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August 7, 2017

GLH# 34-17-862
Speaker Benjamin J.F. Cruz

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VIA HAND DELIVERY
Honorable Benjamin J. F. Cruz
Speaker of I Minatrentai Kuattro Na Liheslaturan Guåhan
163 Chalan Santo Papa
Hagåtña, GU 96910

RE: Reporting Requirements for Boards and Commissions

Dear Speaker Cruz:

Hafa Adai! In accordance with Ch. 8 of Title 5 GCA, Section 38, §8113.1, Reporting Requirements for Boards and Commissions, enclosed is a compact disc containing electronic copies of all official materials presented and discussed at the GMHA Board of Trustees meeting held on July 10, 2017 at 6:00 p.m. in the Daniel L. Webb Conference Room.

You may contact Mr. Theo Pangelinan from our Board Office at 647-2104 if you have any questions.

2017 AUG -8 PM 3:18

Regards,

PeterJohn D. Camacho, M.P.H.
Hospital Administrator/CEO

0862

BUSINESS SUSTAINABILITY PLAN (DRAFT 19.9)

Saving Lives and Advancing Healthcare with an Emphasis on Sustainability

Guam Memorial Hospital Authority

$125 million in Capital Improvement Projects

Doc. No. 34 GL-17-0862. *

DRAFT

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Executive Summary

The mission of the Guam Memorial Hospital (GMH) is to provide quality patient care in a safe environment. To support its mission in continuing to provide acute, outpatient, long term, urgent care and emergency care services to the people of Guam, GMH seeks to undertake capital improvement to maintain high standards in the quality of care and expand services.

Because of challenging circumstances facing GMH finances, hospital administrations have only been able to spend $46.6 million in capital improvements since 1991.

While these investments have improved emergency services and hardened its facilities, GMH seeks to greatly enhance and improve its ability to accomplish its mission and improve its financial health through expansion and modernization.

A $125 million investment will help the GMH Administration address its existing capital improvement needs and promote operational efficiencies to facilitate additional revenue generation and:

- Expand services to create Enhanced Service Centers to emphasize hospital-based outpatient services in cardiology, radiology, interventional radiology, oncology and other services; and

- Modernize the current facility, create an adequate outpatient facility, upgrade the current technology systems, construct a parking facility, and upgrade the electrical distribution and roof systems.

The aged facilities at GMH have posed a challenge in addressing the demands of the community. While technology and methods of diagnosis and treatment continue to change, so too does the standard of care. For patients at GMH, the consequence of an outdated hospital environment and equipment is very real.

Consider the fact that the successful treatment for a stroke requires proper detection with radiological equipment within hours of its occurrence. GMH's aging CT scanners may be able to detect the stroke within six hours, whereas magnetic resonance imaging (MRI) equipment which GMH does not possess can detect a stroke in two hours. Consider the fact that up to 80% of diagnostic decisions are informed by lab test results, upgrading the GMH lab's information systems would go a long way in reducing the time it takes to determine the most appropriate treatment course for the patient.

GMH management's ability to plan and adequately staff and equip the hospital has been restricted by annual funding allocations which generally have not met GMH budget requests. A dedicated funding to GMH from a Business Privilege Tax (BPT) increase will enable management to compile multiyear strategic planning goals and targets supported by confirmed funds.

Improving patient care at GMH by making necessary capital investments and being provided a steady and predictable source of operating funding is not only a financial consideration, but a necessity if GMH is to fulfill its mission to provide quality care in a safe environment.

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Background

Hospital Background and Ownership

Guam Memorial Hospital Authority (GMHA) is an autonomous agency of the Government of Guam. GMHA owns and operates the GMH. The hospital provides acute, outpatient, long term, urgent care and emergency care services to all patients who seek medical attention at the hospital. The hospital has 161 licensed acute care beds and 40 beds at its long-term care Skilled Nursing Unit (SNU). GMH was accredited in 2010 by the Joint Commission (JC), an independent body accrediting healthcare providers in the United States and in 2016 completed its tri-annual survey conducted by the Joint Commission Surveyors, maintaining the Joint Commissions, Gold Seal of Approval accreditation.

History of GMH

Guam Memorial Hospital was constructed at Oka Point in 1956, representing a major change in the history of the local government's role in the delivery of medical care to the community. For many years, the U.S. government provided free hospital and health care services to the people of Guam.

The U.S. Naval forces assumed responsibility for the island's medical needs at the turn of the 20th century when the United States took formal possession of Guam. These services continued with the U.S. Navy's delivery of care after World War II, and culminated with its donation of the GMH facility to the Government of Guam's Department of Public Health and Welfare. This 230-bed hospital offered acute, psychiatric and long-term care services.

In 1964, the Guam Memorial Hospital was established as a line agency of the Government of Guam's executive branch. This creation separated the administration of hospital services from community health services provided by the Department of Public Health and Welfare. Thirteen years later in 1977, the Guam Memorial Hospital Authority was created as a public corporation, and has since been operating as a governmental, nonprofit institution serving the people of Guam under the governance of a nine-member Board of Trustees.

In 1974, the local and federal government's plan to replace the rapidly deteriorating Guam Memorial Hospital facility began to take root. The U.S. Department of the Interior purchased and transferred the nearby Medical Center of the Marianas to the Government of Guam, to serve as the new Guam Memorial Hospital. The Medical Center of the Marianas facility was initially constructed by the Catholic Diocese to serve as a private maternal-child health facility. Financial difficulties, however, prompted the Diocese to consider the sale of the facility to meet the government's need to replace its aged facility at Oka Point. Along with the funds for the initial purchase of this facility, federal funds also were provided for the expansion of the facility to allow for the consolidation of all services on a single campus.

Relocated to the new facility by 1978 were all the acute care hospital services and the Skilled Nursing Unit in 1987. In 1996, GMHA completed construction of its Skilled Nursing Facility in Barrigada Heights, with a capacity of 60 long-term care beds.

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In 2010 Guam Memorial Hospital received accreditation by The Joint Commission, a nonprofit organization that accredits hospitals worldwide, and has been accredited since. GMH had lost its accreditation in the early 1980s due to numerous patient safety concerns. The accreditation does not include the off-site SNU, which as a long-term care program falls under separate accreditation guidelines.

GMH Historical Capital Improvements

There has been only $46.6 million in capital improvement projects at GMH in the last 25 years – illustrating a continuous effort to modernize the hospital facility which was built in the 1970s. A list of these projects is provided in **Table 1**.

Table 1 - GMH Historical Capital Improvement Projects

Year Completed	Project	Amount ($1,000's)
1991	Building Extension (Packages III, IV, & V: Laboratory, Administration Wing, Med Records, Outpatient Hemodialysis, etc.)	$ 19,040
1992	Laboratory Renovation and Expansion Project	2,320
1995	Underground Water Storage Tanks (two 200,000 gallon tanks)	880
1999	Liquid Oxygen Wall Hardening Project	52
2002	Rear Courtyard, Solariums, Stairwell & Exterior Corridor Enclosure	4,800
2004	Emergency Generator Shelter Hardening Project	427
2005	Supplies Warehouse, Power Plant, Emergency Gensets Room Walkway Supertyphoon Pongsona Recovery Wall Hardening Mitigation Project	193
2005	3rd & 4th Flr. B-Wing Patient Rms. Supertyphoon Pongsona Recovery Wall Hardening Mitigation Project	780
2006	Cooling Towers Supertyphoon Recovery Wall Hardening/Louvers Mitigation Project	530
2006	Underground Power Line to GMH (a GPA Supertyphoon Pongsona Recovery Project)	564
2007	2nd Flr. Patient Rooms Supertyphoon Pongsona Recovery Wall Hardening Project	429
2008	Main Lobby & Front Stairwell Enclosure Project	1,570
2010	Warehouse Expansion Project	946
2010	Fire Alarm System (FAS) Removal & Replacement Project	1,200
2013	Emergency Department & CCU/ICU Expansion and Pharmacy Upgrade Project	9,310
2014	IT System Conversion	2,700
2016	Vertical Transportation Elevator Modernization Project	425
2016	Hospital Cooling Towers Removal & Replacement Project	245
2016	Hospital Converged VoIP Telephone System Expansion Project	160
Total		**$ 46,571**

As shown on Table 1, the last major project was in 2013 with the design and construction of a new emergency department and upgrades to the Critical Care Unit, Intensive Care Unit, and the pharmacy. The total cost of the project amounted to $9.31 million.

In spite of these improvements, GMH's facilities are older compared to most hospitals. The median average age of plant for U.S. hospitals is 10.9 years, according to American Hospital Association.[1] GMH's average age of plant in FY 2015 was 16.5 years. Average age of plant indicates the financial age of the

[1] http://www.aha.org/research/reports/tw/chartbook/2016/chart4-10.pdf

fixed assets of the hospital. The older the average age, the greater the short term need for capital resources.

Facility Description

Currently, GMH's main facility in Oka, Tamuning is 312,351 square feet (sf) and its long-term Skilled Nursing Unit (SNU) located in Barrigada is 36,928 sf. The Hospital has 161 licensed acute care beds and 40 residential treatment beds at the SNU. Additionally, GMH maintains 97 non-acute care beds. The availability or utilization of acute care beds, for actual admissions, varies from time to time in accordance with the availability of fully trained and licensed staff.

A breakdown of beds by unit is shown on **Table 2**.

Table 2 - Breakdown and Count of GMH Beds

Bed Category	Unit	Count
Licensed Acute Care Beds	Surgical	33
	Pediatrics	22
	Pediatric ICU	3
	Medical Surgical	28
	Medical Surgical Annex	15
	Telemetry	20
	Progressive Care Unit	6
	ICU/CCU	14
	OB Ward	20
	Total	161
Skilled Nursing Unit Beds	Skilled Nursing Unit	40
Other Beds	Inpatient Hemodialysis	9
	Emergency Medical Department	27
	Urgent Care Unit	5
	Operating Room	10
	Labor and Delivery	14
	Nursery	32
	Total	97

For the purpose of comparing to other hospitals, GMH's total bed count is 201 (161 licensed acute care beds and 40 SNU beds). Additional information occupancy and patient statistics is provided in **Appendix A.** These beds are typically what GMH reports to the Centers for Medicare and Medicaid Service for Medicare cost reporting purposes.

The main hospital facility is four stories high. The first floor is comprised of certain administrative and fiscal departments, dietary services, central sterile supply, admissions, medical records, and physical

therapy. The second floor houses the maternity nursing unit, obstetrics, surgery, radiology, laboratory, urgent care and emergency room, the main area for critical and intensive care, and additional business offices. The third floor houses the telemetry nursing unit, medical surgical nursing unit, respiratory care, and the inpatient hemodialysis unit. The pediatric unit and the surgical ward are located on the fourth floor.

Medical Staff

GMH employs a total of 34 physicians, of which 21 are full-time, four are part-time, and nine are employed on a contractual basis with benefits. A breakdown of these positions by specialty is provided on **Table 3**.

Table 3 - Employed GMH Physicians by Position Title

Title	Full-time	Part-time	Other	Total
Hospital Staff Physican - Radiologist	1			1
Hospital Staff Physician - Director of Cardiology			1	1
Hospital Staff Physician - EMS	2			2
Hospital Staff Physician - ER	3			3
Hospital Staff Physician - Hemo Medical Director			1	1
Hospital Staff Physician - Internal Med	1			1
Hospital Staff Physician - Ob/Gyn	2			2
Hospital Staff Physician - Pathologist		1		1
Hospital Staff Physician - Pediatrics	2			2
Hospital Staff Physician - Radiologist			2	2
Hospitalist - Cardiologist Heart Team			1	1
Hospitalist - General Surgery			1	1
Hospitalist - Internal Medicine	4		1	5
Hospitalist - Neonatologist		1		1
Hospitalist General Surgeon		1		1
Hospitalist-General Surgery			1	1
Internal Medicine	1			1
Physician - Director Urgent Care	1			1
Physician	1	1		2
Physician - Internal Medicine			1	1
Physician - Medical Director/SNU	1			1
Physician - Ob/Gyn	1			1
Physician - Pediatrics	1			1
Grand Total	21	4	9	34

GMH budgeted for and is actively recruiting for additional physician positions. In many cases, GMH has also engaged providers on a contractual basis. These include physicians in anesthesiology, cardiology, interventional radiology, urgent care, neurology, pulmonology, infectious disease, and intensive care. **Appendix B** provides a listing of contracts by specialty.

Credentialing

GMH grants privileges to 175 physicians and mid-level providers to practice at its facility. A breakdown of these doctors and others with their level of credentialing with GMH is provided in **Appendix C**
GMH's medical staff by-laws include but are not limited to several categories:

- The Active Staff consist of physicians, and podiatrists who have been advanced from the Provisional Staff and who attend, admit or are directly involved in the "hands on" care of at least four patients per year at the Hospital.

- The Provisional Staff consist of physicians and podiatrists in the initial period of appointment who will be considered for advancement to the requested and/or appropriate staff category and who meet the qualifications specified for members of the appropriate Staff Category.

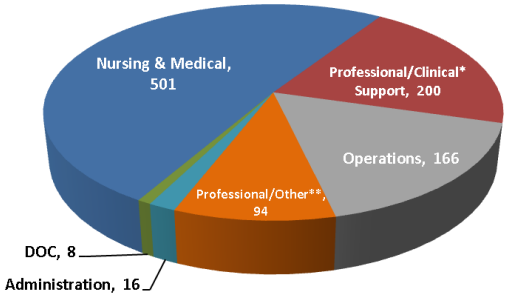
- Courtesy Staff are those who have been advanced from the Provisional Staff and who attend, admit or are involved in the treatment of at least four, but not more than 24 non-house patients per year in the Hospital.

- The Active Associate Staff are those who maintain active staff membership appointment in another hospital within the United States, and completed the membership requirements of GMH and attend, admit or are involved in the treatment of at least four patients per medical staff year at the hospital or as determined by the department.

Staffing Level

GMH's overall staffing level by division based on its FY 2016 financial audit is shown on **Figure 1**.

Figure 1 - Full-time Equivalents by Function in FY 2016



* Professional/Clinical support includes ancillary services such as lab, pharmacy, radiology, rehab, and respiratory care.
** Professional/Other includes patient registration, coding, billing, and other fiscal services.

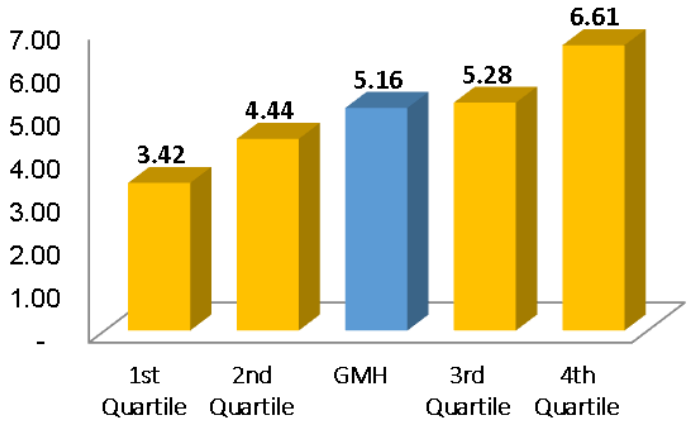
GMH's full-time equivalents (FTEs) fall under several functional groups, the largest of which are Nursing & Medical, Professional/Clinical Support, Operations, and Professional/Other. The Operations group includes various non-clinical functions such as human resources, materials management, housekeeping, security, facilities maintenance, and guest relations.

With a total of 985 full-time equivalents (FTEs) in FY 2016, this infers GMH's ratio of FTEs to adjusted occupied beds (AOB) is 5.16.[2] This places GMH between the 2nd and 3rd quartiles of state and local government owned hospital peer quartiles (4.44 and 5.28, respectively) of the 2010 Healthcare

[2] The FTEs to AOB ratio is found by calculating adjusted patient days (dividing total gross revenues by inpatient revenue and multiplying by inpatient days); calculating AOB (dividing adjusted patient days by 365 days); and dividing total FTEs by AOB.

Management Partners (HMP) Metrics Report. [3] HMP is a hospital services management firm that analyzed six years of publicly available Medicare cost report data. HMP's sample includes 3,000 acute care hospitals.

Figure 2 - Full-time Equivalents to Adj. Occupied Beds



Note: 1st quartile is considered "high performing" according to Healthcare Management Partners Metric's Report.

GMH's FTEs to adjusted occupied beds suggests GMH falls in the middle or in the average of HMP's peer group for state and local government hospitals as illustrated on **Figure 2**. This ratio fluctuates with GMH's occupancy.

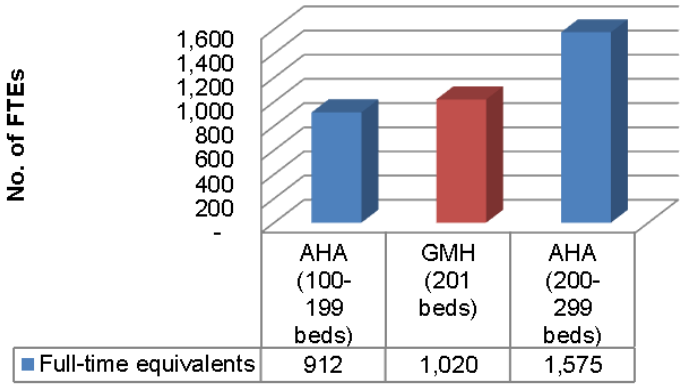
Further, the American Hospital Association (AHA) provides statistical data which include FTEs, employees, and total beds for U.S. Registered Community Hospitals.[4] This information is grouped by hospital size based on bed capacity. Using this information, averages can be calculated for each of AHA's sample groups and then be used for comparison to GMH.

In **Figure 3**, GMH's FY 2015 FTE count is compared to AHA's 2014 grouping for hospitals sized with 100-199 beds is based on a sample size of 1,013 hospitals with the later grouping sized 200-299 beds based on a sample 536 hospital. Both of these groups were selected for comparison to GMH's 201 beds.

[3] http://www.hcmpllc.com/images/uploads/Summary.pdf

[4] Community hospitals are defined as all nonfederal, short-term general, and other special hospitals that meet AHA's criteria for registration as a hospital facility. Registered hospitals include AHA member hospitals as well as nonmember hospitals.

Figure 3 - 2014 AHA vs. GMH FY 2015 FTE's



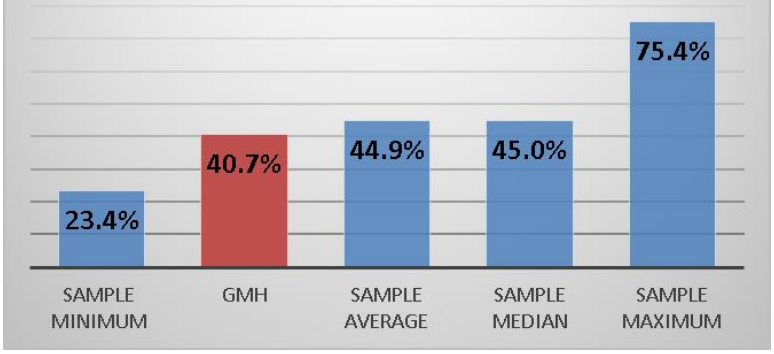
Source: American Hospital Association Statistics Book

Overhead and Administrative Expenses

Using CMS 2015 cost report data, GMH did an analysis of 399 rural hospitals to compare how much GMH spends on overhead or non-medically related expenses. This sample consists of rural hospitals with 100 to 299 facility beds.

Under Medicare cost reporting, overhead expenses are represented by general service cost centers. Cost center categories include capital related costs, employee benefits, administrative and general, maintenance and repair, operation of plant, housekeeping, and cafeteria. Illustrated on **Figure 4**, the sample's average expense for overhead as a percentage of total expenses is 44.9% and ranging from a minimum of 23.4% to a maximum of 75.4%. GMH's overhead is 40.7% based on its 2015 cost report.

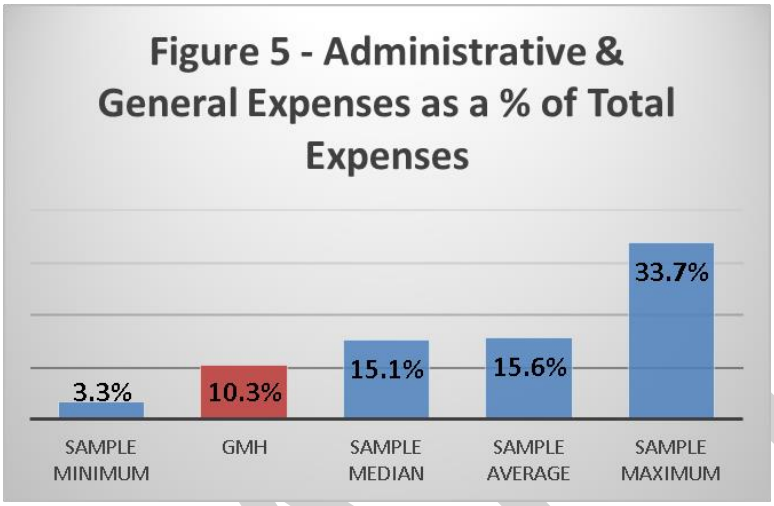
Figure 4 - Overhead as a % of Total Expenses



Source: 2015 CMS Cost Report Data

Using the same sample of data, Administrative and General (A&G) costs were also analyzed for

comparison. A&G includes a wide variety of provider administrative costs such as but not limited to cost of executive staff, legal and accounting services, facility administrative services (not already included in other general services cost centers), human resources, et cetera. As shown on **Figure 5**, GMH's A&G expenses represent 10.3% of total expenses, whereas the sample's percentages range from 3.3% to 33.7% with an average of 15.6% and a median of 15.1%.



Source: 2015 CMS Cost Report Data

Existing Services at GMH

GMH provides comprehensive, quality inpatient care and outpatient services for adults and children. Services include acute adult and pediatric medical care; urgent care and 24-hour emergency services; surgical services; obstetrics, labor/delivery and nursery; critical and intensive care (neonatal, pediatric and adult); skilled nursing care; laboratory; inpatient pharmacy services; telemetry and progressive care; radiology, angiography, and CT scan diagnostic services; respiratory care; catheterization laboratory; inpatient renal dialysis; cardiac rehabilitation, physical, occupational and recreational therapy, speech pathology; dietetic services; patient education and medical library; social services; and pastoral care services.

- Emergency Department: Staffed 24 hours a day by qualified physicians and nursing staff for those who come to GMH seeking emergency medical care.

- Intensive/Critical Care Unit (ICU-CCU): Provides continuous monitoring and comprehensive nursing care for heart attack patients, critical medical and surgical patients, and patients in need of ventilator support. A Neonatal ICU and Pediatric ICU also provide comprehensive care for newborns and children. GMH is currently the only hospital on Guam to consistently staff and operate ICU units for pediatrics and newborns.

- Skilled Nursing Unit: Located in Barrigada Heights, provides patients with long-term rehabilitative care. The SNU is Medicare certified for 40 beds. The Unit is staffed with a Medical Director, Unit Coordinator, Social Services, Dietary, Rehabilitation, Facilities, Environmental and Security Staff.

- Radiology: Performs standard X-rays, angiography, fluoroscopy, biopsies, ultrasounds, and interventional procedures. CAT scans are performed with a 64-slice CT machine. All images may be digitally transmitted to any major medical institution anywhere in the world for consultation with medical specialists.[5]

- Special Services: Provides stress EKGs, echocardiograms, neurology, cardiology and orthopedic consultations.

- Guest Relations: Patient advocates are available at GMH and meet with patients for a variety of reasons. They evaluate satisfaction levels with hospital services and inform patients of their rights. Hospital policies and services are also explained to patients as well as their right to make end-of-life care decisions through the use of an Advance Directive (Living Will). As patient advocates, the staff also investigates grievances and complaints.

- Rehabilitation Services:

    - Speech Pathology to include:
        - Inpatient/Outpatient adult and pediatric modified barium swallow studies
        - Acute/inpatient bedside speech/swallow evaluations
        - Outpatient speech/swallow evaluations/therapy
        - Outpatient voice therapy
        - Outpatient language therapy.

    - Cardiac Rehabilitation to include:
        - EKG monitoring
        - Portable heart rate monitoring
        - Blood pressure and pulse oximetry monitoring
        - Exercise monitoring with treadmills, stationary cycles, recumbent stepper, arm ergometers, and weights/total gym
        - Individualized cardiovascular strength-building program with risk factor modification education
        - Medication management assistance
        - Nutrition and lifestyle management

    - Physical Therapy to include:
        - Wound management
        - Hydrotherapy
        - Whirlpool
        - Gait / ambulation training
        - Stair training
        - Transfer training
        - Modalities—electrical, thermal, therapeutic ultrasound, cryotherapy
        - Strengthening, Exercise, Range of motion, Stretching
        - Balance / gross motor training

[5] GMH's radiology department currently operates without magnetic resonance imaging (MRI), mammography, and nuclear medicine. The department shares a single angio-suite with the cardiology and special services department.

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- Stroke rehabilitation
- Orthopedic rehabilitation

- Occupational Therapy to include:
  - Functional Evaluation
  - Wheelchair Evaluation for adult and pediatric populations
  - Functional Capacity Evaluation
  - Orthotic fabrication
  - Serial casting
  - Work conditioning
  - Driving screen
  - Assistive device prescription
  - Adaptive device training
  - Neurorehabilitation

Health Services for Inmates & Detainees

In November 2015, GMH entered into a consolidated agreement with the Department of Corrections (DOC) to provide outpatient medical services to detainees and inmates. The agreement details the provision of medical services by GMH to the inmates and detainees including pharmaceutical services, nursing services, physician services, and medical services. Inpatient services are not included in this agreement and are billed and paid by DOC as inmates or detainees are hospitalized. DOC is required to remit to GMH payments for clinical services in agreed upon amounts subject to appropriation by the Legislature.

The purpose of the agreement is to address the health care needs of DOC inmate and detainee populations consistent with community standards of care and the requirements set forth under a court order related to a federal civil case. The case concerns the Government's efforts to comply with a 1991 settlement agreement in a 20-year-old civil rights lawsuit. If the government had failed to comply, DOC would have potentially been placed under a costly receivership. In April, the federal court instead dismissed the case as the requirements of the order were met.

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Challenges for GMH

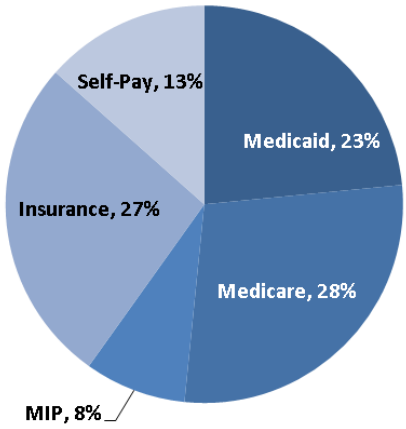
A fundamental goal for hospitals is to maximize revenues and minimize cost. According to James Langabeer, a professor of health care management at the University of Texas who authored *Health Care Operations Management: A Systems Perspective*, decisions arise from the contracting perspective with third-party payers. He along with others in the industry refer to this process as revenue cycle management –***the process of managing claims processing, setting payment practices, and generating revenue***. There are several aspects of this process that are unique and challenging to a public hospital on Guam and are highlighted in the following sections.

Challenging Payer Mix and Reimbursement Rates

Federal law, namely the Emergency Medical Treatment and Labor Act (EMTALA), requires anyone coming to an emergency room to be stabilized and treated, regardless of their insurance status or ability to pay. Compliance with EMTALA is a condition for being a provider for Medicare services. Unique to GMH is adherence not only with EMTALA but also with Guam's Organic Act which mandates the Governor to establish, maintain and operate public health services that specifically include hospitals. Accordingly, as a matter of practice and policy, GMH hospital services are made available to anyone who needs them regardless of their ability to pay even after admission for inpatient services.

With such a responsibility, GMH management focuses on its payer mix and respective payer reimbursement or collection rates. Particular focus is given to Medicaid, Medicare, and Medically Indigent Program (MIP) (also known as the 3 M's) representing $93.6 million or 60% of GMH's $156.3 million in gross patient billings in FY 2016. **Figure 6** breaks down this amount by payer.

Figure 6 - GMH Payer Mix

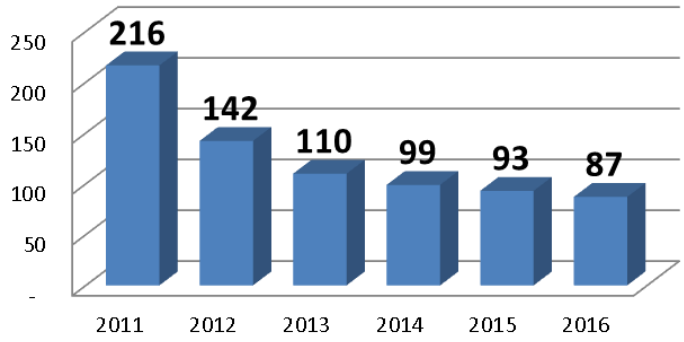


For FY 2016, collection rates by payer type are indicated on **Table 4**.

Table 4 - Percentage of Collections over Billings (FY 2016)	
Medicaid	66%
Medicare	36%
MIP	47%
Other	68%
Self-pay	43%

Cash flows from patient receivables have improved significantly over the last few years with a consequential reduction in Days in Accounts Receivable. The Days in Accounts Receivable Ratio measures the average time that it takes for a hospital to collect its receivables. The shorter the average collection period, the lower the dollar amount of receivables.

Figure 7 - Days in Accounts Receivable



Historically, GMH experienced extraordinarily high days in accounts receivable, but as evidenced in **Figure 7**, days in receivables have improved from 216 days in FY 2011 to 87 days in FY 2016. Management's goal is to bring GMH closer to 40 to 50 days which is in line with the industry norm.

GMH has implemented several revenue and collection initiatives over the last two years. These include:

- Updating fee schedules on a regular basis;
- Use of software to ensure fees equal or exceed Medicare rates;
- Compiling and sending collection reports to major third-party insurers;
- In-depth denial reviews and active rebilling;
- Online payment service;
- Timely coding and billing; and a
- Vigorous tax garnishment program.

Further improvement to the revenue and collection processes can be expected from the continuous enhancements which are being made to GMH clinical and accounting systems. Included in this plan is a proposal to invest in improved information technology, hardware, and software which will transfer information across all platforms. When implemented, these systems will facilitate further revenue and collection improvements.

Outdated Costing Data for Medicare Reimbursements

Unlike most hospitals in the U.S., GMH is not reimbursed by Medicare under what is known as the prospective payment system (PPS) –created in 1982 with the passing of the Tax Equity and Fiscal Responsibility Act (TEFRA) by Congress. This system is designed to pay a single flat rate per type of discharge, as determined by classification of regularly updated diagnosis-related group (DRG). Instead, certain hospitals including those on Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands and certain specialized hospitals in the U.S. mainland are exempt from the PPS system and continue to be reimbursed in a manner that was in place before 1982. In Medicare parlance, these hospitals are often referred to as "TEFRA hospitals." These facilities were exempted from PPS because it was believed that both the types of care provided and the settings for this care are unsuited to a rate system based on national averages which are used to develop DRGs.[6]

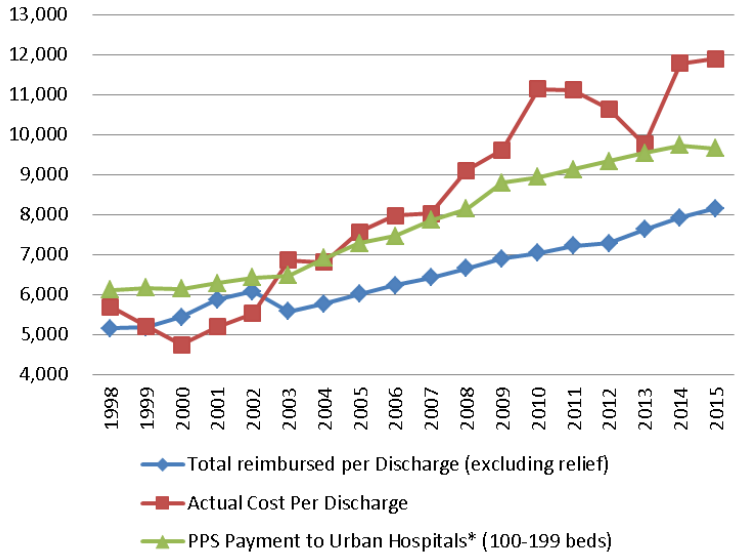
TEFRA hospitals are reimbursed based on the cost of treating Medicare patients as determined by the Medicare Care Cost Report with an aggregate per discharge limit based on facilities cost of care in 1982. This limit is updated each year by a hospital market basket index determined by Medicare to account for inflation. In 1997, Congress allowed a one-time rebasing-rate for TEFRA hospitals. For this, GMH used a 1992-1994 period as the base year because of the unavailability of records due to a computer system overhaul in 1995-1996. As a result, the standard reimbursement rates for GMH are based on 1992-1994 costs and the level of Medicare reimbursement does not reflect current costs. Further, Medicare's methodology for reimbursement is somewhat mirrored by Medicaid and the local Medically Indigent Program (MIP). Thus, the reimbursements for patients with coverage under those programs are similarly impacted. The 3 M's account for almost 60% of GMH's total patient revenues.

The TEFRA method for reimbursement includes provisions that limit the reimbursement level to, among other things, a small inflationary factor called a Market Basket Index and data from prior year cost reports going back many years. Had the proper data been submitted, the limits imposed by CMS would have been adjusted appropriately so that the actual costs of Medicare services GMH provides are more adequately reimbursed. Instead, the base rate of reimbursement does not adequately cover such costs and, on a per discharge basis, GMH has consistently been under-reimbursed since 2002 as shown in **Figure 8**.

[6] Impact analysis of the TEFRA system for reimbursement of PPS-excluded hospitals: final report by Harrow, Brooke; United States. Health Care Financing Administration; Center for Health Economics Research (Waltham, Mass.) 1990. Source: https://archive.org/stream/impactanalysisof00harr/impactanalysisof00harr_djvu.txt

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Figure 8 - Comparison of Costs to Target Rate since Base Year



GMH management continues to pursue a TEFRA rebasing and adjustment to close the gap between actual cost per discharge and the total amount per discharge actually reimbursed. An audit by CMS on the FY 2013 Medicare Cost Report completed in June 2015 validated the actual costs per discharge. GMH demonstrated its costs have increased beyond the inflationary index rates due to the substantial changes in the nature of services and the population GMH has served since the base year. Accordingly, GMH argues that its new cost baseline should be the costs incurred as submitted in its FY 2014 request. While success has been made in obtaining annual adjustment approvals by CMS, GMH remains hopeful a permanent rebasing will eventually be achieved. This will minimize the costly annual administrative expenditures required in pursuing the annual one-time TEFRA adjustments.

Furthermore, the expansion of new services may result in the creation of new cost centers. These new cost centers will be reimbursed at a higher level than GMH's existing cost centers because their costs will be based on the year they are created.

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Low Ratio of Outpatient to Inpatient Revenues

Unlike most hospitals of similar size, outpatient services account for a relatively small percentage of GMH's total patient revenues. Statistics by the AHA show that in its 2014 sample of community hospitals with 200 to 299 beds, 46% of total gross patient revenues of those hospitals resulted from outpatient services. Additionally, AHA provides a sample of hospitals with 100 to 199 beds with a percentage of 51%. In contrast to GMH, outpatient revenues as a percentage of gross patient revenues are 23% in FY 2015 and 24% in FY 2014. Interestingly, the norm for GMH today was the norm for the hospital industry in the early 90's and this can partly be attributed to the lack of investment to expand services. AHA's data shows a clear trend in which outpatient service revenue steadily grew from 28% in 1994 to 46% in 2014.[7]

There are obvious financial considerations concerning GMH's low level of delivery for outpatient services. Particularly under Medicare, GMH is reimbursed at a higher rate for outpatient services than for inpatient services. In the last three years, GMH's payments received as a percentage of total charges was about 50.2% for outpatient services versus 43.5% in inpatient revenue.[8] This payment to charge ratio for non-emergency outpatient services is even higher: 55%, but gross charges for this particular line of service represents only 5% of GMH's gross billings. GMH's goal is to maximize its service offerings under this line of service to benefit from its higher reimbursement rate.

Based on historical data, GMH has developed its own revenue assumptions concerning inpatient versus non-emergent hospital-based outpatient revenue. They are explained in a later section. The effects can be substantial as illustrated in a hypothetical scenario of $1 million in gross patient revenue presented on **Table 5**.

Table 5 - $1 million Scenario Applying Revenue Assumptions

	Outpatient	Inpatient
Gross patient Revenue	$ 1,000,000	$ 1,000,000
Revenue Mix		
Medicare, Medicaid, & MIP	582,858	612,576
Commercial Insurance	351,522	270,872
Self Pay	65,620	116,552
Total gross patient revenue	$ 1,000,000	$ 1,000,000
Allowances		
Medicare, Medicaid, & MIP	(254,280)	(346,618)
Commercial Insurance	(90,910)	(71,350)
Self Pay	(43,035)	(99,738)
Total allowances	$ (388,224)	$ (517,706)
Net patient revenue	$ 611,776	$ 482,294

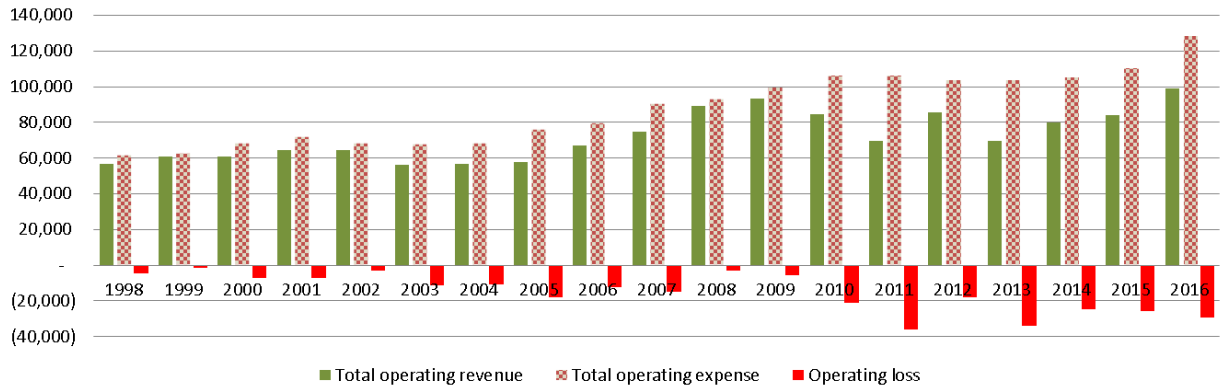
[7] http://www.aha.org/research/reports/tw/chartbook/2016/table4-2.pdf
[8] Information based on raw unaudited billing data.

GMH's plans to expand hospital-based outpatient services cannot be achieved in any significant way without the proposed investments because it is constrained by not having the requisite equipment, spacing, and facility requirements to offer such services.

As a consequence of GMH's payer mix, under-reimbursement for services rendered to 3M patients, an unfavorable ratio of inpatient to outpatient service revenue, and other factors, operational shortfalls have been a perennial challenge.

Figure 9 illustrates GMH's operating expenses having exceeded operating revenues from as early as 1998, necessitating government subsidies on a continuous annual basis. A substantial increase in this shortfall can be seen in FY 2010 when accreditation from the Joint Commission was achieved, reflecting the added costs of meeting and maintaining accreditation standards.

Figure 9 - GMH Operating Revenues vs. Expenses (in 1,000's)



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Guam Health Care & Social Assistance Sector

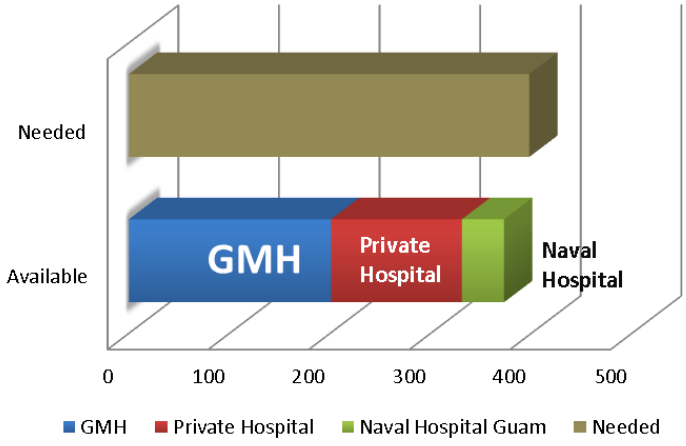
In 2012, there were over $365 million in receipts on Guam in these sectors.[9] GMH's gross patient billings, during that period, was $148 million accounting for approximately 41% of total receipts.[10] The Guam U.S. Naval Hospital with 42 beds provides services only to military personnel and their dependents. Guam's newest hospital, a private hospital in Dededo, opened its doors in the summer of 2015. In addition to Guam's three hospitals, the island's health sector includes 46 clinics which provide diagnostic and ambulatory services on an outpatient basis.

Island-wide Hospital Bed Capacity

The bed-to-population ratio serves as a basic measure of acute service availability. The expansion of facilities and the investment needed is not addressed in this first phase of investment but will be a priority in the second phase of capital investment which has been included in the pro forma financials.

In the United States, the ratio of inpatient beds to every 1,000 persons is 2.5 in 2014.[11] Using this ratio as a benchmark for Guam would mean that with Guam's population of 159,358 in 2010[12], should have 398 beds. The current breakdown of beds by hospital is provided in **Figure 10**.

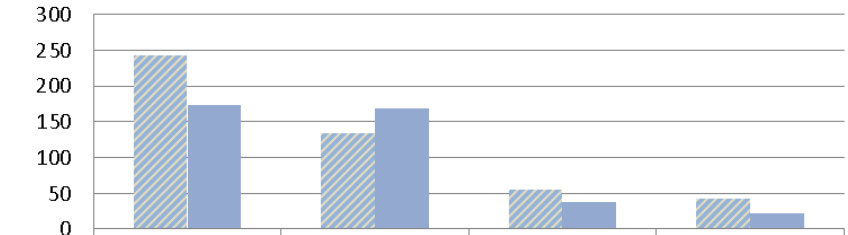
Figure 10 - Beds Needed vs. Available on Guam



Using the U.S. bed-to-population ratio benchmark requirement of 398 beds for Guam, it is apparent Guam is still short 25 beds, even after the opening of a new private hospital in 2015. Additional beds may be needed in the long-term. Guam's mortality rates are high compared to the nation. To illustrate this point, the death rates per 100,000 persons for four certain leading causes of death on Guam are indicated in **Figure 11**.

[9] 2012 Economic Census of the Islands – U.S. Census Bureau
[10] GMH's average gross billing for FY2011 and FY2012 was used for comparison to calendar year census figure.
[11] 2014 figure from American Hospital Association (AHA) – Hospital Statistics, 2016 Edition
[12] 2014 Guam Statistical Handbook

Figure 11 - Guam vs. U.S.: Age-adjusted Deaths per 100,000



	Diseases of the heart	Malignant neoplasms	Cerebrovascular disease	Diabetes mellitus
Guam	243.1	134.4	55	42.6
U.S.	173.7	169	37.9	21.6

Source: Centers for Disease Control, National Vital Statistics Reports - Deaths: Final Data for 2011; Figures in age-adjusted deaths per 100,000.

Guam is projecting a dramatic increase in population with an impending military buildup to support the relocation to Guam of approximately 5,000 U.S Marines and their 1,300 family members from Okinawa, Japan. Based on estimates provided by the Department of Defense's Supplementary Environmental Impact Statement issued in July 2015, Guam's population by 2020 could reach approximately 200,000 – indicating a need for 500 beds.

In addition to pressures mentioned above concerning the community's demands, GMH management recognizes the private hospital is not subject to the same constraints that GMH must adhere to with respect to a patient's ability to pay. **Thus, there is additional burden on GMH to address demands particularly in those cases which involve diversion post emergency in which the patient would be brought to the private hospital for emergencies and then diverted to GMH upon stabilization.** Further, there have been numerous occasions when a service unit within the private hospital's facility is closed due to staffing constraints or other challenges. GMH is then called upon and expected to cover the gap. There is a community expectation of a standard level and continuity of care that must be provided at GMH.

There is a community expectation of a standard level and continuity of care that must be provided at GMH.

In later sections of this plan GMH describes its program to adopt a more hospital-based outpatient approach to address patient care. GMH management believes this approach may help to mitigate the need for acute inpatient services dependent on bed capacity. This is based on historical experience of patients not obtaining follow-up care after discharge and waiting until their condition becomes emergent when they present themselves back to the hospital. Having a hospital-based outpatient service to treat this population base will decrease the demand for a costlier inpatient service.

Island-wide Payer System

A large portion of Guam's population has some type of insurance coverage based on figures by the U.S. Census Bureau. On Guam, healthcare coverage can be through an assortment of programs through the government and private companies. Based on **Table 6**, it can be implied that almost 80% of adults and 85% of persons under 18 have some form of coverage.

Table 6 - Health Insurance Coverage Status For The Civilian (2010)	
Noninstitutionalized Population	
Total:	153,625
With health insurance coverage:	121,160
With private health insurance coverage only	75,435
With public health insurance coverage only	34,405
With both private and public health insurance coverage	11,320
No health insurance coverage	32,465
Noninstitutionalized Population Under 18 Years	
Total:	52,250
With health insurance coverage	44,631
No health insurance coverage	7,619

Source: U.S. Census Bureau

The availability of health coverage to Guam's population is one of the reasons why the investors of the new private hospital took an interest in building a private hospital on Guam.[13]

Government Programs

An assortment of health coverage programs are available through the local and federal government. They include:

- Medicare: A U.S. federally funded insurance program and administered by the federal government for people over the age of 65, people under the age of 65 with certain disabilities, and people of all ages with end-stage renal disease.

- Medicaid: Medicaid is a joint federal and state program that helps pay medical costs for some people with limited income and resources. Medicaid also offers benefits not normally covered by Medicare, like nursing home care and personal care services. Guam's Medicaid is administered by Guam Department of Public Health and Social Services (DPHSS). Eligibility for this program is generally for individuals under the age of 65 who meet certain income thresholds based on the federal poverty level (FPL).

- Medically Indigent Program (MIP): MIP was established by and is funded by the Government of Guam to assist with the health care cost for individuals who meet the income, resource, and residency requirements. MIP is administered through the DPHSS.

[13] Presentation: Doing Well, Doing Good, 15 March 2012, Guam Regional Medical City, http://slideplayer.com/slide/737192/

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- Tricare (previously known as Champus): Is federally funded health care program of the U.S. Department of Defense for military personnel, retirees, and their dependents. Like Medicare, the DOD contracts private parties to administer the Tricare programs for its beneficiaries.

Health Maintenance Organizations

There are four major health insurance carriers on Guam: namely, NetCare, Staywell, SelectCare, and TakeCare. Shown on **Table 7** is the total number of transactions paid by each HMO to GMH from 2009 to 2014. An HMO collects insurance premiums from its subscribers on a regular basis in return for providing coverage for their subscribers.

Table 7 - Count of Insurance Transactions at GMH

Payer	2014	2013	2012	2011	2010	2009
NetCare	4,136	3,740	7,139	6,167	3,892	4,514
StayWell	19,739	7,782	10,390	6,510	3,968	4,832
SelectCare	40,836	33,509	38,722	21,922	23,815	20,063
TakeCare (FHP)	21,780	11,704	14,956	9,229	7,534	6,619
Total	86,491	56,735	71,207	43,828	39,209	36,028

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The Project

Description and Costs

The total cost of capital improvement projects is estimated at $125 million, itemized in **Table 8** below:

Table 8 - Breakdown of Project Items and Costs	
Item	**Amount (in US$)**
Z-Wing Abatement, Demolition and A/E Design and Construction Plus Other Key Renovations (2-3 Flrs, to include Radiology, Laboratory, Special Services, OR, Telemetry/PCU Unit move to 2nd Flr at & across from ICU, Neurology, Stroke Center, Hyperbaric Chamber/Wound Care, MD Offices, Fiscal Services, Pro Support Services, Operations, Utilities Center, Infill of Middle Courtyard 1-4 Flrs, Construction of 3rd Flr Front Courtyard, etc.).	45,000,000
Fixtures, Furnishings & Equipment (FF&E) Package for the above Z-Wing Replacement Project (to include multiple renovations/upgrades of other hospital areas (both clinical and administrative).	37,000,000
Fully Integrated Organization-wide Information Technology System	20,000,000
Parking Structure Development Project (A/E Design & Construction).	12,000,000
Hospital Electrical Panel Upgrade Project to include perimeter road from back of Hospital thru Western Side of Hospital (Construction Only); and Hospital Utilities Upgrades to include removal and replacement of Boiler No. 2, LOX Tanks No. 1 & No. 2, Fuel Line, Chemical Treatment Feeder System, Water Softener, and Booster Pump System.	6,000,000
Hospital Roof Systems Upgrade, Rain Water Runoffs Upgrade, Additional Solar Panels Installation & Commissioning & Facility Paint Project	5,000,000
Total Project Cost	**125,000,000**

Funding

GMH envisions funding to be provided through the issuance of a municipal bond by the Government of Guam secured with a pledge of additional revenues from a 0.75 percentage points increase in the Business Privilege Tax (BPT).

Under this scenario, the BPT would increase from 4% to 4.75% on gross receipts. This increase will be a dedicated funding source for GMH. The Bureau of Budget Management and Research (BBMR) estimates $46 million in new revenues per year to the Government of Guam. Of this amount, $7.2 million will be allocated for the debt service of a 30-year $125 million issuance assuming 3.94% all-in true interest cost, which is based in current market conditions. The remaining $39 million from the tax increase will be allocated to address GMH's annual shortfalls.

The effect of this transaction on GMH's financials will be in the form of a contribution from the government to the hospital in the hospital's statement of changes in net position. Further, the underlying construction paid through bond proceeds will reflect an increase in assets in GMH's balance sheet. The financing of the bond will not be reflected on GMH's financials.

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Alternative sources of funding may be achieved through public-private partnerships in which a private participant or developer finances the capital improvements. An effort which typically requires legislative approval, GMH may engage such party in a long-term contractual arrangement in which the participant is compensated through lease rentals of the new facility or revenue sharing. The manner in which these contractual arrangements are entered will be governed by Guam law and the Government of Guam's procurement rules and regulations –likely under a Request for Proposal-type of procurement. If such approach is undertaken, GMH is committed to assessing proposals based on their projected life cycle costs and benefits.

Estimated Timetable of Activities

Z-wing construction projects are enumerated in three phases on **Table 9**.

Table 9 - Z-Wing Project Phases	
Phase I	Z-Wing Abatement/Demolition Process
Phase II	A/E Design Services
Phase III & IV	Construction Services & FF&E Upgrades

GMH estimates it will take 36 months (1,080 Calendar Days or three Years) to complete the Z-Wing Abatement/Demolition (Phase I), A/E Design Services (Phase II), Construction Services (Phase (III) and the FF&E Package Implementation (Phase IV) of the Project. **Table 10** provides an estimated project timeline:

Table 10 - Z-wing Estimated Time for Completion	
Activity	**No. of Calendar Days**
RFP Phase for Abatement/Demolition Services	60
Contract Award Phase for Abatement/Demolition Services	60
Abatement/Demolition Services (Phase I)	120
RFP Phase for A/E Design Services	60
Contract Award Phase for A/E Design Services	60
A/E Design Services (Phase II)	240
Formal Bid Phase for Construction Services	60
Contract Award Phase for Construction Services	60
Construction Services & FF&E Period (Phases III & IV)	360
Grand Total	1,080

Source: GMHA FY16 DOI CIP Grant Project

In practice, the timeline may be further developed and adjusted by those commissioned to conduct the architectural and engineering design. Further, some items in the table above may occur at the same time. The timeframe is presented in this manner in order to provide a conservative estimate.
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New Z-wing Facility and Expanded Services

The Z-Wing Replacement Project seeks to rebuild a facility that is over 50 years old and currently represents a life safety risk for all who work at or visit the hospital. The Z-wing by itself represents the single oldest component of the hospital, whereas capital improvements in the last 25 years occurred elsewhere in the hospital. The successful completion of this project will carry GMH well into the future relative to providing quality healthcare in a safe environment. More importantly, it will allow GMH to

have the requisite equipment, spacing, and facility requirements in order to expand hospital-based outpatient services.

The Z-Wing Replacement Project shall consist of approximately 84,000 sq. ft. as shown on **Table 11**.

Table 11 - New Z-wing Square Footage by Area	
New Z-Wing (mostly 4 stories, partially 2 stories)	42,000
Middle Courtyard Infill (4 stories)	6,944
Front Courtyard Infill (1 story on 3rd Floor)	3,484
Existing OR (Telemetry Relocation/Renovation)	10,918
B & C Wing 3rd Floor Enclosure	21,000
Total Sq. Footage:	**84,346**

Upon completion of the new Z-wing, GMH will commence operating and the Guam community will begin benefiting from the following:

- Enhanced and sustained array of Hospital Laboratory Services, which are certified by the College of American Pathologists (CAP) to include: Chemistry; Hematology; and Histology. Additionally, upgrade of the Laboratory Information System (LIS) will result in a better-quality care for the patient and serve the community of Guam overall.

    - Laboratory Information Systems are critical to high quality healthcare service provisions in the health industry. Data show that the need for these systems are growing to meet accompanying technological and workload demands. Additionally, laboratory tests provide the majority of information for clinical decision-making. Laboratory processes automation, including patient result verification, will greatly improve laboratory test throughout while decreasing turn-around-times, enabling critical results to reach physicians rapidly for improved clinical outcomes and enhanced patient care.

    - U.S. hospitals are actively involved in laboratory systems planning to improve health service quality. Specifically, data show new and upgraded laboratory information systems are currently being installed throughout the U.S. As a result, this increasing investment in laboratory information systems is providing state-of-the-art clinical laboratory support, which enhances clinical care processes and improves quality care for improved patient outcomes.

    - These state-of-the-art Laboratory Information Systems, when interfaced with other clinical information systems such as the Chemistry and Hematology Analyzers will support further healthcare quality improvement. It will reduce time spent on resulting and cut errors that are associated with the manual transcribing processes.

    - Physicians and lab technicians will use this laboratory information systems to coordinate varieties of inpatient and outpatient medical testing, including hematology, chemistry, immunology and microbiology which are certified by the College of American Pathologists (CAP).

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- New Neurology, Stroke and Wound Care Services to include the utilization of state-of-the-art hyperbaric chambers.

- New Surgical Arts & Trauma Care Services within state-of-the-art Surgical Suites complemented by Cystoscopy, Endoscopy and Post Anesthesia Recovery Units for the provision of excellent medical services focused upon the Guam community's full service need and demand for:
    - General Surgery; and its
    - Subspecialties (to include Neurosurgery, etc.)

- Newly renovated Telemetry Unit to be relocated at the existing Operating Room for enhanced service symmetry between the Intensive Care Unit (ICU), the Progressive Care Unit (PCU) and the Telemetry Unit all on the 2nd Floor.

- Conversion of existing Telemetry Unit to a hospital-based SNU to enable GMH to effectively absorb the SNU (in Barrigada) at the Hospital. This may require conversion of existing 2-bed rooms to single bed rooms, which is a "best practice" for skilled nursing care. This has the potential to have a substantial positive economic impact, as it would enable GMH to consolidate all of its services and resources (e.g., human resources, medical supplies & medical equipment) at GMH as well as pave the way for GMH to lease the existing SNU to contractors, whom may be interested in establishing some form of private healthcare business venture to benefit the Guam community.

- Enhanced and sustained array of Radiological Services to include:
    - New, Hospital-based Magnetic Resonance Imaging (MRI) Services;
    - Telemedicine and Tele-radiology Services;
    - Interventional Radiology Services;
    - CT Scanning Services;
    - Fluoroscopic Services; and
    - Nuclear Medicine.

- Enhanced and sustained array of Special Services to include:
    - Echocardiogram;
    - Stress Test;
    - EKG and EEG;
    - Cardiac MIBI and Neurology;
    - Cardiology Consultations; and a
    - New, state-of-the-art Catheterization Lab.

- New Medical Arts, Fiscal Services & Operations Wing for the following functional divisions/departments:
    - Medical Staff Division Offices;
    - Professional Support Division Offices;
    - Fiscal Services Division Offices; and
    - Operations Division Offices.

- Enhanced Pulmonary and Respiratory Center:
    - Sleep studies, CPAP/BIPAP titration;

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- Cardio pulmonary exercise testing; and
- Staging to a full pulmonary rehab service.

- New Oncology Care Services to include public-private partnerships that will bring in a full array of clinicians to meet the increasing demand of GMH's Oncology Patients.

The delivery of new services in this section, particularly those services featured as new hospital-based outpatient revenue sources in GMH's financial projection, is often dependent on a cross-section of departments or units within GMH.

To help relate specific projects to GMH's projections, a table outlining the cost of $37 million in fixtures, furnishings and equipment (FF&E) is provided in **Appendix D**. The appendix lists the specific investments in FF&E needed to support the expansion of hospital-based outpatient radiology and cardiology services that are highlighted in the final sections of this document. They are in the sections for the Radiology and Special Services departments.

Included in the list of equipment to be invested in is a total of $11 million for the Radiology Department for the purchase of Magnetic Resonance Imaging (MRI) equipment and other new radiology equipment. Additionally, a total of $7.9 million in FF&E is slated for GMH's Special Services Department for a new cardiac catheterization machine, cardiac related equipment, and stroke and wound care.

Expanded radiology, interventional radiology, and cardiology services and their associated FF&E investments are integral parts of GMH's strategy to increase hospital-based outpatient revenues and address existing demands given core scope of services. The Z-Wing Replacement Project will accommodate the physical spacing requirements needed to employ this strategy and address the needs of other existing services centers.

Other Key Capital Improvement Projects for Funding

The following projects representing the balance of the $125 million in expenditure are deemed necessary for the hospitals continued operations regardless of expansion intended to improve direct patient care or generate additional revenue. They are presented in the next several sections.

Replacement of Electrical Distribution Panel

The existing hospital electrical distribution system was commissioned in 1985 and is now 30+ years old and includes feed wiring, switchgear and transformer components. According to the AHA's Estimated Useful Lives of Depreciable Hospital Assets, Revised 2013 Edition, the useful lives of the system's components are as follows:

Feed Wiring.....20 years
Switchgear.....15 years
Transformer.....30 years

The phased removal and replacement of the existing electrical distribution panel will include a road development behind the hospital that will effectuate GMH's Traffic Improvement Plan for small and large emergency transport vehicles. It is critical that this project proceed on the front end of GMH's

Expansion Master Plan in order for GMH to meet and sustain its mission "to provide quality patient care in a safe environment". Construction cost is estimated to be $6 million.

Parking Structure Development Project

GMH envisions building a multi-story parking structure plus a functional rooftop for either additional parking or administrative office space to maximize the limited square footage available on GMH's spatial footprint in Oka. GMH has a major shortage of hospital parking space, more evident during the day shift (0730 – 1530). There are currently 500 parking stalls at GMH. To fully accommodate all patients, families, visitors, volunteers, contractors, student nurses, and staff during both normal and emergency operations, GMH, needs at least twice the capacity.

GMH believes that an enclosed parking structure will provide a "best practice" safe, secure parking environment for all to park their respective vehicles during all types of weather and other natural conditions (e.g., heavy rainfall, tropical cyclones, both daytime and nighttime hours, etc.) and to also safely and securely walk between the hospital and the parking structure. Furthermore, additional parking at GMH will also be needed to support expanded hospital-based outpatient services.

Hospital Roof Systems

GMH's hospital roof system requires repairs and improvements together with the rainwater runoffs and facility paint coating. This project will involve upgrading all of GMH's roof systems and rainwater runoffs prior to repainting the hospital exterior at all wings except for the Z-Wing. To mitigate long term problems associated with rainwater runoff at the exterior walls, proper design and maintenance of rainwater runoff systems is required to resolve this persistent problem.

With proper roof protective coatings, adequate roof slopes to prevent roof ponding, the locations of roof drain at the low points of roofs/balconies, and the use of strainers and overflow drains to prevent clogging, this design measure could prevent long term deterioration of building exterior walls. Together with a proper maintenance program, this could prolong or enhance the lifespan of the building.

Hospital-based Information Technology Infrastructure Enhancements

GMH intends to purchase, install, and commission end-user training to implement a fully Integrated Organization-Wide Information Technology System featuring clinical, ancillary and financial applications designed for today's healthcare environment with the adaptability to accommodate the challenges of the future. The system connects clinicians and administrators with shared patient information and workflow to advance accuracy, efficiency and safety across healthcare settings, departments, locations and other Government of Guam agencies that are critical partners within Guam's healthcare system.

The Installation Phase shall require migration of existing electronic and hardcopy patient information to the new Information Technology System. The Information Technology System is needed to enable GMH to provide better patient care, enhance patient safety, productivity and profitability while staying current with complex and changing regulatory environment. GMH's new Information Technology System will be a unified suite of digital solutions proven to streamline administration, reduce costs and improve patient care and safety. The new system shall fully automate and integrate the entire organization's processes, including order entry, analytic operations, information distribution, billing and business performance management.

This new Information Technology System will provide for fully integrated modalities such as electronic medical record, clinical imaging, computerized physician order entry, laboratory, radiology, pharmacy, emergency department, perioperative, revenue cycle, patient accounting, general financials, supply chain, materials management, medication history, enterprise content management, document management, maintenance management, medical devices, point of care, mobility, interoperability, quality and performance improvement, reporting and outcomes, workforce management, JC compliance, CMS compliance and compliance with federal laws protecting patient information.

Emphasis: Hospital-based Outpatient Care Model

As was noted in the section entitled *Challenges to GMH*, hospital-based outpatient revenue represents a small portion of GMH's total gross patient revenues. GMH addresses this issue in two fundamental ways:

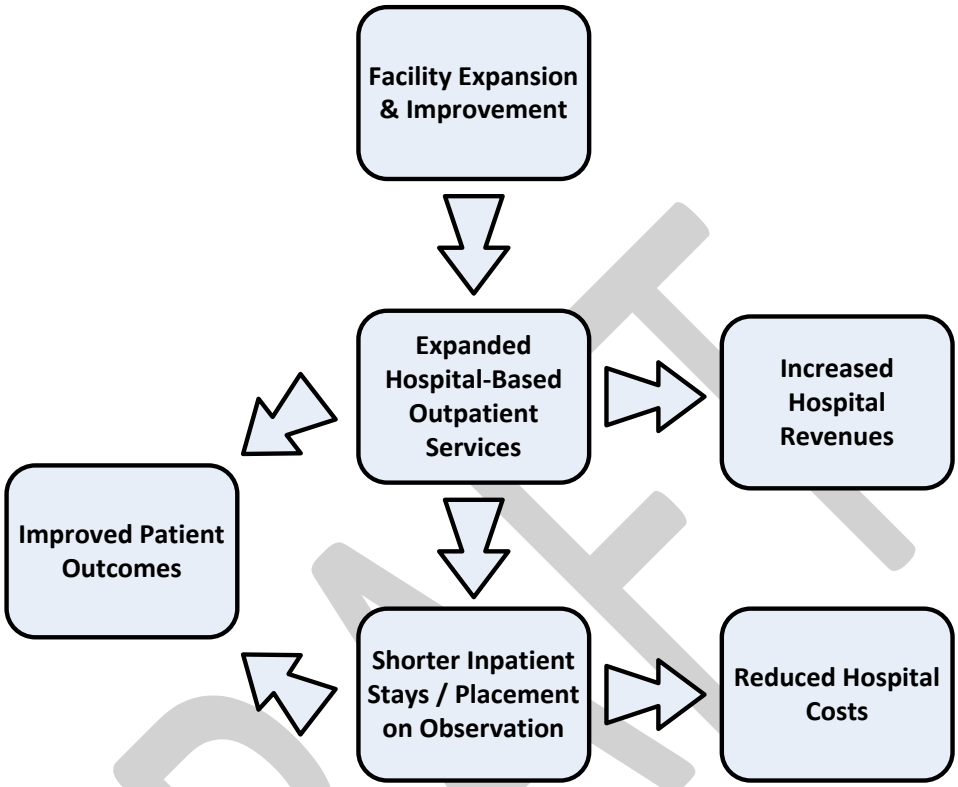
- **Better patient care management by emphasizing shorter stays.** This can be achieved if GMH provides a broader array of services in cardiology, oncology, or radiology within the physical confines of the hospital. Shorter stays on an inpatient basis results in lower costs. When a physician provider places a patient on observation as opposed to being admitted for inpatient services, the reimbursement is made on the more favorable outpatient basis.[14] This effort will be supported by the creation of a GMH Observation Unit featured in another section.

- **Enhancing the continuity of care by using a broader array of hospital-based services.** Consistent with best practices and standard of care, upon discharge, GMH should serve as a source for follow-up care and consultation and other services as they relate to the specific medical reasons those patients were admitted to GMH in the first place. Such follow-up services will be delivered on a hospital-based outpatient basis which will also result in higher reimbursement.

The expansion of hospital-based outpatient services is central to GMH's strategy to achieve a greater level of financial health and improve its delivery of care. This is consistent with industry standards across U.S. hospitals' shift from inpatient to outpatient care. **Figure 12** is intended to illustrate how GMH management views the facility's expansion and improvement as they relate to better patient outcomes, increased hospital revenues and reduced hospital costs.

[14] GMH's historical data supports this statement.

Figure 12 – Hospital-based Outpatient Model



GMH has studied and made projections for three sources of hospital-based outpatient service centers: expanded radiology, interventional radiology, and cardiology. It should also be noted that while attention is focused on these specific lines of new services, new outpatient revenue opportunities could occur in other areas of specialty including but not limited to surgery and oncology.

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Financial Projections

Revenue Enhancements

When the capital projects detailed in this plan are implemented and in operation, GMHA will begin to generate positive operating cash flows in 2026. This will enable the hospital to accumulate cash reserves to fund operating expenses and which match the cash reserves required by GMH and other non-profit hospitals because of the cash collection intervals associated with their revenue cycles.

Expanded Radiology

Current radiology services at GMH are primarily inpatient. However, new radiology services, particularly on a hospital-based outpatient basis is necessary to provide full patient care. The expansion of outpatient radiology services in itself will make the hospital premises a more desirable referral center for community physicians as GMH will be perceived as a safer environment for procedures and for continuity of care.

As stated earlier, there are direct benefits to the community when hospital-based services are expanded. Specifically, for patients admitted for inpatient services, the expanded services will provide a timely and less invasive treatment approach to various medical ailments thereby reducing their length of stay. For example, when an acute care patient requires a Magnetic Resonance Imaging (MRI) scan, that patient is transported to the nearest private facility that offers the much needed service. Having the MRI equipment on site will provide better efficiency and effectiveness in direct patient treatment, improved patient outcomes, and safety.

The reconstruction and equipping of the Z-wing will allow for the needed space and accommodation to develop MRI and Interventional Radiology. Overall, the expanded radiology services are projected to generate $9.3 million in additional gross revenues in the first year and up to $42 million on the tenth year.

MRI Facility

For the new MRI facility, GMH projects $1.8 million in gross patient revenue in the first year of operation. This assumes 1,217 MRI procedures for the year at an average of $1,500 in gross revenue per procedure. In the first year, it is projected that that only 20% of the revenue will be for outpatient services. This percentage will increase to 50% on the tenth year. Applying GMH's outpatient payer mix and reimbursement assumptions and projected operating costs for the MRI facility, the net income for the third year is $1.1 million based on 4,000 procedures that year. In succeeding years, GMH projects an annual growth in procedures of 5% annually for two years and tapering to 3.75% per year thereafter. A breakdown for the first five years is on **Table 12**.

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Table 12 - Projected MRI Facility Income (in $1,000s)						
		Year 1	Year 2	Year 3	Year 4	Year 5
Gross Patient Revenue	$	1,825	3,833	6,036	6,338	6,655
Less: Allowances						
Medicare, Medicaid, & MIP	$	(599)	(1,243)	(1,937)	(2,012)	(2,091)
Other patients		(137)	(291)	(464)	(491)	(520)
Self Pay		(161)	(330)	(506)	(519)	(531)
Less: allowances		(898)	(1,865)	(2,907)	(3,022)	(3,143)
Net Patient Revenue		927	1,968	3,129	3,316	3,512
Operating costs		(1,858)	(1,996)	(2,014)	(2,034)	(2,054)
Net Income	$	(931)	(28)	1,115	1,282	1,457

Interventional Radiology

New Interventional Radiology services at GMH are projected to generate $7.5 million in gross patient revenue in the first year of operation. This assumes 396 interventional radiology procedures in the first year at an average of $19,000 in gross revenue per procedure. In the first year, it is projected that only 20% of the revenue will be for outpatient services. This percentage will increase to 50% on the tenth year. Applying GMH's outpatient payer mix and reimbursement assumptions and projected operating costs, the net earnings for the second year is $2.7 million based on 792 procedures.

In succeeding years GMH projects procedures to double in the first two years tapering to 5% and 3.75% in growth in years thereafter. A breakdown for the first five years is provided on **Table 13**.

Table 13 - Projected Interventional Radiology Income (in $1,000's)						
		Year 1	Year 2	Year 3	Year 4	Year 5
Gross Patient Revenue	$	7,524	15,048	31,601	33,181	34,840
Less: Allowances						
Medicare, Medicaid, & MIP	$	(2,469)	(4,882)	(10,139)	(10,534)	(10,949)
Other patients		(566)	(1,144)	(2,427)	(2,572)	(2,725)
Self Pay		(665)	(1,296)	(2,652)	(2,715)	(2,782)
Less: allowances		(3,700)	(7,322)	(15,218)	(15,821)	(16,456)
Net Patient Revenue		3,824	7,726	16,383	17,360	18,384
Operating costs		(6,136)	(5,008)	(12,306)	(12,859)	(13,440)
Net Income	$	(2,313)	2,719	4,077	4,501	4,945

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GMH's Perspective: The Clinical Case for Expanded Radiology

Interventional Radiology

Radiology services, such as interventional radiology (IR), have the major benefit of being minimally invasive as compared to surgery which historically has a longer recovery period for patients. Consequently, patients undergo less risky procedure, are able to recover faster, have less risk for infections, and have shorter hospital stays.

An expanded IR department will offer new diagnostic and treatment procedures. Diagnosing cancers, infections, or benign conditions are made simpler through IR. Biopsies under imaging make for accurate approach to biopsy.

The most significant development in IR is in the area of vascular or blood circulation intervention (procedures performed with IR). These include:

- Providing vascular access for prolonged intravenous therapy for difficult to access patients;
- Providing vascular access for larger vessels in acute resuscitation (septic shock) and nutrition (TPN- Total Parenteral nutrition)
- Saving limbs in Diabetic patients with infections;
- Restoring flow to clotted hemodialysis catheters or fistulas;
- Identifying and cauterizing (stopping) internal bleeds;
- Identifying and clipping aneurysms;
- Stenting aneurysms and clotted vessels; and
- Injecting targeted chemotherapeutic agents to cancer tissues.

Interventional Radiology (IR) has provided the most significant breakthrough in Medical Diagnosis and Treatment in patient care. Additionally, while emphasis is in total patient care, it also provides the greatest support for fiscal solvency.

On-site MRI

MRI's capabilities lead to faster and more accurate diagnosis in many imaging studies. Patients with stroke signs and symptoms will be more efficiently managed. Unnecessary admissions, likewise, would be reduced by the MRI's higher sensitivity. Capabilities to diagnose and treat brain and spinal tumors and infections are improved with this "Gold Standard" technology. Expanded diagnostic capabilities with greater opportunities for early intervention are achieved with an onsite MRI unit.

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Cardiology

GMH plans to fully implement a Cardiac Center Facility projected to generate an additional $733,166 in gross patient revenue in the first year of operations and $438,712 in net earnings in the third year.

Additional services to be provided include: left heart catheterization, right and left heart catheterization, transvenous pacemaker insertion, cardioversion, inpatient consultations, outpatient consultations, and coronary bypass graft surgery. The bulk of revenues from the new Cardiac Center shall be from left heart catheterizations with an anticipated 100 procedures at $5,000 per procedure –totaling $500,000 in gross revenue in the first year of operations. For the Cardiac Center, outpatient revenue assumptions are applied to all procedures except for two, namely pacemaker insertions and coronary artery bypass graft surgeries.

When funding is secured, GMH plans to invest $2 million in a new cardiac catheterization machine. GMH currently maintains one 10-year-old cardiac catheterization lab machine that is being shared with interventional radiologists. As reflected on **Table 14**, after the first year, GMH projects the growth in procedures two double in its second year and taper to 3.75% on the fifth year.

Table 14 - Projected Cardiac Center Income (in $1,000s)

		Year 1	Year 2	Year 3	Year 4	Year 5
Gross Patient Revenue	$	733	1,540	2,425	2,546	2,642
Less: Allowances						
Medicare, Medicaid, & MIP	$	(194)	(408)	(642)	(675)	(700)
Other patients		(65)	(136)	(215)	(226)	(234)
Self Pay		(36)	(76)	(120)	(126)	(131)
Less: allowances		(296)	(621)	(978)	(1,027)	(1,065)
Net Patient Revenue		438	919	1,447	1,520	1,577
Operating costs		(970)	(989)	(1,009)	(1,029)	(1,050)
Net Income	$	(532)	(71)	438	490	527

GMH's Perspective: The Clinical Case for Cardiac-Related Equipment

Echocardiogram Machine

In 2016, GMH's Special Services Department had provided about 1,500 echocardiogram studies to both adult and pediatric patients. An echocardiogram machine is used to examine the heart; measure the heart valves; assess the blood flow; check how strong a heart can pump blood etc. Some facts about heart disease according to the Centers for Disease Control and Prevention include the following:

- About 600,000 people die of heart disease in the United States every year and that is 1 in every 4 deaths
- Heart disease is still the leading cause of death for both men and women.
- Coronary heart disease is the most common type of heart disease, killing nearly 380,000 people annually.

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- Every year about 720,000 Americans have a heart attack.
- Coronary heart disease alone costs the United States $108.9 billion each year. This total includes the cost of health care services, medications and lost productivity.
- According to CDC (Centers for Disease Control):
    - The most common type of heart defect for infants is VSD (Ventricular Septal Defect).
    - CHDs (Congenital Heart Defects) are a leading cause of birth defect associated infant illness and death
    - Infant deaths due to CHDs often occur when the baby is less than 28 days. In a study of neonatal deaths, 4.2% of all neonatal deaths were due to CHD.

GMH's current echocardiogram machines (one in use since 2006) cannot produce the best quality images anymore. There are times when GMH's echocardiogram technologists had to repeat the studies in order to produce better images thereby creating delays in establishing diagnosis and treatment. For adult patients who have had heart attack, it is the standard of care to have echocardiogram to determine the extent of a heart attack. In fact, there have been several instances in which multiple acute care units in GMH are calling for echocardiogram to be done on an emergency basis and clinicians have to make a choice as to who needs to be done first.

Coronary Angiogram (Cardiac Cath) Machine

In 2014, there were 1,288 patients who were seen in and/or admitted to GMHA of which 759 were with a diagnosis of chest pain and 529 with myocardial infarction or ischemia (heart attack). Of these 529 patients, 324 were males and 205 were females with the following age groups:

- 51-65 y/o: 251 patients
- >75 y/o: 104 patients
- 66-75 y/o: 91 patients
- 31-50 y/o: 73 patients
- 18-30 y/o: 10 patients

In 2014, GMH had a total of 70 off island referrals (hospital-to-hospital transfer) and cardiovascular referrals ranked highest. **Cardiac disease is the leading cause of death on Guam.** With Guam's remote location and our aging population, it is difficult and costly for many to travel off island just to get cardiac catheterization.

This machine can also be used to insert a temporary pacemaker for patients whose heart rate drops to the 30's. GMH's current machine is already 11 years old and is shared for Interventional radiology procedures.

Intraortic Balloon Pump (IABP) Machine

In a recent incident, a patient that came in with a massive heart attack eventually went into cardiogenic shock. An IABP machine would have increased the oxygen and thereby increasing the blood flow.

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Electroencephalogram (EEG) Machine

The EEG machine is used to check the electrical activity of the brain. Our current EEG machine is already 11 years old (since 2006). It is not even capable of doing a continuous EEG reading. There are some patients who need a continuous EEG reading to detect brain activity or the cause of seizures.

Electrocardiogram (EKG) Machine

The EKG machine is used to detect the electrical activity of the heart. In 2016, a total of 10,181 EKG's occurred at GMH. Use of such device is standard of care for all patients who complain of chest pain and the doctor is suspecting a heart attack. There are instances in which the use of EKG is called upon in more than three acute care units and the machines are only in two locations.

Addressing Staffing Needs

GMH recognizes the challenge of securing the requisite professional staff to support its expanded services. This is not an issue unique to GMH. During the three-year construction period, management plans to embark on activities which include in-house training of existing staff and off-island recruitment. Off-island recruitment may include engaging the services of specialized recruiting firms or, as needed, the application for foreign worker visas.

Creation of an Observation Unit & Impact on 3M Revenues

Creation of an Observation Unit will provide opportunities for increased revenues at reduced costs. Patients seen at GMH may not require admittance in the traditional sense but be treated and placed under observation in this new unit. The staffing currently exists to support the operation of the Observation Unit. This shift in patient care will create a more efficient system of care within GMH augmenting the creation of new centers for hospital-based outpatient services.

Procedures and diagnosis that can be done in the observational setting include cardiac catheterization, pacemaker placement, endoscopies, chemotherapy, infusion therapy, blood transfusions, and other ambulatory surgeries. Medical conditions that can be placed under observational status include chest pains (acute coronary syndromes), congestive heart failure (CHF), anemia, pneumonia, infections of the skin and soft tissues, and irregular heart beat requiring control or initial evaluation.

Procedures accompanying the applicable medical conditions can also lead to more revenues from services provided. These include echocardiograms, computer tomography, CXR, and labs. Pharmaceutical interventions may result in additional revenues due to patients potentially needing more medication while in the observation unit. Under the 3Ms, hospital-based outpatient reimbursement allows GMH to capture more revenues under the fee-for-service payment methodology as opposed to being reimbursed under the inpatient setting on a per diem rate, currently capped at $1,186 per day.

By shifting admissions to the observation category, with an efficient healthcare team that assumes patient care immediately on presentation in the ER, many inpatient admissions currently falling within one to four-day inpatient stays may instead fall under the observational category. GMH intends to

create a healthcare team dedicated to efficiently provide observational services under the 2-midnight Medicare rule.[15]

Principles of the observational category are as follows:

- Increase reimbursement while providing greater efficiency in delivering quality care within evidence based guidelines for required inpatient admission.

- Reimbursement in the observation unit is considered as outpatient and reimbursable at 70-90% of allowable charges for the 3 M payers. Adjusting for billing and collection variables, conservatively, should realize 65% of revenue collection.

- Case-Rate reimbursements are reimbursements that reward efficiency in the delivery of care with quality outcomes of patient safety and short length of stay.

GMH has established outpatient reimbursement fee schedules that allow fees for services billing. Outpatient ambulatory fee schedules capture a percentage of costs that should translate to reimbursement cost with income. **Table 15** provides an example of increased revenue with a shift to outpatient services.

Table 15 - Projected Revenue for 3Ms Shift to Outpatient Services

Fiscal Year	Patients with 1-4 days length of stay	Revenue Collected	Audited Reimbursment Ratio	Projected % Collected Over Billed Ratio	Projected Revenue Shift to Observation Unit Services	Net Increase of Revenue
2014	$ 2,093,158	$ 915,183	43.72%	56%	$ 1,179,990	$ 264,807
2015	$ 1,847,451	$ 694,349	37.58%	56%	$ 1,041,476	$ 347,127

GMH anticipates upwards of $557,000 in additional revenue annually as a result of shifting certain inpatient admissions to the Observation Unit. A breakdown by year is provided on **Table 16**.

Table 16 - Outpatient Services for Medicare, Medicaid & MIP Reimbursements (5 Year Projection)

	Year 1	Year 2	Year 3	Year 4	Year 5
Patients Received 1/	638	670	704	739	776
Billed Amount ($1,000's) 2/	$ 2,060	$ 2,163	$ 2,271	$ 2,385	$ 2,504
Revenue Collected ($1,000s) 3/	$ 702	$ 737	$ 774	$ 813	$ 854
Anticipated Reimbursement Ratio for Observation Unit	56%	56%	56%	56%	56%
Adjusted Revenue Collection w/ New Reimbursement Rate	$ 1,161	$ 1,219	$ 1,280	$ 1,344	$ 1,411
Net Increase in Revenues ($1,000s)	**$ 459**	**$ 482**	**$ 506**	**$ 531**	**$ 557**

1/ Amount based on 5% increase of patients from FY 2015 due to new service.

2/ Amount based on average of billings per patient in FY 2014 ($3,414.61) and FY 2015 ($3,038.57). Average of the two fiscal years years is $3,226.59.

3/ Based on the Medicare, Medicaid, and MIP reimbursement of $1,100/day for each patient.

[15] Inpatient admissions will generally be payable under Part A if the admitting practitioner expected the patient to require a hospital stay that crossed two midnights and the medical record supports that reasonable expectation. Medicare Part B payment is not appropriate for hospital stays not expected to span at least two midnights. Medicare Part A covers inpatient care, including care received while in a hospital, a skilled nursing facility, and, in limited circumstances, at home.

Oncology Services

Guam cancer care requirements continue to increase as new treatment modalities continue to be developed. Hospital-based cancer care support must include a multidisciplinary approach between radiation, surgical, and medical oncology. A continuum of care between outpatient and inpatient is critical for oncology patients.

GMH plans to establish a comprehensive oncology center. Realizing the significant capital requirements in the state of the art delivery for patient care, GMH seeks to create a Public Private Partnership (PPP) option for comprehensive oncology care to include a radiation oncology service, a new surgery suite with emphasis on minimally invasive procedures for cancer treatment, and a Medical Oncology service that will support both inpatient and outpatient care.

The manner in which such services are delivered and managed under a PPP can vary and is therefore not analyzed in this paper. PPPs may involve a private proponent or developer to finance a new oncology center and be compensated with shared revenues. The manner in which these contractual arrangements are entered will be governed by Guam law and the Government of Guam's procurement rules and regulations –likely under a Request for Proposal-type of procurement.

Other New Services

In addition to interventional radiology, expanded diagnostic radiology, and cardiac services, GMH projects additional revenue generation in the areas of stroke, wound care, endoscopy, surgery and others. These revenues are meant to account for the activity stemming from the investments that are not related to radiology and cardiac services. These include $13.5 million in furnishings, fixtures, and equipment. GMH projects about $3.1 million in additional net patient revenue for such services growing at an annual rate of 2%. Less expenses of $2.3 million, GMH stands to receive income of $837,000. This amount is combined with increased revenues from the observation unit of $459,000 for a total of about $1.3 million under *Other new services* in the pro forma income statement in 2021.

Leasing of Skilled Nursing Unit Facility (SNU)

GMH maintains the 36,928 square foot SNU facility at Barrigada Heights. Relocating the SNU back to GMH and leasing out the Barrigada Heights facility can generate additional revenue and reduce operating cost. The property also has parking areas that can be included in a lease arrangement. The current market rates for a commercial building rental is $1.00 to $4.00 per square foot.[16] Applying an average $3.00/sq. ft. rate will yield $1,329,408 annually ($110,784/month) in new revenue with the leasing of the SNU facility as shown on **Table 17**. GMH expects the rental rate to increase incrementally over time.

[16] HMAT Report

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Table 17 - Skilled Nursing Unit Facility Revenue					
	Year 1	Year 2	Year 3	Year 4	Year 5
Rate per square foot	$ 3.00	$ 3.00	$ 3.00	$ 3.00	$ 3.00
Square feet	$ 36,928	$ 36,928	$ 36,928	$ 36,928	$ 36,928
Monthly Rent	$ 110,784	$ 110,784	$ 110,784	$ 110,784	$ 110,784
Per year	$ 1,329,408	$ 1,329,408	$ 1,362,643	$ 1,396,709	$ 1,431,627

Relocation of the SNU operations is dependent on the completion of the Family Birth Center project and space availability. For purposes of this business plan, SNU facility revenues can be realized upon completion of the Z-wing reconstruction and relocation of SNU facility.

Information Technology Modernization

Central to the hospital's clinical and revenue systems is an integrated information system. It is proposed to invest $20 million in a fully integrated information system which will fulfill all the necessary requirements required by federal legislation and at the same time provide a portal for seamless transfer of clinical information to patients and patients' community medical support.

In early 2014, in compliance with the American Recovery and Reinvestment Act (ARRA), GMH progressed from paper charts to electronic health records. Later in 2014, GMH replaced its 1995 Patient Information System maintained on an IBM AS400 system with Optimum Revenue Cycle Management (RCM) suite of programs which has a thin client interface.

These changes enabled GMH to achieve the incentive available for ARRA Meaningful Use 1 and to improve its revenue cycle management providing improved billings and collections.

The current system is a collection of linked but discrete processes reflecting the limited funding available at the time for information technology investment. An integrated clinical, revenue and financial control package will improve the information available to clinicians, permit further enhancements to revenues, billings, and collection, increase the support for greater financial control and furnish up to date information for patient appointments, clinical data and financial obligations.

Cost Reduction Initiatives

In addition to specific revenue enhancements, GMH has under consideration a number of cost reduction initiatives.

Cooperative Purchasing

GMH should participate in Group Purchasing Organizations (GPOs) which can provide significant procurement discounts. A GPO is an entity that helps health care providers (such as hospitals, ambulatory care facilities, nursing homes and home health agencies) realize savings and efficiencies by aggregating purchasing volume and using that leverage to negotiate discounts with manufacturers, distributors and other vendors.[17] GPOs include Novation, Amerinet, First Choice/First Link Coop

[17] https://c.ymcdn.com/sites/www.supplychainassociation.org/resource/resmgr/research/gpo_primer.pdf

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Management Services (FSM), NASPO ValuePoint (National Association of State Procurement Officials) and Premier. Stateside hospitals who are members of GPOs save 10% to 15% in pricing.[18] GMH estimates it will save about 10% annually on its supplies and materials expense.

However, GMH is subject to local procurement laws, which may prohibit the organization's ability to participate in contracts for cooperative purchasing. GMH may need to seek changes in the procurement law and/or rules and regulations in order to participate in these organizations.

Telephone System Conversion

GMH spends about $25,254 per month for 350 lines in its existing telephone system, $303,048 annually. Converting this telephone system to voice over IP (VOIP) telephony can bring the monthly expense to as little as $2,512 or $30,898 annually. A total annual savings of at least $272,000 can be realized. VOIP telephony is becoming the standard communications platform for organization of all sizes. The shift from traditional telephone systems to a feature-rich Hosted VOIP service has become the norm in business operations. Immediate cost savings is the most commonly cited benefit of adopting Hosted VOIP, along with increases in system reliability and worker productivity. These systems require very little on-premises equipment, and in most cases needed equipment is limited to a high-quality router, integrated access devices, and IP phones.

Information Systems Savings

GMH's current budget for (Information Technology) IT for various departments including patient affairs, patient registration, and medical records is collectively $5 million. GMH management estimates savings ranging from 12 to 15% in each of these departments for a total of $709,000. Additionally, GMH currently budgets $1.5 million for MIS-related contractual services and anticipates a 20% or a $301 thousand reduction to this amount. Lastly, savings of roughly $500,000 could be achieved in personnel costs (inclusive of overtime) because of improved operational efficiencies. Total annual savings for IT-related costs is $1.5 million.

SNU Integration into Main Facility

The transfer of the SNU to GMH's main hospital facility should result in increased operational efficiencies and reduced facility maintenance costs. GMH management estimates these operational efficiencies would result in a 15% reduction ($396,000) in the SNU operational budget which currently stands at $2.6 million. Whereas the SNU's facility budget of $670,000 will be reduced by as much as 70%. Total savings at the SNU is estimated to be $864,000.

Facility Maintenance

Coupled with better management strategies, newer facilities should require less maintenance. GMH's current budget stands at about $3.5 million and management aims to reduce this cost by as much as 20%.

A breakdown of cost reductions is shown on **Table 18**.

[18] http://www.supplychainassociation.org/?page=FAQ

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Table 18 - Summary of Cost Reduction Initiatives (in $1,000s)										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cooperative Purchasing	1,486	1,522	1,560	1,598	1,638	1,679	1,721	1,764	1,809	1,824
Information Technology System	1,510	1,540	1,571	1,603	1,635	1,667	1,701	1,735	1,769	1,805
SNU Integration	864	882	899	917	936	954	973	993	1,013	1,033
Maintenance Reduction	697	711	725	740	754	770	785	801	817	833
Telephone Conversion	79	272	272	271	270	270	269	268	268	267
Solar Power Generation	75	77	78	80	81	83	84	86	88	90
Total	**4,712**	**5,005**	**5,105**	**5,208**	**5,314**	**5,422**	**5,533**	**5,647**	**5,763**	**5,851**

Pro Forma Statements

Pro forma Statement of Revenues, Expenses and Changes in Net Position, Balance Sheets, and Statements of Cash Flows to Operations are presented in the next several pages as **Table 19**, **Table 20**, and **Table 21**. These projections assume continuing operating and capital spending subsidies from the Government of Guam based on an increase in the Business Privilege Tax.

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Table 19

Guam Memorial Hospital Authority
Pro forma Summarized Statements of Revenues, Expenses and Changes in Net Position ($1,000's)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Net Patient Service Revenue:										
Existing services	93,489	96,794	100,216	103,759	107,427	111,225	115,157	119,229	123,444	127,808
Enhanced Service Centers	-	-	-	-	*5,189*	*10,613*	*20,960*	*22,195*	*23,472*	*24,536*
Additional services	-	-	-	-	*1,296*	*1,336*	*1,377*	*1,419*	*1,463*	*1,509*
Total net patient revenue:	93,489	96,794	100,216	103,759	113,912	123,174	137,494	142,843	148,379	153,854
Other Operating Revenue:										
Existing & new services	3,856	3,928	4,002	4,076	4,153	4,230	4,309	4,390	4,472	4,556
Rental income from SNU facility	-	-	-	-	*1,329*	*1,329*	*1,363*	*1,397*	*1,432*	*1,467*
Total	3,856	3,928	4,002	4,076	5,482	5,560	5,672	5,787	5,904	6,024
Total Operating Revenue	97,345	100,722	104,218	107,835	119,394	128,733	143,166	148,630	154,283	159,877
Operating Expenses										
Existing Services	118,407	120,071	121,568	123,107	124,692	126,323	128,001	129,727	131,505	132,318
Enhanced Service Centers	-	-	-	-	*8,964*	*7,993*	*15,329*	*15,922*	*16,544*	*17,038*
Additional clinical staffing & services		*9,000*	*9,720*	*10,498*	*11,337*	*12,244*	*13,224*	*14,282*	*15,424*	*16,350*
New Z-wing and related depreciation	-	-	-	-	*12,161*	*15,161*	*17,661*	*19,161*	*21,161*	*23,161*
Cost reduction initiatives	-	-	-	*(4,712)*	*(5,005)*	*(5,105)*	*(5,208)*	*(5,314)*	*(5,422)*	*(5,533)*
Total Operating Expenses	118,407	129,071	131,288	128,893	152,150	156,615	169,006	173,778	179,211	183,334
Operating (loss) gain	(21,061)	(28,349)	(27,070)	(21,058)	(32,756)	(27,882)	(25,840)	(25,148)	(24,928)	(23,457)
Government contributions										
Operational subsidies	18,823	3,833	3,910	3,988	4,068	4,149	4,232	4,317	4,403	4,491
BPT tax increase subsidy	-	39,000	39,780	40,576	41,387	42,215	43,059	43,920	44,799	45,695
New facilties (Z-wing & other CIP's)	-	*12,500*	*37,500*	*37,500*	*37,500*	-	-	-	-	-
Other non-operating revenues	3,727	3,728	3,729	3,560	3,732	3,733	7,564	7,412	7,267	7,127
Change in net position	1,488	30,712	57,849	64,565	53,931	22,216	29,015	30,501	31,541	33,856

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Table 20

Guam Memorial Hospital Authority
Pro forma Summarized Balance Sheets ($1,000's)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
ASSETS										
Cash & cash equivalents	3,925	8,992	16,386	15,844	18,744	19,159	25,169	35,706	41,790	68,963
Receivables & other current assets	31,339	32,426	33,551	34,716	36,672	37,833	45,407	48,776	48,694	45,350
Inventories	3,473	3,833	7,743	14,591	22,655	29,517	31,288	33,165	35,155	37,264
Total current assets	38,737	45,251	57,680	65,151	78,072	86,509	101,864	117,647	125,639	151,577
Capital assets	35,814	52,595	98,352	137,562	172,161	186,104	199,389	205,009	216,462	217,242
Deferred outflows from pension	10,210	7,210	4,210	1,210	-	-	-	-	10,000	11,000
Deferred outflows from operations	9,456	4,389	-	-	-	-	-	-	-	-
Total deferred outflows	19,666	11,599	4,210	1,210	-	-	-	-	10,000	11,000
Total assets & deferred outflows of resources	**94,217**	**109,445**	**160,242**	**203,923**	**250,233**	**272,613**	**301,253**	**322,656**	**352,101**	**379,819**
LIABILITIES & NET POSITION										
Current liabilities	18,454	12,798	15,575	4,520	6,728	6,721	10,175	4,753	6,186	3,435
Long-term liabilities including pension liability	133,916	124,087	114,258	104,429	94,600	94,771	90,942	87,266	83,738	80,350
Deferred inflows from pension	-	-	-	-	-	-	-	-	-	-
Net position	(58,153)	(27,440)	30,409	94,974	148,905	171,121	200,136	230,637	262,177	296,034
Total liabilities, deferred inflows and net position	**94,217**	**109,445**	**160,242**	**203,923**	**250,233**	**272,613**	**301,253**	**322,656**	**352,101**	**379,819**

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Table 21

Guam Memorial Hospital Authority
Pro forma Summarized Statements of Cash Flows ($1,000's)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operating (loss)/gain	**(21,061)**	**(28,349)**	**(27,070)**	**(21,058)**	**(32,756)**	**(27,882)**	**(25,840)**	**(25,148)**	**(24,928)**	**(23,457)**
Add back depreciation (existing facility)	4,950	5,300	5,443	5,590	5,741	5,896	6,055	6,219	6,387	6,559
Add back depreciation for New Z-wing and other	-	-	-	-	12,161	15,161	17,661	19,161	21,161	23,161
Movement working capital	8,500	(1,087)	(2,204)	(21,320)	(11,532)	(7,109)	(1,297)	(6,384)	(6,498)	155
Operating cash flow	**(7,611)**	**(24,136)**	**(23,831)**	**(36,788)**	**(26,386)**	**(13,934)**	**(3,422)**	**(6,153)**	**(3,879)**	**6,418**
Operating subsidies	**18,823**	3,833	3,910	3,988	4,068	4,149	4,232	4,317	4,403	4,491
BPT tax increase subsidy	**-**	**39,000**	**39,780**	**40,576**	**41,387**	**42,215**	**43,059**	**43,920**	**44,799**	**45,695**
Capital Expenditures (ongoing)	(4,500)	(5,331)	(7,000)	(14,000)	(15,000)	(35,000)	(37,000)	(31,000)	(39,000)	(30,500)
Capital Expenditures for new Z-wing and other projects	-	(12,500)	(37,500)	(37,500)	(37,500)	-	-	-	-	-
Capital Expenditures for new birth center	-	(750)	(4,250)	(6,700)	-	-	-	-	-	-
Capital Grants ongoing	2,079	1,530	2,364	2,511	2,661	2,814	2,969	3,128	3,290	3,456
Capital grants for new Z-wing	-	12,500	37,500	37,500	37,500	-	-	-	-	-
Capital grants for new birth center	-	750	4,250	6,700	-	-	-	-	-	-
Other movements	(6,750)	(9,829)	(7,829)	3,171	(3,829)	171	(3,829)	(3,676)	(3,529)	(2,388)
Net Cash Flow	**2,041**	**5,067**	**7,394**	**(542)**	**2,901**	**415**	**6,010**	**10,536**	**6,085**	**27,173**

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The underlying assumptions for these statements are presented in **Appendix E**.

The pro forma Return on Investment is shown on **Appendix F**. This pro-forma forecasts a breakeven discounted cash flow with an internal rate of return of 41%. This contrasts with an expected significant cash requirement over the same period, if the investment is not made.

Conclusion

Investment in substantial capital improvements to hospital facilities, a stable and dedicated funding source to permanently address the difficulties caused by uncompensated care and underinsured services, and a renewed focus by hospital management toward improving operational efficiencies, will provide a significant improvement at GMH and for healthcare on Guam over the next 10 years.

Central to GMH's plan is the expansion of patient centered care with an emphasis on reducing the incidence and duration of stays and offering a broad array of hospital-based services that strengthen the continuity of care. Through facility expansion, the availability of more hospital-based outpatient services will improve the hospital's financial position resulting from cost avoidance and a better reimbursement opportunity. This is illustrated in this plan's pro forma statements which point to gradual and steady reduction in operating losses before depreciation and improved cash flow. This is because there is a direct correlation between investments in the hospital's capacity to deliver services and operational improvements –particularly in revenue generation and patient care cost efficiency.

The mission of GMH is to provide patient care in a safe environment. In carrying out this mission, GMH continues to strive to provide care, conforming to the highest possible standard. This is a commitment to all of Guam's people regardless of whether they can afford to pay for those services. No other healthcare provider on Guam is tasked with such responsibility. GMH management does not see this as mere justification for government subsidy and investment, but as a challenge that can be overcome with focused planning and fostering a work culture which recognizes that improvements in service delivery will result in a better financial position for the hospital.

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Appendix A. Patient Statistics

	Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Emergency Room Visits	**FY 2017**	1,726	1,272	1,354	1,383	1,202	1,347	1,209	**1,312**					**10,805**
	FY 2016	1,886	1,890	1,623	1,512	1,475	1,590	1,397	1,411	1,213	1,264	1,345	1,528	**18,134**
	FY 2015*	2,826	2,558	2,393	2,160	1,819	1,807	1,788	1,972	1,751	1,864	1,956	1,985	**24,879**
	FY 2014	2,513	2,456	2,339	2,279	2,129	2,224	2,124	2,207	2,237	2,288	2,297	2,466	**27,559**
Emergency Room Visits Admitted for Inpatient Services	**FY 2017**	275	215	240	232	224	272	240	**265**					**1,963**
	FY 2016	369	340	280	304	298	304	303	293	252	265	269	264	**3,541**
	FY 2015	417	389	405	383	350	365	323	390	343	378	406	342	**4,491**
	FY 2014	422	362	361	374	357	362	345	395	372	392	410	396	**4,548**
Urgent Care Visits	**FY 2017**	341	358	385	416	304	405	329	**358**					**2,896**
	FY 2016	424	393	341	320	304	309	454	295	247	285	303	333	**4,008**
	FY 2015				131	294	355	352	302	362	326	370	475	**2,967**
Inpatient Admissions (MIS extract)	**FY 2017**	788	663	735	794	658	750	629	**625**					**5,642**
	FY 2016	990	910	881	886	770	822	779	771	796	754	816	782	**9,957**
	FY 2015	1,050	1,022	1,054	1,020	929	930	863	997	822	920	1,010	1,018	**11,635**
	FY 2014	1,092	1,069	981	1,004	914	938	863	916	911	984	1,042	1,063	**11,777**
	FY 2013	1,082	1,046	1,028	1,024	858	924	890	994	873	994	948	1,001	**11,662**
Inpatient Days**	**FY 2017**	4,500	4,053	4,053	4,289	3,608	4,039	3,756	**3,880**					**32,178**
	FY 2016	5,576	4,996	4,767	4,718	3,990	4,239	4,121	4,408	4,546	4,344	4,669	4,549	**54,923**
	FY 2015	*5,338*	*5,467*	*5,359*	*5,703*	5,167	5,352	5,229	5,714	4,769	4,641	5,448	5,534	**63,721**
	FY 2014	5,061	5,089	4,813	4,806	4,474	4,901	4,506	4,749	4,590	5,466	5,353	4,956	**58,764**
	FY 2013	5,172	5,415	5,117	4,839	4,428	5,036	4,683	5,014	4,592	4,707	4,604	4,349	**57,956**
Outpatient Count	**FY 2017**	2,446	2,021	2,108	2,208	1,949	2,262	2,013	**2,120**					**17,127**
	FY 2016	2,783	2,747	2,486	2,418	2,238	2,318	2,092	2,086	1,878	1,861	2,082	2,256	**27,245**
	FY 2015	5,025	5,546	3,528	2,687	2,558	2,636	2,658	2,713	2,657	2,715	3,069	3,110	**38,902**

**Emergency room visits decline in the months of Feb. 2015 and after the opening and ramp up of Urgent Care Center.*

***Patient days sourced from Medical Records Department, whereas the months of October through January in FY 2015 based on raw admissions data.*

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Appendix B. GMH Physicians Contracted

GMH Physicians on Contract	
Specialty/Area	**Count**
Anesthesia	4
Cardiologist	2
CRNA	3
Emergency Medicine	1
Emergency Medicine/Locums/Short-term	1
Family Medicine - DOC	1
General Surgery	4
Intensivist/Critical Care	1
Internal Medicine	1
Internal Medicine-Hospitalist/FT	2
Internal Medicine-Hospitalist/Short term Locums	1
Internal Medicine-Hospitalist/Short-term Locums	1
Medical Consultant/DOC	1
Neurologist	1
Ob/Gyn- PT/Hospitalist	1
Orthopedics - On Call	2
Pathologist- PT	1
Pediatric-Hospitalist PT	5
Podiatry- PT/Hospitalist	3
Radiology- IR/PT	2
Radiology-DR/PT	3
Urgent Care/Locums/Temporary	1
Urgent Care/PT	1
Urgent care/PT ER/DOC	1
Urologist	1
Grand Total	45

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Appendix C. Provider Credentialing Breakdown

Department	Specialty	Active	Provisional	Courtesy	Active Associate	Temporary Privileges	Full Allied Health Professional	Allied Health Provisional	Grand Total
Anesthesia	Anesthesiology	5							5
	Certified Registered Nurse Anesthetist						2	7	9
Emergency Medicine Department	Emergency Medicine	13	1			1			15
	Family Medicine	2							2
	Family Practice		3						3
	Internal Medicine	1							1
	Urgent Care, Emergency Medicine		1						1
Family/General Practice	Family Medicine	3	1						4
	Family Practice	6	1						7
Medicine	Cardiology	1	1		3				5
	Cardiology, Internal Medicine	1							1
	Endocrinology	1							1
	Endocrinology, Internal Medicine	1							1
	Hematology/Oncology			1					1
	Infectious Disease	1							1
	Infectious Disease, Internal Medicine	1							1
	Internal Medicine	16	6			3			25
	Internal Medicine, Hematology/Oncology		2						2
	Nephrology	4							4
	Pulmonary/Critical Care	1							1
	Radiology, Nuclear Medicine				1				1
Obstetrics & Gynecology	Certified RN Midwife						3	2	5
	Obstetrics & Gynecology	11	2						13
	Physicians Assistant						3		3
Pediatrics	Critical Care Medicine		1						1
	Neonatology	1							1
	Pediatric Cardiology, Pediatrics		1						1
	Pediatric Hematology/Oncology		1						1
	Pediatric Pulmonology, Pediatrics	1							1
	Pediatrics	11	1		1	1			14
	Pediatrics, Adolescent Medicine	1							1
Radiology	Interventional Radiology	1				1			2
	Radiology	5			1				6
Surgery	General Surgery	7	4						11
	General Surgery, Hand Surgery	1							1
	General Surgery, Surgical Critical Care	1							1
	Hand Surgery	1							1
	Neurosurgery	1							1
	Ophthalmology	2			1				3
	Oral/Maxillofacial Surg.	1							1
	Orthopaedics	2	2						4
	Otolaryngology	1							1
	Pathology		1						1
	Pathology, Hematopathology	1							1
	Plastic Surgery, General Surgery	1							1
	Podiatry	2	2						4
	Thoracic Surgery, General Surgery	1							1
	Urology	2	1						3
	Grand Total	112	32	1	7	6	8	9	175

Source: GMH Medical Staff Office

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Appendix D. Breakdown of Furnishing, Fixtures, & Equipment

GMHA Z-Wing Removal & Replacment Project's Estimated FF&E Needs

Total of ~ $37M as of April 2017

OR Suite Relocation & Upgrade FF&E							
Item	**Qty**	**Date of Purchase**	**Useful Life**	**Unit Price**	**Total Price**	**Funding Source**	**Other Comments**
Specialized Medical Equipment (e.g., Scopes, Systems, Instrument Packages, Specialized Lighting, Examination and Procedures Tables, other Medical Equipment and Furnishings to support GMHA's full array of Surgical Services to include costs for Neurosurgical Procedures at $2.5M, etc.).	1 Lot	N/A	N/A	6,000,000	6,000,000	TBD	Needed FF&E Package to relocate and upgrade GMHA's Hospital Operating Suite.
				Subtotal:	**$6,000,000**		

Telemetry Unit Relocation & Upgrade FF&E							
Item	**Qty**	**Date of Purchase**	**Useful Life**	**Unit Price**	**Total Price**	**Funding Source**	**Other Comments**
FF&E Package to move/renovate GMHA's Telemetry Unit to 2nd Floor at existing OR (across from ICU) for enhanced special care (high acuity) services between the ICU and Telemetry Units.	1 Lot	N/A	N/A	3,500,000	$3,500,000	TBD	Needed FF&E and Supplies Package to relocate and upgrade GMHA's Hospital Telemetry Unit. The Progressive Care Unit (PCU) currently located within the existing Telemetry Unit will also be relocated to the ICU in order to more effectively utilize all available beds within the ICU.
				Subtotal:	**$3,500,000**		

Laboratory Department Expansion & Upgrade FF&E							
Item	**Qty**	**Date of Purchase**	**Useful Life**	**Unit Price**	**Total Price**	**Funding Source**	**Other Comments**
Laboratory Information System (LIS) Upgrade	1 Lot	2011	7-10 yrs.	2,000,000	$2,000,000	TBD	The Hospital LIS will need to be upgraded during this Hospital Expansion.
Laboratory FFE Package	1 Lot	N/A	N/A	2,000,000	$2,000,000	TBD	Needed FF&E Package to expand and upgrade GMHA's Hospital Laboratory Department.
				Subtotal:	**$4,000,000**		

Radiology Department Expansion & Upgrade FF&E							
Item	**Qty**	**Date of Purchase**	**Useful Life**	**Unit Price**	**Total Price**	**Funding Source**	**Other Comments**
Digital MRI Room (Design / Renovation / Equipment Purchase)	1	N/A	5 yrs.	4,000,000	$4,000,000	TBD	Radiology Dept. no longer provides MRI Services. Therefore, we need to plan for developing this much needed service inside GMH, as previous services provided outside GMH at Parking Lot Area adjacent to TDC.
Digital Interventional Radiology Machine/System	1	N/A	7 yrs.	2,000,000	2,000,000	TBD	Radiology Dept. will need to plan for the procurement its 1st Interventional Radiology System at GMH.
Digital Stationary X-ray Systems (w/ Flouroscopy Capability)	2	2006 & 2009	7 yrs.	750,000	1,500,000	TBD	Radiology Dept. has two old Flouroscopy Systems that need to be replaced in the near future.
Digital Nuclear Medicine Machine	1	2009	7 yrs.	1,200,000	1,200,000	TBD	Radiology Dept. has a used Nuclear Medicine Machine that will need to be replace in the near future.
Specialized Fixtures & Furnishings (all Radiology Areas)	1 Lot	N/A	N/A	1,000,000	1,000,000	TBD	Radiology Dept. Expansion Fixtures & Furnishings Package.
Digital C-Arm Systems	2	2009	7 yrs.	200,000	400,000	TBD	Radiology Dept. needs two (2) C-Arm Systems to meet its demand for such technology and associated services.
Digital Portable X-Ray Units	2	N/A	7 yrs.	200,000	400,000	TBD	Radiology Dept. needs two (2) Portable X-Ray Units in order to provide X-Ray Services bedside hospital-wide.
Digital Anesthesia System	1	N/A	7 yrs.	250,000	250,000	TBD	Radiology Dept. needs one (1) Digital Anesthesia System.
Digital Dexa Bone Scan System	1	N/A	7 yrs.	150,000	150,000	TBD	Radiology Dept. needs one (1) Dexa Bone Scan System.
Digital Vascular Interventional Radiology System	1	N/A	7 yrs.	150,000	150,000	TBD	Radiology Dept. needs one (1) Vascular Interventional Radiology System.
				Subtotal:	**$11,050,000**		

Special Services Department Expansion & Upgrade FF&E							
Item	**Qty**	**Date of Purchase**	**Useful Life**	**Unit Price**	**Total Price**	**Funding Source**	**Other Comments**
FF&E Package for Neurology, Stroke and Wound Care Center (to include Hyperbaric Chamber Capabilities/Capacities)	1 Lot	N/A	N/A	4,000,000	$4,000,000	TBD	Special Services will need to plan for the replacement of its existing Cardiac Catheterization System which has supassed its useful life.
Digital Cardiac Catheterization Machine/System	1	N/A	7 yrs.	2,000,000	2,000,000	TBD	Special Services needs to plan for replacement of its existing, Cardiac Catheterization System which has supassed its estimated useful life.
Fixtures & Furnishings for Special Services Department	1 Lot	N/A	N/A	1,500,000	1,500,000	TBD	Special Services requires a variety of medical fixtures, furnishings, and supplies.
Digital Echocardiogram Machines (3D or 4D Type)	1	2006	5 yrs.	200,000	200,000	TBD	Special Services needs to replace it two (2) Echocardiogram Machines.
Digital EEG Machine	1	2005	5 yrs.	100,000	100,000	TBD	Special Services Dept. needs to replace its EEG Machine.
Digital EKG Machines	3	2008	7 yrs.	33,000	100,000	TBD	Special Services Dept. needs to replace its three (3) EKG MachineS.
Intra Aortic Baloon Pump (IABP)	1	N/A	7 yrs.	50,000	50,000	TBD	Special Services needs to replace its three (3) EKG MachineS.
				Subtotal:	**$7,950,000**		

Z-Wing Medical Arts and Administrative Offices FF&E							
Item	**Qty**	**Date of Purchase**	**Useful Life**	**Unit Price**	**Total Price**	**Funding Source**	**Other Comments**
FF&E Package for Z-Wing Medical Arts and Administrative Offices	1 Lot	N/A	N/A	3,000,000	$3,000,000	TBD	FF&E Package required for completing the Z-Wing Medical Arts (clinical spaces) & Administrative Offices.
				Subtotal:	**$3,000,000**		

Middle Courtyard (Flrs. 1-4) and Front Courtyard (Flrs. 1 & 3) Infill FF&E							
Item	**Qty**	**Date of Purchase**	**Useful Life**	**Unit Price**	**Total Price**	**Funding Source**	**Other Comments**
FF&E Package for Middle Courtyard (Flrs. 1-4)	1 Lot	N/A	N/A	1,500,000	1,500,000	TBD	FF&E Package required for completing the Middle Courtyard Infill Project (Flrs. 1-4).
				Subtotal:	**$1,500,000**		
				Grandtotal:	**$37,000,000**		

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Appendix E. Pro Forma Assumptions

Net Patient Revenues & Allowances

To calculate net patient revenues, projected gross patient revenues are first calculated using actual FY 2016 gross revenues per inpatient day and outpatient visit (including emergency room visits) and applying an annual growth rate of 1%. FY 2016 gross patient revenues and census data are used to reflect the most recent GMH fee schedule. Based on this data, there are a total of 54,923 inpatient days charged at an average of $2,241 in gross charges per inpatient day. There was also a total of 27,245 outpatient visits with an average of $1,217 in gross charges per visit. The charges are assumed to increase at a rate of 5% every two years or 2.5% annually. GMH is statutorily authorized to increase rates up to 5% annually. These rates are then multiplied by GMH's projection of inpatient days and outpatient visits to arrive at projected gross revenue:

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Inpatient Days	55,472	56,027	56,587	57,153	57,725	58,302	58,885	59,474	60,068	60,669
Outpatient Visits	27,517	27,793	28,071	28,351	28,635	28,921	29,210	29,502	29,797	30,095

Gross patient revenues for new services are based on each center's projections as explained in an earlier section. Furthermore, professional fees are embedded in all costs for the new services.

To project the final net patient revenue numbers, GMH applies allowances for contractual adjustments and bad debts based on its historical payer mix and collection rates. Unless indicated otherwise, allowances shall be based on the following payer mix (of total revenue) and allowance assumptions:

Payer Type	Hospital Wide*		Outpatient**		Inpatient**	
	Payer mix	Allowance	Payer mix	Allowance	Payer mix	Allowance
Medicare, Medicaid, & MIP	55.7%	54%	58.3%	43.6%	61.3%	56.6%
Commercial Insurance	27.5%	14%	35.2%	25.9%	27.1%	26.3%
Self Pay	16.8%	55%	6.6%	65.6%	11.7%	85.6%

**Three-year averages based on audited financials through FY 2016.*

*** Based on three-year average of non-emergent outpatient and non-SNF inpatient service billing data through FY 2016.*

The figures above represent three-year averages through FY 2016. Hospital wide assumptions are averages of actual payer mix and allowance rates based on GMH's audited financial statement in FY 2014, 2015 and 2016. The outpatient payer mix and allowance assumptions, based on detailed unaudited charge data, are applied to the new Enhanced Service Centers for MRI and Interventional Radiology services. For the new Cardiac Center, outpatient payer assumptions applied to all services, except for transvenous pacemaker insertions and coronary artery bypass graft surgeries to which inpatient assumptions are applied. Hospital wide assumptions are applied to GMH's existing services. Revenues for the observation unit and for other new services were calculated using separate revenue assumptions.

TEFRA Adjustments

Calculated separately but included in contractual adjustments are amounts GMH expects to receive for retrospective adjustments to its reimbursements from CMS for services provided to Medicare patients. Historically, these amounts average $3 million per year. However, the projection for TEFRA adjustment is a conservative $2 million figure in 2017 with an annual growth of 2%.

Operating Expenses

Operating expenses for existing services are projected based on a 2% annual inflation adjustment and adjusted patient days. From FY 2010 to FY 2015, the average annual increase in operating expenses was 1.57%. However, the nominal increase is primarily related to direct patient care. Further, each expense category is assigned a variability factor to account for changes in adjusted patient days. The higher the variability factor, the more expense projection is sensitive to the changes. Expense categories that may be variable to adjusted patient days include but are not limited to over-time, contractual services, and supplies. The operating expenses for the new radiology and cardiology services (inclusive of the new cardiac catheterization machine) are based on projections by GMH radiology and cardiac staff.

Government Contributions and other Non-operating Revenues

Contributions from the government of Guam are in the form of direct subsidies appropriated by the Legislature or other forms of contributed capital.

As of September 2016, GMH received $22.2 million in proceeds from a $45 million bond issued by the Government of Guam in FY 2016. This amount is reflected in the results for FY 2016 and accounts for the substantial increase in government transfers that year.

For FY 2017, the Legislature appropriated $30.3 million to GMH. This includes $15.3 million from the Guam Memorial Hospital Authority Pharmaceutical Fund[19] and $15 million from proceeds from a bond issued in FY 2016. Under Guam law, 75% of pharmaceutical fund appropriations are a match under the Medicaid program administered by the government. Thus, the match will be recognized in GMH's operating patient revenues as it is earned as patient revenue and the $18.8 million subsidy will be recognized as non-operating revenues

A breakdown of Legislative appropriation by fiscal years from 2015 to 2017 is provided as follows:

Fiscal Year 2015			
Funding Source	FY 2015 Appropriation (P.L. 32-181)	*Medicaid Matching Revenue*	Effective FY 2016 Appropriation
Pharmacuetical Fund	$ 9,891,947	*(7,418,960)*	2,472,987
Healthy Futures Fund	3,940,936	-	3,940,936
General Fund	6,335,160	-	6,335,160
Total Appropriation	$ 20,168,043	*(7,418,960)*	12,749,083

Fiscal Year 2016			
Funding Source	FY 2016 Appropriation (P.L. 33-66)	*Medicaid Matching Revenue*	Effective FY 2016 Appropriation
Pharmacuetical Fund	$ 15,333,085	*(11,499,814)*	3,833,271
Healthy Futures Fund	6,367,283	-	6,367,283
General Fund	-	-	-
Total Appropriation	$ 21,700,368	*(11,499,814)*	10,200,554

Fiscal Year 2017			
Funding Source	FY 2017 Appropriation (P.L. 33-185)	*Medicaid Matching Revenue*	Effective FY 2017 Appropriation
Pharmacuetical Fund	$ 15,291,111	*(11,468,333)*	3,822,778
Healthy Furture Funds	$ -	-	-
Bond Proceeds	15,000,000	-	15,000,000
General Fund	-	-	-
Total Appropriation	$ 30,291,111	*(11,468,333)*	18,822,778

[19] 11 GCA Sec. 26208

For FY 2018, GMH is requesting approximately $36 million in subsidies from the Legislature. However, $11 million is the average for FY 2014 through FY 2016, accounting for Medicaid matches and not including funds sourced from bond or loan proceeds from the government. This plan assumes $39 million adjusted for inflation as the government subsidy for 2018 onwards. This is the amount reserved to GMH under a bill introduced by the Governor of Guam.

All other non-operating revenues are assumed a 2% annual growth rate with the exception of investments in new capital improvements including a new Family Birth Center and specific improvements featured in this paper –which are considered contributions from the government and are reflected in FY 2018 through FY 2020.

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Appendix F. Return on Investment Analysis

Guam Memorial Hospital Authority
Pro forma Return on Investment ($1,000's)

Year	Operating Cash flow	Normal cash flow	Cash flow from investment	Costs avoided[1]	Investment	BPT Subsidy	Net cash flow	Discount rate[2]	factor	DCF
1	(7,611)	(22,411)	14,800	15,000	-	-	29,800	6	1.000	29,800
2	(24,136)	(22,411)	(1,725)	-	(12,500)	39,000	24,775	6	0.943	23,363
3	(23,831)	(22,411)	(1,420)	-	(37,500)	39,780	(38,920)	6	0.890	(34,639)
4	(36,788)	(22,411)	(14,377)	-	(37,500)	40,576	(51,877)	6	0.840	(43,577)
5	(26,386)	(22,411)	(3,975)	-	(37,500)	41,387	(41,475)	6	0.792	(32,848)
6	(13,934)	(22,411)	8,477	-	-	42,215	8,477	6	0.747	6,332
7	(3,422)	(22,411)	18,989	-	-	43,059	18,989	6	0.705	13,388
8	(6,153)	(22,411)	16,258	-	-	43,920	16,258	6	0.665	10,812
9	(3,879)	(22,411)	18,532	-	-	44,799	18,532	6	0.627	11,620
10	6,418	(22,411)	28,829	-	-	45,695	28,829	6	0.592	17,067
Total	**(139,722)**	**(224,110)**	**84,388**	**15,000**	**(125,000)**	**380,431**	**13,388**			**1,317**
IRR		**41%**								

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Appendix G. Enhanced Service Centers Schedule of Revenues

Guam Memorial Hospital Authority
Schedule of Additional Revenues from Enhanced Service Centers ($1,000's)

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Gross Patient Revenue											
Interventional Radiology	$	7,524	15,048	31,601	33,181	34,840	36,146	37,502	38,908	40,367	41,881
MRI Facility		1,825	3,833	6,036	6,338	6,655	6,904	7,163	7,432	7,710	8,000
Cardiology		733	1,540	2,425	2,546	2,642	2,741	2,844	2,950	3,061	3,176
Total gross revenue		10,082	20,420	40,062	42,065	44,136	45,791	47,509	49,290	51,138	53,056
Less: Allowances											
Medicare, Medicaid, & MIP	$	(3,262)	(6,533)	(12,718)	(13,220)	(13,740)	(14,124)	(14,524)	(14,942)	(15,377)	(15,830)
Other patients		(769)	(1,572)	(3,106)	(3,289)	(3,479)	(3,638)	(3,801)	(3,971)	(4,146)	(4,328)
Self Pay		(863)	(1,702)	(3,278)	(3,360)	(3,445)	(3,494)	(3,545)	(3,600)	(3,658)	(3,720)
Total allowances		(4,894)	(9,807)	(19,102)	(19,870)	(20,664)	(21,255)	(21,871)	(22,513)	(23,181)	(23,878)
Net Patient Revenue		5,189	10,613	20,960	22,195	23,472	24,536	25,638	26,777	27,957	29,178
Operating costs											
IR Facility	$	(6,136)	(5,008)	(12,306)	(12,859)	(13,440)	(13,897)	(14,371)	(14,864)	(15,374)	(15,904)
MRI Facility		(1,858)	(1,996)	(2,014)	(2,034)	(2,054)	(2,070)	(2,087)	(2,105)	(2,123)	(2,142)
Cardiology		(970)	(989)	(1,009)	(1,029)	(1,050)	(1,071)	(1,092)	(1,114)	(1,137)	(1,159)
Total operating costs		(8,964)	(7,993)	(15,329)	(15,922)	(16,544)	(17,038)	(17,551)	(18,083)	(18,634)	(19,205)
Net Income	$	(3,776)	2,620	5,630	6,273	6,929	7,498	8,087	8,695	9,323	9,973

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Appendix H. Historical Balance Sheets

Guam Memorial Hospital Authority
(A Component Unit of the Government of Guam)

Comparative Balance Sheets ($1,000's)
Years Ended September 30

	2012	2013	2014	2015	2016
ASSETS			(as restated)		
Current assets:					
Cash	1,643	3,600	3,199	57	1,884
Patient accounts receivable, net of estimated uncollectibles	32,742	20,853	21,578	21,323	22,266
Due from the Government of Guam	1,237	662	2,218	80	7,850
Other receivables, net of allowance for doubtful accounts	0	319	331	-	-
Inventory	3,385	3,330	3,537	4,173	3,487
Prepaid expenses	100	164	67	300	136
Total current assets	39,107	28,929	30,930	25,933	35,622
Note receivable	192	161	128	94	57
Capital assets:					
Depreciable assets, net	33,027	31,485	30,558	35,239	34,294
Construction in progress	4,172	8,698	10,379	3,616	1,163
Restricted cash	209	209	209	209	-
Total noncurrent assets	37,600	40,553	41,275	39,158	35,514
Deferred outflows of resources:					
Deferred outflows from pension	-	-	11,552	13,406	16,210
Total assets and deferred outflows of resources	76,707	69,482	83,757	78,498	87,347
LIABILITIES AND NET POSITION					
Current liabilities:					
Current portion of note payable	542	814	2,027	2,133	-
Accounts payable - trade	19,941	20,211	10,029	16,279	3,580
Accounts payable - Government of Guam Retirement Fund	2,578	1,972	1,993	2,183	1,978
Accrued taxes and related liabilities	4,998	5,760	6,173	6,691	14
Accrued payroll and benefits	1,620	3,998	4,173	2,405	2,658
Unearned revenues	-	3,600	-	50	893
Current portion of accrued annual leave	1,617	1,613	1,640	1,690	1,750
Estimated third-party payor settlement (Medicare)	-	-	-		
Other current liabilities	2,644	3,365	3,078	3,583	2,635
Total current liabilities	33,939	41,333	29,114	35,014	13,507
Note payable, net of current portion	10,751	9,939	21,596	19,463	-
Accrued annual leave, net of current portion	2,076	2,159	2,262	2,261	2,118
Accrued sick leave	3,065	3,459	3,647	4,211	4,328
Net pension liability	-	-	116,455	107,747	127,035
Total noncurrent liabilities	49,832	56,891	173,073	168,695	146,988
Deferred inflows of resources:					
Deferred inflows from pension	-	-	6,961	9,461	-
Net position:					
Net investment in capital assets	37,198	40,183	40,937	38,855	35,457
Unrestricted	(10,323)	(27,592)	(137,214)	(138,513)	(95,099)
Total net position	26,875	12,591	(96,277)	(99,658)	(59,642)
Total liabilities, deferred inflows of resources and net position	76,707	69,482	83,757	78,498	87,347

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Appendix I. Historical Income Statements

Guam Memorial Hospital Authority
(A Component Unit of the Government of Guam)

Statements of Revenues, Expenses and Changes in Net Position ($1,000's)
Years Ended September 30

	2012	2013	2014 (as restated)	2015	2016
Operating revenues:					
Net patient service revenue (net of contractual adjustments and provision for bad debts	$ 84,078	69,262	79,649	83,653	95,065
Other operating revenues:				-	-
Cafeteria food sales	486	477	388	444	511
Other revenue	1,055	129	145	104	3,307
Total operating revenues	85,620	69,868	80,181	84,201	98,883
Operating expenses:					
Nursing	49,379	49,655	50,798	51,153	61,516
Professional support	24,746	24,098	23,686	26,417	30,367
Administrative support	13,055	12,931	12,950	12,551	13,589
Fiscal services	6,959	6,829	7,294	8,379	8,959
Depreciation	4,399	4,424	4,350	4,628	5,121
Administration	1,884	2,859	3,021	3,465	4,560
Retiree healthcare costs	1,939	1,991	2,013	2,780	3,091
Medical staff	1,137	852	580	669	930
Total operating expenses	103,499	103,639	104,693	110,042	128,132
Operating loss	(17,879)	(33,771)	(24,511)	(25,841)	(29,249)
Nonoperating revenues (expenses):					
Transfers from GovGuam	19,326	9,315	21,509	19,944	67,453
Federal grants	4,585	6,165	7,672	3,411	2,805
Contributions	127	152	208	263	235
Federal program expenditures	(399)	(236)	(257)	(292)	(94)
Interest and penalties	(1,387)	(2,161)	(1,693)	(1,948)	(1,540)
Loss from disposal of fixed asset	-	-	-	-	(118)
Others	(30)	(88)	(374)	(177)	(5)
Total nonoperating revenues (expenses)	22,221	13,148	27,065	21,201	68,736
(Loss) income before capital grants and contributions	4,342	(20,623)	2,553	(4,641)	39,487
Capital grants and contributions:					
Government of Guam	1,271	5,525	2,937	1,249	529
Federal grants	2,649	814	16	10	-
Others	-	-	1,447	-	-
Total capital grants and contributions	3,920	6,339	4,399	1,259	529
Change in net position	8,262	(14,285)	6,953	(3,382)	40,016

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Appendix J. Historical Schedule of Revenues by Classification

Guam Memorial Hospital Authority
(A Component Unit of the Government of Guam)

Schedule of Patient Service Revenues by Patient Classification ($1,000's)
Years Ended September 30

		2012	2013	2014	2015	2016
Gross Patient Service Revenue:						
Medicaid patients	$	23,587	28,507	31,522	35,705	36,646
Medicare patients		32,351	31,660	31,370	36,823	43,992
MIP patients		14,425	11,354	12,023	15,369	12,928
Other patients		46,906	43,730	42,096	42,286	41,695
Self-pay patients		31,033	25,874	26,646	29,216	21,023
	$	148,302	141,125	143,657	159,400	156,285
Contractual Adjustments and Provision for Bad Debts:						
Contractual adjustments:						
Medicaid patients	$	14,627	20,741	19,327	19,924	19,256
Medicare patients		18,654	16,616	16,982	21,153	24,353
MIP patients		8,804	5,938	5,580	6,801	5,476
Other patients		5,155	10,532	4,291	8,273	5,474
Provision for bad debts:						
Self-pay patients		16,984	18,037	17,828	19,596	6,660
	$	64,224	71,863	64,008	75,747	61,220
Net Patient Service Revenue:						
Medicaid patients	$	8,960	7,766	12,195	15,781	17,390
Medicare patients		13,697	15,044	14,389	15,670	19,640
MIP patients		5,621	5,416	6,443	8,568	7,452
Other patients		41,751	33,198	37,805	34,014	36,221
Self-pay patients		14,049	7,837	8,818	9,620	14,363
	$	84,078	69,262	79,649	83,653	95,065

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Appendix K. Historical Schedule of Contractual Adjustments

GUAM MEMORIAL HOSPITAL AUTHORITY
(A Component Unit of the Government of Guam)

Schedule of Contractual Adjustments and Provision for Bad Debts (in 1,000s)
Years Ended September 30

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Contractual Adjustments and Provision for Bad Debts:															
Contractual adjustments:															
Medicaid patients	$	3,531	4,233	6,846	8,332	8,792	-	9,987	13,380	11,431	14,627	20,741	19,327	19,924	19,256
Medicare patients		9,592	8,948	11,491	7,041	11,343	4,177	13,821	15,875	18,944	18,654	16,616	16,982	21,153	24,353
MIP patients		1,684	-	2,818	3,123	(3,219)	-	6,286	7,325	8,530	8,804	5,938	5,580	6,801	5,476
Other patients		2,611	3,031	6,700	7,055	7,970	6,809	7,774	12,492	13,860	5,155	10,532	4,291	8,273	5,474
Provision for bad debts:															
Self-pay patients		15,661	17,468	18,174	18,613	21,091	25,044	12,192	14,139	24,888	16,984	18,037	17,828	19,596	6,660
	$	33,079	33,680	46,028	44,164	45,977	36,030	50,060	63,210	77,652	64,224	71,863	64,008	75,747	61,220

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Appendix L. HMAT Initiatives

On Dec. 2015, Guam Governor Eddie Baza Calvo, asserting his authority under federal law, assumed control of GMH to avert a shut down. In doing so, the Governor established the Hospital Management Advisory Team (HMAT). The HMAT, made up of the government's senior finance, research, planning, management, and technology officials was assigned to examine hospital policy and operations in order to develop recommendations that address challenges and areas of weaknesses both internal and external to GMH. The purpose of this appendix is informational, to illustrate additional government-wide support for GMH, and to show in detail specific initiatives formulated by the team.

Since Dec. 2015, Governor Calvo and HMAT have met with hospital management and staff to examine various aspects of hospital policies and operations inclusive but not limited to billings and collections systems, human resources, physical facilities, procurement, technology systems, medical records, Guam law, hospital policy, and energy use. Governor Calvo, upon the advice and recommendations of HMAT and hospital management, has taken action to: (1) Improve the cash flow situation at the hospital, (2) Enhance operational efficiency and effectiveness, and (3) Strengthen existing or create new policy.

The recommendations by the HMAT are itemized into three areas: Cost Reductions and Containment, Internal Revenue Enhancement Strategies, and External Revenue Generating Strategies. The specific initiatives under each area are outlined as follows:

Cost Reductions and Containment

1. Personnel Costs: Reduce Overtime Expense
2. Procurement Savings: Group Purchasing Arrangement
3. Procurement Savings: Maintaining Credit Status
4. Telephone Conversion
5. Solar Energy Project
6. Facilities Cost Reduction - SNU
7. Independent Practices for Mid-level Providers
8. Document Scanning and Digitization of Medical Records
9. Unified System of Care: 'One Guam' Approach

Internal Revenue Enhancement Strategies

1. Revocation of 8% discount to third party payers
2. Observation Unit
3. Centers of Excellence: Outpatient Radiology and Expanded Inpatient
4. Centers of Excellence: Cardiac Center Program
5. Outpatient and Short Stay Surgeries
6. Enrollment Center
7. Leasing GMH Space: Skilled Nursing Unit
8. Leasing GMH Space: Providing Insurance to Uninsured
9. IT Systems Upgrade
10. Medicare Adjustment
11. TEFRA
12. Online Electronic Payment Services
13. Endowment Fund
14. Modified Acute Bed Capacity

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External Revenue Generating Strategies

1. Liquid Fuel Tax Increase
2. Implementation of a Transportation Fee
3. Implementation of a Resort Fee
4. Implementation of a Wholesale Surcharge
5. Continuation of Health Insurance Provider Fees
6. Charging Carriers and/or Utilities for use
7. Business Privilege Tax Increase
8. Automated Traffic Light Ticketing System
9. Medicinal Marijuana
10. Real Property Tax Increase

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Appendix M. Board of Trustees

Direction and guidance is provided to GMH's senior managers through the hospital's Board of Trustees (BOT) whose members are appointed by the Governor of Guam and confirmed by the Legislature. The BOT appoints the Hospital Administrator. The BOT currently consists of the following members:

Eloy S. Lizama	Chairman
Lillian Perez-Posadas	Vice Chair
Melissa Waibel	Secretary
Sharon Davis	Member
Ricardo M. Terlaje, MD	Member

- **Eloy S. Lizama, Board of Trustees Chairman**: Eloy S. Lizama, a CPA, is the Controller of the local supermarket chain Payless Markets, Inc. and has held various executive and senior level financial management positions in the private sector since 1991. These include positions at IP&E Holdings, Shell Guam, Inc., E.C. Development, and Deloitte & Touche, LLC (Guam). Additionally, Eloy has prior government service as Chief Auditor for the Office of Public Accountability and Controller for the Guam Department of Education. He has a Bachelor in Business Administration from the University of Guam.

- **Sharon Davis, Board of Trustees Member**: Sharon Davis is the Vice President for Service at GTA Teleguam LLC –a company she began working with in 2006 as an account manager. Prior to working with GTA, she served in managerial positions in advertising and customer service at the Pacific Daily News, a Gannett Company. Sharon holds a bachelor degree from the University of Nebraska, Omaha. Sharon is Certified Lean Six Sigma Green Belt.

- **Lillian Perez-Posadas, Board of Trustees Member**: Lillian Perez-Posadas, with over 40 years of experience as a nurse, currently oversees United Airlines health programs on Guam. In 1993, she received her Master of Science in Nursing from Washington State University. Early in her career, Perez-Posadas held nursing positions at U.S. Naval Hospital Guam and the Department of Public Health and Social Services. Additionally, she has served for 29 years at GMH in various nursing positions including serving as Administrator of Hospital Nursing Services. She also served as a faculty member of the University of Guam's College of Nursing.

- **Ricardo M. Terlaje, MD, Board of Trustees Member**: Dr. Ricardo Terlaje is a physician in private practice whose specialty is in family medicine. He also works with SelectCare Insurance overseeing utilization and IHP Health Center as an urgent care physician. He has held previous positions with PMC Isla Health Systems and the GMH emergency room. Dr. Terlaje completed his medical studies with the Autonomous University of Guadalajara.

- **Melissa Waibel, Board of Trustees Member**: Melissa Y. Waibel is the CEO of Guam Surgicenter, LLC. She also once served as the Administrator of Creekwood Surgery Center in Kansas City, Missouri and served as operating room nurse at various facilities in Missouri and West Virginia. She holds a Bachelor of Science in Nursing.

A member of the Guam Memorial Hospital Volunteers Association sits as a non-voting member of the GMHA Board of Trustees.

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Appendix N. Senior Management

GMH senior management team is composed of skilled and competent managers with extensive experience in both government and the community health service industry.

Peter John Camacho	Hospital Administrator/CEO
Dr. Florencio Lizama	GMHA Medical Advisor/DOC Clinic Medical Director
Dr. Vincent Duenas	Associate Administrator for Medical Services
Benita Manglona	Chief Financial Officer
Zennia Pecina	Assistant Administrator of Nursing Services

- **Peter John Camacho, Administrator/CEO**

  Peter John Camacho is on his third appointment as Hospital Administrator/CEO. He received his Bachelor of Arts degree in Philosophy from Marquette University located in Milwaukee in 1981 and his Masters in Public Health focusing on Health Services Administration and Planning from the University of Hawai'i at Mānoa in 1987. He began his government service at GMH and has also worked at the Department of Public Health and Social Services. In the private sector, he has worked with the Guam Coalition Against Sexual Assault and Family Violence and Catholic Social Service.

- **Dr. Florencio Lizama, GMHA Medical Advisor/DOC Clinic Medical Director**

  Dr. Lizama obtained his undergraduate degree in biology at Seattle University and his medical degree from the University of Washington. He moved to Guam and has practiced as a primary care internist since 1989. His clinical practice experience is very diverse, having worked in multi-specialty and solo practices, and in the inpatient and outpatient setting. He has served as Medical Director for an insurance company, focusing on utilization management, and for a Home Healthcare Agency. In 2011, Dr. Lizama was appointed Hospital Medical Director. He has been an active Medical Director addressing both quality healthcare delivery and fiscal sustainability. Dr. Lizama is also a member of the Governor's Fiscal Policy Committee. Dr. Lizama's professional leadership role included serving twice as President of the Guam Medical Society in the 90s and as Hospital Board Vice Chairman in 2006.

- **Dr. Vincent Duenas, Associate Administrator – Medical Services**

  Dr. Vincent A Duenas is an Internal Medicine Specialist. He graduated from Saint Louis University School of Medicine in 1976. Having more than 40 years of diverse experiences, especially in internal medicine, Dr. Duenas affiliates with and cooperates with other community-based physicians, including The Doctors Clinic. Duenas is board certified with the American Board of Internal Medicine.

- **Benita Manglona, CFO**

  Benita Manglona, a Certified Public Accountant (CPA), Chartered Global Management Accountant (CGMA), and a member of the American Institute of Certified Public Accountants (AICPA). She received her Bachelor of Science, cum laude, in accounting from Saint Mary's College of California and Master of Science in Taxation from Golden Gate University. Having worked for the CNMI government for over 15 years and Government of Guam for over 5 years, she has extensive experience in public financial management, including budgetary matters. In her role in public financial management, she has worked closely with the hospital understanding its financial challenges as it meets its mandate to provide care regardless of the patient's ability to pay. She has over 30 years of tax and accounting experience, having also worked in accounting firms in Guam and California. In 1999, she was listed as

Doc. No. 34 GL-17-0862. *

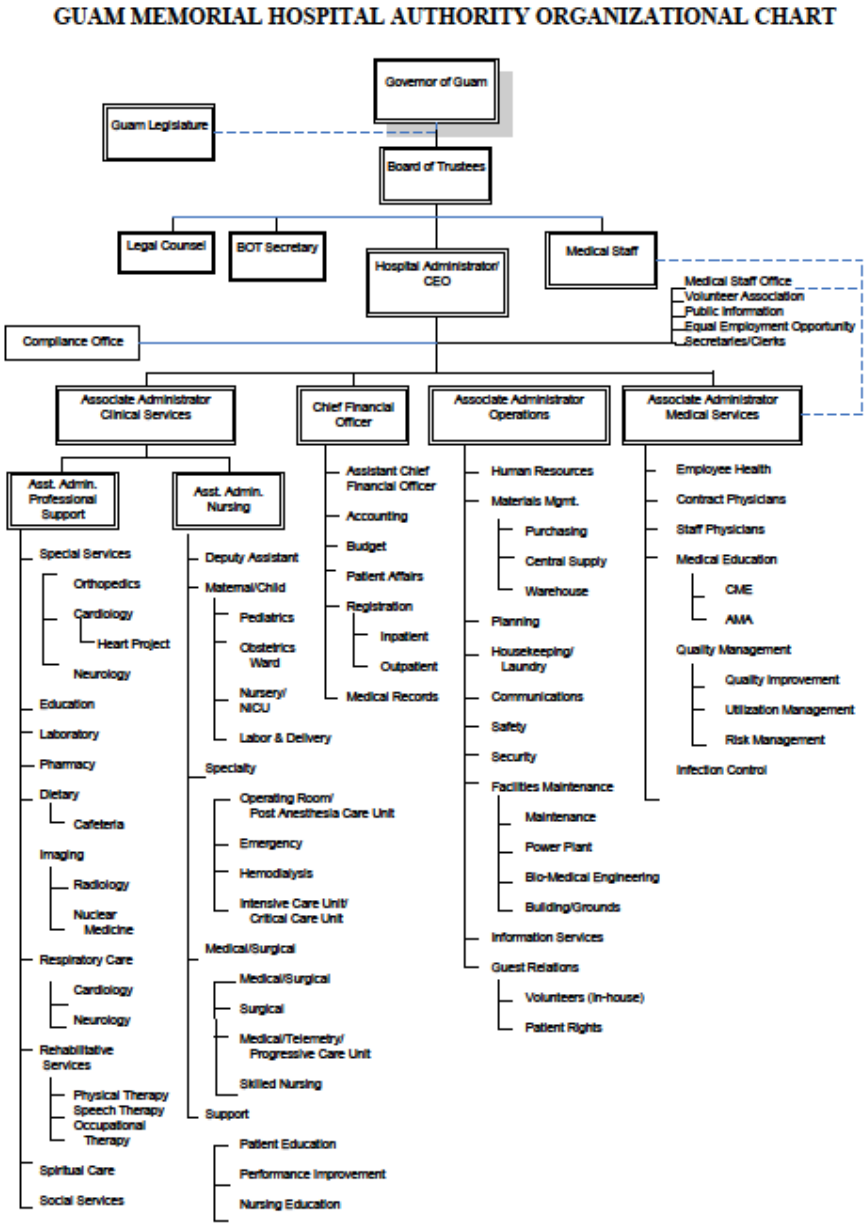
one of the top 100 business people by Guam Business Magazine. She was the former Director of Bureau of Budget and Management Research and Director of Administration until she joined GMH as the Chief Financial Officer in February 2015.

- **Zennia C. Pecina, RN, Assistant Administrator of Nursing**

  Zennia Pecina, a registered nurse with almost 30 years of nursing experience, oversees GMH's nursing division as the hospital's Assistant Administrator of Nursing. She is also an adjunct nursing instructor at the University of Guam. She previously served as a clinical operations manager with the Guam Health Cooperative and held various managerial nursing positions in California, Hawaii, and Guam. Pecina holds a Masters in Nursing Administration from the UCLA School of Nursing and Bachelor of Science in Nursing from the University of Guam.

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Appendix O. Organizational Structure



Appendix P. GMH Expansion Plan Concept

Summary

The GMHA expansion feasibility study is based on the analysis of existing conditions and facilities needs and provides a projection or "vision" into the future to serve the mission of Guam's only public hospital facility. If adopted by GMHA, the short term and long term expansion plans can guide future facility growth and will set both goals and constraints for future facility development

The GMHA expansion plans have to be regarded as a planning guide or framework with both constraints and flexibility. The constraints have to be recognized so that uncoordinated plans and/or irreversible damage to long term expansion plans can be mitigated. The flexibility in the planning process is important as it promotes discussions or feedback from healthcare providers, governing agencies and the local community that could further fine tune or enrich the expansion plans. It can accommodate changes in the healthcare standards, changing healthcare needs of the community or unforeseen circumstances or opportunities that may arise during the implementation process.



Long Term GMHA Expansion Plan

Two men accused of meth possession

By Tihu Lujan
tihu@postguam.com

Two men were recently apprehended in separate incidents for allegedly possessing crystal methamphetamine, according to a magistrate's complaint filed in the Superior Court of Guam.

Officers of the Guam Police Department stopped one man who was operating a motorcycle without a rear license plate on the morning of June 28.

The operator, identified as Albert Saboy, was not able to provide a driver's license or vehicle registration, court documents state. Police also discovered that the vehicle's VIN number had been defaced.

Officers conducted a search of Saboy and the vehicle, allegedly finding a glass pipe "loaded" with a crystalline substance, as well as several other plastic baggies containing more of the same substance.

The crystalline substance discovered was subjected to a chemical field test, which revealed a presumptive positive reaction.

Saboy was on pretrial release

Saboy told police that he last used the substance the night prior and that he had been smoking "ice" for nine years, court documents stated.

When questioned about the vehicle, Saboy stated that he received it from another person and that the VIN number had allegedly been removed prior to him receiving it. He also said that he did not receive any documents relating to the vehicle from its seller.

Court records revealed Saboy was on pretrial felony release at the time of the incident for other drug and property crimes in a prior criminal case.

Saboy was charged with possession of a Schedule II controlled substance as a third-degree felony, special allegation of felony committed while on pretrial felony release and fraudulent vehicle identification as a misdemeanor.

Separate arrest in Hagåtña

In an unrelated incident, officers also inspected a parked vehicle sitting in the Paseo de Susana Park in Hagåtña on June 28.

Police observed a man identified as Mathieu Bryan Duke sitting in the vehicle's front passenger seat with a glass pipe, court documents state. Another individual was also noted to be sitting in the operator's seat of the vehicle.

Both occupants exited the vehicle while officers searched for any suspicious paraphernalia.

When questioned about the pipe Duke was previously found with, the suspect stated that he had "thrown it into the ocean after he exited the vehicle because the item contained crystal methamphetamines and didn't want to get into trouble," court documents state.

In their search of the vehicle, police discovered a small case containing another glass pipe and several plastic bags, one of which contained a crystalline substance.

A chemical field test was conducted on the pipe and baggies, revealing a presumptive positive result.

Duke was charged with possession of a Schedule II controlled substance as a third-degree felony.

The charges

Albert Saboy was charged with possession of a Schedule II controlled substance as a third-degree felony, special allegation of felony committed while on pretrial felony release and fraudulent vehicle identification as a misdemeanor.

Lawmakers debate use of excess funds

By John O'Connor
john@postguam.com

The Guam Legislature spent hours debating the financial and legal ramifications of two bills intended to provide additional funding to the Guam Department of Education. Discussions waxed on for hours, but lawmakers still had not reached a conclusion on the measures by 7 p.m.

Bills 87-34 and 94-34 would have provided a combined $580,000 in additional funding to the education department. Bill 87 utilizes excess money in the Capitol District Fund to provide $430,000 to GDOE, while Bill 94 uses savings from senatorial salary reductions to augment that amount by $150,000.

Members of the Guam Education Board and management heads of GDOE were called in to answer questions and speak on the measure.

Officials identified where the money would be forwarded to in terms of repairs and maintenance for Guam schools.

Later into the night, Speaker Benjamin Cruz questioned financial officials with the legislature on why they there was no recommendation to use the savings in the Capitol District Fund to pay down the principal on a $4 million Bank of Guam loan. Proceeds of the loan funded part of the renovation of the Guam Congress Building.

The payment would save about $700,000 in loan payments for the long term, Cruz stated. Similar sentiments were expressed by Sen. Fernando Esteves, who added that legislative staff should speak about concerns when it came to the financial welfare of the legislature, even if the input was not solicited. Esteves said he would be willing to take in such input should staff have any.

Sen. Mary Torres had concerns about the use of the Capitol District Fund for purposes other than what is stated in law.

"These funds are so restrictive by design," Torres said.

"This Capitol District Fund was designed and created so that the monies are dedicated and used solely for the repair, restoration, renovation or refurbishment of this building or other capitol district building."

Guam Memorial Hospital Authority
Aturidåt Espetåt Mimuriåt Guåhan
850 Gov. Carlos Camacho Road, Tamuning, Guam 96913

PUBLIC NOTICE

BOARD OF TRUSTEES SPECIAL MEETING

Date: Monday, July 10, 2017
Time: 6:00 p.m.
Place: 1st Floor, Daniel L. Webb Conference Room

You may contact Toni Tenorio at 647-2218 for special accommodations, auxiliary aids, or other services.

/s/ PeterJohn D. Camacho, M.P.H.
Hospital Administrator/CEO

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Church calls on Catholics for year of reparation

By Neil Pang
neil@postguam.com

Guam's Catholic leadership has announced a "year of reparation" for the island's largest faith group and is calling on faithful across the island to observe the commemoration with a year of prayer, fasting and almsgiving.

Coadjutor Archbishop Michael Byrnes differentiated reparations from how they are regularly understood in Guam with what the term means in a spiritual sense.

'A way of restoring the balance'

"Reparation has to do with justice," he explained. "It's a way of restoring the balance of justice when people have been harmed."

Byrnes made the announcement for the inauguration of the year of reparation during a Mass held last month. In the announcement, Byrnes acknowledged the "wounded" spiritual state of the Catholic Church in Guam.

"It is no secret that the Body of Christ here on Guam is wounded," he said. "In the last few years, spearheaded by the efforts of many of the lay faithful, we have become acutely aware of the magnitude of the crimes of sexual abuse of minors committed by clergy and of many other deficiencies that have accrued over the years."

Byrnes added that beyond the child sex abuse scandal, Guam's Catholic Church is also wounded by "deep divisions" within the church itself. A release from the archdiocese cited an Economist report stating Guam has the world's highest proportion of divorces per 1,000 people – in addition to the stories of violence, child abuse and drug abuse reported here daily.

"Civil remedies and ecclesiastical remedies are always insufficient – they're a contribution toward the restoration of justice," he said. "What our prayers do is say to those victims – to those who suffer – that they are worth our attention, our sacrifices and our prayers."

Byrnes said that a year of praying, fasting and almsgiving would serve as an expression of unity among the faithful, a sign of solidarity with all those who suffer spiritually and a demonstration "to our brothers and sisters that they're highly honored and that the shame, the guilt, the despair and the betrayal of trust – God can heal that."

The year of reparation begins tonight with an opening service at the Dulce Nombre de Maria Cathedral-Basilica at 6 p.m.

Traveling monstrance

Rev. Mike Crisostomo explained that one of the big events to take place during the opening service will be the blessing of a monstrance that will travel to Catholic parishes across the island throughout the year of reparation, to represent unity among parishioners and the larger church and, especially, to serve as a sign of solidarity with the victims of abuse.

While archdiocesan leaders acknowledged yesterday that nothing is ever enough when it comes to righting the church's past wrongs, Crisostomo said the year of reparation was one of many steps on the road to spiritual healing.

"The church has certainly acknowledged that it has done wrong and now we're trying to make amends and reconcile, and hopefully spiritual justice will be served by doing these acts of mercy," Crisostomo said.

Woman admits to writing $31K in bad checks

A 20-year-old woman faces a maximum sentence of 30 years behind bars for attempted credit union fraud.

Meihalanei Cruz signed a plea agreement filed in the District Court of Guam yesterday, admitting to writing bad checks totaling $31,486.

Cruz admitted to writing nine checks to obtain gift cards from Army and Air Force Exchange Services (AAFES) at Andersen Air Force Base knowing she lacked the funds to cover any of the checks, court documents state. The checks were written in a two-week period between Feb. 17, 2016, and continuing until March 2, 2016.

At the times these checks were written, Cruz knew she lacked the funds in the bank to cover any of these checks, the plea agreement states. The defendant had no reasonable expectation that any of these checks would be covered by any other source, according to the document.

"Pursuant to the Mandatory Victim Restitution Act, the court must order that the defendant pay restitution to AAFES," court documents stated.

(Daily Post Staff)

Informal settlement in construction worker's death

Police suspend investigation

By Mindy Aguon
mindy@postguam.com

Inland Builders Corp. has entered into an informal settlement with the U.S. Occupational Safety and Health Administration, while police have suspended an investigation into the death of a construction worker.

On May 31, OSHA imposed an initial penalty of $49,436 for seven worksite safety violations the agency deemed "serious" following its investigation into the Jan. 18 death of 62-year-old Reynalto Fernando.

Fernando sustained a skull fracture while working in a manhole at the Hafa Adai Exchange in Tamuning.

When police initially responded, they thought Fernando was a pedestrian that had been struck by a car that fled the scene, but through their investigation, police believe the worker was struck by a car.

Police reviewed video footage that showed a gold Nissan Sentra drive over the manhole, and investigators attempted to locate the driver.

Chief Medical Examiner Dr. Aurelio Espinola, however, said the construction worker's injuries were more consistent with his face hitting the edge of the manhole.

GPD spokeswoman Capt. Kim Santos confirmed the case has been reclassified as an injured person and has been suspended pending further developments.

The report has been forwarded to OSHA.

OSHA: Company didn't follow safety standards

The violations against Inland Builders included the company's failure to comply with confined spaces safety standards and failure to ensure employees had personal protection equipment and hand protection for exposure to hazards.

OSHA regulations require companies to ensure its staff complete a pre-entry checklist, ensure adequate ventilation, and have rescue and communication procedures and entry/standby and backup persons, among other things.

The case against Inland Builders indicates the matter is pending abatement of the violations with a payment plan in place.

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850 Gov. Carlos Camacho Road, Tamuning, Guam 96913

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/s/ Peter John D. Camacho, M.P.H.
Hospital Administrator/CEO

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GUAM LAND USE COMMISSION
Department of Land Management
ITC Building, Third Floor, Tamuning, GU
P.O. Box 2950, Hagatna, Guam 96932
Telephone: (671) 649-5263, Facsimile: (671) 646-5383

AGENDA

A regular meeting of the Guam Land Use Commission will be held on Thursday, July 13, 2017 at 1:30 pm, Department of Land Management Conference Room, 590 S. Marine Corps Dr., 3rd Floor, ITC Building, Tamuning.

I. Roll Call
II. Approval of Minutes - June 22, 2017
V. Administrative Matters
A. ARINC; request for Techincal Amendment to Leo Palace Resort's PUD to accommodate a temporary aviation communication receiving tower, on a portion of Lot 2511, Yona.
VI. Adjournment

**"Funding Source provided by above Applicants"
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GMHA Board of Trustees
Special Meeting

Monday, July 10, 2017 | 6:00 p.m. | Daniel L. Webb Conference Room

AGENDA

I. CALL MEETING TO ORDER AND DETERMINATION OF QUORUM
Note: Five (5) members establish a quorum.

II. NEW BUSINESS
A. Business Sustainability Plan

III. PUBLIC COMMENT

IV. ADJOURN MEETING

GMHA Board of Trustees
SPECIAL MEETING ATTENDANCE
Monday, July 10, 2017 | 6:00 p.m. | Daniel L. Webb Conference Room

NAME	TITLE	SIGNATURE
Board Members:		
Eloy S. Lizama	Chairperson	
Lillian Perez-Posadas	Vice-chairperson	
Melissa Waibel	Secretary	
	Treasurer	
Sharon Davis	Trustee	
Ricardo M. Terlaje	Trustee	
Jeanine "Jenny" Cruz	Ex-officio Member	
Hospital Management:		
PeterJohn D. Camacho	Hospital Administrator/CEO	
Benita A. Manglona	Chief Financial Officer	
Edward Birn	Assistant Chief Financial Officer	
Zennia C. Pecina	Assistant Administrator of Nursing Services	
Vincent A. Duenas, MD	Associate Hospital Administrator of Medical Services	
Kozue Shimabukuro, MD	Assistant Associate Hospital Administrator of Medical Services	
Friedrich C. Bieling, MD	Medical Staff President	
Guests:		
Carlos Panaglan		
JUNE PEREZ		
Vince Quichocho		

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