial health units; the build-up in capacities of rural health units for PHIC accreditation; upgrading the skills of midwives; and, updating of laboratory equipment. Specific to the Hospital Pharmacies is the perennial problem of frequent stock-outs of drugs, medicines, and medical supplies which result from NSPH's limited budget for these services. Other factors leading to the supply inadequacy are the delayed procurement of drugs, lack of deliveries, the high cost of medicines, and a low ratio of barangays-to-Botika ng Barangay facilities.

Competitive Strategy As the grantee of exclusive rights to operate the Pharmacy Hospitals, the Pharmacy Manager gains a monopoly operation during the life of the contract. With the added advantage of being located inside the Hospitals, the Company becomes a strong first option for patients for having their prescriptions filled. The Company has the potential to generate a larger volume of business than its competitors and a greater ability to negotiate volume discounts from suppliers. This ultimately translates to a pricing advantage over its competitors.

Given the scale of the operation, however, the Pharmacy Manager is likely to be a non-resident of Northern Samar. It may therefore find greater difficulty than existing firms in dealing with the nuances of operating in Northern Samar. That the Contract is subject to termination presents the Company with the risk of losses if it has unrecovered capital at the time of termination. The Company's ability to achieve its sales targets may also be undermined by competitors with alternative delivery channels. The Company takes settlement risk on PGNS which receives payments on its behalf for medicines for PHIC members.

Much of the Company's future success will depend on its ability to cultivate a harmonious relationship with PGNS as many risk factors that can its business are influenced by PGNS (e.g., PHIC coverage of indigents, monitoring doctors' prescriptions, dealing with any potential fallout from the Contact being perceived as a privatization exercise). A strong relationship with PGNS will also increasees the chances of Contract renewal, perhaps an early one, particularly if it fully performs its obligations under the Contract.

Other business strategies that the competitive environment dictates are: i) diversifying the risk of non-renewal by bidding for other provincial contracts; ii) minimizing capital-at-risk through operating efficiencies; iii) inclusion of a social marketing element in the marketing strategy; iv) achieving scale to maximize supplier and logistical discounts; and vi) undertaking service improvements (particularly with regard to distribution channels).

Financial Projections

On a stabilized basis, the Pharmacy Manager's revenues will reach an average of P134 million annually. Before rental payments to PGNS, after-tax profits will average P11.2 million. The operation will require P24.1 million in equity capital to be used primarily to finance working capital. The operation is projected to yield a 26.6% return on equity before rentals. The upper limit for rental rates is estimated to be between 7- 8%, assuming the Pharmacy Manager has a 9% cost of equity.

2) The Business

The Company

The Pharmacy Manager will have characteristics that can be gleaned from the qualifying criteria cited in the terms of reference for Northern Samar Hospitals Pharmacy Management. Among

these are the ability to concurrently operate pharmacies in multiple locations, and capitalize the volume of sales that the province-wide operation is expected to generate.

Description of the Business

Upon effectivity of the Contract, the Pharmacy Manager will assume on an exclusive basis full responsibility from PGNS over the management and operation of the Hospital Pharmacies located within the Northern Samar Hospitals. The latter comprise:

a) Northern Samar Provincial Hospital, located in Catarman;
b) Allen District Hospital, located in Allen;
c) Biri District Hospital, located in Biri
d) Capul District Hospital, located in Capul
e) Catubig District Hospital, located in Catubig
f) Gamay District Hospital, located in Gamay
g) Dr. Gregorio B. Tan District Hospital, located in Laoang
h) San Antonio District Hospital, located in San Antonio
i) San Vicente District Hospital, located in San Vicente

A location map and a detailed listing of the Northern Samar Hospital (including private facilities) are provided in Exhibits 1 and 2.

Products and Services

The Company will make available on twenty-four hours and seven days a week basis all the pharmaceutical products listed in the therapeutic lists to be prepared and periodically updated by each of the Hospitals (the "NSTL"). The NSTL is generally based on the Philippine National Drug Formulary which lists the drugs most essential for diseases and conditions encountered in the Philippines,as may be adapted to local market conditions by each Hospital's therapeutics committee. The Company's products will be sold at locally competitive prices consistent with pertinent laws. Prices will be posted conspicuously within the Hospital Pharmacy premises. The Company will respond to emergency situations, a sudden increase in demand, and other cases of extreme urgency by procuring additional products.

Operations

The Pharmacy Manager will undertake all activities necessary to ensure that a sufficient and cost-effective stock of pharmacy items is available. These include the preparation of purchase orders and documents necessary for procurement of stocks, choosing and negotiating with qualified vendors/suppliers for the best pricing for inventories, and ensuring timely delivery of orders to the Hospital Pharmacies together with all documentation required by law and hospital rules and regulations.

The Pharmacy Manager will be responsible for the selection, hiring and training of pharmacy staff in such number and with qualifications, compensation and benefits as it deems necessary to operate the Hospital Pharmacies. The Contract obligates the Pharmacy Manager to give first

priority in its hiring decisions to staff that may be affected by the transition of the Hospital Pharmacies to a private service provider, and to local residents.

The cost of utilities, including water, electricity and communications will be borne by the Pharmacy Manager. It will pay rent to PGNS on a monthly basis based on a percentage of net sales to be pre-agreed with the PGNS under the Contract. All taxes related to the operation of the Hospital Pharmacies will be for the account of the Pharmacy Manager.

From a governance standpoint, the Pharmacy Manager will prepare all pharmaceutical products for inpatient and outpatient dispensing in accordance with pertinent laws and PHIC accreditation guidelines. It will secure and maintain all necessary operating licenses and permits. It will allow the representatives of the Northern Samar Hospitals to inspect it operating records, and coordinate with the appropriate committees and departments of the Northern Samar Hospitals to help in improving patient outcomes.

In terms of management systems, the Pharmacy Manager will implement a management and cash receipting system, including a point of sale monitoring system that reflects selling prices and is compatible with the accounting systems of both the Northern Samar Hospitals and PHIC. It will prepare monthly reports to PGNS on the composition and size of inventories, historical consumption patterns

Role of PGNS as Counterparty

As counterparty to the Contract, the PGNS will perform several responsibilities under the Contract which have mitigating effects on several of the Pharmacy Manager's business risks. Among these are the grant of exclusive rights to sell pharmaceutical products within the Northern Samar Hospitals to the Pharmacy Manager which protects the Pharmacy Manager from the threat of new entrants within the Pharmacy Hospital premises. The Contract stipulates that PGNS will pay for the cost of medicines prescribed for indigent patients, thereby insulating the Pharmacy Manager from losses related to servicing this sector of the market. (PGNS is willing to assume this risk because of its pursuit of universal coverage across the province.) PGNS will promote the immediate processing by PHIC of reimbursement claims which will help to reduce the Pharmacy Manager's need to financing working capital. Lastly, PGNS will monitor the prescribing patterns of doctors employed by PGNS to ensure they prescribe only those products listed in the NSTL; this will help lessen competition from pharmacies located outside the hospitals some of which are owned by hospital doctors.

PGNS is obligated to coordinate with the Pharmacy Manager on matters such as providing the Pharmacy Manager with the NSTL, training of the Pharmacy Manager's staff on the regulations, policies and service standards of the Northern Samar Hospitals, allowing a representative of the Pharmacy Manager to participate in meetings of Northern Samar Hospital committees to ensure alignment of initiatives.

Lastly, PGNS is obligated to provide the Pharmacy Manager with the necessary and adequate pharmacy space, including stockrooms.

3) The Market

Northern Samar is one of the poorest provinces in the country. It has a total population of 549,759[1]. Catarman is the capital town of the province where most political and economic activities take place. The province is considered a very rural area with 65% of its people residing in the countryside. It has 24 municipalities and 569 barangays.[2] According to Governor Paul R. Daza, the province is among the top 20 poorest provinces in the country, with moderate improvements in poverty ranking from 7th to 14th in the 2009 National Statistical Coordination Board Survey. Poverty in the province is related to natural calamities (e.g. typhoons and floods), which causes damage to crops and power failures that affect business and government operations in the province. The largest industry in the province remains copra and rice, the latter with a harvest of only once a year. Much needed large irrigation projects have been delayed due to bureaucracy/red tape in government.

Although overall maternal mortality is decreasing, it is still relatively high at 174/100,000 live births; this compares with the Millenium Development Goal of 70/100,000 live births.[3] The high maternal mortality is attributed to the low usage of birthing facilities with 15% and 2% delivery rates in hospitals and rural health units, respectively. 83% of pregnant women still deliver at home. Northern Samar is also characterized by a high infant mortality (950/100,000 LB) and under-five mortality (1,946/100,000 LB) rates. Both of these factors are attributed to incomplete immunization of children under 5 years old, the high prevalence of malnutrition, a lack of essential drugs at health facilities, poor caring behavior of the community on child bearing/rearing, the low percentage of mothers practicing complementary feeding, low percentage of mothers practicing exclusive breastfeeding, and a poor referral system.[4]

The needs of the Northern Samar Hospitals are reflected in the priorities outlined by the administrator of the Northern Samar Provincial Hospital (NSPH). These include:

a) decongesting the NSPH primarily caused by referrals from healthcare centers not capable of handling simple cases;
b) improving hospital facilities and the distribution of medical doctors in certain municipalities (e.g., the Municipality of San Vicente has only 1 doctor);
c) enhancing the referral system from Barangay Health Units, Rural Health Units, District Hospitals and finally the NSPH;
d) building the capacities of the Rural Health Units for PHIC accreditation;
e) enhancing skills and services especially of midwives;
f) facilitating business opportunities for unemployed nurses either as midwives, and/or health entrepreneurs;
g) updating NSPH's laboratory equipment; and

[1] As of 2007 (National Statistics Office)
[2] "App 11_Draft Investment folio for NS (7jun11).docx" p. 1
[3] Derived from "http://www.indexmundi.com/philippines/maternal-mortality-ratio-per-100,000-live-births.html"
[4] "TA 7257 PHI Quarterly Progress Report 1.pdf" p. 30-31

h) providing options to NSPH on pharmacy operations to minimize stock-outs and out-of-pocket expenses by NSPH patients."[5]

Northern Samar is beset with the perennial problem of frequent stockouts of drugs, medicines, and medical supplies in both hospitals and municipal heath facilities due to the limited budget for these services. Other factors leading to the inadequacy of supplies, drugs, and medicines are the delayed procurement of drugs, lack of deliveries, and the high cost of medicines. A low 1.7x ratio of barangays-to-Botika ng Barangay also contributes to the problem.[6]

4) Competitive Strategy

The following is an assessment of the competitive environment in which the Pharmacy Manager can expect to operate in Northern Samar, and its implications on overall business strategy.

Existing Competition

The Contract grants the Pharmacy Manager with the exclusive right to operate the Hospital Pharmacies. The Company will therefore enjoy a locational advantage over existing pharmacies located outside the hospitals, and will be the first option for hospital patients for filling their prescriptions. With this advantage comes the potential for the Pharmacy Manager to generate a larger volume of business than competitors, giving it a greater ability to negotiate volume discounts with its suppliers, and ultimately, a pricing advantage over current players.

The amount of capital required to finance a province-wide operation (as highlighted in section 4) makes it likely that the Pharmacy Manager will be a non-Northern Samar resident, one that may find greater difficulty than existing (local) firms in dealing with the nuances of operating in Northern Samar, including the potential fallout from perceptions of the project being a privatization exercise.

The Pharmacy Manager may also have to deal with problems contrived by hospital doctors who own pharmacies located outside the hospital.

Threat of Entry

As the Contract obligates PGNS to grant the Pharmacy Manager exclusive rights to operate the Hospital Pharmacies, the latter gains a monopoly over pharmacy operations within the Provincial Hospitals during the validity period of the Contract. The Contract, however, has a prescribed validity period, and may be pre-terminated by PGNS for cause. The Pharmacy Manager may incur losses equivalent to the amount of unrecovered capital at the time of termination.

Bargaining Power of Buyers

[5] "TA 7257 PHI Quarterly Progress Report 1.pdf" p. 32
[6] "TA 7257 PHI Quarterly Progress Report 1.pdf" p. 175

As the sole pharmacy operation within the Hospitals, the Pharmacy Manager benefits from being the first option available to hospital patients for filling their prescriptions. Given the under-served demand for drugs and medicine indicated by the low health levels of Northern Samar, this strategic advantage increases the likelihood that that the Pharmacy Manager will achieve its sales targets.

The low income levels that are characterize Northern Samar, however, impose a pricing limit on the Pharmacy Manager. Selling prices will also be monitored by PGNS to ensure these adhere to market benchmarks. These factors constrain the ability of the Pharmacy Manager to achieve its target margins.

Bargaining Power of Suppliers

As mentioned earlier, the Pharmacy Manager has the potential to achieve a larger scale of operation than its competitors, a factor that gives it a greater ability than its competitors to extract discounts from suppliers of both products and services. For example, the Pharmacy Manager would be an attractive prospect for banks seeking new outlets for working capital facilities. Similarly, pharmaceutical suppliers would perceive the Pharmacy Manager as a means to access new and/or underserved markets. These factors contribute positively towards the Pharmacy Manager's ability to extract favorable terms such as supplier discounts, loan terms, etc..

Substitutes

The PM's advantage as a monopoly of the provincial hospital-based pharmacies may be undermined by competitors that present alternative delivery channels (e.g., home delivery services).

Government

The Pharmacy Manager takes a settlement risk on PGNS which receives these payments from PHIC prior to disbursement to the Pharmacy Manager. Having the government as counterparty also opens the Pharmacy Manager to the risk that contract terms may change with a new political dispensation governing the province.

Implications on Strategy

Based on the foregoing competitive analysis, the following are some strategic options available to the Pharmacy Manager that can strengthen its competitive position, and minimize its business risks:

a) Cultivate a harmonious relationship characterized by a healthy dialogue with PGNS particularly on areas affecting its operations (e.g., coverage of indigents, monitoring Hospital doctors' prescriptions, collection of PHIC reimbursements, and the potential fallout from "privatization")

b) Maximize chances of Contract renewal and maintain its monopoly by complying fully with all performance standards and terms stipulated by the Contract, and lobbying for renewal or extension of the Contract well before Contract expiry;
c) Diversify the risk of non-renewal by capitalizing on its Northern Samar experience and bidding for pharmacy management contracts of other provinces;
d) Minimize capital-at-risk by undertaking operating measures that lead to lower asset turnover (e.g., inventory and receivables management);
e) Minimize disruptions to operations resulting from "privatization" concerns by including a social element in its marketing strategy that addresses these issues on a proactive basis;
f) Achieve scale as quickly as possible to gain leverage on trading margins;
g) Undertake service improvements (e.g., home delivery).

5) Financial Projections

Projections of the Pharmacy Manager's financial performance are presented in Exhibits 3-6 which were based on the following assumptions:

Outpatient and inpatient volumes Based on actual 2010 statistics of the Hospitals, and projected to increase annually at 1.30%, the population growth rate of Northern Samar from 2000-2007[7]

Revenue ramp up Set at 50% and 75% of combined patient volumes in 2012 and 2013, respectively; stable at 100% thereafter

Pharmacy revenue per capita P1,180.00 (derived based on 2010 data from Allen District Hospital on PHIC reimbursements for drugs and medicines to PHIC members)

Mark-up 30%[8]

Depreciation Useful life of 5 years (applied to non-current assets)

Rent 0%

Income tax rate 30%

Operating expense/cost of sales ratio 25% and 20% in 2012 and 2013, respectively; constant at 14% thereafter[9]

Operating cash 2% of revenues

[7] http://www.census.gov.ph/data/census2007/index.html
[8] Based on Department of Health AO No. 49-A, "Policy Guidelines in the Implementation/Operations of the DOH Botica in All Retained DOH Hospitals", 9 May 2000
[9] Comparables - Rose Pharmacy Inc., CNN Generics Distribution Inc. and Mercury Drug Corporation - posted a median Operating Expense/Cost of Sales ratio of 10% from 2008-2010. The higher assumption adjusts for the Pharmacy Manager's learning curve and (smaller) scale of operation.

Collection period 60 days[10]

Inventory days 90 days[11]

Other current assets 1% of revenues

Non-current assets 2% of revenues

Days payable 45 days[12]

Interest-bearing debt Zero

Equity capital Set at peak cash flow deficits during the projection period; zero debt

On a stabilized basis, the Pharmacy Manager's revenues will reach an average of P134 million annually, with profits – before rental payments to PGNS - averaging P11.2 million. The operation will require P24.1 million in capital which will be deployed primarily towards working capital. (On average, receivables and inventory together will account for nearly 90% of total assets.) Before rental payments, the operation is expected to yield a 26.6% return on equity. Current and leverage ratios will stabilize at very healthy levels of 4.1x and 0.3x, respectively.

The following table summarizes the effect on ROE and capital requirement of changes to the rental rate assumption:

Rental rate (% of sales)	0%	2%	4%	6%	8%
ROE	26.6%	22.2%	17.7%	13.2%	8.7%
Capital Required (Php)	24,140,438	27,992,263	32,234,913	36,757,864	41,489,241
Rent to PGNS (Php)	-	2,651,961	5,303,922	7,955,883	10,607,844

ROE declines as rental rates increase due to the combined effect of the extraction of cash from the project by PGNS (i.e., a profit reduction) and the higher capital requirement this entails on the part of the Pharmacy Manager. Assuming it has a cost of equity of 9%[13], the Pharmacy Manager will pay a maximum rental rate of 7.4%.[14]

[10] Comparable median is 25 days; the higher ratio assumes that the Pharmacy Manager will have a larger component of sales to PHIC-covered patients than the comparable companies; a 60-day collection period also aligns with PHIC policy guidelines.

[11] Comparable median is 44 days; the higher ratio accounts for logistical inefficiencies in Northern Samar.

[12] Comparable median is 66 days; the lower ratio accounts for the lower volume of business of the Pharmacy Manager.

[13] Cost of equity is derived using a 5.8% yield on benchmark 10-year Philippine government bond (as of 7 November 2011), equity risk premium of 6% (conventional), and beta of 0.51 (which is the market capitalization-weighted betas of Parkway Life Real Estate Investment Trust and First Real Estate Investment Trust, investment trusts listed on the Singapore Stock Exchange engaged in the ownership and management of healthcare assets.)

[14] Derived by calculating the rental rate that yields a net present value of (approximately) zero using the Pharmacy Manager's cost of equity.

The following table ranges ROE and capital requirement against rental rates under more aggressive (optimistic) working capital assumptions, e.g., a 30-day reduction in both collection period and inventory days.

Rental rate (% of sales)	0%	2%	4%	6%	8%	10%
ROE	50.4%	41.9%	33.5%	25.0%	16.5%	8.1%
Capital Required (Php)	9,666,318	11,945,246	14,331,524	17,208,152	21,939,530	27,051,514
Rent to PGNS (Php)	-	2,651,961	5,303,922	7,955,883	10,607,844	13,259,804

The results show a similar decline in ROE as rental rates increase albeit from a higher ROE base and at sharper rate of decline. Assuming the same cost of equity of 9%, the Pharmacy Manager's maximum rental rate is estimated at 9.1%.

Exhibit 1

Hospitals in Northern Samar – Location Map

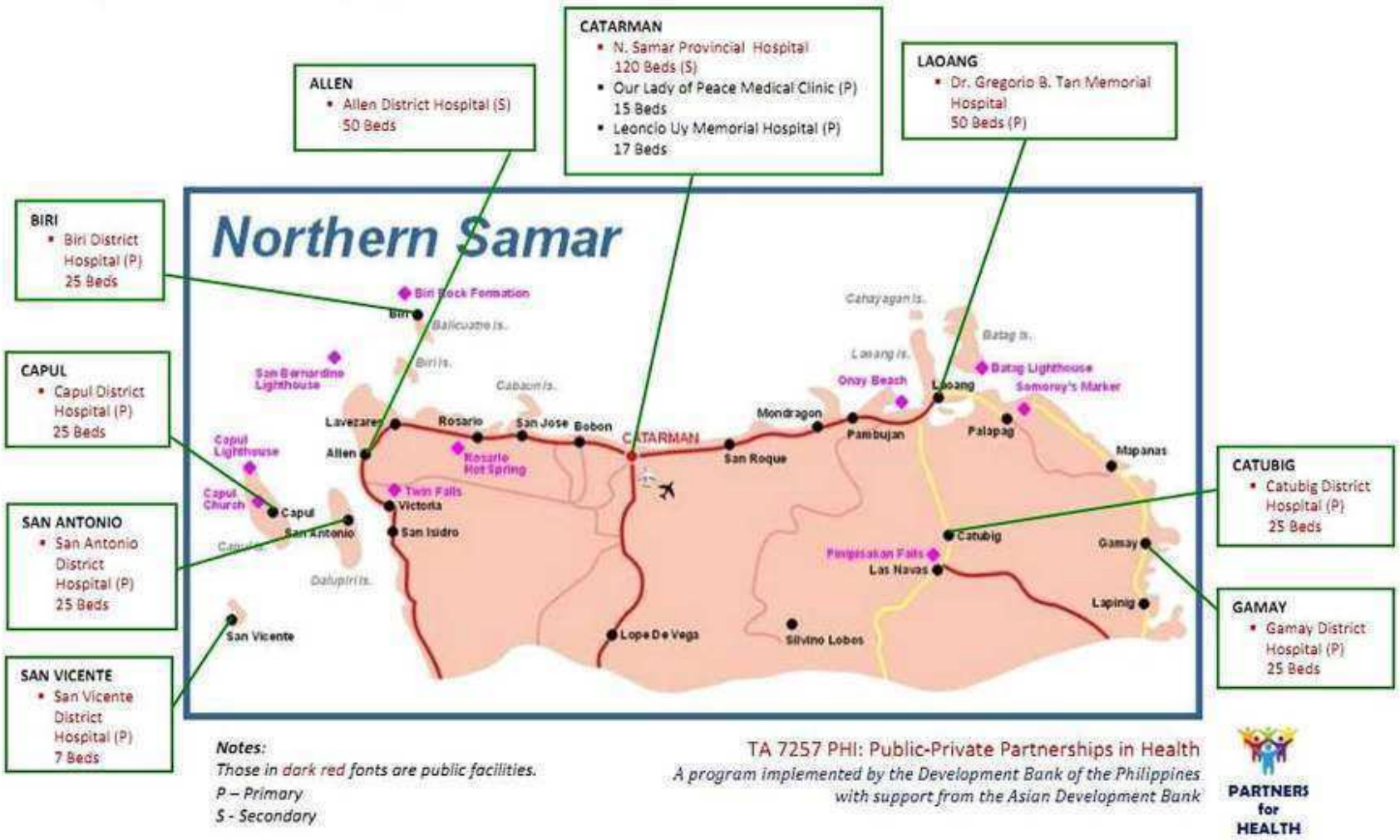

Exhibit 2

Hospitals in Northern Samar

PRIMARY HOSPITALS	SECONDARY HOSPITALS
Dr. Gregorio B. Tan Memorial Hospital Location: Kahundil St., Brgy. SMH, Laoang, Northern Samar Medical Director: Dr. Eduardo Molon Bed Capacity: 50 beds **Catubig District Hospital** Location: Catubig, Northern Samar Medical Director: Dr. Melodia Nerida Bed Capacity: 25 beds **Gamay District Hospital** Location: Gamay, Northern Samar Medical Director: Dr. Anita Mahinay Bed Capacity: 25 beds **Biri District Hospital** Location: Biri, Northern Samar Medical Director: Dr. Timoteo P. Lao Bed Capacity: 25 beds **Capul District Hospital** Location: Capul, Norther Samar Medical Director: Dr. Blas Calintic Bed Capacity: 25 beds **San Antonio District Hospital** Location: San Antonio, Northern Samar Medical Director: Dr. Carlos C. Goire Bed Capacity: 25 beds **San Vicente District Hospital** Location: San Vicente, Northern Samar Medical Director: --- Bed Capacity: 7 beds **Our Lady of Peace Medical Clinic** Location: Macapagal St., Catarman, Northern Samar Tel no: 251-8271 Medical Director: Dr. Sandra Sales/ Dr. Jean Galera Bed Capacity: 15 beds **Leonilo Uy Memorial Hospital** Location: Catarman, Northern Samar Medical Director: Dr. Cesar L. Uy Bed Capacity: 15 beds	**Allen District Hospital** Location: Allen, Northern Samar Medical Director: Dr. Flora Tampalla Bed Capacity: 50 beds **Northern Samar Provincial Hospital** Location: Catarman, Northern Samar Tel no: 251-8305 Medical Director: Dr. Joseph Estanislao Bed Capacity: 120 beds

Exhibit 3

Projected Income Statement

	2012 (Forecast)	2013 (Forecast)	2014 (Forecast)	2015 (Forecast)	2016 (Forecast)
Total revenue	64,608,288	98,172,293	132,598,044	134,321,819	136,068,002
Cost of sales	(49,698,683)	(75,517,149)	(101,998,495)	(103,324,476)	(104,667,694)
Gross profit	14,909,605	22,655,145	30,599,549	30,997,343	31,400,308
Operating expenses	(12,424,671)	(15,103,430)	(14,279,789)	(14,465,427)	(14,653,477)
Depreciation	(258,433)	(392,689)	(530,392)	(537,287)	(544,272)
Operating income	2,226,501	7,159,026	15,789,367	15,994,629	16,202,559
Rent expense	-	-	-	-	-
Interest expense	-	-	-	-	-
Profit before tax	2,226,501	7,159,026	15,789,367	15,994,629	16,202,559
Income tax	(667,950)	(2,147,708)	(4,736,810)	(4,798,389)	(4,860,768)
Net income	1,558,551	5,011,318	11,052,557	11,196,240	11,341,791
Retained earnings					
Beginning retained earnings	-	1,558,551	6,569,869	17,338,950	17,878,182
Net income	1,558,551	5,011,318	11,052,557	11,196,240	11,341,791
Dividends	-	-	283,476	10,657,008	10,795,549
Ending retained earnings	1,558,551	6,569,869	17,338,950	17,878,182	18,424,424

Exhibit 4

Projected Balance Sheet

	2012 (Forecast)	2013 (Forecast)	2014 (Forecast)	2015 (Forecast)	2016 (Forecast)
Assets					
Operating cash	1,292,166	1,963,446	2,651,961	2,686,436	2,721,360
Excess cash	5,488,191	-	-	-	-
Account receivable	10,768,048	16,362,049	22,099,674	22,386,970	22,678,000
Inventory	12,424,671	18,879,287	25,499,624	25,831,119	26,166,924
Other current assets	646,083	981,723	1,325,980	1,343,218	1,360,680
Total current assets	30,619,158	38,186,505	51,577,239	52,247,743	52,926,964
Net property and equipment	1,292,166	1,963,446	2,651,961	2,686,436	2,721,360
Total assets	31,911,324	40,149,951	54,229,200	54,934,180	55,648,324
Liabilities and equity					
Short term borrowing	-	-	-	-	-
Accounts payable	6,212,335	9,439,644	12,749,812	12,915,559	13,083,462
Other liabilities	-	-	-	-	-
Current liabilities	6,212,335	9,439,644	12,749,812	12,915,559	13,083,462
Capital stock	24,140,438	24,140,438	24,140,438	24,140,438	24,140,438
Retained earnings	1,558,551	6,569,869	17,338,950	17,878,182	18,424,424
Total equity	25,698,989	30,710,307	41,479,388	42,018,620	42,564,863
Total liabilities and equity	31,911,325	40,149,951	54,229,200	54,934,180	55,648,324

Exhibit 5

Projected Cash Flow Statement

	2012 (Forecast)	2013 (Forecast)	2014 (Forecast)	2015 (Forecast)	2016 (Forecast)
Sources of funds					
Net income	1,558,551	5,011,318	11,052,557	11,196,240	11,341,791
Depreciation	258,433	392,689	530,392	537,287	544,272
Operating cashflow	1,816,984	5,404,007	11,582,949	11,733,527	11,886,063
Operating sources:					
Inc. - Accounts payable	6,212,335	3,227,308	3,310,168	165,748	167,902
Inc. - Other liabilities	-	-	-	-	-
Total operating sources	6,212,335	3,227,308	3,310,168	165,748	167,902
Non-operating sources:					
Inc. - short term borrowings	-	-	-	-	-
Sale of equity	24,140,438	-	-	-	-
Total non-operating sources	24,140,438	-	-	-	-
Total sources	32,169,758	8,631,315	14,893,117	11,899,275	12,053,966
Uses of funds					
Operating uses:					
Inc. - Accounts receivable	10,768,048	5,594,001	5,737,625	287,296	291,031
Inc. - Inventory	12,424,671	6,454,616	6,620,337	331,495	335,805
Inc. - Other current assets	646,083	335,640	344,258	17,238	17,462
Total operating uses	23,838,802	12,384,257	12,702,219	636,029	644,297
Non-operating uses:					
Inc. - excess cash	5,488,191	(5,488,191)	-	-	-
Dividends	-	-	283,476	10,657,008	10,795,549
Acquisition of property and equipment	1,550,599	1,063,969	1,218,907	571,763	579,196
Total non-operating uses	7,038,790	(4,424,222)	1,502,383	11,228,771	11,374,745
Total uses	30,877,591	7,960,036	14,204,603	11,864,799	12,019,042
Cash, beginning	-	1,963,446	2,651,961	2,686,436	2,721,360
Inc. (dec.) in cash	1,292,166	671,280	688,515	34,476	34,924
Cash, end	1,292,166	1,963,446	2,651,961	2,686,436	2,721,360

Exhibit 6

Selected Financial Ratios

	2012 (Forecast)	2013 (Forecast)	2014 (Forecast)	2015 (Forecast)	2016 (Forecast)
Return on equity	6.1%	16.3%	26.6%	26.6%	26.6%
Net profit margin	2.4%	5.1%	8.3%	8.3%	8.3%
Sales/assets	2.02	2.45	2.45	2.45	2.45
Assets/equity	1.24	1.31	1.31	1.31	1.31
Return on assets	5%	12%	20%	20%	20%
Current ratio	4.93	4.05	4.05	4.05	4.05
Days payable	45	45	45	45	45
Collection period	60	60	60	60	60
Days inventory	90	90	90	90	90
Debt to equity ratio	0.24	0.31	0.31	0.31	0.31
Revenue growth rate	n/a	52%	35%	1%	1%
Net income growth rate	n/a	222%	121%	1%	1%

A Guide for Assessing the Financial Feasibility of Birthing Facilities

Background

This note offers an approach for assessing the financial feasibility of birthing facilities or lying-in clinics. It is intended for parties such as local government units, private entrepreneurs and businesses who may wish to consider investing in such facilities. The onset of universal coverage under Philippine Health Insurance Corporation (PHIC) provides mechanisms that can effectively insulate health sector projects from payment risk on the poorest sectors of society. This suggests that opportunities exist for these projects to operate on a financially viable basis provided certain conditions are met. Some of these conditions as they apply to birthing facilities are set out in this analysis within a broader outline of an approach towards assessing their overall financial feasibility. The assumptions used in the analysis are not cast in stone, and may need to be adapted to local market conditions.

Methodology

Standard approaches towards analyzing a project's financial feasibility typically begin by reviewing the historical financial and operating performance either of an existing facility or, if a new one is contemplated, existing comparable facilities. The competitive environment under which the project is expected to operate is also examined so that a more forward looking view of the project assumptions can be developed. These preparatory steps provide a basis for developing project assumptions which can be used to build a financial forecast of the project under consideration.

The assumptions laid out in the succeeding section were developed based on the writing team's knowledge of birthing clinics including the pre-requisites for setting them up (e.g., construction costs, area and equipment requirements, etc.) and costs of running them based on the standards set out herein. The assumptions have not been tested by way of real applications, but are nonetheless based on generally accepted principles and successful business practices.

Forecasts were prepared based on the assumptions in the form of profit and loss, balance sheet and cash flow statements typically used by private enterprises. The forecast period is 6 years which includes a 1-year construction period and 5 operating years. Forecasts were run using the same assumptions using 1-, 5- and 10-bed capacities. The simulations incorporated adjustments to the cost structure to account for differences in operating complexity (e.g., no full-time Manager was assumed to be necessary for a 1-bed facility; only 1 delivery bed for both 1- and 5-bed facilities).

To assess feasibility, the internal rate of return for each simulation was computed using cash flows to equity investors.[1] Resulting IRRs were compared with a minimum hurdle rate deemed to be required by investors before proceeding with a project. For purposes of this analysis, a

[1] To derive the project's residual or terminal value, the after-tax profit of the period occurring immediately after the forecast period was discounted at 15%..

15% was used as the hurdle rate. Only those simulations with IRRs that exceed the hurdle rate are deemed financially feasible.

Assumptions

The forecast assumptions based on a 10-bed facility are as follows:

Area required per bed 30 sqm

Construction cost P15,000.00/sqm

Construction period 1 year

Cost per bed (including paraphernalia) P50,000.00/unit

Cost per delivery bed 2 units at P25,000/unit

Airconditioners 5 units at P25,000/unit

Other office furniture P5,500 per sqm

Capital costs 5% of personnel and operating costs

Rent expense 5% of revenues

Occupancy rate 75% in year one of operation, increasing 5% p.a. until 90% is reached

Average length of stay 1.5 days

PHIC reimbursement per birth P9,700.00/birth

Manager's salary[2] 1 manager; P40,000.00/month

Nurses' salaries 2 nurses; P20,000.00/month

Night nurse's salary 1 nurse; P25,000.00/month

Midwives salaries 20 midwives; P15,000.00/month

Night midwives salaries 10 midwives; P20,000.00/month

Housekeepers salaries 2 housekeepers; P15,000.00/month

Night housekeeper's salary 1 housekeeper; P20,000/month

Consulting MD P8,000 per consultation; number of consultations set at 10% of total cases

Other operating costs P1,300.00 per bed per day

[2] Salary costs for all personnel are annualized on 13-month basis.

Ambulance services P3,500 per use; number of emergency cases set at 10% of total cases

Depreciation Straight line, using 30- and 7-year useful life for building and equipment, respectively

Income tax 30%

Inflation 4% p.a.

Operating cash 2% of revenues

Receivables 16% of revenues

Inventory 4% of revenues

Other current assets 1% of revenues

Other non-current assets 1% of revenues

Accounts payable 8% of revenues

Other current liabilities 2% of revenues

The project is assumed to operate under a PHIC universal coverage regime. It will cater largely to the indigent sector whose PHIC coverage is paid for by the appropriate LGU.

The project is assumed to be 100% equity-financed.

Forecast Results

Simulations for the 1- and 5-bed facilities posted negative IRRs and are not feasible options for private enterprises. Equity cash flows for the 1-bed facility were negative throughout the projection period, reflecting the inability of the project of this scale to absorb the costs associated with the level of service implied in the assumptions, e.g., the ability to turn around cases at an average rate of 1.5 days per case. The 5-bed facility fared somewhat better, posting positive cash flows starting on the 4th operating year, but still yielded a negative IRR.

As entities exempt from income tax, LGUs may consider the 5-bed option. A simulation of a 5-bed LGU-owned facility is presented in Tables 1-4. The attraction of this option consists of the positive equity cash flows generated from the fourth year onward (which is depicted as negative "Sale of equity" from year 4 onwards in Table 3). While the IRR is only 0.2% IRR (shown in Table 4), this factor is of secondary importance to LGUs which are primarily cash flow-oriented. It is largely attributable to the P7.2 million upfront capital investment (shown in Table 2 as the peak amount of common equity in Year 3). This situation, however, can be mitigated by development funds and grants which LGUs have access to as governmental entities. An important caveat for LGUs, however, is that they must have the expertise to operate the facility at the standard prescribed under the assumptions, e.g., the ability to turn around cases at 1.5 days per case. These are free-standing and fully-staffed facilities which differ from those that are household-based which can be managed by single midwives. While management of the

facility can be contracted out to qualified private parties, the cost of such an arrangement may negate the LGU's tax exempt status.[3]

The 10-bed facility is the most financially feasible among the three capacity options for private enterprises, posting an IRR of 19.8% (see Table 8). As can be gleaned from Table 5, at this scale of operation, the project generates average[4] annual revenues and profits of P22.4 million and P2.0 million, respectively. The equity requirement peaks during Year 2 at P11.4 million (Table 6). Cash flow to equity investors (shown in Table 7), after operations and capital costs, averages P2.1 million annually[5]. Investors recover their capital investment in 6.9 years.

The 10-bed option is an attractive one for LGUs even for those that lack the expertise to operate the facility at the required standard and so decide to tap the expertise of a private partner. This scenario – where the LGU pays a private partner 5% of project revenues to manage the facility - is depicted in Tables 9-12. The project requires P12.0 million to capitalize (as shown in Table 10). Cash flows to the LGU (shown in Table 11) are positive beginning with the third year of operation, allowing for capital to be recovered in 7.4 years. This option yields an IRR of 17.5% (see Table 12).

Testing the Achievability of Occupancy Assumptions

To achieve its revenue projections, the 10-bed facility must reach its occupancy rate or case volume targets. To test if these are reasonable, the project proponent needs to gather data on occupancy rates that have historically been posted by existing birthing facilities within the catchment area.

A comparison also needs to be made of the number of birthing beds required to serve the catchment area with the available supply, including the new project's capacity. Thus, for a catchment area with a population of 500,000, at a crude birth rate of 25/1,000 based on NSO 2010 projections, and an average length of stay of 1.5 days, 51 beds are required.[6] If the total supply of beds within the catchment area, counting those of the new project, is below or equals 51, then the project proponent can be confident its occupancy or case volume targets. If supply exceeds 51, the new project may have difficulty achieving its revenue targets. The proponent should either reject the project or rationalize it based on strategic considerations, e.g., better service, superior location, etc., that can justify the implicit assumption that the project will take market share away from competitors.[7]

Summary

The onset of PHIC universal coverage provides mechanisms that effectively insulate health sector projects from payment risk on the poorest sectors of society. This suggests that

[3] A simulation, not presented in this note, which sets the private partner's management fee at 5% of revenues, negates the LGUs' tax advantage.
[4] The average is computed based on the first five years of operation.
[5] The average is for years 3-6 (to exclude years 1-2 which are distorted by capital investments).
[6] Number of beds required = ((500,000 x 25/1000) x 1.5 days)/365 days = 51 beds
[7] Michael Porter's "Competitive Strategy" continues to be a widely used framework for developing competitive strategy, and is highly recommended.

opportunities exist for projects catering to this sector to operate on a financially viable basis. This note offers an approach for assessing the financial feasibility of birthing facilities or lying-in clinics for use by LGUs and private enterprises. Based on the assumptions outlined in this note, birthing facilities require a minimum scale in order to be financially feasible. 1-bed facilities, whether privately or government-owned, fail to provide such scale. 5-bed facilities are not viable as privately owned facilities, but may be considered by LGUs since they are exempt from income tax provided they have the expertise to operate the facility at the performance levels implied by this note. 10-bed facilities are viable both for private enterprises and LGUs. These are viable even for LGUs who lack expertise as these can be managed by private enterprises and still yield positive cash flows to the LGU. Care must be taken, however, that a proper review of a catchment area's demand-supply dynamic is undertaken. For markets characterized by excess supply, the project proponent will need to rationalize its entry based on strategic considerations.

Table 1

5-bed Birthing Facility (LGU-owned), Forecasted Income Statement (Php 000)

Year	1	2	3	4	5	6
Total revenues	-	9,205	10,212	11,284	12,426	12,923
Personnel costs:						
Manager	240	541	562	585	608	633
Nurse	120	541	562	585	608	633
Nurse - night shift	-	338	352	366	380	395
Midwife	450	2,028	2,109	2,193	2,281	2,372
Midwife - night shift	-	1,352	1,406	1,462	1,521	1,582
Housekeeping	30	406	422	439	456	474
Housekeeping night shift	-	270	281	292	304	316
MD consultant	-	759	842	931	1,025	1,066
Total personnel costs	840	6,235	6,537	6,853	7,184	7,471
Other operating expenses	-	2,467	2,566	2,669	2,775	2,887
Ambulance service expenses	-	332	368	407	448	466
Rent expense	-	460	511	564	621	646
Depreciation expense	-	320	385	453	524	598
Operating income	(840)	(609)	(155)	338	872	854
Income tax	-	-	-	-	-	-
Net income	(840)	(609)	(155)	338	872	854

Table 2

5-bed Birthing Facility (LGU-owned), Forecasted Balance Sheet (Php 000)

Year	1	2	3	4	5	6
Operating cash	500	184	204	226	249	258
Accounts receivable	-	1,513	1,679	1,855	2,043	2,124
Inventories	-	378	420	464	511	531
Other current assets	-	92	102	113	124	129
Current assets	500	2,168	2,405	2,657	2,926	3,043
Building, net	2,700	2,610	2,520	2,430	2,340	2,250
Equipment and furniture, net	1,175	1,007	839	671	504	336
Capital costs, net	-	373	701	982	1,213	1,391
Other non-current assets	-	184	204	226	249	258
Total assets	4,375	6,342	6,669	6,966	7,232	7,278
Accounts payable	-	757	839	927	1,021	1,062
Other current liabilities	-	184	204	226	249	258
Current liabilities	-	941	1,044	1,153	1,270	1,321
Common equity	5,215	6,850	7,230	7,080	6,356	5,498
Retained earnings	(840)	(1,449)	(1,605)	(1,267)	(395)	460
Total common equity	4,375	5,401	5,626	5,813	5,962	5,958
Total liabilities and equity	4,375	6,342	6,669	6,966	7,232	7,278

Table 3

5-bed Birthing Facility (LGU-owned), Forecasted Cash Flow Statement (Php 000)

Year	1	2	3	4	5	6
Net income	(840)	(609)	(155)	338	872	854
Add: Depreciation	-	320	385	453	524	598
Operating cash flow	(840)	(289)	230	791	1,396	1,452
Inc. - accounts payable	-	757	83	88	94	41
Inc. - other current liabilities	-	184	20	21	23	10
Total operating sources	-	941	103	110	117	51
Sale of equity	5,215	1,635	380	(150)	(723)	(858)
Total sources of funds	4,375	2,287	712	750	790	645
Inc. - accounts receivable	-	1,513	165	176	188	82
Inc. - inventory	-	378	41	44	47	20
Inc. - other current assets	-	92	10	11	11	5
Total operating uses	-	1,984	217	231	246	107
Inc. - building, cost	2,700	-	-	-	-	-
Inc. - equipment and furniture, cost	1,175	-	-	-	-	-
Inc. - capital costs	-	435	455	476	498	518
Inc. - other non-current assets	-	184	20	21	23	10
Total non-operating uses	3,875	619	475	498	521	528
Total uses of funds	3,875	2,603	692	729	767	635
Cash, beginning	-	500	184	204	226	249
Inc. (dec.) in cash	500	(316)	20	21	23	10
Cash, ending	500	184	204	226	249	258

Table 4

5-bed Birthing Facility (LGU-owned), Forecasted Financial Ratios and IRR

Year	1	2	3	4	5	6
Return on equity	-19.2%	-11.3%	-2.8%	5.8%	14.6%	14.3%
Net income/revenues	n/a	-7%	-2%	3%	7%	7%
Revenues/assets	0.0	1.5	1.5	1.6	1.7	1.8
Assets/equity	1.0	1.2	1.2	1.2	1.2	1.2
Current ratio	n/a	2.30	2.30	2.30	2.30	2.30
Total liabilities to equity ratio	0.00	0.17	0.19	0.20	0.21	0.22

IRR = 0.2%

Table 5

10-bed Birthing Facility (Privately-owned), Forecasted Income Statement (Php 000)

Year	1	2	3	4	5	6
Total revenues	-	18,411	20,423	22,568	24,851	25,845
Personnel costs:						
Manager	240	541	562	585	608	633
Nurse	120	541	562	585	608	633
Nurse - night shift	-	338	352	366	380	395
Midwife	900	4,056	4,218	4,387	4,562	4,745
Midwife - night shift	-	2,704	2,812	2,925	3,042	3,163
Housekeeping	30	406	422	439	456	474
Housekeeping night shift	-	270	281	292	304	316
MD consultant	-	1,518	1,684	1,861	2,050	2,132
Total personnel costs	1,290	10,374	10,894	11,439	12,011	12,491
Other operating expenses	-	4,935	5,132	5,337	5,551	5,773
Ambulance service expenses	-	664	737	814	897	933
Rent expense	-	921	1,021	1,128	1,243	1,292
Depreciation expense	-	621	736	856	981	1,112
Operating income	(1,290)	895	1,903	2,992	4,169	4,244
Income tax	-	269	571	898	1,251	1,273
Net income	(1,290)	627	1,332	2,095	2,918	2,971

Table 6

10-bed Birthing Facility (Privately-owned), Forecasted Balance Sheet (Php 000)

Year	1	2	3	4	5	6
Operating cash	500	368	408	451	497	517
Accounts receivable	-	3,026	3,357	3,710	4,085	4,249
Inventories	-	757	839	927	1,021	1,062
Other current assets	-	184	204	226	249	258
Current assets	500	4,335	4,809	5,314	5,852	6,086
Building, net	5,400	5,220	5,040	4,860	4,680	4,500
Equipment and furniture, net	2,325	1,993	1,661	1,329	996	664
Capital costs, net	-	656	1,234	1,729	2,138	2,451
Other non-current assets	-	368	408	451	497	517
Total assets	8,225	12,572	13,152	13,683	14,163	14,219
Accounts payable	-	1,513	1,679	1,855	2,043	2,124
Other current liabilities	-	368	408	451	497	517
Current liabilities	-	1,881	2,087	2,306	2,540	2,641
Common equity	9,515	11,354	10,396	8,613	5,942	2,925
Retained earnings	(1,290)	(663)	669	2,764	5,682	8,653
Total common equity	8,225	10,691	11,065	11,377	11,624	11,577
Total liabilities and equity	8,225	12,572	13,152	13,683	14,163	14,219

Table 7

10-bed Birthing Facility (Privately-owned), Forecasted Cash Flow Statement (Php 000)

Year	1	2	3	4	5	6
Sources of funds:						
Net income	(1,290)	627	1,332	2,095	2,918	2,971
Add: Depreciation	-	621	736	856	981	1,112
Operating cash flow	(1,290)	1,248	2,068	2,951	3,899	4,083
Inc. - accounts payable	-	1,513	165	176	188	82
Inc. - other current liabilities	-	368	40	43	46	20
Total operating sources	-	1,881	206	219	233	102
Sale of equity	9,515	1,839	(958)	(1,783)	(2,671)	(3,017)
Total sources of funds	8,225	4,969	1,316	1,387	1,461	1,167
Uses of funds:						
Inc. - accounts receivable	-	3,026	331	353	375	163
Inc. - inventory	-	757	83	88	94	41
Inc. - other current assets	-	184	20	21	23	10
Total operating uses	-	3,967	434	462	492	214
Inc. - building, cost	5,400	-	-	-	-	-
Inc. - equipment and furniture, cost	2,325	-	-	-	-	-
Inc. - capital costs	-	765	801	839	878	913
Inc. - other non-current assets	-	368	40	43	46	20
Total non-operating uses	7,725	1,134	842	882	924	933
Total uses of funds	7,725	5,101	1,275	1,344	1,416	1,147
Cash, beginning	-	500	368	408	451	497
Inc. (dec.) in cash	500	(132)	40	43	46	20
Cash, ending	500	368	408	451	497	517

Table 8

10-bed Birthing Facility (Privately-owned), Forecasted Financial Ratios and IRR

Year	1	2	3	4	5	6
Return on equity	-16%	6%	12%	18%	25%	26%
Net income/revenues	n/a	3%	7%	9%	12%	11%
Revenues/assets	0.0	1.5	1.6	1.6	1.8	1.8
Assets/equity	1.0	1.2	1.2	1.2	1.2	1.2
Current ratio	n/a	2.30	2.30	2.30	2.30	2.30
Total liabilities to equity ratio	0.00	0.18	0.19	0.20	0.22	0.23

IRR = 19.8%

Table 9

10-bed Birthing Facility (LGU-owned), Forecasted Income Statement (Php 000)

Year	1	2	3	4	5	6
Total revenues	-	18,411	20,423	22,568	24,851	25,845
Personnel costs:						
Manager	240	541	562	585	608	633
Nurse	120	541	562	585	608	633
Nurse - night shift	-	338	352	366	380	395
Midwife	900	4,056	4,218	4,387	4,562	4,745
Midwife - night shift	-	2,704	2,812	2,925	3,042	3,163
Housekeeping	30	406	422	439	456	474
Housekeeping night shift	-	270	281	292	304	316
MD consultant	-	1,518	1,684	1,861	2,050	2,132
Total personnel costs	1,290	10,374	10,894	11,439	12,011	12,491
Other operating expenses	-	4,935	5,132	5,337	5,551	5,773
Ambulance service expenses	-	664	737	814	897	933
Rent expense	-	921	1,021	1,128	1,243	1,292
Management fee	-	921	1,021	1,128	1,243	1,292
Depreciation expense	-	621	736	856	981	1,112
Operating income	(1,290)	(25)	882	1,864	2,926	2,952
Income tax	-	-	-	-	-	-
Net income	(1,290)	(25)	882	1,864	2,926	2,952

Table 10

10-bed Birthing Facility (LGU-owned), Forecasted Balance Sheet (Php 000)

Year	1	2	3	4	5	6
Operating cash	500	368	408	451	497	517
Accounts receivable	-	3,026	3,357	3,710	4,085	4,249
Inventories	-	757	839	927	1,021	1,062
Other current assets	-	184	204	226	249	258
Current assets	500	4,335	4,809	5,314	5,852	6,086
Building, net	5,400	5,220	5,040	4,860	4,680	4,500
Equipment and furniture, net	2,325	1,993	1,661	1,329	996	664
Capital costs, net	-	656	1,234	1,729	2,138	2,451
Other non-current assets	-	368	408	451	497	517
Total assets	8,225	12,572	13,152	13,683	14,163	14,219
Accounts payable	-	1,513	1,679	1,855	2,043	2,124
Other current liabilities	-	368	408	451	497	517
Current liabilities	-	1,881	2,087	2,306	2,540	2,641
Common equity	9,515	12,006	11,498	9,946	7,266	4,268
Retained earnings	(1,290)	(1,315)	(433)	1,431	4,357	7,309
Total common equity	8,225	10,691	11,065	11,377	11,624	11,577
Total liabilities and equity	8,225	12,572	13,152	13,683	14,163	14,219

Table 11

10-bed Birthing Facility (LGU-owned), Forecasted Cash Flow Statement (Php 000)

Year	1	2	3	4	5	6
Sources of funds:						
Net income	(1,290)	(25)	882	1,864	2,926	2,952
Add: Depreciation	-	621	736	856	981	1,112
Operating cash flow	(1,290)	596	1,618	2,720	3,908	4,064
Inc. - accounts payable	-	1,513	165	176	188	82
Inc. - other current liabilities	-	368	40	43	46	20
Total operating sources	-	1,881	206	219	233	102
Sale of equity	9,515	2,491	(508)	(1,552)	(2,679)	(2,998)
Total sources of funds	8,225	4,969	1,316	1,387	1,461	1,167
Uses of funds:						
Inc. - accounts receivable	-	3,026	331	353	375	163
Inc. - inventory	-	757	83	88	94	41
Inc. - other current assets	-	184	20	21	23	10
Total operating uses	-	3,967	434	462	492	214
Inc. - building, cost	5,400	-	-	-	-	-
Inc. - equipment and furniture, cost	2,325	-	-	-	-	-
Inc. - capital costs	-	765	801	839	878	913
Inc. - other non-current assets	-	368	40	43	46	20
Total non-operating uses	7,725	1,134	842	882	924	933
Total uses of funds	7,725	5,101	1,275	1,344	1,416	1,147
Cash, beginning	-	500	368	408	451	497
Inc. (dec.) in cash	500	(132)	40	43	46	20
Cash, ending	500	368	408	451	497	517

Table 12

10-bed Birthing Facility (LGU-owned), Forecasted Financial Ratios and IRR

Year	1	2	3	4	5	6
Return on equity	-16%	0%	8%	16%	25%	25%
Net income/revenues	n/a	0%	4%	8%	12%	11%
Revenues/assets	0.0	1.5	1.6	1.6	1.8	1.8
Assets/equity	1.0	1.2	1.2	1.2	1.2	1.2
Current ratio	n/a	2.30	2.30	2.30	2.30	2.30
Total liabilities to equity ratio	0.00	0.18	0.19	0.20	0.22	0.23

IRR = 17.5%