

Maui Region “Blue Sky” Plan

DRAFT

Disclaimers

- This report has been discussed with the Maui Region Board; however, it has not been “approved”, but it is being considered as part of the Maui Region Strategic Planning process
- The Maui Region Board does not consider this a Strategic Plan, but rather a high level “blue sky” plan, which will be considered in a formal strategic plan
- The Maui Region Board is in its strategic planning process using a facilitator that is anticipated to take several months to complete

Values

- Accountability
- Selflessness
- Collaborative Teamwork
- Caring/Attentiveness
- Learning and Change
- Respectfulness
- Balance

Mission/Values

- First Rate, full service hospital for the County of Maui
- Forward Thinking
- Positive caring experience
- Contemporary and highest quality healthcare that is easy to access and understand

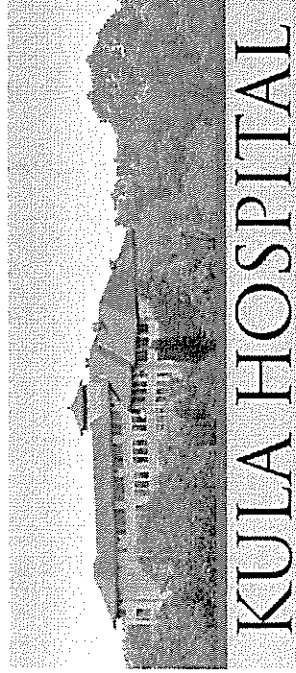
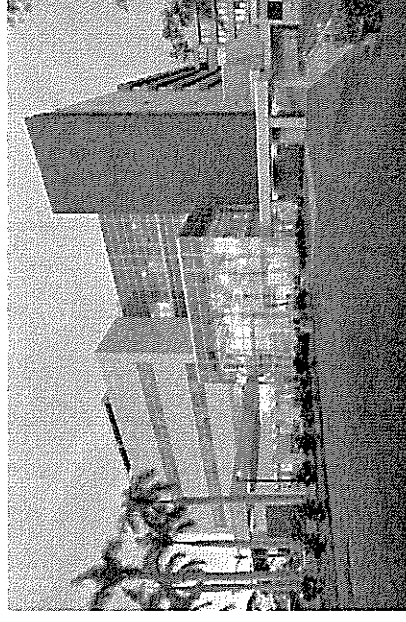
Market Summary

- **Maui Memorial Medical Center**
 - Acute Care Hospital
- **Kula Hospital**
 - Critical Access Hospital
- **Lanai Community Hospital**
 - Critical Access Hospital

Maui Region - Licensed Beds

Maui Memorial Medical Center - 209 beds

- ICU/ CCU - 16
- Med-Surg - 152
- OB/ Gyn - 23
- Psych - adult and adolescent 11 + 7 = 18
*(excluding units currently under renovation,
14 beds ICU/ CCU)*



104 beds

- 5 acute/ SNF swing
- 99 SNF/ ICF

Lanai Community Hospital – 14 beds

- 4 acute care beds
- 10 beds duo certification for SNF/ ICF



Maui Region

Staffing

Maui Memorial Medical Center

- FTE – 1138 employees
- Vacancy - 193 FTEs (as of 10/12/07)

Kula Hospital

- FTE – 206 employees
- Vacancy – 10 FTE (as of 10/12/07)

Lanai Community Hospital

- FTE – 31 employees
- Vacancy – 3 FTEs

Occupancy

- Maui Memorial
 - Acute
 - 2008 - 82.6%
 - 2007 - 72.6%
- Kula Hospital
 - Acute
 - 2008 - 47.5%
 - 2007 - 19.1%
 - LTC
 - 2008 - 95.9%
 - 2007 - 92.7%
- Lanai Community Hospital
 - Acute
 - 2008 - 5.5%
 - 2007 - 4.8%
 - LTC
 - 2008 - 90.0%
 - 2007 - 65.7%

Hawaii Acute Care Hospitals – Selected Data

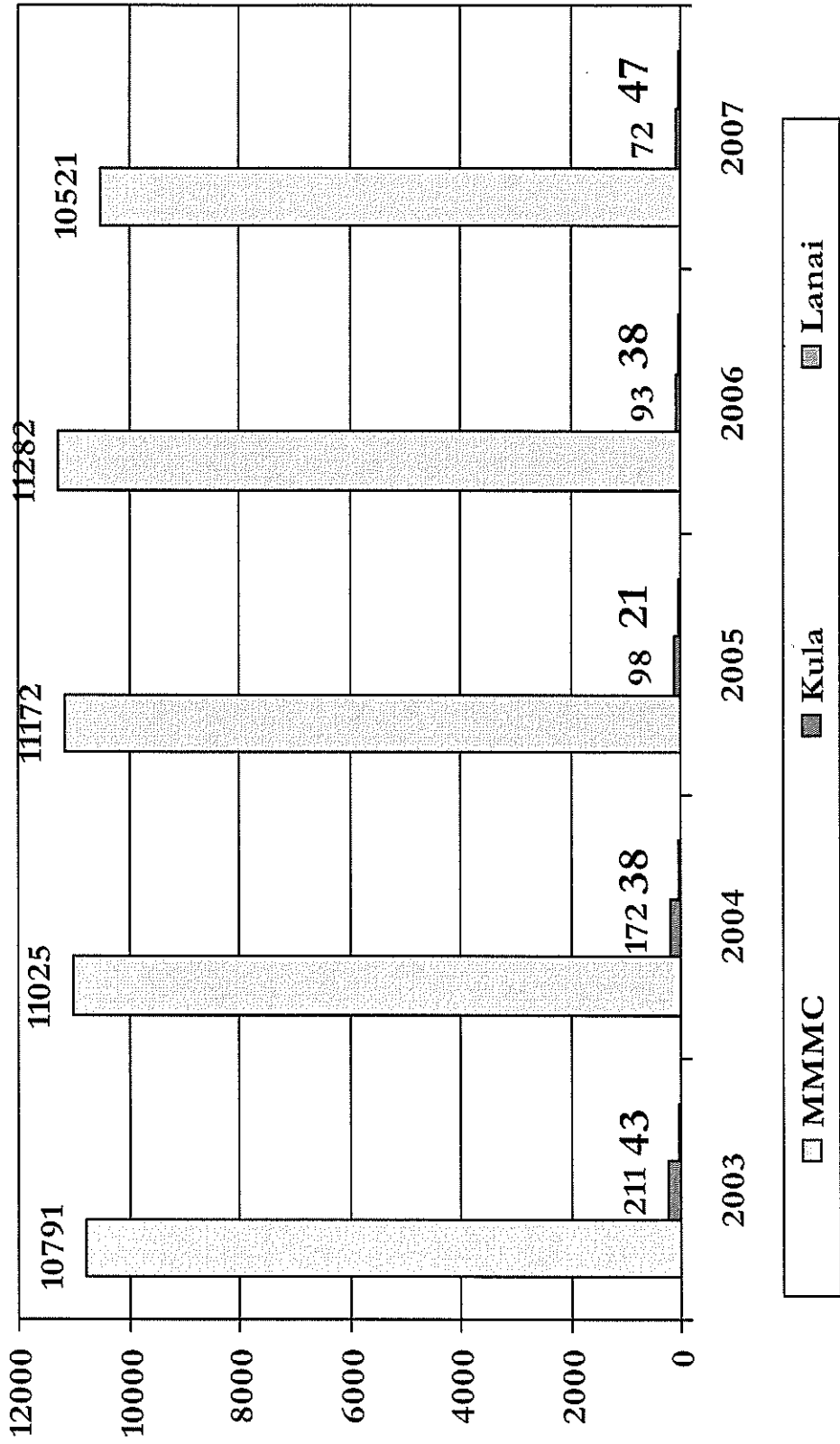
Emergency Room Visits (2007)

– Queen’s	44,744
– MMMC	33,492
– Pali Momi	30,616
– Hilo	30,366
– Kaiser	25,651
– Kona	18,295 (11 th)

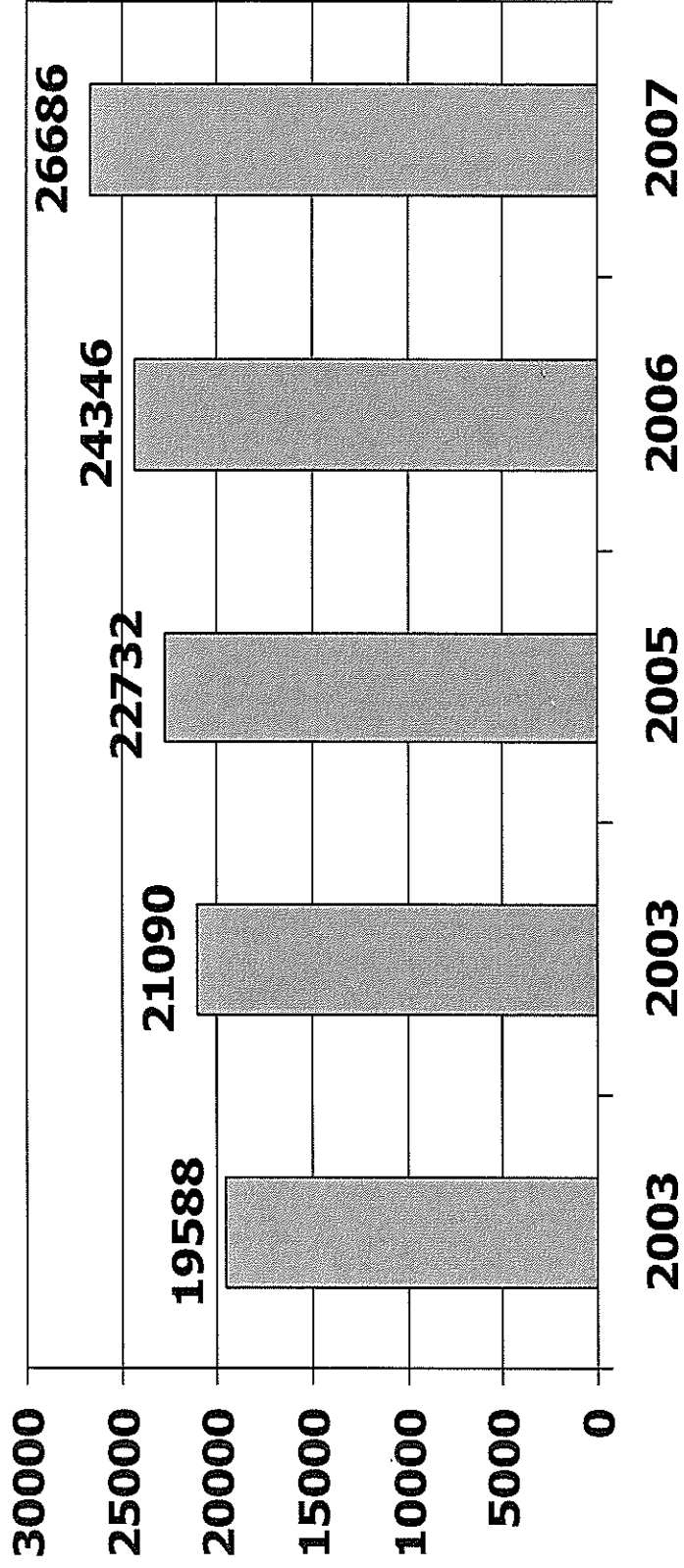
Hawaii Acute Care Hospitals – Selected Data

<u>Number of licensed beds</u>	
– Queen’s Medical Center	505
– Kaiser Foundation Hospital	278
– Kuakini Medical Center	212
– Maui Memorial Medical Center	209
– Kapiolani Women & Children	197
– Hawaii State Hospital	190
– HMC- East (St Francis)	188
– Castle Medical Center	160
– Straub Clinic and Hospital	159
– Hilo Medical Center	138
– Pali Momi	116
– HMC – West	102
– Kahi Mohala	88
– Rehab Hospital of the Pacific	80
– Kona Community Hospital	60

Maui Region – Admissions

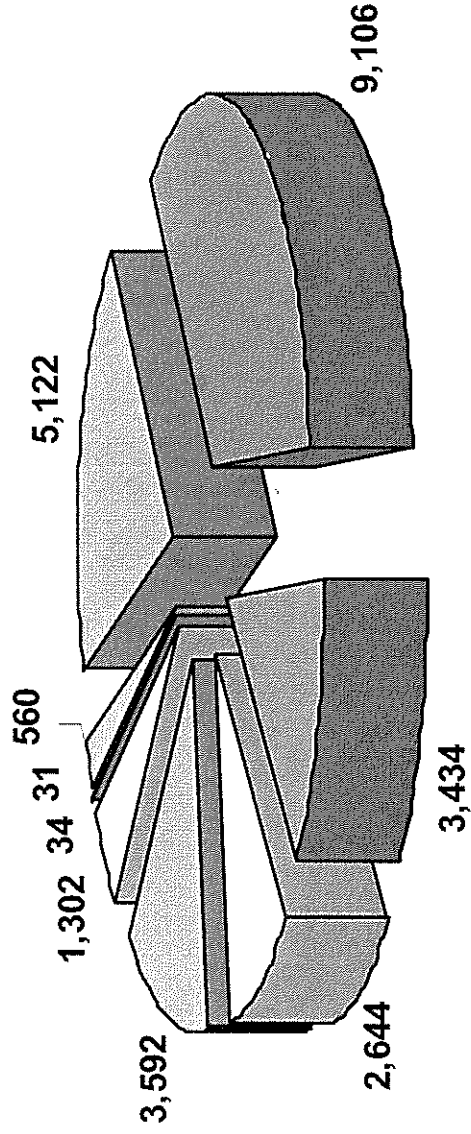


MMMC – ER Visits (Outpatient)



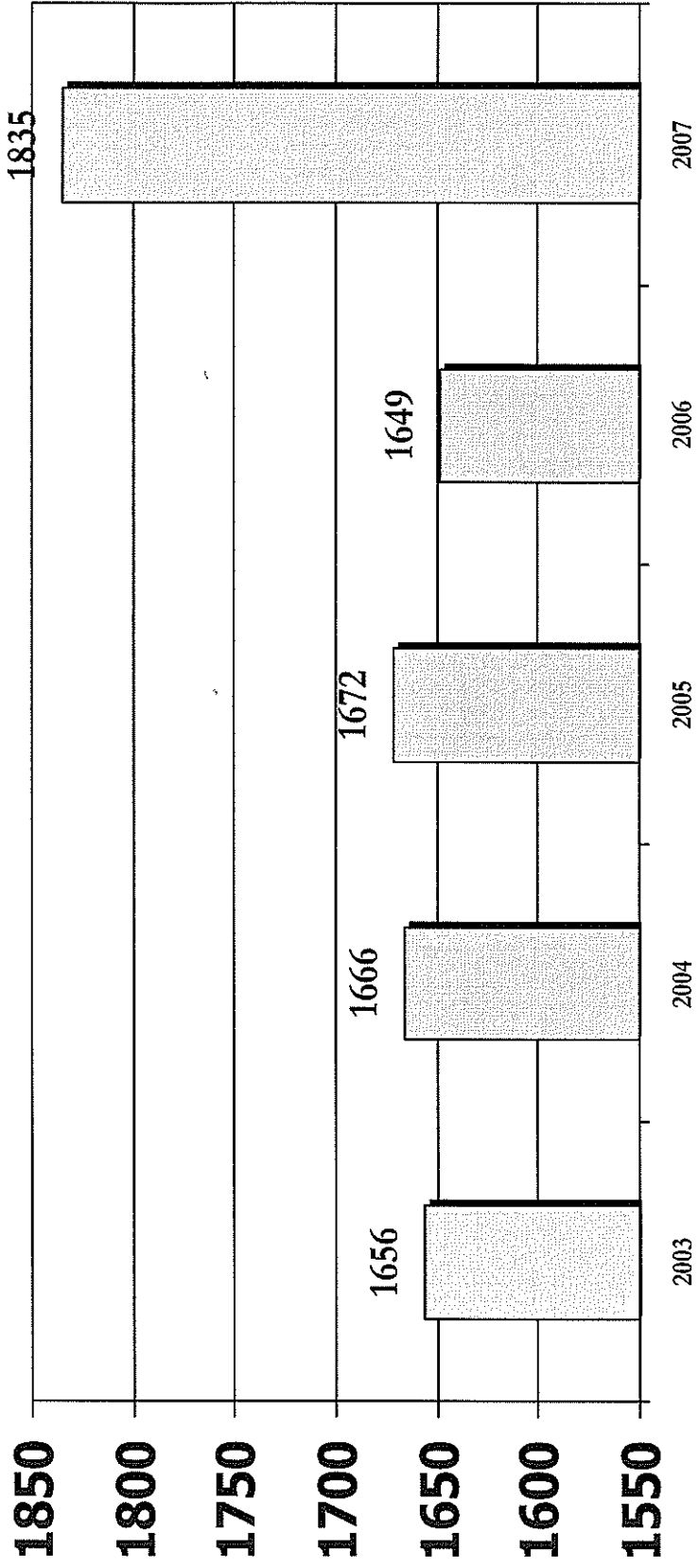
MMMC - ER Visits

MMMC Emergency Department CY '06 Visits by Place of Residence

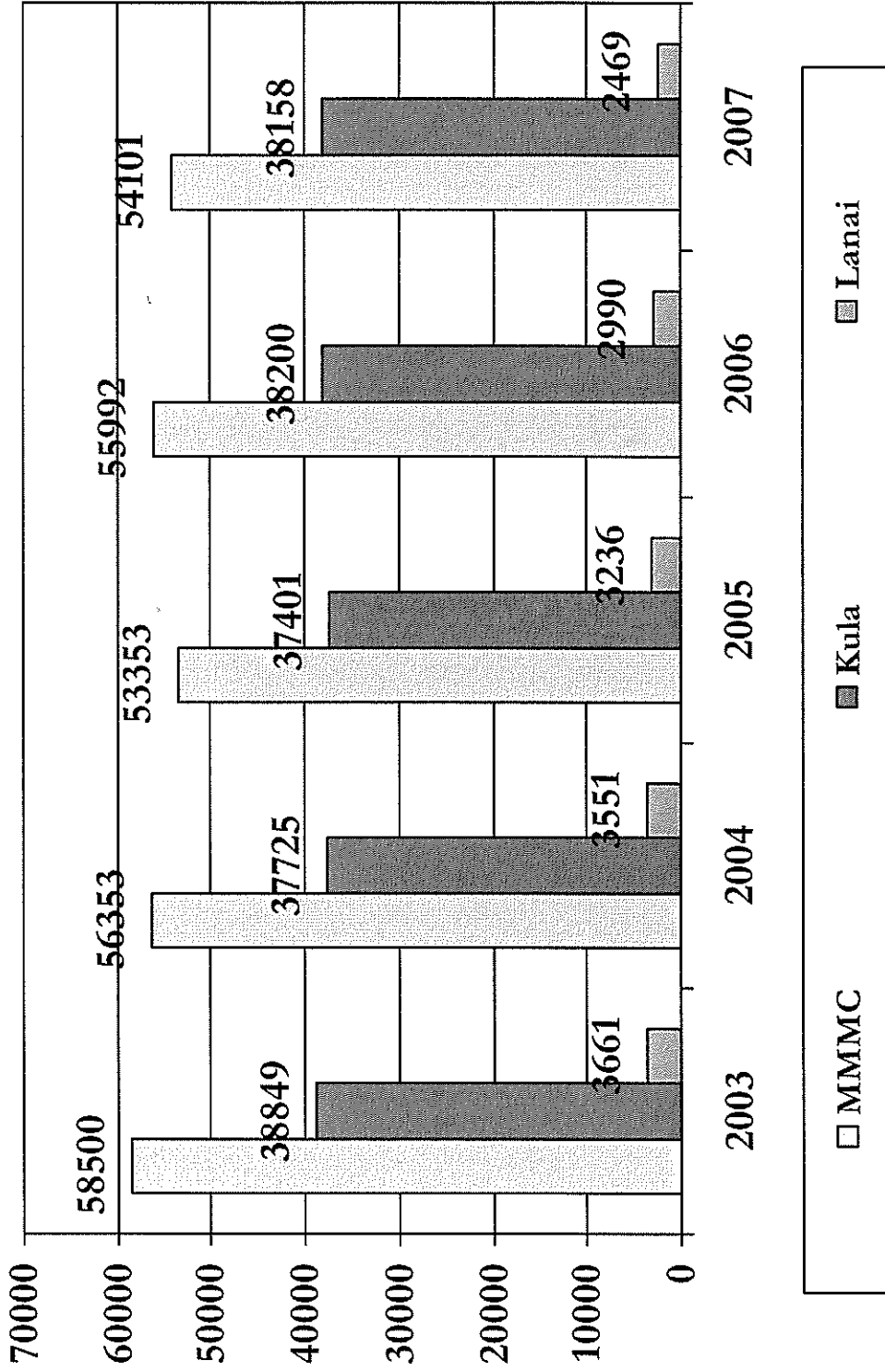


- Central Maui
- Upcountry
- Molokai
- Kihei
- East Maui
- Other Hawaii
- Lahaina
- Lanai
- Off-Island

MMMC - Births



Maui Region – Patient Days



MMMC – Top DRGs (2006)

Product Line	APR-DRG	Discharges
Neonatology	640 - Neonate Birthwt >2499g, Normal Newborn Or	1,615
Obstetrics/Delivery	560 - Vaginal Delivery	1,029
Obstetrics/Delivery	540 - Cesarean Delivery	618
Infectious Disease	383 - Cellulitis & Other Bacterial Skin Infections	292
Cardiology	203 - Chest Pain	270
Cardiology	194 - Heart Failure	260
Cardiology	201 - Cardiac Arrhythmia & Conduction Disorders	231
Pulmonary	139 - Other Pneumonia	228
General Surgery	225 - Appendectomy	212
Cardiology	190 - Acute Myocardial Infarction	190
General Surgery	263 - Laparoscopic Cholecystectomy	185
Cardiology	198 - Angina Pectoris & Coronary Atherosclerosis	180
Neurology	045 - Cva & Precerebral Occlusion W Infarct	159
Cardiology	204 - Syncope & Collapse	147
Nephrology	463 - Kidney & Urinary Tract Infections	138
Pulmonary	140 - Chronic Obstructive Pulmonary Disease	130
Gastroenterology	241 - Peptic Ulcer & Gastritis	123
Psychiatry	753 - Bipolar Disorders	122
Gastroenterology	251 - Abdominal Pain	120
Gastroenterology	249 - Non-Bacterial Gastroenteritis, Nausea & Vomiting	116
Gynecological Surgery	513 - Uterine & Adnexa Procedures For Non-Malignancy Except Leiomyoma	115
Psychiatry	775 - Alcohol Abuse & Dependence	115
Orthopedics	347 - Other Back & Neck Disorders, Fractures & Injuries	109
Psychiatry	750 - Schizophrenia	105
Urology	465 - Urinary Stones & Acquired Upper Urinary Tract Obstruction	104
Gastroenterology	254 - Other Digestive System Diagnoses	102
Other Obstetrics	566 - Other Antepartum Diagnoses	97
Orthopedic Surgery	313 - Knee & Lower Leg Procedures Except Foot	96
General Surgery	221 - Major Small & Large Bowel Procedures	93

**American College of
Surgeons
Trauma Report (2005)**

2005 Trauma System Consultation by the State of Hawaii

American College of Surgeons

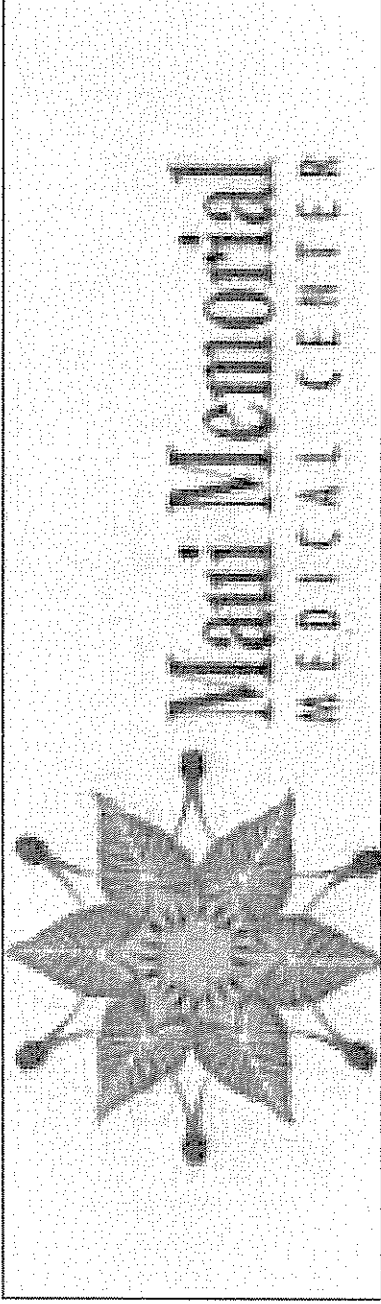
- Key Findings
 - Queens Medical Center (QMC) is the only verified trauma center in the state (Level II Trauma Center)
 - 1,500 trauma patients annually receive care at QMC. The Trauma patient volume continues to grow at QMC despite fact that statewide growth is on the neighbor islands
 - MMMC “is an unrecognized state treasure”
 - Only neurosurgeon in the eastern half of the state
 - “It appears that the growing physical plant could function as a level II trauma center.”
 - “As the facility continues to grow and plays an increasingly important role in trauma care for the eastern half of the state, its other specialty areas will also mature.”
 - “If the 200 chest pain patients that are currently transferred from MMMC to Oahu could stay at MMMC, this would serve to decompress the air medical transport system resulting in more timely transfer of patients than can only be cared for in Oahu

2005 Trauma System Consultation by the State of Hawaii

American College of Surgeons

- Key Findings
 - Upgrade Queen’s Medical Center to a Level I Trauma Center
 - Develop MMMC as a designated and verified Level III trauma center initially with a plan to evolve to a level II facility within the next 5-10 years
 - Designate at least one level III Trauma Center on the Big Island
 - Designate a trauma center on Kauai

Community Sentiment



Maui Resident Healthcare Image Survey

June 2005

Maui Resident Healthcare Image Survey

Research Objectives

- To identify perceptions of how well health care needs are being fulfilled on Maui
- To identify any major health care issues for Maui residents, including if they believe that there are adequate facilities on Maui to meet their health care needs
- To benchmark resident satisfaction with Maui Memorial, relative to other health organizations on the island or county
- To identify any areas of concern for Maui residents with Maui Memorial

Maui Resident Healthcare Image Survey

Methodology

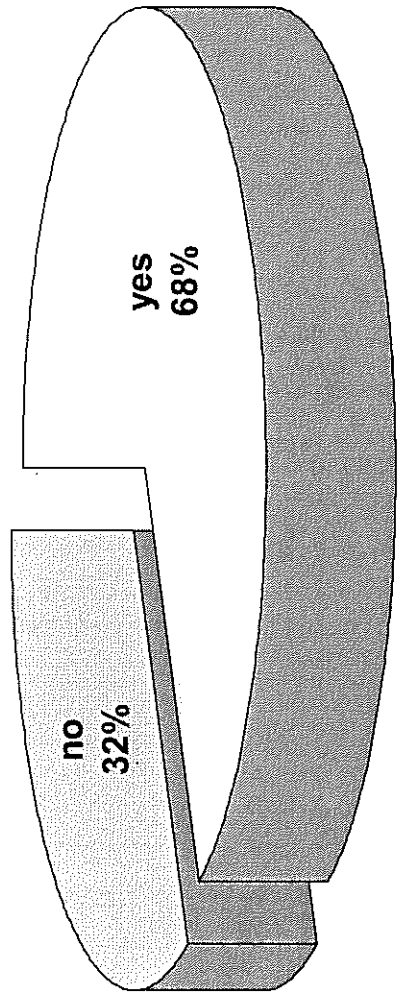
- From a random sample of Maui County households, 400 telephone surveys were completed for an overall margin of error of $\pm 4.99\%$
- Survey instrument was designed by SMS Research in conjunction with Maui Memorial staff
- Surveys were conducted April 26 – May 20, 2005
- Analysis was carried out using SPSS v10.1 statistical software package

Maui Resident Healthcare Image Survey

Needed Services

Most respondents felt that there were health care services and programs that are needed but not currently available on

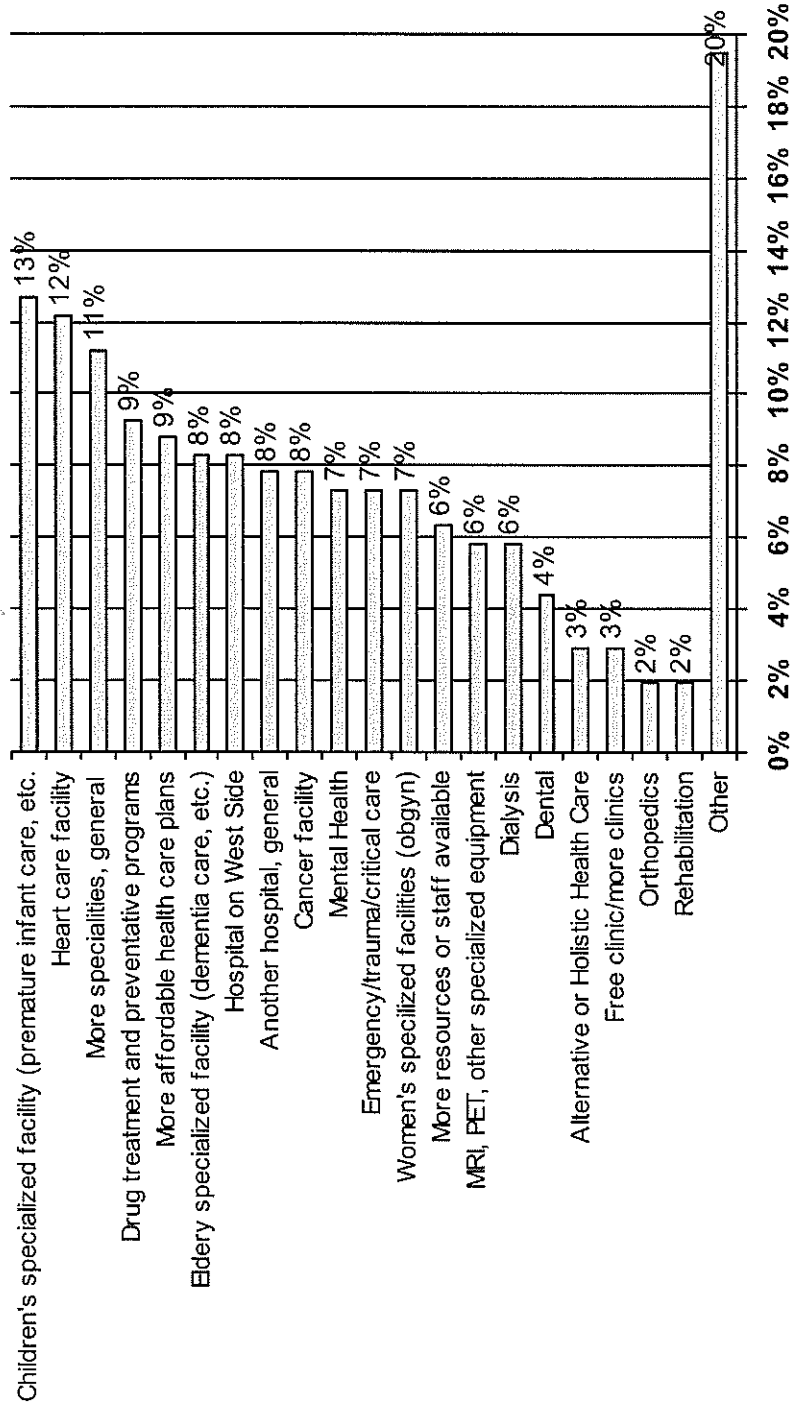
Maui



Maui Resident Healthcare Image Survey

Needed Services

Services needed spanned a wide range, but Pediatrics and Cardiac were the most commonly mentioned single areas



Maui Resident Healthcare Image Survey

Open ended answers for services needed

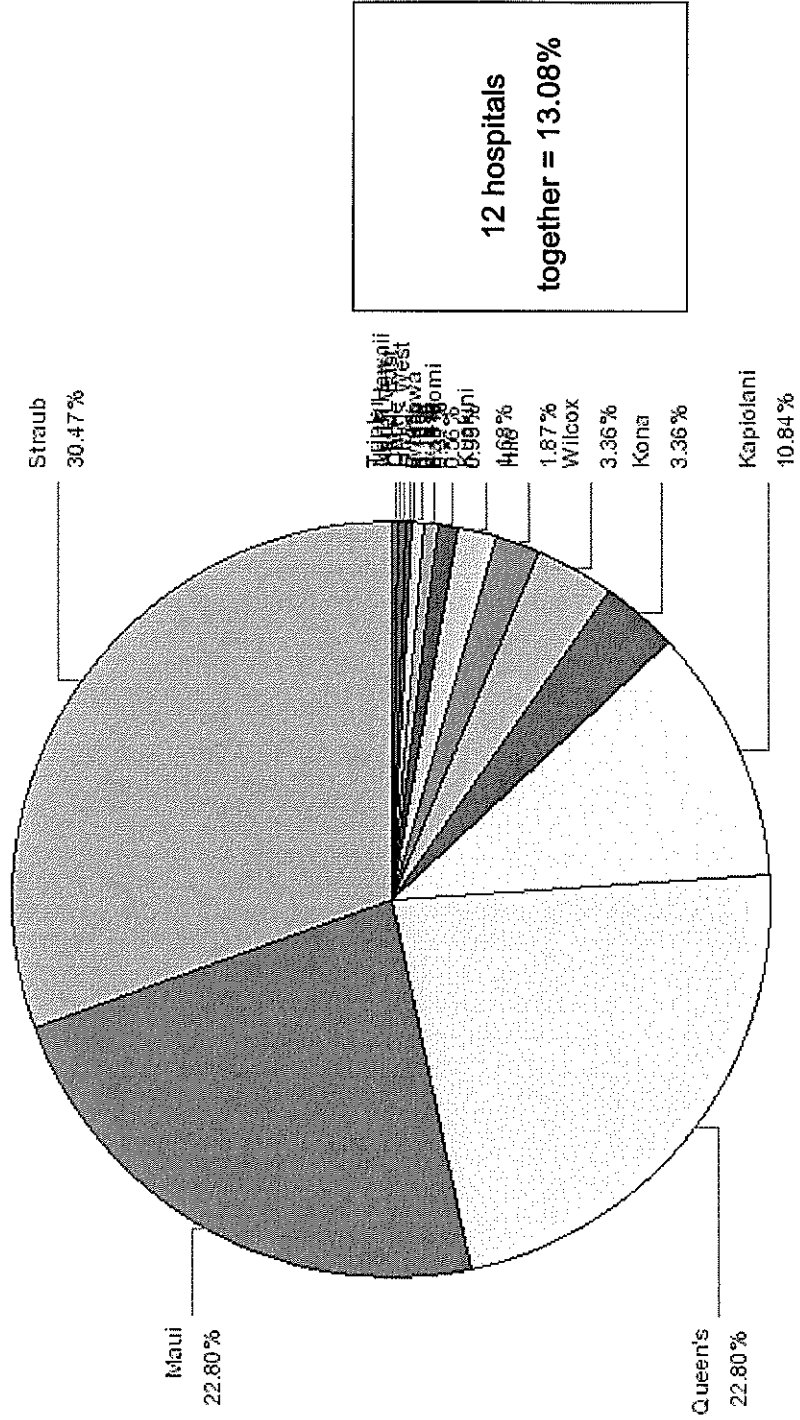
- “Cardiac—we ship that out. spinal injuries—we ship that out, major cancers go to Oahu, all major problems go out. Only minor stay here—for big problems we don’t have the know-how”
- “Birthing center and a children’s hospital”
- “Better cardiovascular care and cancer. Most referrals are to Honolulu. Better kidney dialysis equipment and a bigger facility”
- “Open heart surgery because it seems like everyone has to fly to Oahu. Specialized dental for disabled patients”
- “I think we need another hospital because the population is growing in Lahaina and Hana. We need more hospitals, basically, and maybe more affordable insurance for families

Utilization Trends by Demographic Group

Effect of Visitors to Maui

MMMC tied with the Queens Medical Center for 2nd in the number of foreign tourists treated in 2006, after Straub Hospital

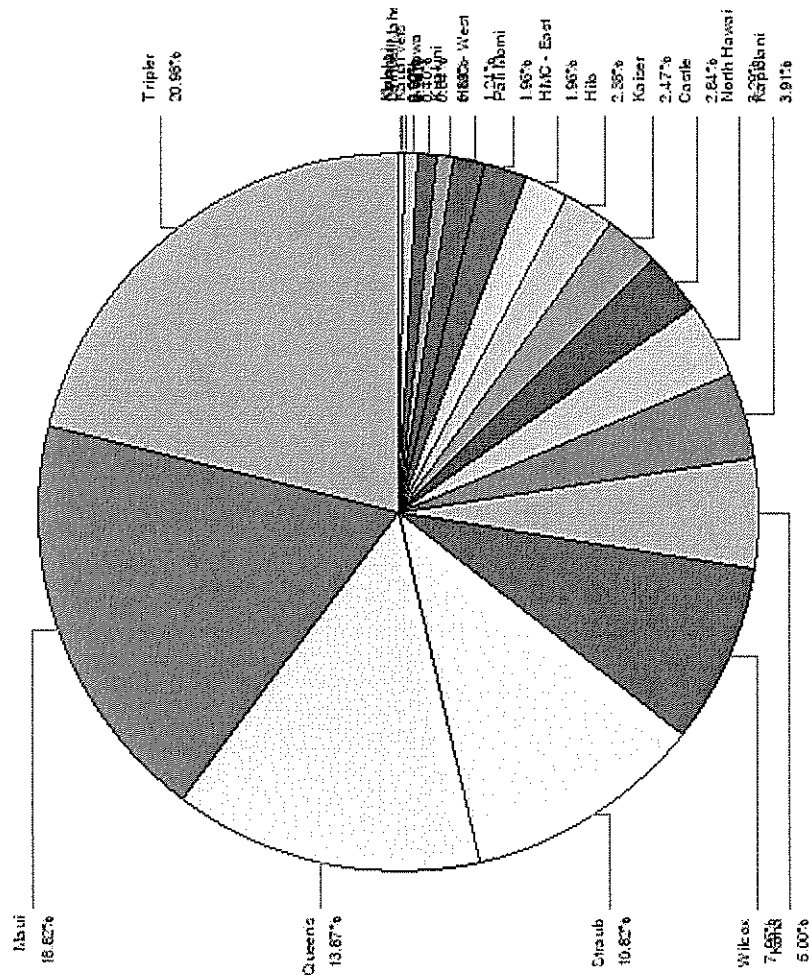
Market Share (Percent Hospitalizations)



Effect of Visitors to Maui

In 2006, MMMC treated more out of state residents than any other hospital, except Tripler Army Medical Center (18.82%)

Market Share (Percent Hospitalizations)



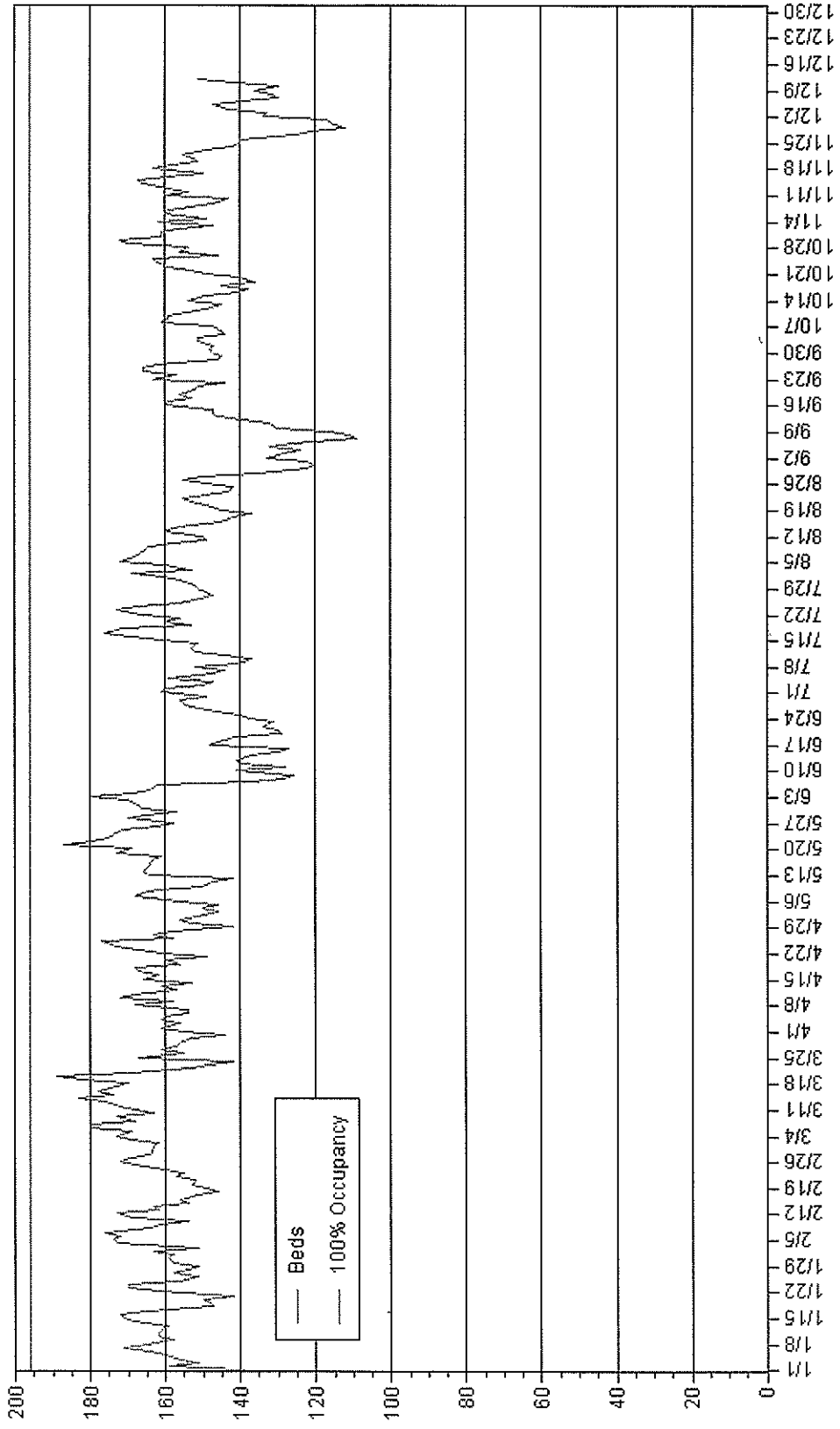
Maui Bed Needs Study (2004)

Stakeholders

- Kaiser Permanente
- Malulani Health Systems, Incorporated
- Maui County Mayor's Office
- Maui Memorial Medical Center
- State Health Planning and Development Agency
- West Maui Taxpayers Association
- Residents and Visitors on Maui

Maui Bed Needs Study (2004)

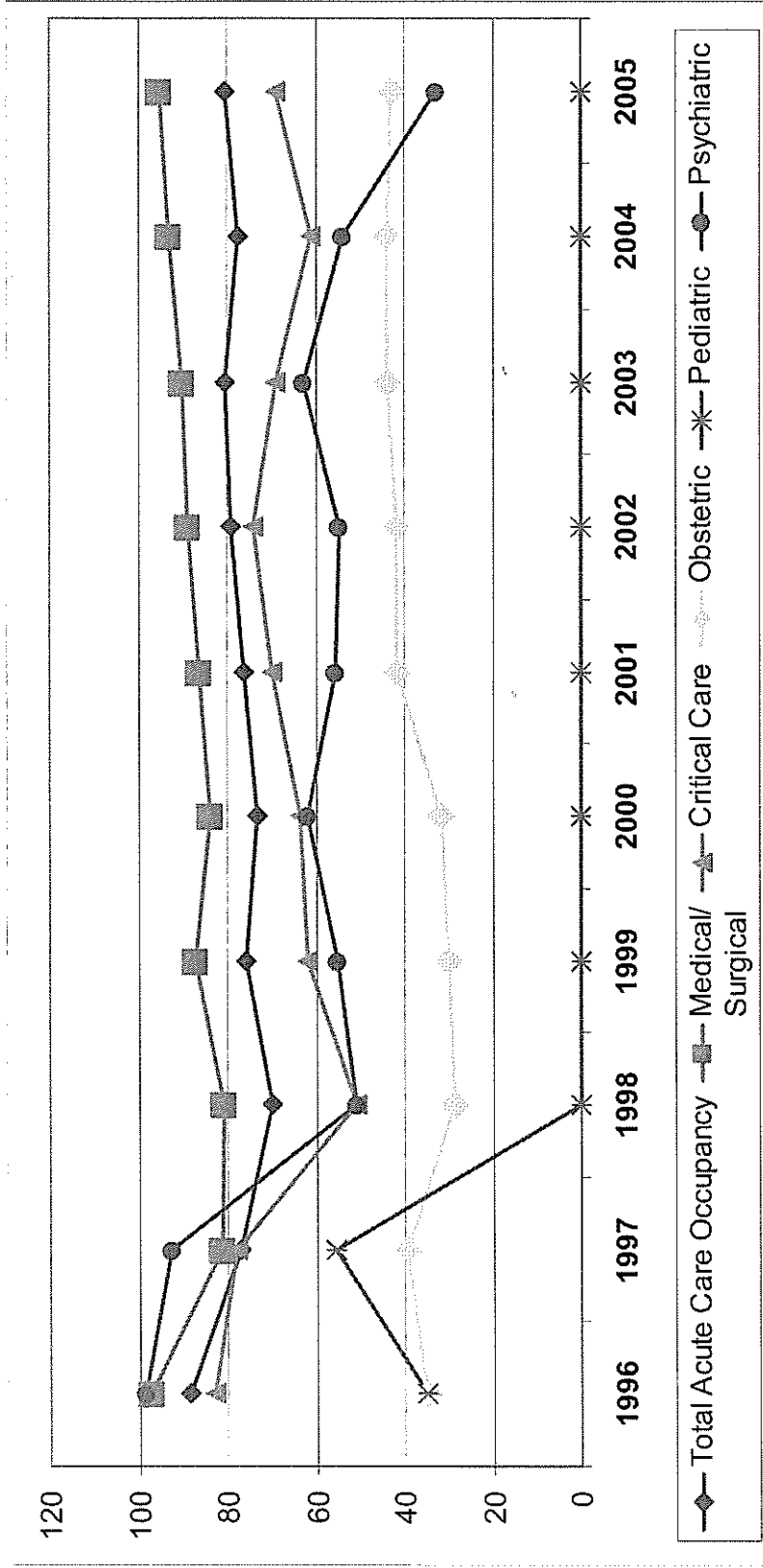
On, the surface, it appears that MMMC's total capacity is sufficient (2002)



Maui Bed Needs Study (2004)

Occupancy rates are very high in medical/surgical units

Maui Memorial Occupancy Rate by Bed Type, 1990-2005
Wait-List Patients Included



Maui Bed Needs Study (2004)

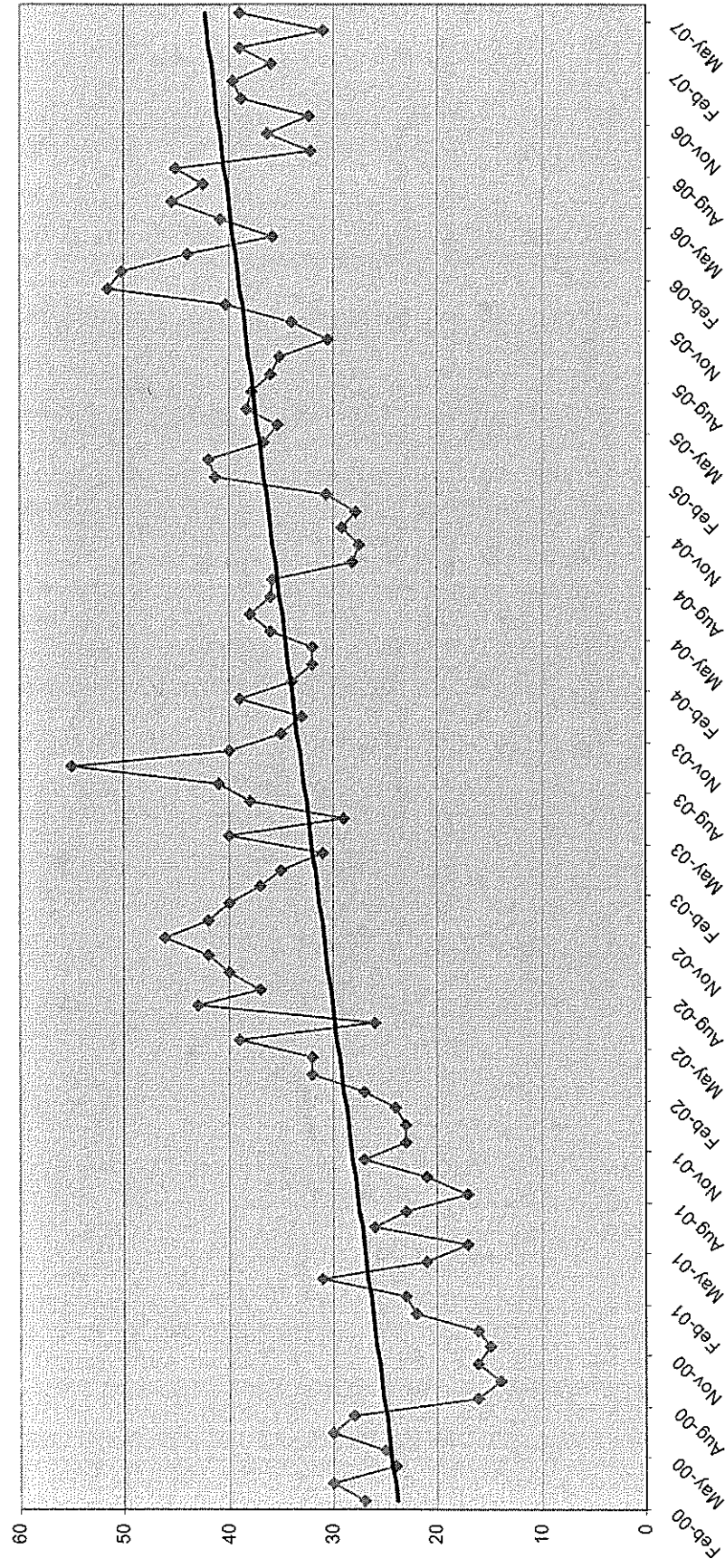
Pressures on MMMC Bed Capacity

- Wait List Patients—fill 32 beds per day. (*Currently 41 beds per day*)
- MRSA Patients—fill 5 beds per day, limit flexibility of placement of patients
- Periodically, total wait list, MRSA and SNF/ICF patients up to 60+ beds per day
- Preventable Hospitalizations—fill 29 beds per day, potentially could be averted and successfully managed in primary care
- Insufficient primary care resources create greater demands on the acute care hospital.
- Lack of long-term care beds creates greater demands on the acute care hospital.
- Antibiotic resistant infections place greater demands on the acute care hospital.

MMMC Non-Acute Average Daily

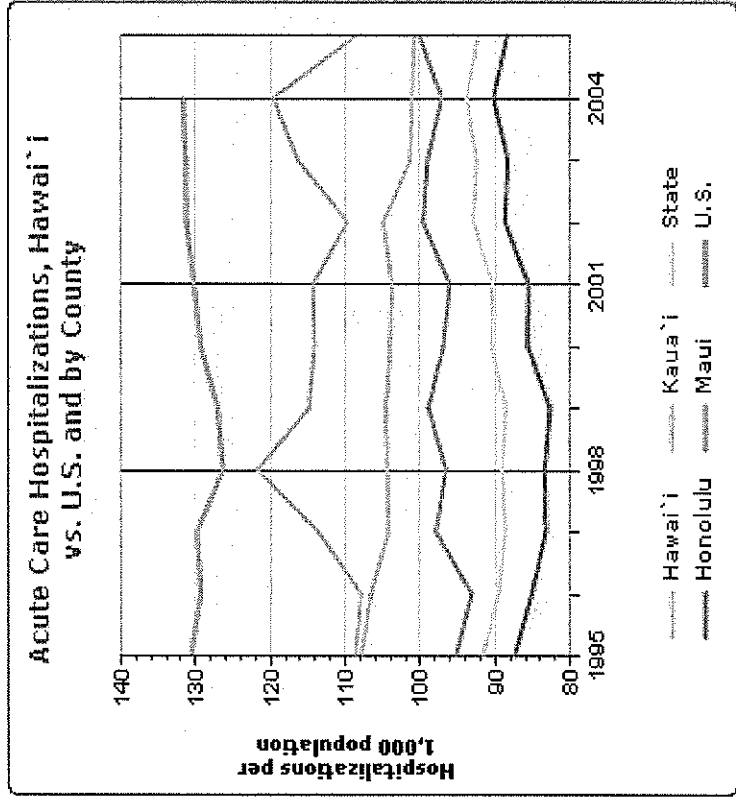
Census

MMMC Average Daily Non-Acute Census



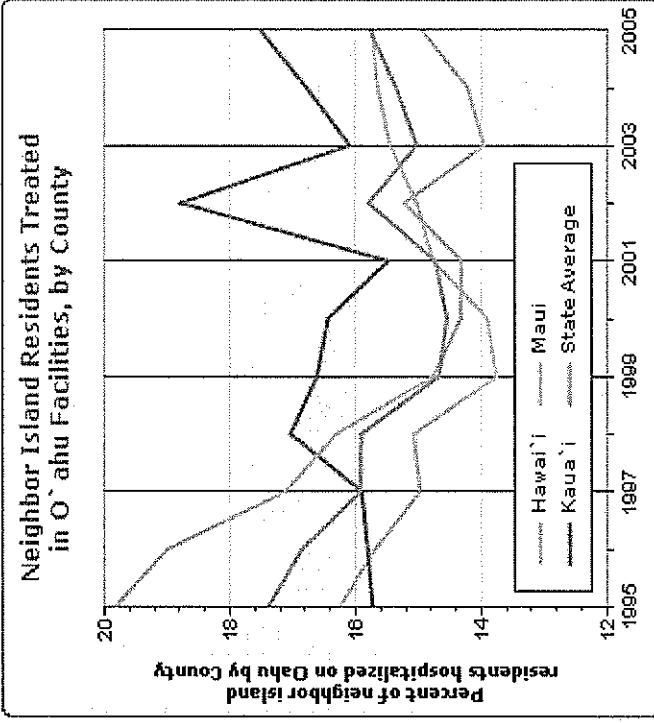
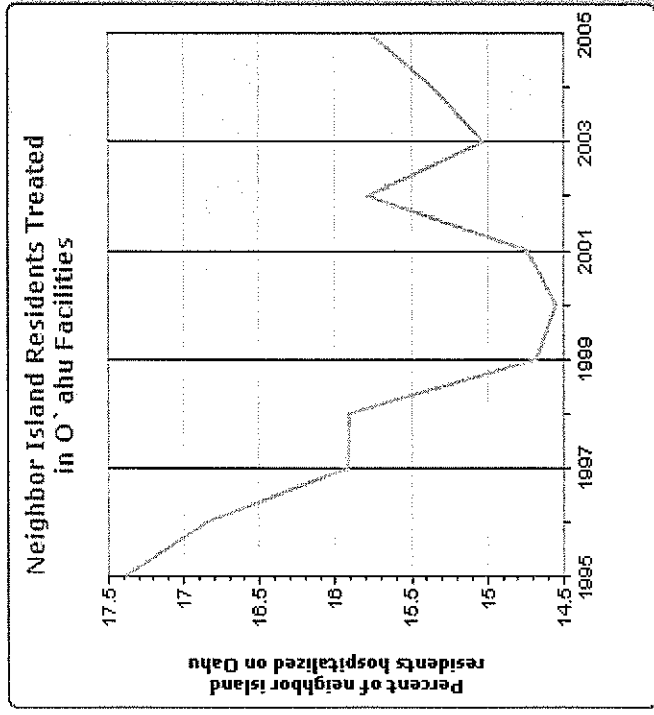
Health Care Usage

Acute Care Hospitalizations – Hawaii vs. U.S.



- **County of Residence Differences:** Hospitalization rates based on county of residence vary with Kauai County's rates being the highest in the state (108.6 per 1,000 population) and Honolulu County's rate the lowest (88.5 per 1,000 population). Between 1995 and 2005, the rate of hospitalization increased in Maui County (5 percent), while it decreased in Hawaii County (6 percent decrease). Hawaii's hospitalization rate of 92.4 discharges per 1,000 population in 2005 was well below the U.S. rate of about 130.

Neighbor Island Residents Treated in Oahu Facilities



• In 2005, 37,716 Neighbor Island residents were hospitalized, 16 percent of whom received their hospital care on Oahu. The most common reasons for migration from Neighbor Islands to Oahu for care include:

- Orthopedic Surgery
 - Knee and hip procedures
 - Back and neck procedures
- Obstetrics/Delivery and Neonatology
- Cardiovascular and Open Heart Surgery
 - Percutaneous cardiovascular procedures
 - Coronary bypass surgery
- Oncology
- Pulmonary

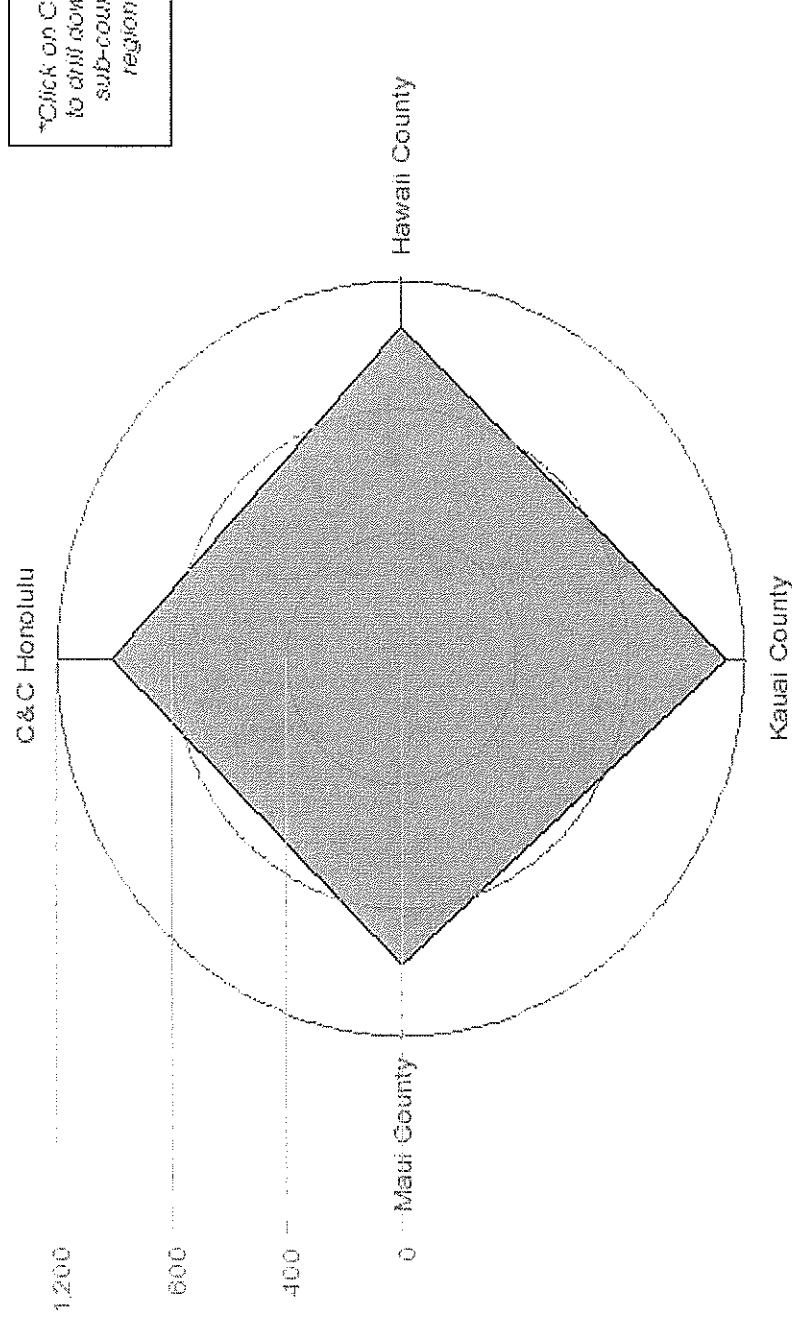
Health Care Usage

- Overall, hospital use rates are fairly similar across counties.
- Within Maui County, Maui Island hospital use rates are higher than those for Lanai and Molokai.
- Consistently, over 80% of Maui County residents are hospitalized at MMMC.

Health Care Usage

Hospital Use Rates (2006) per 10,000 residents, by County

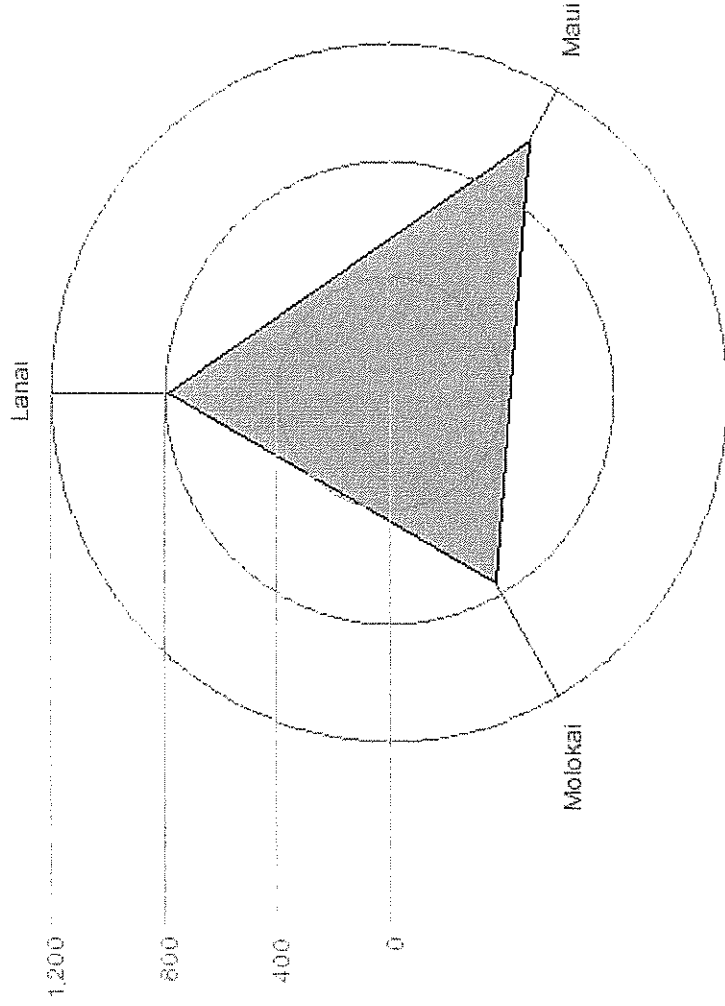
Use Rate* by County of Patient Residence



Health Care Usage

Maui County – Hospital Use Rates (2006) per 10,000 residents

Use Rate* by County of Patient Residence



Clinical Perspective

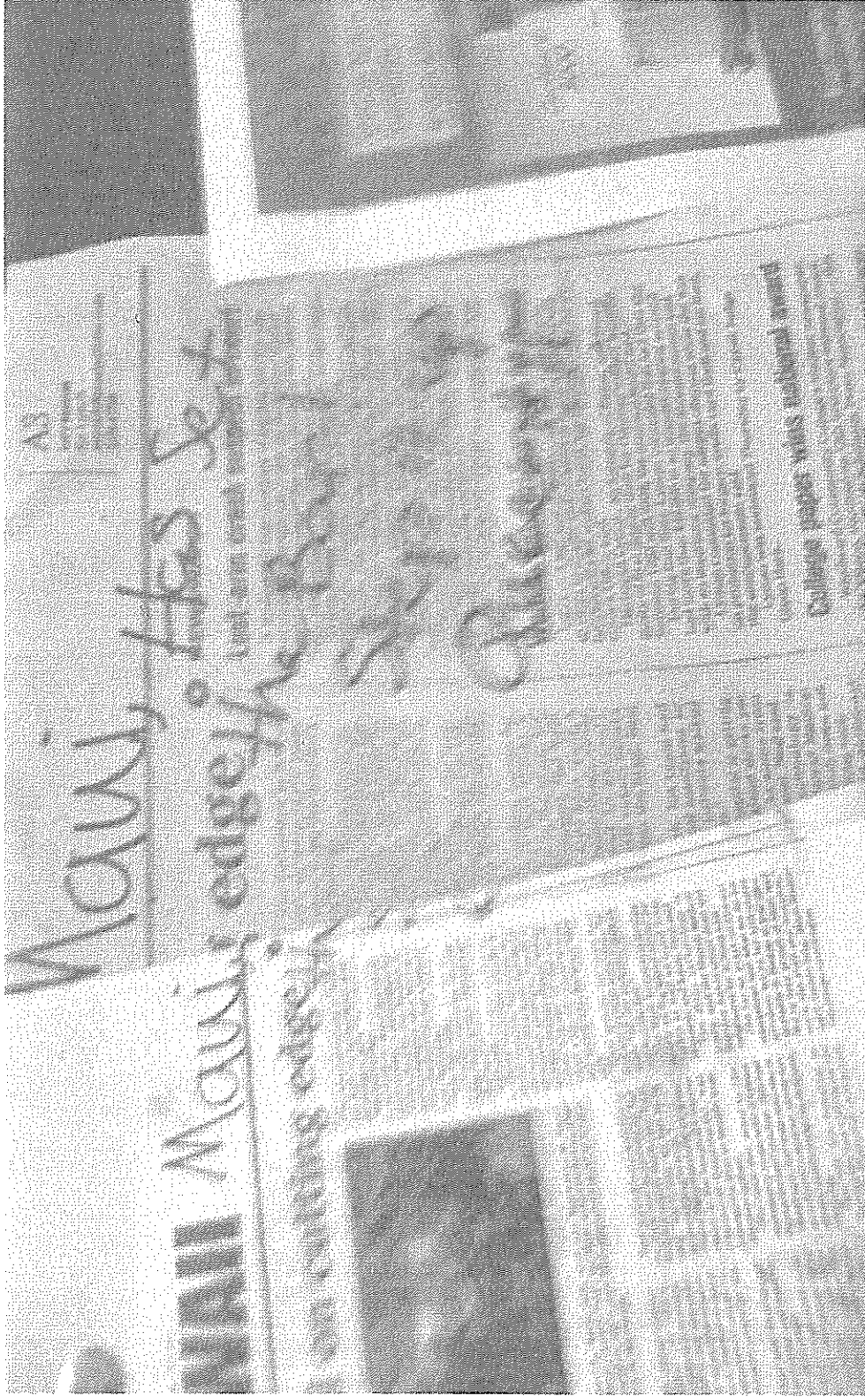
Clinical View

- Current Strengths
 - Major specialties are located on Maui
 - General Surgery
 - ENT
 - OB/GYN
 - Neurology
 - Cardiology
 - Pulmonology
 - Orthopedics
 - Neurosurgery
 - Interventional Stroke Program
 - High Quality Cancer programs
 - Radiation
 - Medical

Interventional Radiology – State of The Art at MMMC

- Only hospital in the state offering 24/7/365 stroke therapy team, treating stroke, aneurysms, clogged blood vessels and other vascular procedures.
 - Only program allowed to use certain stents and polymers
 - One of only six programs in the nation using EKOS Microcatheter
 - Transport from all Islands to Maui for Stroke care
- Only hospital in the state offering 24/7/365 neurosurgery

As seen at Queens...



Interventional Radiology – State of The Art at MMMC



Interventional Radiology – State of The Art at MMMC



Clinical View

- Maui Resident Hospitalization on Oahu
 - 12% of discharges
 - Major types of surgery
 - Cardiovascular/Circulatory
 - Orthopedic (primarily hip and knee replacements)
 - Neurosurgery
 - General Surgery (various sub specialties)
 - Surgical Oncology
- Emergency Department Utilization
 - Maui - 18% of ED Patients Hospitalized (FY07)
 - Nation - 12%
 - Hawaii - 16%

Strategies - Clinical

- Basic Strategy is to address the needs of the community if Critical Mass is available
 - Heart, Ortho, Neuro, Cancer, Diabetes
 - Look to other Market Areas for Critical Mass
- Focus will be on
 - Expanding Stroke Program
 - Heart Program
 - Ortho – Possible Bone and Joint Clinic
 - Prevention/education (CHF, Diabetes, etc)

Future Plans for Healthcare

Maui County Strategy

Master Planning for Future

- Address our future with master plan
 - Grow with population
- Sustainable and appropriate care for each District
- Clinics and prevention programs

Districts

- Clear from Bed study that there are too many subacute patients in MMMC
 - Bed study assumes average “Waitlist” of 32 in 2002 increasing to 57 in 2025
 - In recent history, we have been as high as 60+
- Health Dimensions Group Site Selection report of Long term care
 - Greatest demand for Nursing Home beds
 - First West Maui (2004 – 86 units; 2009 – 107 units)
 - Second South Maui (2004 – 78 units, 2009 – 102 units)
- Potentially preventable Hospitalizations
 - Approximately 29 beds per day are taken up by “potentially preventable hospitalizations”
 - Diabetes related
 - Congestive Heart failure
 - Pneumonia
- Maui has the lowest number of primary care physicians per capita in the State

District Strategies

- Build Long term care beds in the community
 - To alleviate waitlist problem at MMMC
 - Intermediate goals
 - 30-40 new SNF beds at Kula Community Hospital to be developed either by private developer or Maui Region
 - 30-40 new SNF beds in West Maui, to be developed by private developer
 - Facilitate the development of new SNF beds in Kihei with a private developer
 - Long Range Goals
 - 20-30 subacute bed facility on campus of Maui Memorial or Kula to handle the “permanent” waitlist of the County
- Provide clinic at these locations to provide access to healthcare
 - To reduce “potentially preventable hospitalizations” in outlying areas
 - Kula Hospital recently converted to a Critical Access Hospital
 - Private development of a West Maui Clinic

Regional Strategy – Centers of Excellence

Potential Areas of Excellence

- Cardiology
- Cardiovascular Surgery
- Cardiac Interventional Procedures
- Interventional Radiology
- Neurology
- Neurosurgery

High Level Financial Strategies

- Repositioning – Maui Memorial
 - Change in product mix to provide for a greater proportion of higher margin services
 - I.e. Cardiovascular Program, Stroke Program, Neurosurgery
 - Renegotiating Payor Contracts on a different methodology
 - Negotiations with State and Commercial Payors on “wait-list” specific costs
 - Exploration of CMS “Gainsharing” Demonstration projects
 - Re-engineering of pathways for top 10 Service lines, which account for 77% of the volume
- Supply Chain Management
 - Dedicate more resources and attention to supply chain. Management estimates that in excess of \$1.0 million per year is being “left on the table” due to lack of resources in Corporate Material Management
- Partnerships
 - Look for other sources of funding
 - JP Morgan
 - Other possible ventures

High Level Financial Strategies

- Critical Access Hospitals
 - Detailed financial analysis of CAH's and regulations
 - Analyze new physician models
 - More aggressive use of Stroudwater