# Guam Memorial Hospital Authority

# 2009 Strategic Plan


850 Governor Carlos G. Camacho Road
Tamuning, Guam 96911

The Board of Trustees for
the Guam Memorial Hospital Authority
is pleased to present the

# 2009 STRATEGIC PLAN

We are proud to present our plans for improving our organization and enhancing the delivery of quality health care on Guam. We commend the Medical Staff, the Executive Management Council and the Hospital staff for their commitment to providing excellent patient care. We offer our support and look forward to continued success.

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# Table of Contents

# Guam Memorial Hospital Authority
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## MESSAGE FROM THE HOSPITAL ADMINISTRATOR/CEO

Buenas yan Saludu! Healthcare continues to face many significant challenges and changes throughout the world. New pathogens, increasing patient co-morbidities and medical complications as well as exciting new technologies being implemented to improve patient outcomes are all part of this milieu. While strategically located in this part of the Pacific, Guam is relatively geographically isolated. Despite this, the Guam Memorial Hospital Authority is an integral participant in responding to the challenges and changes facing healthcare.

Over the past several years while continuing to provide services to the patients and their families we have been faced with an equally daunting task of "healing" what the Public Auditor has euphemistically referred to as the "back side of the hospital". These are areas within the administrative and fiscal services divisions that support direct patient care services. Many efforts have been implemented over the past several years to enable the hospital to not just tread water but to ensure that the frontline direct care personnel are able to provide first world medical care. While many improvements have been made, the Hospital continues to face daily challenges but we are undaunted and committed to stay the course.

We have publicly declared our intention to seek validation this year (2009) from "The Joint Commission" on the Authority's ability to comply with institutional standards that hundreds of other hospitals across our nation and internationally have sought and which means they have achieved the gold standard in healthcare. We are committed to reassuring our community that the medical care received at the Guam Memorial Hospital Authority compares with care provided by other hospitals in the United States of America.

An important part of all of these forward-moving efforts is the Strategic Plan. This document will guide the Hospital in achieving the goals it has identified as what is important to us. As a part of our due diligence in creating an effective road map that drives the Hospital organization towards successfully accomplishing our Mission and achieving our Vision, GMHA's Board of Trustees, Executive Leaders, Management Team, Staff and key members of our island home participated in a process to develop the framework for identifying the steps that will result in achieving and sustaining a culture and environment of safe, quality patient care that meets national standards and addresses the needs of our Community.

We present the Authority's Strategic Plan for FY 2009 through 2014 to the Hospital Community. While the goals and strategic objectives have been identified, we must keep in mind that this is meant to be a living document that provides the guidelines to ensure that this Hospital will continue to adapt and respond to those ever-present challenges ... to ensure that a culture and environment of safe, quality patient care is found at the Guam Memorial Hospital. Put Respetu!

Senseramente,

PETERJOHN D. CAMACHO, MPH

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## A MESSAGE FROM THE BOARD OF TRUSTEES

As Guam's largest provider of health care services, Guam Memorial Hospital Authority (GMHA) is faced with many diverse challenges on a daily basis. At its core, Guam Memorial Hospital is our Island's only provider of emergency and acute care services for civilian residents. The Hospital's commitment to providing the best possible care to its patrons often finds GMHA competing for limited resources with other community priorities. The Authority's governing body, its Board of Trustees, is tasked with setting a direction to ensure that the community is adequately cared for regardless of the resources that are made available. This is our responsibility, one that I am proud to say we have embraced. The Guam Memorial Hospital Authority is finding solutions to a growing number of challenges resulting from past practices, and others that we face because of the growth of and changes within our community.

Our solutions to those challenges are revealed in this strategic plan, a plan that reflects the views of all that care for the Hospital. With input from staff, the medical community, the Island's political leaders and the community at large, four strategic initiatives have been identified as those most important in meeting the mission and a new vision for GMHA. Spelled out more completely in the plan document, those initiatives include:

- Attaining and maintaining Joint Commission Accreditation
- Improving the Fiscal Performance of GMHA
- Establishing Greater Self Reliance
- Developing a Facilities Master Plan

While a typical strategic plan is forward thinking, these initiatives concentrate on the near term. The Board of Trustees believes that in order to address our future challenges, changes in our organization's culture and fundamental infrastructure need to be addressed now. Much has been accomplished over the past few years, but progress will need to increase exponentially if GMHA is to meet the needs of Guam's rapidly changing community.

This document represents a collective set of ideas. It will accomplish nothing in itself, but it proclaims a commitment from all who work and plan for the Hospital's future, that what is stated here can succeed. The plan is comprehensive and establishes a mission and vision that has energized our organization. Please join us in making GMH a hospital as good as can be found anywhere in America. We believe that GMH is an institution that our people can be proud of ... A place of safety and patient care that confidently proclaims, "Great Medicine Provided Here."

**Dan Webb, Chairperson**

# Section I: GMHA Environmental Assessment

The Guam Memorial Hospital Authority (GMHA) is a community-based hospital. Its primary service market is the civilian population on Guam. The secondary markets are the residents of the neighboring Pacific Islands. As the population changes, GMHA must prepare to accommodate changes in healthcare needs. GMHA's planning efforts focus mainly on Guam's civilian population, although utilization by regional neighbors is certainly taken into consideration.

## *COMMUNITY SERVED*

Guam's civilian population has grown steadily over the years and its growth rate is expected to continue to rise in the future. Table 1 tracks the population growth experience since 2000 and projected through 2010. However, the figures are not reflective of Guam's Civilian Military Buildup population growth projection of approximately 40,000 individuals (a population spike in 2010 of approximately 20,000 comprised of a civilian labor pool for military construction projects; and another population spike in 2014 of approximately 20,000 comprised of active military and dependents). Aside from the near future anticipated population spikes that may result from the Civilian Military Buildup, Guam's normal population is projected to continue to grow by an average of approximately 3,000 persons per year.

**TABLE 1**

**Civilian Population Projections**
**Guam: 2000 - 2010**

| Year | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Population | 155,324 | 158,330 | 161,057 | 163,593 | 166,090 | 168,564 | 171,019 | 173,456 | 175,877 | 178,287 | 180,692 |

Source: Guam Bureau of Statistics and Plans

The growth in the Island's civilian population indicates an increase in the need for healthcare services. By examining the aging of the population, the Authority can project the types of services GMHA may be expected to provide. Table 2 details Guam's civilian population by age from 2000 through 2010. Although the island's population is relatively young, the population projections indicate that the Community is aging.

**TABLE 2**

**Civilian Population**
**by Age Groups**
**Guam: 2000-2010**

| Age Group | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3,589 | 3,659 | 3,377 | 3,197 | 3,189 | 3,186 | 3,189 | 3,196 | 3,205 | 3,220 | 3,240 |
| 1-4 | 13,274 | 13,546 | 13,955 | 13,996 | 13,801 | 13,404 | 12,933 | 12,746 | 12,745 | 12,763 | 12,795 |
| 5-9 | 16,127 | 16,321 | 16,390 | 16,449 | 16,578 | 16,837 | 17,180 | 17,312 | 17,172 | 16,969 | 16,575 |
| 10-14 | 14,360 | 14,719 | 15,096 | 15,538 | 15,858 | 16,105 | 16,304 | 16,372 | 16,433 | 16,561 | 16,819 |
| 15-19 | 12,453 | 12,856 | 13,234 | 13,508 | 13,906 | 14,318 | 14,679 | 15,057 | 15,498 | 15,820 | 16,066 |
| **SubTotal** | **59,803** | **61,101** | **62,052** | **62,688** | **63,332** | **63,850** | **64,285** | **64,683** | **65,053** | **65,333** | **65,495** |
| 20-24 | 11,951 | 11,926 | 11,845 | 12,041 | 12,171 | 12,384 | 12,782 | 13,160 | 13,436 | 13,833 | 14,247 |
| 25-29 | 12,790 | 12,406 | 12,206 | 11,945 | 11,867 | 11,894 | 11,868 | 11,776 | 11,968 | 12,101 | 12,313 |
| 30-34 | 12,895 | 12,985 | 13,088 | 13,136 | 12,966 | 12,711 | 12,337 | 12,137 | 11,879 | 11,803 | 11,830 |
| 35-39 | 12,767 | 12,889 | 12,946 | 12,870 | 12,812 | 12,799 | 12,888 | 12,995 | 13,042 | 12,874 | 12,625 |
| 40-44 | 10,502 | 10,975 | 11,443 | 11,895 | 12,349 | 12,623 | 12,749 | 12,811 | 12,738 | 12,687 | 12,676 |
| **SubTotal** | **60,905** | **61,181** | **61,528** | **61,887** | **62,165** | **62,411** | **62,624** | **62,879** | **63,063** | **63,298** | **63,691** |
| 45-49 | 9,072 | 9,226 | 9,439 | 9,704 | 9,981 | 10,329 | 10,803 | 11,272 | 11,722 | 12,171 | 12,446 |
| 50-54 | 7,609 | 7,984 | 8,193 | 8,461 | 8,697 | 8,858 | 9,023 | 9,246 | 9,512 | 9,785 | 10,131 |
| 55-59 | 5,041 | 5,328 | 5,800 | 6,250 | 6,749 | 7,346 | 7,718 | 7,924 | 8,194 | 8,429 | 8,587 |
| 60-64 | 4,576 | 4,709 | 4,704 | 4,733 | 4,749 | 4,789 | 5,067 | 5,515 | 5,942 | 6,421 | 6,995 |
| **SubTotal** | **26,298** | **27,247** | **28,136** | **29,148** | **30,176** | **31,322** | **32,611** | **33,957** | **35,370** | **36,806** | **38,159** |
| 65-69 | 3,426 | 3,567 | 3,763 | 3,893 | 4,050 | 4,240 | 4,366 | 4,364 | 4,392 | 4,414 | 4,453 |
| 70-74 | 2,476 | 2,564 | 2,649 | 2,754 | 2,891 | 3,029 | 3,162 | 3,348 | 3,470 | 3,611 | 3,788 |
| 75+ | 2,416 | 2,670 | 2,929 | 3,223 | 3,476 | 3,712 | 3,971 | 4,225 | 4,529 | 4,825 | 5,106 |
| **SubTotal** | **8,318** | **8,801** | **9,341** | **9,870** | **10,417** | **10,981** | **11,499** | **11,937** | **12,391** | **12,850** | **13,347** |
| **TOTAL:** | **155,324** | **158,330** | **161,057** | **163,593** | **166,090** | **168,564** | **171,019** | **173,456** | **175,877** | **178,287** | **180,692** |

Source: Guam Bureau of Statistics and Plans

The youngest segment of the population is reflecting a projected increase in the population **below the age of 1.** This may result in the increasing demand for maternity services, as well as nursery and neonatal care over time. The rise in those from **ages 1 through 19 years** has similar implications. GMHA expects that there will be an increase in L&D, Nursery and Pediatric services, as well as increases in the number of incidents from motor vehicle accidents and suicides. The load of patient care services for this group would be most evident in the Hospital's Obstetrics, Nursery and Pediatric Units and the Emergency Medicine Department (EMD), and is consistent with the Hospital's current experience.

The population of young adults, from **ages 20 through 44 years,** is increasing as well. This segment of the population includes women of childbearing ages who comprise just under one third of GMHA's inpatient discharges. In addition, the Hospital is seeing more patients, from **ages 45 through 64 years,** with complications of chronic diseases of diabetes and hypertension (i.e. Myocardial Infarction, Cerebral Vascular Accident). This will mean increased admissions in the Medical Surgical and Telemetry Units. The senior population, **ages 65 years and above,** has been growing steadily. As the population ages and the life expectancy increases, there will be a growing need for long-term care.

The growth in specific age groups suggests an increase in the utilization. **Seniors** will be requiring skilled nursing care at the Skilled Nursing Unit; **adults** will continue to use emergency room services as well as receiving treatment for complications of chronic diseases; and **children/young adults** will also require services in the Emergency Medicine Department (EMD) in addition to the Pediatric Unit.

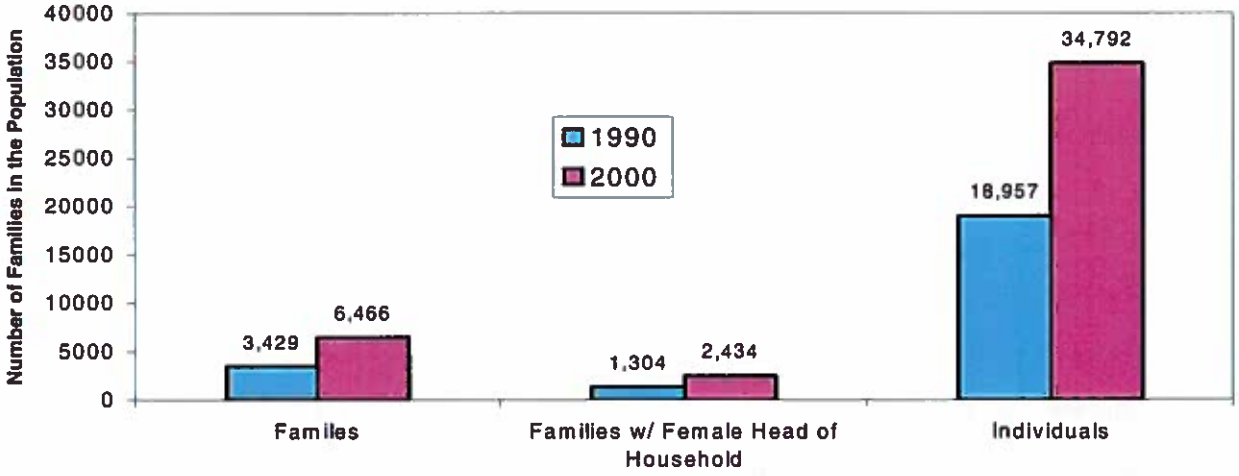
The changes in the Island's population affect the demand for Hospital services. This is evident when we compare inpatient acute care beds to the population. GMHA's bed capacity was 192 acute care beds that provided 1.17 beds per 1,000 population. In FY04, the number of beds reduced after converting the four-bed wards to semi private rooms. This brought the total bed capacity down to 158 acute care beds and the bed ratio to .95 per 1,000 population (using 2004 population of 166,090), unlike our off-

island counterparts, whose bed count is at least two times higher than Guam's per 1,000 population. In 2008, with a population of approximately 175,877, GMHA's acute care bed ratio was down to .90 per 1,000 population. In comparison, Hawaii provides 2.6 beds per 1,000 population. The U.S. Pacific census division hospitals operate 2.1 beds. Alaska is 2.3 and California is 2.1 beds per 1,000 population.

GMHA's current acute care bed capacity, as well as outpatient services (e.g., EMD), will have to increase to meet the future healthcare needs of Guam's growing population, which will include the anticipated population spikes that shall result from the Civilian Military Buildup between 2010 and 20114; and to provide quality acute care services comparable with our counterparts abroad.

Figure 1 shows the population below the poverty level nearly doubling from 23,690 in 1990 to 43,692 in 2000. The 2000 census revealed 28 percent of the population living below the poverty level. This represents a 55 percent rate increase from the 1990 census in which 18 percent of the population fell below the poverty level. Education attainment, employment opportunities, childcare and cost of living may all have contributed to the increased numbers of poor and uninsured people.

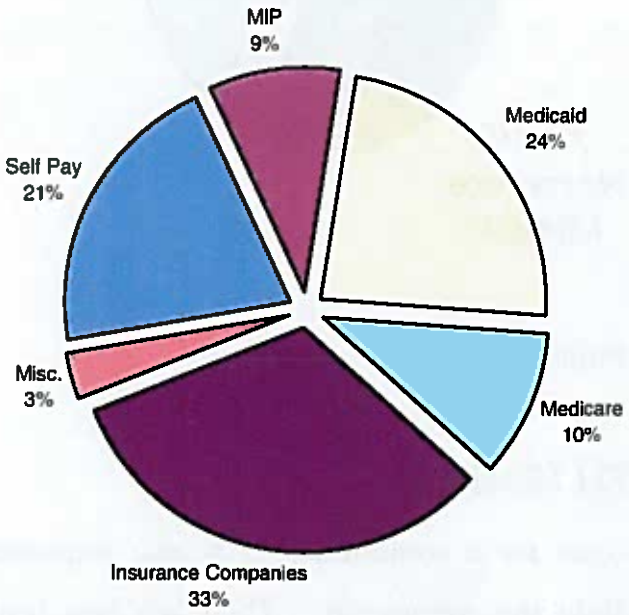
**FIGURE 1**
**Population Living Below the Poverty Status**




Source: Guam Annual Economic Review 2000-2001, Bureau of Statistics.

Figure 2 illustrates the types of hospital discharges by financial class for FY07. Fifty-four percent of GMHA's patients either received medical assistance from the Department of Public Health or were uninsured self-payers. Often the indigent or uninsured seek healthcare services when their condition has deteriorated to the point whereby hospitalization is required.

**FIGURE 2**
**DISCHARGE BY FINANCIAL CLASS**
**FISCAL YEAR 2007**

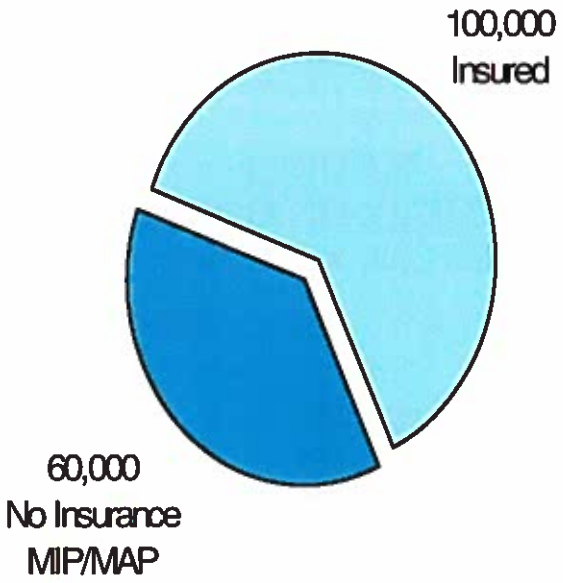



Source: GMHA, Management of Information Services Department

In Figure 3 the Department of Public Health and Social Services estimates 60,000 individuals on Guam are uninsured or underinsured. The cost of care for this population is borne by GMHA and private providers, at an expense of $30 million per year (inpatient services only) and for GMHA, is an unfunded mandate by the Government of Guam to provide such services.

**Figure 3**

**Insured vs. Uninsured/Underinsured Population**




Source: Department of Public Health and Social Services

## *LEADING HEALTH ISSUES*

When planning health care for a community, it is also important to consider the patterns of illnesses within the community. There are two health indicators that GMHA includes in its environmental assessment: the Island's leading causes of death and the Hospital's most common discharge diagnoses. Evaluating and understanding this information offers insight as to where GMHA will need to focus its efforts and plans for the future.

### *Leading Causes of Death*

Guam's Office of Vital Statistics reports that **heart disease, neoplasm** and **Cerebrovascular diseases** have consistently ranked as the top three leading causes of death on Guam (refer to Table 3). Although the leading causes do not necessarily

represent the most common reasons for hospitalization, the statistics do reflect the Community's health status and therefore, should be taken into consideration when planning for the Hospital's services.

**TABLE 3**
**10 LEADING CAUSES OF DEATH**
**Guam: 2001-2005**

| | 2001 | R | 2002 | R | 2003 | R | 2004 | R | 2005 | R |
|---|---|---|---|---|---|---|---|---|---|---|
| All Causes | 535 | | 522 | | 549 | | 542 | | 543 | |
| Disease of the Heart | 211 | *1* | 210 | *1* | 204 | *1* | 235 | *1* | 222 | *1* |
| Malignant Neoplasms | 104 | *2* | 124 | *2* | 115 | *2* | 112 | *2* | 97 | *2* |
| Cerebrovascular Disease | 64 | *3* | 52 | *3* | 52 | *3* | 41 | *3* | 65 | *3* |
| Diabetes Mellitus | 19 | *7* | 18 | *7* | 19 | *7* | 27 | *5* | 33 | *4* |
| Suicide | 23 | *5* | 22 | *5* | 23 | *6* | 17 | *9* | 29 | *5* |
| Motor Vehicle Accidents | 21 | *6* | 13 | *8* | 23 | *6* | 18 | *8* | 26 | *6* |
| Septicemia | | | | | | | 13 | *10* | 22 | *7* |
| All other accidents and adverse events | 38 | *4* | 23 | *4* | 31 | *4* | 38 | *4* | 21 | *8* |
| Fibrosis and cirrhosis of the Liver | | | | | | | | | 15 | *9* |
| Chronic Obstructive Pulmonary Disease | 16 | *9* | 20 | *6* | 18 | *8* | 19 | *7* | 13 | *10* |

**Source: Office of Vital Statistics, Guam Department of Public Health and Social Services**

## *Leading Discharge Diagnoses*

In addition to the leading causes of death, GMHA analyzes the Hospital's leading discharge diagnoses. Table 4 lists the top 25 discharge diagnoses for fiscal years 2003 through 2007. The top three most common diagnoses are Normal Delivery, Previous Cesarean Delivery and Pneumonia. All three combined comprise just under one-third of the Hospital's inpatient discharges. During 2003 to 2005, GMHA has seen the number of discharges decrease. The Sagua Managu, a private birthing center and the only other childbirth delivery system on Guam, has contributed to the decrease as a result of the low admissions seen in the maternity ward from FY03 to FY05. However, in 2006 and 2007 GMHA saw an increase, which may be due to maternity patients with high risk pregnancies and an increase in the population community.

**TABLE 4**
**Top 25 Discharge Diagnosis**

| | FY03 | R | FY04 | R | FY05 | R | FY06 | R | FY07 | R |
|---|---|---|---|---|---|---|---|---|---|---|
| *Normal Delivery* | 447 | *4* | 435 | *3* | 313 | *21* | 434 | *13* | 448 | *1* |
| *Previous CD Nos-Del* | 311 | *5* | 342 | *5* | 304 | *22* | 316 | *25* | 352 | *2* |
| *Pneumonia* | 500 | *3* | 427 | *4* | 812 | *7* | 887 | *2* | 343 | *3* |
| *Congestive Heart Failure* | 286 | *6* | 275 | *6* | 475 | *12* | 491 | *12* | 324 | *4* |
| *Delivery with 1deg Laceration* | 160 | *8* | 183 | *8* | | | | | 153 | *5* |
| *Dehydration* | | | | | | | | | 148 | *6* |
| *Anemia – Delivery* | 70 | *23* | 73 | *23* | | | | | 143 | *7* |
| *Cellulitis of Leg* | 132 | *9* | 112 | *13* | 295 | *25* | 334 | *23* | 135 | *8* |
| *Early Onset Delivery-Del* | 130 | *10* | 153 | *10* | | | | | 119 | *9* |
| *Delivery with 2deg Laceration* | 106 | *14* | 160 | *9* | | | | | 111 | *10* |
| *Noninf Gastroenteritis NEC* | | | 68 | *25* | 825 | *4* | 809 | *3* | 103 | *11* |
| *Subend Infarct-Initial* | 79 | *21* | 91 | *16* | | | | | 103 | *12* |
| *Urinary Tract Infections* | 108 | *13* | 144 | *11* | 608 | *10* | 694 | *7* | 103 | *13* |
| *Atrial Fibrillation* | 84 | *18* | 75 | *22* | | | | | 102 | *14* |
| *Cereb Art Occl w Infarct* | | | | | | | | | 100 | *15* |
| *Gastrointestinal Hemorrhage* | 82 | *20* | | | | | | | 99 | *16* |
| *Elderly Multigravida – Del* | 76 | *22* | | | | | | | 96 | *17* |
| *AC Bronchiolitis* | 127 | *11* | 142 | *12* | 300 | *24* | 367 | *17* | 93 | *18* |
| *AC Respiratory Failure* | | | | | | | | | 86 | *19* |
| *Threat Premature Labor* | 117 | *12* | 94 | *15* | | | 341 | *22* | 83 | *20* |
| *OBSTR/Fetal Malpos-DEL* | | | | | | | | | 81 | *21* |
| *Septicemia* | 88 | *17* | 90 | *17* | | | | | 80 | *22* |
| *Acute Appendicities NOS* | | | | | | | | | 79 | *23* |
| *Acute Pancreatitis* | | | | | | | | | 72 | *24* |
| *Abn FHR/ Rhythm – Del* | | | 88 | *18* | | | | | 69 | *25* |

**Source: GMHA Medical Records Department**

Excluding discharges that relate to childbirth, the next leading discharge diagnoses for GMHA are those that present to the Hospital with pneumonia cases. They average 594 discharges a year and represent patients with inflammatory illness of the lungs admitted to the adult and pediatrics acute care units. Congestive Heart Disease falls next in line, averaging 370 discharges a year.

# *UTILIZATION*

In addition to evaluating the leading discharge diagnoses, GMHA must assess the volume of hospital services. The Authority monitors the utilization of inpatient services, the number and type of Emergency Room visits, the number and type of surgeries, and trends in the use of outpatient services. Data related to hospital utilization is a significant factor in the Authority's plans for services and programs.

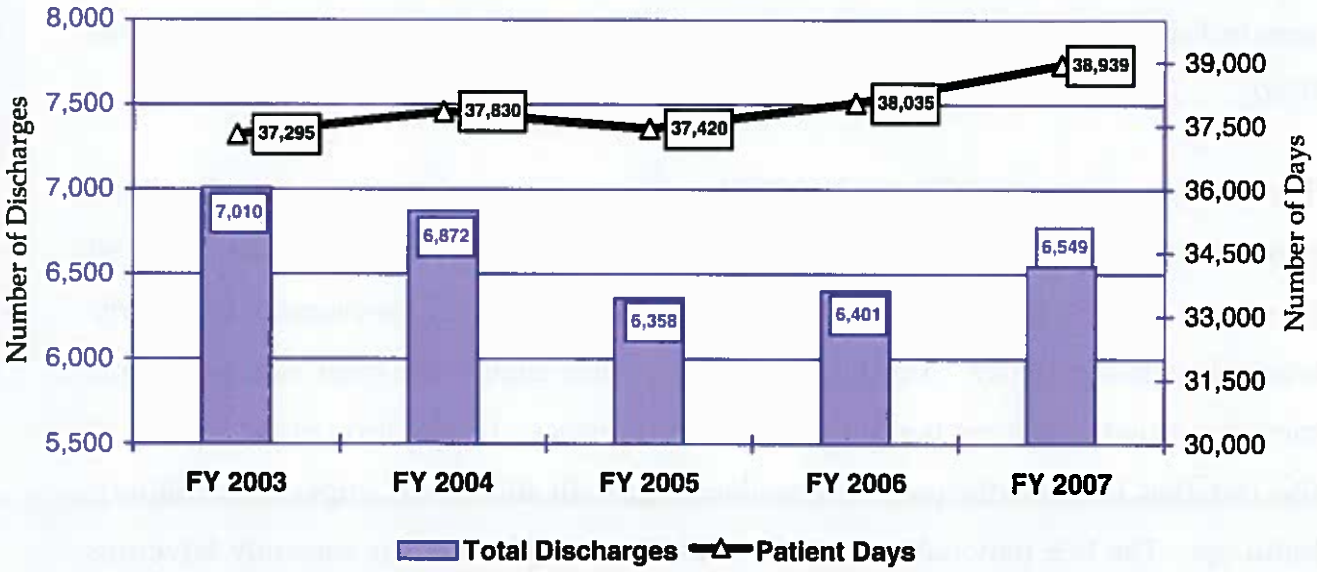
## *Inpatient Care: Discharges and Patient Days*

When evaluating inpatient statistics, GMHA considers patient days and discharges for each Nursing Unit. Figure 4 depicts acute care trends in patient days and discharges and Table 5 refers to occupancy rates. Figures 5 and 6 represent the Obstetrics Ward and Skilled Nursing Unit respectively.

FIGURE 4

**DISCHARGES AND PATIENT DAYS**
**IN ACUTE CARE UNITS**

**Guam Memorial Hospital:**
**FY 2003 – FY 2007**




Source: GMHA Medical Records Department

The GMHA uses the number of discharges and patient days to measure inpatient utilization. From FY03 through FY07, the total number of discharges in the acute care units decreased by 7 percent. This reflects a 1 percent average annual decline.

Likewise, the total number of patient days increased 4 percent from FY03 through FY07. This represents an average increase of nearly 1 percent each year during the 5-year period.

A declining number of discharges and increasing number of patient days suggest fewer admissions with longer stays in the acute care units. One contributing factor may be alternate care services offered by the private clinics. More clinics available to deliver quality primary care prevents acute illnesses requiring hospital stays.

Other factors are the opening of the Department of Public Health and Social Services' satellite clinics to provide services to its clientele; and the availability of cardiac services which stemmed from the Heart Project whereby physicians from Modesto California started visiting GMHA two to three times a year to perform services.

## *Inpatient Care: Occupancy Rates*

The Hospital's occupancy rate measures utilization in relation to bed capacity. As seen in Table 5, utilization of the acute care units shows high occupancy percentages in FY07.

The occupancy rates for ICU/CCU, NICU and Pediatrics are just above the 50 percent mark. Surgical, Medical/Surgical and Medical/Telemetry units are above the 80 percent mark. The Medical/Telemetry Unit and Intermediate Care Nursery has nearly reached its bed capacity. The high occupancy rates signify the need to expand and meet the growth for these particular acute care services. This is also critical in light of the fact that Guam anticipates a population growth due to an impending military build-up. The U.S. national average for acute care hospital beds is currently hovering at 2.8 beds per 1,000 population, which translates into a need of approximately 500 acute care hospital beds for Guam.

The additional 16 beds at the Old Surgical Unit on the third floor A-Wing is part of the Hospital's total acute care bed count. These beds expand the Medical-Surgical Unit, in the event there is a surge of such acute care patients; and therefore, the Unit has been renamed as the Medical Surgical Annex.

## TABLE 5

## OCCUPANCY RATES IN ACUTE CARE UNITS
## Guam Memorial Hospital:
## FY 2007

| Acute Care Units | Patient Days | Bed Capacity | Occupancy Rate (Percent) |
|---|---|---|---|
| New Surgical (4th floor) | 10,760 | 33 | 89.33 |
| Medical Surgical | 9,479 | 28 | 92.75 |
| Medical Telemetry | 8,320 | 20 | 99.19 |
| Progressive Care Unit(PCU) | 143 | 6 | 13.06 |
| ICU/CCU | 1,887 | 10 | 51.70 |
| Pediatrics | 4,033 | 22 | 50.22 |
| PICU | 204 | 3 | 18.63 |
| *Neonatal Intensive Care (NICU)** | 567 | 4 | ≥ 50.00 |
| Intermediate Newborn** | 3,546 | 10 | 97.15 |
| *Obstetrics* | 5,917 | 20 | 81.05 |
| Old Surgical (3rd floor) | | 16 | |
| **TOTAL BEDS** | | **158** | (total bed capacity exclusive of NICU & Intermediate Newborn per notes below**) |

Source: Medical Records Department

* Percentage estimated upward from 38.84% due to special situations of NICU patients overflowing into intermediate nursery bassinets and isolation rooms, but not always being captured as NICU patients.

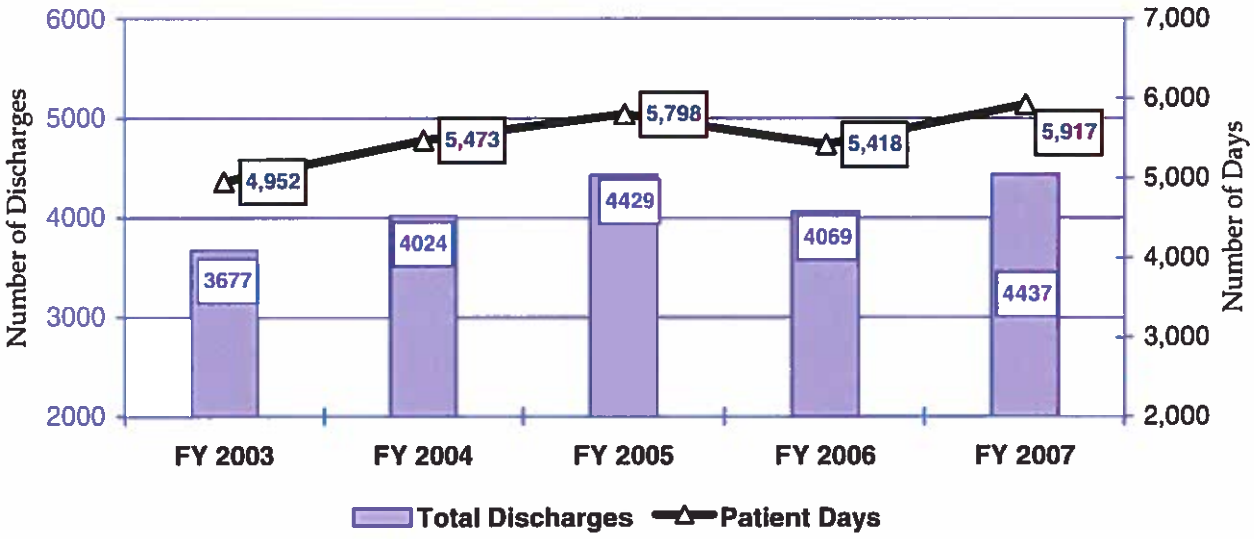
** NICU and Intermediate Newborn are not considered Acute Care Units as informed by CMS during their GMH Inspection in October 2008, which corrected our Acute Care Bed Capacity from 172 to 158.

Figure 5 represents utilization within the Obstetric Unit. Since obstetric cases comprise just under one-third of the Hospital's inpatient discharges, the utilization for the maternity ward is studied separately and apart from the other acute care units.

## FIGURE 5

## DISCHARGES AND PATIENT DAYS

### IN OBSTETRICS
### Guam Memorial Hospital:
### *FY 2003 – FY 2007*




**Source: GMHA Medical Records Department**

Obstetrics patient days range from a low 4,952 to a high 5,917 spread over the 5-year period. Overall, the Unit experienced a 4 percent rise in total patient days from FY03 through FY07. However, the number of discharges fluctuated. From FY03 through FY05 there was an increase in the number of discharges; however, that number declined in FY06 and then rose again in FY07. Overall, the total number of discharges increased by 20 percent. This represents a 4 percent average increase each year.

The increase in patient days and discharges reflect a longer stay with maternity patients. Obstetric patients who are low risk with prenatal care average a 2-day stay in the Hospital after delivery. However, the increase in patient days may be reflective of

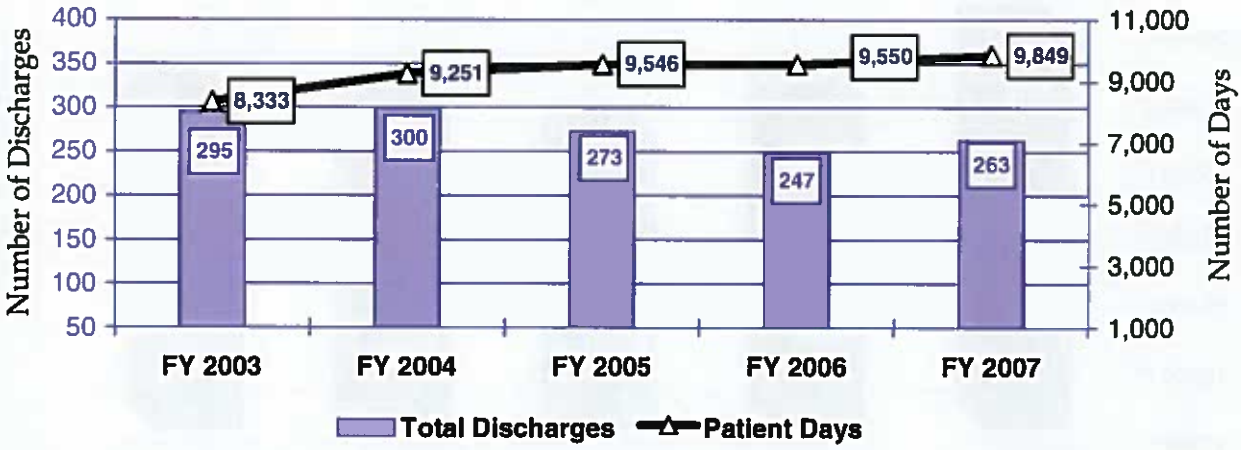
maternity patients with complications as a result of little to no prenatal care or underlying medical conditions.

In the Skilled Nursing Unit (SNU), the average number of patient days rose 4 percent from FY03 through FY07.

FIGURE 6

DISCHARGES AND PATIENT DAYS
**IN THE SKILLED NURSING UNIT**

**Guam Memorial Hospital:**
**FY 2003 – FY 2007**




Source: GMHA Medical Records Department

The average number of discharges decreased 2 percent from FY03 through FY07. The rise in patient days and fewer discharges suggest the length of stay may be increasing. Long-term medical conditions associated with strokes, diabetes, orthopedic injuries and other accidents are factors that contribute to a longer stay in skilled nursing. The average length of stay at the Skilled Nursing Unit is 26 days during the 5-year period.

## *Outpatient Services*

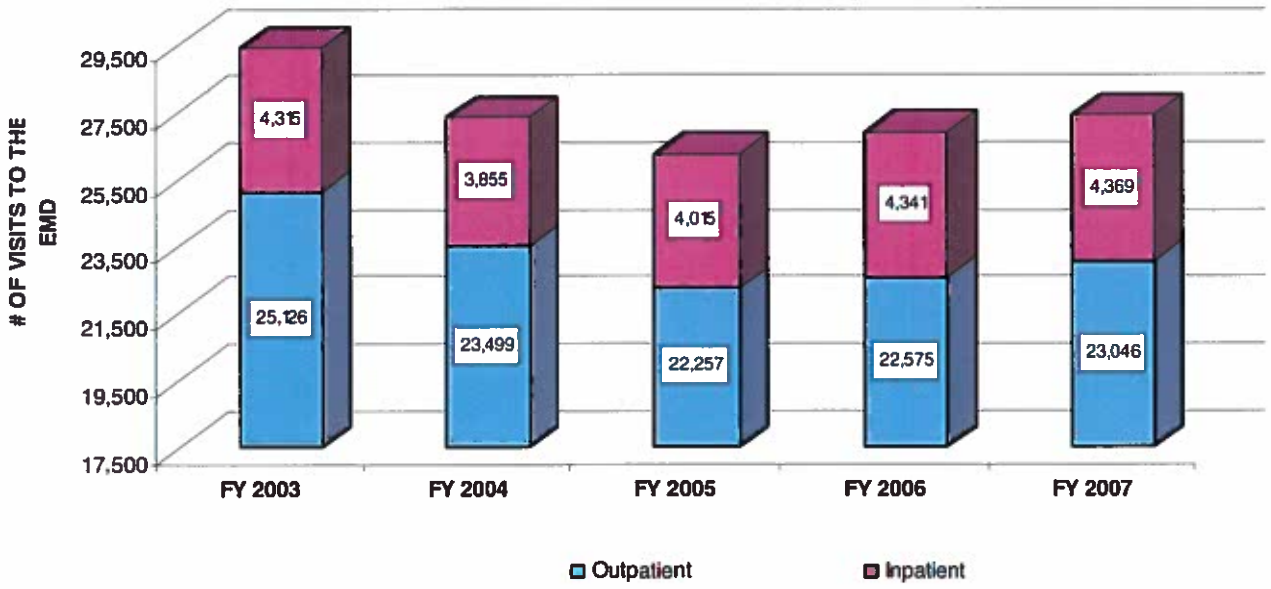
There are several sources of outpatient services at GMHA: the Emergency Medicine Department, Operating Room (OR), Hemodialysis, Radiology, Respiratory Care and

Rehabilitative Services, Special Services, and Laboratory. For hospital planning purposes, outpatient visits and the number of procedures are evaluated in terms of service volume.

Figure 7, reflects that the **Emergency Medicine Department (EMD)** has experienced a decrease in the number of outpatient visits and an increase in the number of admits.

## FIGURE 7
## EMERGENCY MEDICINE DEPARTMENT
### Guam Memorial Hospital:

(a) FY 2003 - FY 2007




Source: GMHA Emergency Room Department

Outpatient visits showed a steady drop each year from 25,126 in FY03 down to 23,046 in FY07. This represents an 8 percent overall decrease or an average decline of 1.6 percent each year during the 5-year period. The Department of Public Health's Northern Regional Health Center has extended its hours to provide services for MIP and Medicaid patients. This group represents a large proportion of the patients seen at the EMD. The EMD visits may continue to decline as the Department of Public Health and the private clinics expand their provision of urgent care services.

Inpatient visits, or admissions through the EMD, slightly rose with an average annual increase of nearly 1 percent over the 5-year period. During the period, it took a dip in FY04 then showed a rise again from FY05 to FY07. As the number of Emergency Medicine Department admissions continue to increase, it is evident that more patients present with illnesses at the acute stages.

Figure 8, reflects that the **Operating Room** (OR) outpatient surgeries fluctuated. The OR showed increases in FY2003 and in FY2004 and declines from FY05 to FY07. Overall, outpatient surgeries showed a significant decline during the 5-year period.

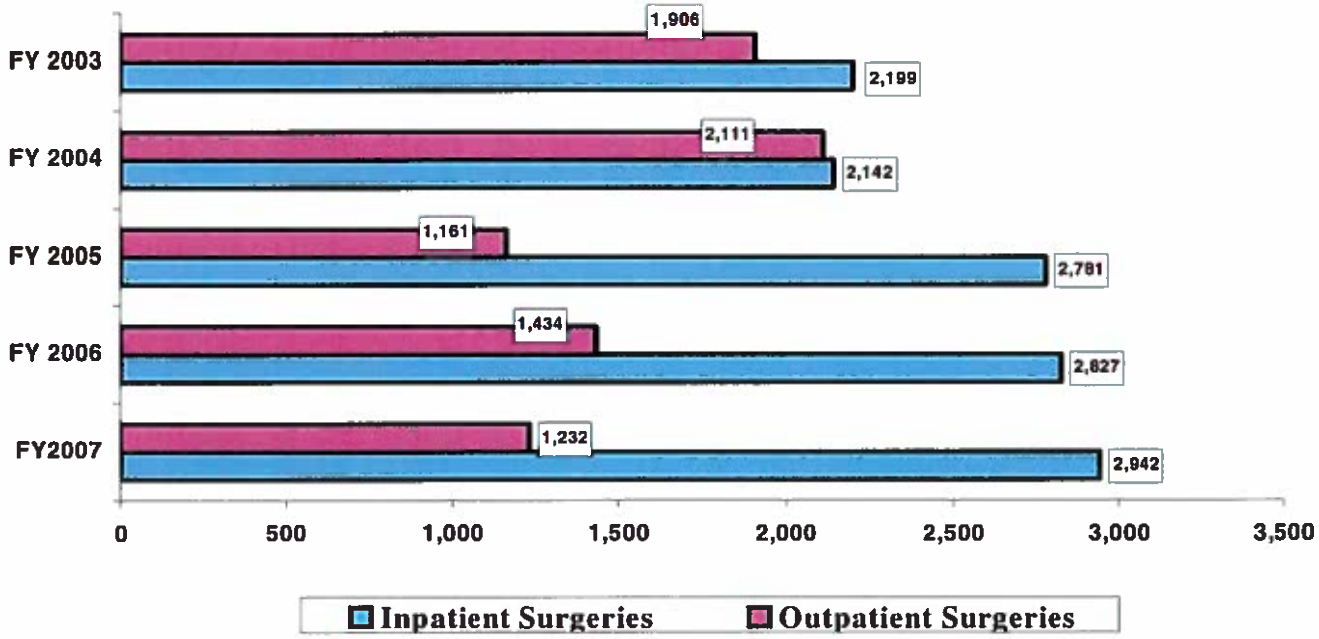
The decline in GMHA's outpatient surgeries may be attributed to the opening of the Guam Surgicenter, a Medicare approved ambulatory surgery center and more outpatient surgeries being performed in the physicians' offices. Private clinics are now able to perform special surgery procedures that once were only performed at GMH.

Inpatient surgeries at GMHA have increased 38 percent during the 5-year period. This represents an 8 percent average increase each year. The rise in surgeries may be partly due to the number of patients requiring cesarean deliveries, as well as the increase in the provision of specialized care.

# FIGURE 8

# SURGICAL SERVICES

**Guam Memorial Hospital:**
**FY 2003 - FY 2007**




Source: GMHA Operating Room

The GMHA's **Hemodialysis Unit** is currently **licensed for seventeen (17) stations** to conduct dialysis treatments. The Unit provides services for inpatient, outpatient and transient clients.

The Inpatient Unit, located within the Medical Surgical Unit on the 3rd floor A-Wing, can accommodate four (4) stations for those acute patients who are admitted or those in the Emergency Medicine Department (EMD) waiting for a room. Additionally, if a patient is not stable and is unable to be moved to the unit, a portable dialysis machine is available to address this situation.

The Outpatient Unit serves chronically ill patients. There are thirteen (13) stations including one (1) isolation room. If there are not enough stations to accommodate an

overflow, patients may utilize the inpatient station with the appropriate charges as an outpatient services. The same can be done for inpatients as well.

During FY2007, a total of **3,007 inpatient dialysis treatments** and **5,859 outpatient dialysis treatments** were administered by the **Hemodialysis Unit**. The **Unit's** reduction of shifts, accompanied by the availability of four (4) private centers providing dialysis services on Guam, led to a significant 5-year decline of 61% from FY03 thru FY07 in outpatient treatments. Therefore, GMHA can expect to see a similar service trend over the coming years.

In the event the GMHA is unable to service its clients, Memorandum of Agreements (MOAs) exist between the GMHA, the Guam Dialysis Center and the American Dialysis Center to provide the services as needed and vise-versa.

In the case of emergency preparedness, a Clamp and Cut policy and procedure is in place to address an emergency situation. In this situation, while dialysis is ongoing, emergency evacuation is announced, and time does not permit staff to perform the clamp and cup procedure, patients are trained to perform the procedure on themselves and immediately evacuate.

**Radiology** statistics show a 19 percent decrease from FY03 through FY06 and a slight increase in FY07. Outpatient procedures were the highest in FY03. The decline in radiology outpatients were due to the private clinics expanding their radiology programs such as the Guam Radiology Consultants imaging clinic. Less outpatient visits seen in the EMD also contributed to the decrease in radiology outpatient procedures.

**Respiratory Care's** outpatient services decreased 15 percent from FY03 through FY07. Outpatient services were the highest in FY03 with 19,155 procedures performed. The following year the numbers dropped to 15,276 in FY04 then slightly rose to 16,668 in

FY05. Much of the decrease stems from the decline in the number of outpatients seen in the Emergency Department. The EMD experienced a 2 percent drop each year in outpatient visits during the last five years.

The **Special Services Department**, led by a group of Hospitalists and healthcare professionals (e.g., Registered Nurses, Technicians and Technologists, etc.), was newly established in 2005. This department provides diagnostic procedures like Echocardiograms (Stress; Dobutamine); Electroencephalogram (EEG); Electrocardiogram (EKG); Cardiac Stress Test and Cardiac MIBI to both inpatients and outpatients. In addition to these numerous diagnostic tests, they also provide Neurology, Cardiology, and Orthopedic consultations. The department provides these services on a 24/7 operation to all inpatients. For FY 2007, these different services were rendered to **16,054 patients**.

Additionally, the **Special Services Department** maintains a comprehensive, high quality cardiac program, namely the "Heart Program," which is a new health service for Guam. A combined effort with the GMHA and a team of health professionals from the Valley Heart Associates in Modesto California (Cardiologists; Cardiothoracic Surgeons; Cardiac Anesthesiologists; Perfusionists and Cardiac Surgery ICU and Cardiothoracic Operating Room Registered Nurses) conduct the Diagnostic Cardiac Catheterizations four (4) times per year and Open Heart Surgeries two (2) times per year to the people of Guam and neighboring islands.

During FY 2007, these "Heart Program" specialists performed a total of **180 cardiac catheterization procedures** and **651 Cardiology consultations**. Additionally, since the Project's inception in 2005, a total of **23 open heart surgeries** were performed without any major complications. As a direct result of the availability of these services, difficult situations continue to be alleviated such as long distance travel; increased

financial burden; lack of emotional support from family while off island; and potential death while each respective patient is waiting or planning for off island treatment.

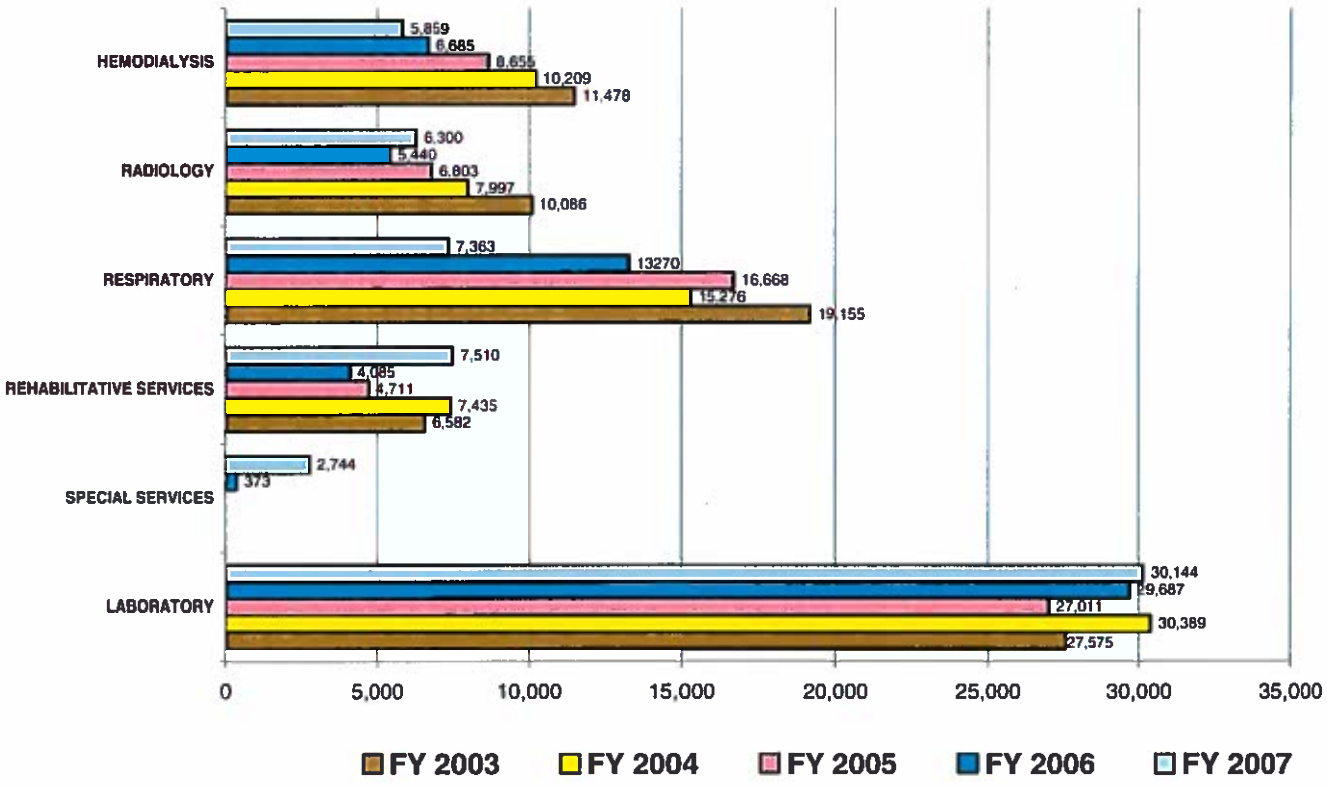
**Rehabilitative Services** has experienced a 47 percent increase in outpatient procedures over the 5-year period. This represents a 9 percent annual growth each year from FY03 to FY07. Decreases in FY05 and FY06 were due largely to the loss of physical therapists. The number of outpatient procedures rose the following years after GMHA successfully filled the vacancy of the therapist position.

**Laboratory Services** saw an increase in outpatient procedures from FY03 to FY04. Afterwards the Department experienced a sudden drop in FY05 and then slightly rose from FY06 to FY07. In FY05, a new diagnostic laboratory opened up and this may have contributed to the drop in the provision of laboratory services. Another contributing factor may have been the increase of test services by the Guam Cancer Center during FY06 for outpatients, whereas their patients were sent to GMH for lab services either thru the EMD or Inpatient Lab Services during prior years.

## FIGURE 9

## OUTPATIENT PROCEDURES

### Guam Memorial Hospital Authority:
*FY 2003 – FY 2007*




Source: GMHA Hemodialysis, Radiology, Respiratory, Rehabilitative and Laboratory Services

# *AVAILABILITY OF RESOURCES*

In addition to examining the use of hospital services, GMHA must consider the resources available for delivery of services when outlining its plans for the future. The Hospital reviews the number of physicians as well as hospital employees.

## *Physician Resources*

Table 6, indicates that as of August 4, 2008, there were 105 members of the Hospital's medical staff. The members represent broad spectrums of clinical specialties; notably absent are CAPD Nurses, Clinical Psychologists, Oral/Maxillofacial Surgeons, Physician Assistants, Podiatrists, and Surgical Assistants.

Of the total medical staff membership, the Hospital employs forty-eight (48) physicians including pathologists, anesthesiologists and EMD physicians. Board certification has been achieved by 77 percent of all physicians.

The growing percentage of board certified physicians attests to the quality of care provided. These certifications suggest that the Community will receive quality and continuity in the delivery of medical care over the next several years.

In spite of the medical staff's size and diversity, there are still critical physician shortages within the Community that need to be filled, such as, orthopedics and neuro-surgery, cardiac surgery and urology. Although GMHA has previously not been responsible for recruiting physicians for the Island, there is an active effort among the administration and the medical staff to recruit qualified physicians who can address the medical needs of the Community.

**TABLE 6**
**GMHA Medical Staff**
By Specialty, Board Certification & Age
August 4, 2008

| CLINICAL SPECIALTY | BOARD CERTIFIED | OTHER | AVERAGE AGE OF MEMBERS | % BOARD CERTIFIED |
|---|---|---|---|---|
| Anesthesiology | 5 | 4 | 50 | 55.6% |
| CAPD Nurse | 0 | 1 | 57 | 0.0% |
| Cardiology | 2 | 1 | 55 | 66.7% |
| Cardiovascular Surgery | 1 | 0 | 56 | 100.0% |
| Certified RN Midwife | 3 | 2 | 53 | 60.0% |
| Clinical Psychologist | 0 | 1 | 58 | 0.0% |
| Emergency Medicine | 9 | 1 | 52 | 90.0% |
| Endocrinology | 1 | 0 | 47 | 100.0% |
| Family Practice | 16 | 0 | 48 | 100.0% |
| General Dentistry | 1 | 0 | 52 | 100.0% |
| General Surgery | 5 | 3 | 55 | 62.5% |
| Hand Surgery | 1 | 0 | 55 | 100.0% |
| Hematology/Oncology | 1 | 0 | 66 | 100.0% |
| Infectious Disease | 2 | 0 | 49 | 100.0% |
| Internal Medicine | 13 | 3 | 51 | 81.3% |
| Nephrology | 3 | 0 | 47 | 100.0% |
| Neurology | 1 | 1 | 76 | 50.0% |
| Neurosurgery | 1 | 1 | 64 | 50.0% |
| Obstetrics & Gynecology | 11 | 3 | 57 | 78.6% |
| Opthamology | 2 | 1 | 50 | 66.7% |
| Oral/Maxillofacial Surgery | 0 | 1 | 45 | 0.0% |
| Orthopaedics | 2 | 0 | 64 | 100.0% |
| Otolaryngology | 2 | 0 | 55 | 100.0% |
| Pathology | 3 | 0 | 61 | 100.0% |
| Pediatrics | 9 | 2 | 47 | 81.8% |
| Physician Assistant | 0 | 1 | 36 | 0.0% |
| Plastic Surgery | 1 | 0 | 44 | 100.0% |
| Podiatry | 0 | 3 | 49 | 0.0% |
| Psychiatry | 1 | 0 | 48 | 100.0% |
| Psychiatry, Child | 1 | 0 | 56 | 100.0% |
| Radiology | 7 | 1 | 55 | 87.5% |
| Surgical Assistant | 0 | 1 | 55 | 0.0% |
| Urology | 1 | 0 | 66 | 100.0% |
| TOTAL | 105 | 31 | 59 | 77.2% |

Source: Guam Memorial Hospital Authority, Medical Staff Department

## *Support Staff*

Understanding that a successful hospital requires management of patient care and the staffing of professionals who perform these services, GMHA is also concerned with the ratio of health care providers in relation to the staffing level of the entire hospital.

Therefore, GMHA continues to monitor the staffing patterns of both full time clinical and non-clinical employees in an effort to meet the Hospital's staffing requirements for the provision of quality patient care.

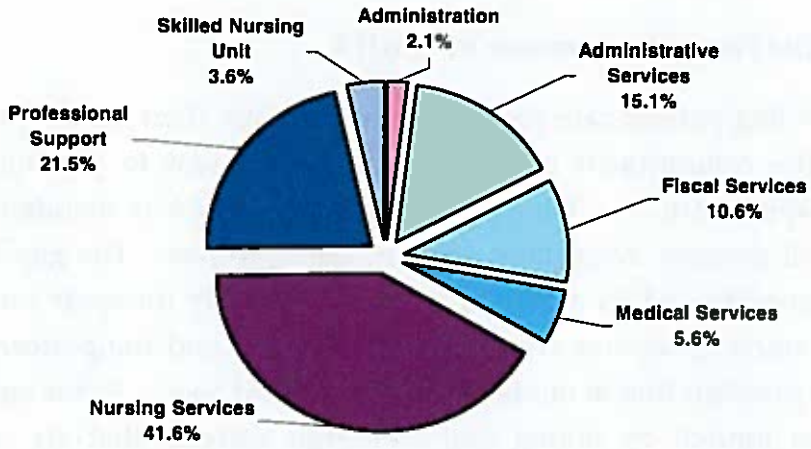
Figure 10 depicts the staffing levels for full-time employees (FTEs) by division and in relation to the GMHA's total budget. A greater percent of full-time employees are distributed among Nursing Services (41.6%) and Professional Support Services (21.5%). These divisions make up 63.1 percent of GMHA's total budget and are directly related to patient care services.

FIGURE 10

## FULL TIME EMPLOYEES

**Guam Memorial Hospital and Skilled Nursing Unit:**

**FY 2007**




Source: Guam Memorial Hospital Authority Human Resources Department

Some ongoing challenges that GMHA faces are how to successfully recruit and retain qualified professionals. With respect to recruitment and retention, one set of key strategies is to improve recruitment efforts and expand staff development programs; expand services and capabilities to attract and support specialists; and provide additional avenues for healthcare professionals to work, educate, learn and/or provide services.

# Section II: The Strategic Goals of GMHA

Four (4) strategic goals were determined to be most important in fulfilling the mission and vision of the GMHA:

### 1. Attaining and Maintaining Joint Commission Accreditation

Achieving accreditation is important to assure the community of the Hospital's commitment to quality patient care and safety. The pursuit of accreditation has provided important opportunities for staff and management to review and improve governance, internal communications, quality standards and management systems. In addition, the process has reinforced the commitment to evaluation systems that increase management effectiveness and confidence that resources are effectively utilized. Finally, the pursuit of accreditation has reinforced a culture at the hospital which is committed to continuous improvement ... a commitment to provide verifiable assurance to the community that the Guam Memorial Hospital Authority maintains the highest standards of patient care and safety comparable to any other accredited institution in the United States.

### 2. Improving the Fiscal Performance of GMHA

The costs of providing patient care are consistently greater than the ability of the local government or the commitment of the federal government to pay for those who cannot afford hospital care on Guam. None-the-less, GMHA is mandated by law to provide care to all persons, regardless of their ability to pay. The gap between the needs of the community and its ability or willingness to pay for acute care, long term care, and skilled nursing services constrains the capacity and the performance of the hospital. It is a problem that is not likely to be resolved soon. At the same time, the hospital has been limited by billing and collection systems that are not properly integrated and a procurement process not suited for the unique requirements of maintaining a quality patient care facility. These problems have continued to drain the facility of revenues, making it more difficult for the hospital to fulfill its mission.

- The solution has three parts: (1) Improving Cash Flow; (2) Improving Procurement Procedures; and (3) Upgrading the MIS system throughout the Hospital.

### 3. Establishing Greater Self Reliance

GMHA will strengthen its partnership with the community and create an alignment with the Government of Guam similar to that held by the University of Guam (UOG).

The ability of UOG to meet the Western Association of Schools and Colleges (WASC) accreditation standards is in part made possible because of the University's unique status within the Government of Guam. In similar fashion, the maintenance of Joint Commission Accreditation by GMHA requires that standards of internal self governance, not unlike those found at the University, are maintained. The legislature will be requested to approve enhancements to the hospital's enabling legislation in the same ways the University enhanced its relationship with the Government of Guam. This will improve the hospital's ability to raise capital, attract vendors, and interact with the development community as it pursues its vision to meet the community's needs in the future.

### 4. Developing a Facilities Master Plan

In order to meet the needs of a rapidly growing population the hospital must develop a facilities master plan. The strategic plan calls for the development of a feasibility study to determine if the current facility should be redesigned, or if a new hospital should be built. Upon the findings of that study a Request for Proposal (RFP) for the development of a master plan will be devised by the end of 2009.

# Section III: Mission, Values, Vision and Strengths, Weaknesses, Opportunities and Threats (SWOT)

## Mission

***To provide quality patient care in a safe environment.***

## Values

The Hospital believes in the following core values:

i. Quality service and standards compliance;

ii. Open and consistent communication between clinical and non-clinical staff, the Board of Trustees, and the public as a whole; and,

iii. Fiscal responsibility and accountability at all levels.

### A. Quality service and standards compliance

GMHA continually strives to improve the skill levels of its staff, and consistency in service delivery. To ensure staff responsibility and accountability, GMHA is working on internal systems to insure greater accountability and improved internal communications. It is developing and implementing new training programs for staff and management to enhance their skill sets.

GMHA also actively maintains a continuum of care that supports patients and their families becoming more involved and informed regarding their own health care decisions.

GMHA and its staff are committed to a code of conduct based upon Trust, Respect, Integrity, and Professional standards.

GMHA is committed to the Hippocratic Oath, "First, do no harm." The staff and management recognize that this commitment is not limited to ensuring just the physical safety of patients. It also applies to the security and privacy of the families of patients and their visitors to the best of the hospital's capability.

### B. Open Communications

Hospital staff recognizes the importance and value of interdepartmental openness, transparency, and cooperation in delivering quality care. Members of the different departments support each other; there is an open door policy throughout the hospital at all levels. Further, staff members are allowed professional and creative freedom; the ability to act independently, within hospital rules and procedures. Finally, GMHA values the support and opinion of the public. It will more actively solicit public input, and establish a better system of communicating with the community.

### C. Fiscal responsibility and accountability at all levels

The staff and management of GMHA are dedicated to prudent management of the Hospital's financial resources. Fiscal responsibility must operate on all levels – first, the hospital's ability to generate new revenue and second, its ability to collect on outstanding fees.

## Vision

Based on the core values of the organization, the Strategic Planning Committee developed the following vision statement that guides all efforts and actions moving forward:

*To achieve a culture and environment of safety and quality patient care meeting national standards and addressing the needs of the Community in a fiscally responsible, autonomous hospital.*

## Strengths, Weaknesses, Opportunities, and Threats

The Strategic Planning Committee analyzed the Hospital's internal strengths and weaknesses as well as the external opportunities and threats facing the hospital. The assessment of internal strengths and weaknesses identified the major challenges and achievements of the hospital from the perspective of those who work there. Identification of external opportunities and threats, projected changes in the economy and the community as predicted by government planners and private sector sources were reviewed and incorporated into the plan.

A key strength of the hospital is the dedication and leadership of its Board of Trustees, its management team, and staff both clinical and non-clinical, as well as the strong support provided by the GMHA Volunteers' Association. There is a constant focus on improving services and facilities – GMHA's certification by the Centers for Medicare and Medicaid Services validates the excellence and quality in its medical services. The Hospital's accreditation advisors have made note of the pride and sense of ownership of those working at GMHA.

The root of the hospital's weaknesses is the challenge it faces in adequately processing large amounts of information. The hospital's MIS system faces challenges in meeting all of its information needs; a situation further complicated by the staff lacking the IT training necessary to take full advantage of the tools that are available.

At the same time, the continuing increase in population, as well as 2009's weak economy, has generated an increase in the number of individuals who do not have access to health insurance, or do not qualify for the Medically Indigent Program (MIP) or the Medical Assistance Program (MAP) because they are unable to meet the respective program eligibility requirements. These individuals frequently do not consider medical treatment as a priority. This contributes to acute medical conditions which generate high medical expenses during hospitalization and often cannot be paid.

The resulting cash flow deficiencies created by the inability of its patient population to pay for services rendered has limited the hospital's ability to provide adequate compensation for doctors and staff. It has also constrained the hospital's ability to

procure supplies as needed. In addition, cash flow and revenue deficiencies have prevented the hospital from expanding human and capital resources and has contributed to a negative public image, deficient IT/MIS systems, as well as inventory management problems.

The hospital does have several opportunities that can help to improve the situation. The military build-up has created a need for additional acute care beds because of the expected population increase it will cause. That need has focused both federal and local leadership to consider ways to address what can be done. These forces are believed strong enough to create revenue opportunities by realigning fees schedules, providing new sources of revenue and capital investment. If properly leveraged, these opportunities can support the environment needed to facilitate the greater self-reliance needed to sustain Guam's only civilian acute care facility.

At the same time, the hospital benefits from the strong support offered by the GMHA Volunteers Association and the general community which recognizes the need to explore private and public partnerships to accelerate the development of acute care facilities on Guam. The hospital intends to capitalize on this good will to generate more revenue, better planning, and the support required to sustain Joint Commission accreditation.

# Section IV: Strategic Goals

## Goal 1: Attaining and Maintaining Joint Commission Accreditation

In summer 2009, GMHA will apply for Joint Commission accreditation to demonstrate to the community that the hospital is complying with national standards of quality patient care. To prepare for the application, GMHA performed a comprehensive examination of hospital procedures, systems, management practices, staff capabilities, and facilities requirements. While some within the medical community debate on whether or not attaining accreditation will ensure improved care, the Board and the Hospital community believe that not having accreditation has contributed to uncertainty in the island's residents about the nature of care provided by the hospital.

The hospital focuses on three (3) key Sub-goals to achieve accreditation status:

A. The hospital will systematically review and upgrade its systems to manage and coordinate the flow of information, ensuring accountability for the use of resources and the delivery of quality health care. This will involve review and

enhancement of governance systems and standard operating procedures to meet accreditation standards as promulgated by the Joint Commission. The success of this initiative relies on the hospital's ability to improve the way information is gathered, processed and shared throughout the hospital.

B. The hospital is committing resources and establishing the evaluation procedures required to attain and maintain accreditation. The financial resources required are being generated through a combination of financial efforts adopted to support the investments needed to meet quality care standards set by the Joint Commission.

C. GMHA is nurturing its organizational culture to sustain continuous improvement in its systems and clinical practices. An evidence-based approach has been adopted to facilitate improved timeliness and accuracy in decision making by both staff and management.

**Goal 1.A Systems Review and Improvement**

*Objective 1: To further hospital-wide system improvements through redesign, improved accountability, and better use of GMHA healthcare information.*

**Strategies:**

a. Develop processes to ensure accreditation standards are used for hospital-wide system improvements.
b. Reinforce existing and develop new policies and procedures to support GMHA in attaining accreditation from the Joint Commission.
c. Work with stakeholders to develop a reporting framework for hospital accreditation data.
d. Consistently communicate to all stakeholders progress on GMHA's accreditation benchmarks.
e. Monitor GMHA's JC accreditation progress against the above-mentioned framework.

*Objective 2: To promote improved accountability for the use of clinical resources and to promote safe, quality health care outcomes through the development and oversight of policies and procedures, governance, and health care standards.*

**Strategies:**

a. Promote accountability for health care outcomes at all GMHA levels (e.g., BOT, Executive Leadership, Management, Staff, etc.).
b. Develop a culture of accountability and transparency for safety and quality by engaging all stakeholders.

c. Promote the systematic deployment, oversight, and reporting of appropriate policies and procedures, governance, regulation, and health care standards.
d. Monitor GMHA's progress in developing or refining and ultimately implementing safety and quality policies, regulations, and health care standards.
e. Develop processes to market, educate, and train patients, families, staff, physicians, and hospital leadership on the intent and appropriate use of policies and procedures, regulations, and health care standards.

*Objective 3: To make improvements for safety and quality through the development and/or redesign of GMHA's hospital systems.*

**Strategies:**

a. Develop and/or redesign hospital systems to ensure the delivery of high standard, safe, quality health care.
b. Support the development of mechanisms to enhance the continuum of care to and from GMHA and the other health care providers in our community.

**Goal 1.B Evaluation and the Deployment of Resources**

*Objective 1: To monitor, identify, and report compliance with regulatory requirements.*

**Strategies:**

a. Monitor, identify and report compliance with guidelines, rules, regulations and standards.
b. Develop processes for stakeholders to initiate corrective action when non-compliance (with guidelines, rules regulations and standards) is identified.

*Objective 2: To ensure that tools, methodologies, and resources are available to support GMHA's compliance with all applicable guidelines, rules, regulations and standards.*

**Strategies:**

a. Develop and implement appropriate tools, methodologies, and resources that support GMHA's compliance with applicable guidelines, rules, regulations and standards.
b. Ensure that tools, methodologies, and resources are available to all appropriate stakeholders to support GMHA's compliance with applicable guidelines, rules, regulations and standards.

*Objective 3: To comply with all applicable guidelines, rules, regulations and standards specific to GMHA's facilities/premises, and ensure alignment of such guidelines, rules, regulations and*

*standards with appropriate levels, capabilities, and capacities in the areas of management, staffing, equipment, utilities, and maintenance programs.*

**Strategy:** Engage and consult with relevant stakeholders on compliance with all applicable guidelines, rules, regulations and standards specific to GMHA's facilities/ premises and ensure alignment of such guidelines, rules, regulations and standards with appropriate levels, capabilities, and capacities in the areas of management, staffing, equipment, utilities, and maintenance programs.

### Goal 1.C Enriching the Organizational Culture of GMHA

*Objective 1: Develop a team-based approach in developing a continuum of improvement and learning.*

**Strategy:** Improve the continuity of professional development across disciplines.

*Objective 2: To support health professionals in the development, use, and adherence to evidence-based clinical guidelines and standards.*

**Strategies:**

a. Develop strategies for evidence-based practice information that is accessible and appropriately utilized.
b. Monitor the development and implementation of evidence-based clinical practice information.
c. Improve the dissemination and assimilation of evidence-based clinical practice information.
d. Support health professionals' efforts to eliminate less than optimal clinical practices and to develop processes to improve adherence to evidence-based practices.
e. Review and report on system improvements to ensure improvements are accessible, appropriately utilized and institutionalized to ensure system standardization and continuity.

*Objective 3: To improve healthcare data and information systems to support the monitoring, review, and analysis of clinical performance and system failures.*

**Strategies:**

a. Improve data sets to monitor, review, and analyze system failures.

b. Improve translation and use of health care data and information to achieve optimal health outcomes.
c. Promote systems and processes to improve the collection, analysis, and dissemination of safety and quality data and health information to support healthcare improvement.
d. Improve access of data, targeting priority areas that require improvement.
e. Consistently review and refine audits to improve the review and analysis of system failures and opportunities for system improvements.

*Objective 4: To further physician commitment to accountability and responsibility.*

**Strategies:**

a. Support development and implementation of standards for credentialing and clinical privileges of the medical staff.
b. Work collaboratively with educators to improve continuing professional development and clinical skills training focusing on patient safety and quality.
c. Support continuous professional development.
d. Support development of improved performance management processes in line with credentialing.

*Objective 5: To support appropriate qualified privilege processes.*

**Strategy:** Develop improved qualified privilege processes to encourage health professionals to participate in safety and quality improvement activities.

## Goal 2: Improving Financial Performance

There have been significant improvements over the past two years in the financial performance of the hospital, but there remains much left to do.

The hospital must address two distinct issues – its ability to generate revenue, and its capability to collect fees. Revenue reflects the charges incurred during a patient's encounter at the Hospital: room charges, medical supplies, medical equipment, medications, and the services of the physician(s). Collection of that accrued revenue which creates cash flow for GMHA is the significant challenge facing the Hospital. The income profile of the hospital's patient population is at the root of the problem. Over 60% of the Hospital's outstanding accounts are from self pay patients, both insured and uninsured. GMHA does not have the legal or governmental means to actively pursue payment, unlike its counterparts, the utility agencies. Even if a patient

does not have the means to pay, services are delivered without delay or hesitation. Most private businesses would eventually close their doors if they attempted to operate as GMHA does. While GMHA employs outside collection companies, the resulting cash flow is only a portion of the total revenue which GMHA is due.

**Goal 2: The Hospital must improve its financial performance to ensure the provision of quality patient care.** To do this, the following issues/systems **must** be either maintained or enhanced:

- Continue generating and maintaining revenue sources to meet and/or exceed patient capacity;
- Increase cash flow to meet operational needs and to underwrite capital expenditures;
- Generate a "clean bill" to maximize reimbursement;
- Modernize and streamline the procurement system to increase efficiencies and reduce inventory carrying costs;
- Re-engineer the MIS system to integrate the hospital's financial management, inventory management, and patient care information systems.

*Objective 1: To improve cash flow*

The Hospital has difficulty paying all vendors on a timely basis because it lacks the necessary cash flow. GMHA operates with an outdated fee structure, and an inadequate charge capture system. In addition, the parts of the system are not properly integrated.

In addition, the hospital must identify and capture additional sources of revenue through the development of an endowment, building a grant acquisition program, and developing other revenue sources associated with quality patient care and improved retail services for patients and their families.

Ultimately, the hospital must strive to be more financially independent. There has been some progress in this direction, as GMHA is no longer subsidized by the Government of Guam. Payments to GMHA are now classified as fees for service and no longer subsidies from the government for operations.

While shortfalls in cash flow are expected to continue, the problem will increase until a more consistent and reliable means of increasing and capturing revenues is established. The ability to generate adequate revenue to operate the hospital represents one the most difficult challenges GMHA will face in retaining Joint

Commission accreditation. To address this problem, the hospital will adopt the following strategies:

- Update and revise the hospital's fee structure resulting in the generation of patient revenues that are reflective of recovery of cost + allowance;
- Improve Self Pay collections;
- Create a cohesive inventory management system;
- Identify and establish of new sources of revenue
- Maximize reimbursement with the generation of a clean bill and optimizing medical records coding

**Strategies:**

a. Update and revise the fee structure: Revising the fee structure is essential to make sure that current costs are adequately recovered in hospital fees. The structure has not been revised in several years. This requires two actions to occur:
    1. To recover GMHA operational expenditures + fair percentage to underwrite the improvement in the delivery of medical services: and,
    2. To create new fees to recover operational expenditures + fair percentage to underwrite the improvement in the delivery of medical services, framed within the existing adjudication process. This is a high priority project that will be completed within the fiscal year.

b. Improve collections: A new automated charge capture system will be established. It will be electronically integrated with the billing system. With an improved billing system that is integrated with the charge capture system it will be possible to improve collections from the general public and from insurance venders by reducing disputes and accurately reflecting expenditures by the hospital. This is a high priority project that will be completed within the fiscal year.

c. Create a comprehensive inventory management system: Currently it is unknown how much inventory "leakage" exists because of existing inventory management systems. This creates lost revenues and obsolescences that will be eliminated by:
    1. Conducting a baseline inventory throughout the entire hospital;
    2. Reviewing the inventory control procedures of every ward or unit by establishing and deploying a process improvement team to review and recommend policy changes to current inventory control procedures. As part of this process portable supply stations will be established for all units and wards that provide direct patient care.

3. Transitioning the current paper-based inventory systems to an electronic system utilizing bar codes that will allow the collection of inventory information that can be integrated with patient care, billing and financial reporting systems in the hospital. This is a high priority project that should be completed shortly.

d. Identify and establish of new sources of revenue: Three actions will be completed:
   1. A professional grant writer will be employed to seek out and effectively apply for public and private grants to facilitate the mission and vision of the hospital. The position will be placed in the planning department of GMHA.
   2. An endowment program will be developed. An endowment committee of the Board of Trustees will be established and an endowment program designed.

e. Maximize reimbursement by optimizing medical records coding: Three actions will be initiated and completed:
   1. Chief for collections and billings will be created and filled. This individual would need to be a Certified Professional Coder or Registered Medical Coder.
   2. All bills will be reviewed to make sure that they are accurate and all efforts should be made to insure all appropriate charges are presented for payment. This will improve the accuracy of accounts receivables.
   3. This individual will also be responsible to train all staff regarding correct coding and billing procedures.

*Objective 2: To update and streamline the GMHA procurement process*

As an autonomous agency, GMHA must follow Government of Guam procurement procedures. The procedures that relate to the hospital have not been updated in 20 years. By modernizing the hospital's procurement processes, the hospital will improve the management of inventories and insure that the procurement of materials is effectively matched to the real-time needs of the hospital. Because of delays created by the current system, certain inventories are overstocked and others are consistently under-stocked.

**Strategy:** Revise the hospital's procurement policy and submit it for review to the Legislature: New procurement regulations have been drafted and are under review and revision by management and the Board of Trustees. Once this process is completed the new policy will be submitted and reviewed and adopted through the

legislative regulatory process. This is a high priority project that will be completed within this fiscal year.

*Objective 3: To re-engineer the hospital's MIS system*

Both the hardware and software systems the hospital relies upon require upgrading and in some instances replacement. At present, the various financial reporting software programs linking inventory and patient record keeping require manual integration. This adds to administrative costs and is much less accurate than if a paperless approach was created to integrate these vital financial accounting, reporting and inventory control procedures.

**Strategies:**

a. Form a hospital information technology steering committee: The hospital must evolve from the current legacy information system to a new unified fully integrated multi-disciplined information technology infrastructure. To accomplish this, a steering committee will be formed that will include Board of Trustee representation to conduct an assessment of all existing systems used, identify weaknesses, strengths and actual needs with the understanding that migration to a new IT system is costly, both in financial resources and delivery of patient care. The dollars and amount of training involved can be insurmountable. GMHA will release a Request for Information (RFI) to technology solutions providers, with the intent to secure grant funding to pay for the recommended upgrades and changes.

The scope of the Steering Committee will be to:

- Assess the needs of the end users;
- Determine the capacity of existing IT system to meet assessed end users needs;
- Provide viable and compatible 'off the shelf' software to meet the assessed end users needs;
- Review both hardware and software requirements;
- Report to the Board of Trustees a set of recommendations;
- Provide to the hospital grant writer the specifications and justification for funding required to properly upgrade the system;
- Oversee the development of initially an RFI and based upon the nature and quality of responses and issue an RFP once grant funding has been obtained to upgrade the MIS system.

b. Upgrade and maintain the existing system: The current AS400 system is running at 90% CPU and memory utilization. Seventy-two percent (72%) of the current disc storage capacity has been filled. The back-up AS400 is essential for redundancy, and it has 92% of its storage capacity filled. There is an urgent need to purchase interim hardware upgrades to keep the current system operable. Funding for these hardware upgrades will be paid from hospital operating revenues. Quotations, and requisitions for the necessary hardware upgrades as well as installation are scheduled to be completed within this fiscal year and are a high priority.

## Goal 3: Achieving Greater Self-Reliance

Hospital Leadership believes that an adjustment in its current institutional relationship with the Government is important to meeting the governance standards necessary to maintain Joint Commission accreditation. After careful review, it was determined that the necessary adjustment can fall entirely within the intent of the enabling legislation that created the GMHA. The adjustments, although minor from a regulatory standpoint, will provide greater flexibility for the hospital in meeting both its financial and operating objectives and significantly enhance the hospital's ability to become increasingly self-reliant. This has broad reaching effects on the manner GMHA is able to access manpower and obtain financing from sources other than the local government.

GMHA will always be a "public" hospital, forever responsible for those that cannot pay for acute medical care. However the Hospital believes that a better approach exists for how GMHA should interact with the local government. The Leadership believes that the kind of relationship enjoyed by the University of Guam (UOG) with the Government of Guam provides an excellent model. UOG is still a part of the local government, but because of its unique relationship it is afforded the means to become increasingly self-reliant and better able to meet the rigorous requirements of Western Association of Schools and Colleges accreditation standards. Similarly, GMHA faces many of the same kinds of challenges in meeting Joint Commission accreditation standards. Establishing a permanent relationship with the Government of Guam similar to that enjoyed by the University will significantly enhance the capability of GMHA to attain and maintain accreditation. It will also help GMHA to be able to effectively meet the challenges created by the anticipated population growth that is expected as a result of military build-up.

*Objective: To develop and pass legislation for enhancing the hospital's ability to be self reliant:*

**Strategies:**

a. Reach consensus: Because the proposed change will be permanent, the Board of Trustees through a new subcommittee called the "Governance Committee" will reach out to health care professionals island-wide to obtain input on suggested ways for the hospital to achieve greater self-reliance. The findings will offer specific guidance for developing legislation to establish the recommended and necessary changes. This is deemed a high priority project and will be completed before the end of the fiscal year.

b. Obtain Legislative approval: The governance committee will develop legislation for the requested legislative changes and will present and work with the Legislature to obtain approval of the measure. This is a high priority project and submission of the legislation will be completed before the end of the fiscal year.

## Goal 4: Developing a Master Plan for Facilities

Compared to the average of all other communities throughout the U.S., Guam has less than half the number of acute care hospital beds per 1,000 residents. GHMA currently maintains 158 acute care beds for an estimated total population of 176,000 local residents. This represents approximately 0.9 beds for every 1,000 Guamanians. This compares to 2.6 beds per 1,000 residents in Hawaii, 2.1 beds per 1,000 in Alaska and California. The U.S. national average is 1.9 beds per 1,000. The current capability does not provide for the anticipated increase in population that is expected as a result of the military build-up. The impact from the expected growth in civilian population is unknown. However, if the total local population increase estimated by the Bureau of Planning of 50,000 people is adjusted by the estimated military population increase, approximately 17,000 active duty personnel and dependents, the existing civilian population could increase by nearly 20 percent. There is little debate that more hospital beds are needed to adequately meet the healthcare needs of the community. It remains unclear if the needed growth can be accomplished through renovating the existing facility or if an entirely new facility will have to be developed.

In the meantime, significant upgrades of the existing structure are required to meet Joint Commission accreditation standards. The current facility is nearly 40 years old and was not designed to accommodate the technical specifications of equipment and patient care systems required of hospitals today. The two (2) following objectives must be met:

1. Upgrade the existing facility through grants, existing income, and other forms of funding to meet Joint Commission accreditation standards.
2. Develop a hospital master plan accommodating the community's future needs for acute care.

*Objective 1: To meet the facilities and equipment requirements promulgated by the Joint Commission:*

**Strategies:**

a. Conduct a facilities operational assessment: To evaluate current plans necessary to meet Joint Commission requirements and optimize existing facility assets a current facilities operational assessment will be conducted. Key to the assessment will be consideration of space utilization for:
    1. Patient care services.
    2. Configuring current discharge areas to provide greater privacy to discuss financial concerns with patients.
    3. Storage
    4. Vehicle parking for patients, their families, and employees of GMHA
        i. Assigned parking
        ii. Off-site parking (e.g. shuttle bus)
        iii. More parking for physically-challenged individuals
        iv. Paid parking
b. Contract necessary upgrades: The Joint Commission accreditation process has already determined a number of system and facility upgrades that will be performed and completed in addition to those that may be identified in the facilities operational assessment.

*Objective 2: To embark upon the development of a Master Plan.*

Steps must be taken now to upgrade current acute care facilities to meet the future needs of the community. The current shortage of hospital beds, and the increase in population that is anticipated requires that action be taken now to plan for the necessary facilities to meet the needs of Guam and the surrounding region.

**Strategies:**

a. Conduct a feasibility study: A professional hospital feasibility study will be conducted to determine the size of facility that will be required in the future and whether a new location or retrofitting the existing structure represents the best approach for the community as well as what additional medical and other equipment will be needed to meet community needs.

b. Initiate the development of a Master Plan: Based upon the recommendations identified in the feasibility study an RFP will be issued to conduct and develop a Master Plan for GMHA's facilities.