Samuel Mahelona Memorial Hospital

4800 Kawaihau Road, Kapaa, HI

Performance Improvement Consultation

Conducted: September 11, 2006
Reported: December 8, 2006
Updated: January 19,2007

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STROUDWATER ASSOCIATES

Purpose of the Engagement

- Assess market and clinical services including:
  - Evaluate historic/potential demand for clinical services
  - Identify opportunities to address clinical service line "gaps"
  - Assess quality improvement and performance improvement strategies
- Identify other performance improvement opportunities that will result in increased financial stability. Areas to address include:
  - Reimbursement and cash flow
  - Hospital expense analysis
  - Organizational architecture and management principles

- *Note – This report was based on our determination of the highest value potential opportunities for Samuel Mahelona Memorial Hospital as identified on the basis of a two (2) day site visit conducted by the review team. Additional opportunities may exist for performance improvement that were either not reported or that may be detected after further scrutiny.*
- *Note – This Performance Improvement Consultation was supported in it's entirety by the HI Office of Rural Health*

Approach and Methodology

- Gather and review pertinent market, clinical service line, operational, and financial performance data
  - Hospital inpatient and outpatient volume statistics
  - Hospital medical staff roster
  - Fiscal Year 2005 cost report
  - Historic audited financial statements (2003-2005)
  - 2003- 2006 internal financial statements
- Conduct an intensive two (2) day site visit
  - Interviews with Regional CEO, CFO, Medical Director, Facilities Director, HR, and SMMH Administrator, DON, and Department Managers, FQHC Executive Director, Patient Financial Services Manager, and medical staff
- Develop preliminary report and recommendations
  - Telephone conference with the CEO to obtain feedback on preliminary findings and recommendations
- Submit final written summary report

Background

- Samuel Mahelona Memorial Hospital (SMMH) Overview
  - SMMH is a 6-bed Critical Access Hospital (CAH) located in Kapaa, Kauai, approximately 9 miles north of Lihue along route 50
    - Historically, SMMH has functioned primarily as a nursing home with an attached acute adult psych unit
  - SMMH is one of twelve Hawaii Health Systems Corporation (HHSC) facilities
    - HHSC governed by a 20-member Board of Directors, covering 5 regions of Hawaii
    - A 9-member Management Advisory Committee acts as an advisory body to both SMMH and KVMH
      - One member of Kauai's MAC serves on HHSC's board
    - SMMH receives annual capital asset contributions from the State of Hawaii
    - SMMH receives an annual collective bargaining pay raise appropriation from the State of Hawaii
  - SMMH has been experiencing operating losses during the last 4 years, with a $2.6M operating loss in FY2006

Background

- SMMH Overview (continued)
  - SMMH converted to CAH status on December 23, 2005
    - CAH status provides SMMH exemption from Act 294
      - Act 294 reduces Medicaid reimbursement rates for hospital-based long term care facilities to levels that match those of non-hospital-based long term care facilities
    - In order to meet CAH designation requirements, SMMH invested approximately $1.2M in physical space and staffing to provide 24/7 emergency room access
      - Emergency room opened December 10, 2005, with approximately 2,000 patient visits as of early September
  - Facility was built in 1951 and is approaching its maximum useful life
    - Nursing home rooms no longer meet patient expectations or standards
    - Electrical and plumbing systems have reached their useful life
    - Decision to renovate or rebuild must be made in the short term so that SMMH does not continue to invest in a facility that becomes obsolete

Background

- General Observations
  - Strengths
    - CAH designation allows SMMH to avoid unfavorable Medicaid reimbursement regulations as defined by Act 294
    - Well-qualified nursing staff
    - Affiliation with HHSC
    - Capital cost reimbursements from State of Hawaii
    - Annual collective bargaining pay raise appropriation from State of Hawaii
  - Opportunities
    - Primary Care provider recruitment for the service area
    - SMMH has the objective to offer CAH services in addition to its long term care services. Critical aspects of the transition to this model include:
      - Recruitment of medical staff, especially ER physicians that combine ER services with hospitalist services
      - Investments in new medical equipment, particularly for diagnostics, to compliment the addition of the ER, as well as facility improvements or replacement
    - Opportunity to partner with Wilcox Hospital
    - Opportunity to more fully integrate IT systems
  - Context for Recommendations
    - Due to issues that may be unknown to the consultants, recommendations should be carefully evaluated for political and cultural sensitivity
    - Due to thoughtful and progressive management, recommendations are mostly opportunities for incremental improvement only

Financial Statements

- Financial Summary – Statement of Operations

Samuel Mahelona Memorial Hospital - Financial Summary (amounts in 000's)

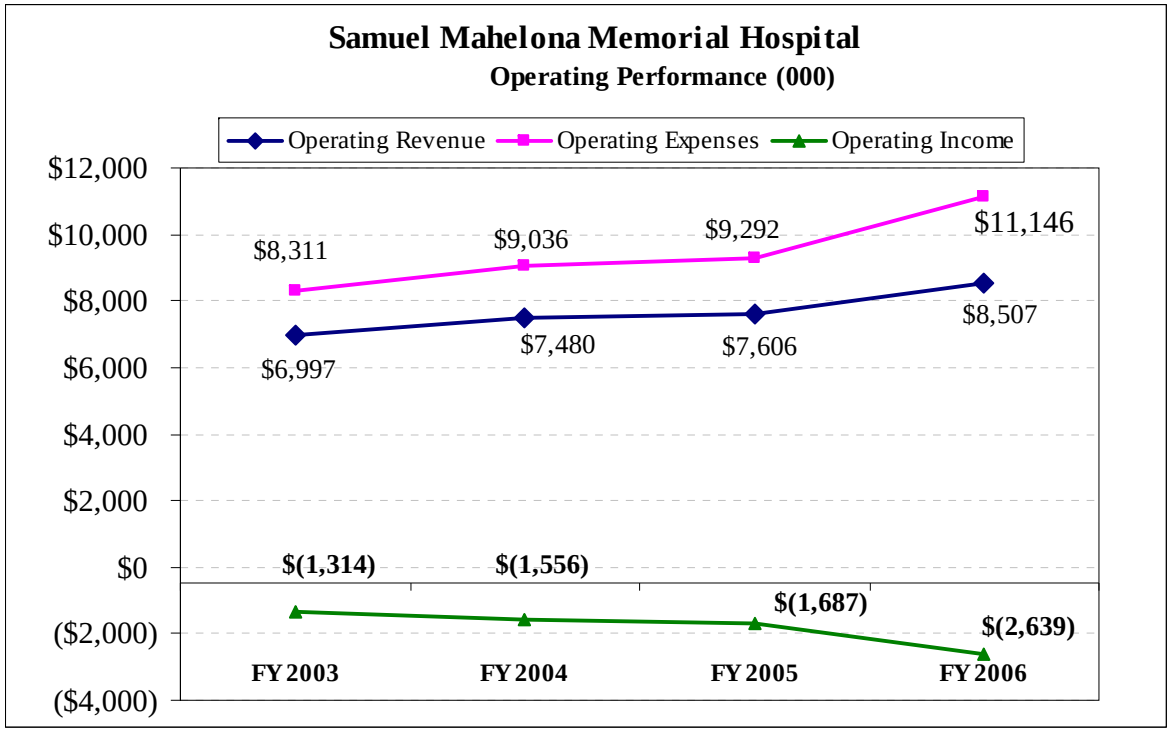
	Audited Year Ended 6/30/2003	Audited Year Ended 6/30/2004	Audited Year Ended 6/30/2005	Internal Year Ended 6/30/2006
Operating Revenue:				
Gross Revenue from ops*	$ 8,398	$ 8,606	$ 9,916	$ 9,979
Less - Contractual allowances	(1,339)	(1,298)	(2,226)	(1,623)
Less- Bad Debt & Charity**	(126)	15	(239)	39
Net Patient Revenue	6,933	7,323	7,451	8,395
Plus - Other operating revenue	64	157	155	112
Hospital Revenue	6,997	7,480	7,606	8,507
Operating Expenses:				
Salaries and Benefits	6,307	6,924	6,982	8,025
Professional Fees*	41	157	161	158
Rent and Lease(s)	8	7	8	-
Purchased Services*	476	483	551	1,201
Supplies and other expenses	1,121	1,138	1,282	1,431
Interest	2	1	0	0
Depreciation	355	326	309	331
Total Expenses	8,311	9,036	9,292	11,146
Income from Operations	(1,314)	(1,556)	(1,687)	(2,639)
Non-Operating Income (Expense)	225	19	268	78
Excess of Revenues over Expenses	$ (1,089)	$ (1,537)	$ (1,419)	$ (2,561)
Capital Assets Contributed by State of Hawaii	71	$ 229	$ 471	$ 521
Increase (Decrease) in Net Assets	$ (1,017)	$ (1,308)	$ (947)	$ (2,040)
Cash and Investments, End of Period	$ 50	$ 139	$ 98	$ 251
AP and Accrued Liabilities	$ 664	$ 686	$ 656	$ 741
Days of Operating Cash Available	2.31	5.84	4.00	8.47
Average Payment Period	30.46	28.75	26.65	25.01
Days in Net Accounts Receivable	62.8	59.7	62.2	82.1

*Gross Revenue from internal financial statements fy2003, fy2004, fy2006, from cost report fy2005.

*Bad Debt 2006 from Internal financial statements,

Background – Financial Analysis

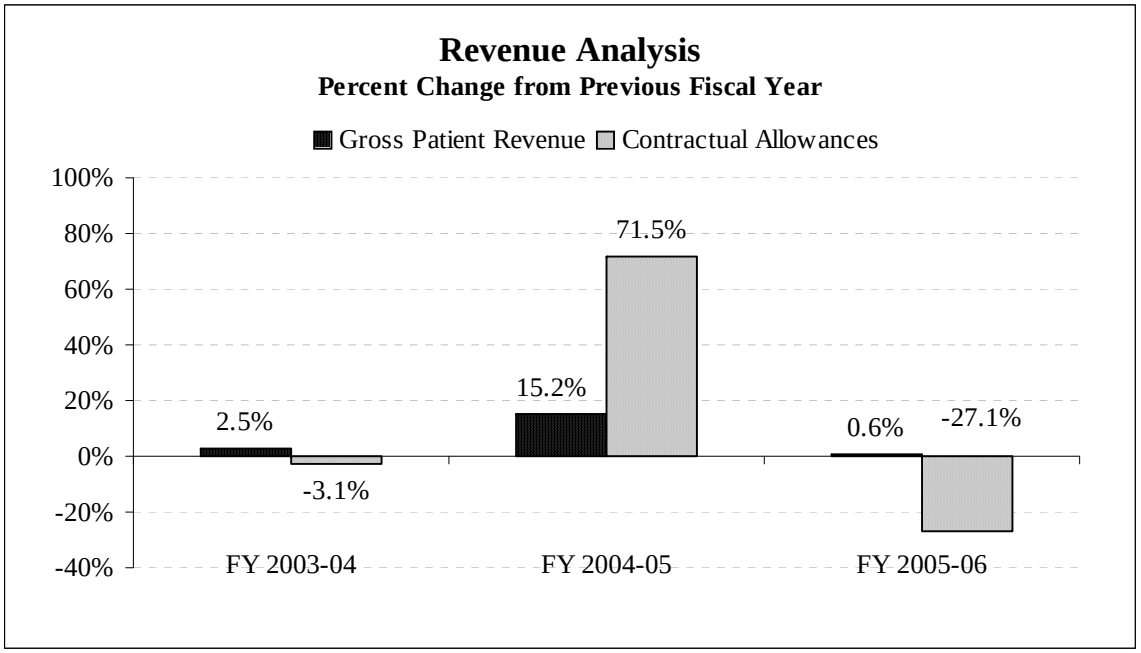
- Financial Statement Analysis
  - Profitability Analysis



- Between FY2003 and FY2006, SMMH has seen declining profitability every year, with operating losses reaching $2.6M in FY2006.
  - Operating losses partially offset by annual capital contributions and collective bargaining appropriations by State of Hawaii
  - FY 2006 operating loss does not reflect $600K positive settlement related to CAH status for 6 months of the year (December 24, 2005 to June 30, 2006)

Background – Financial Analysis

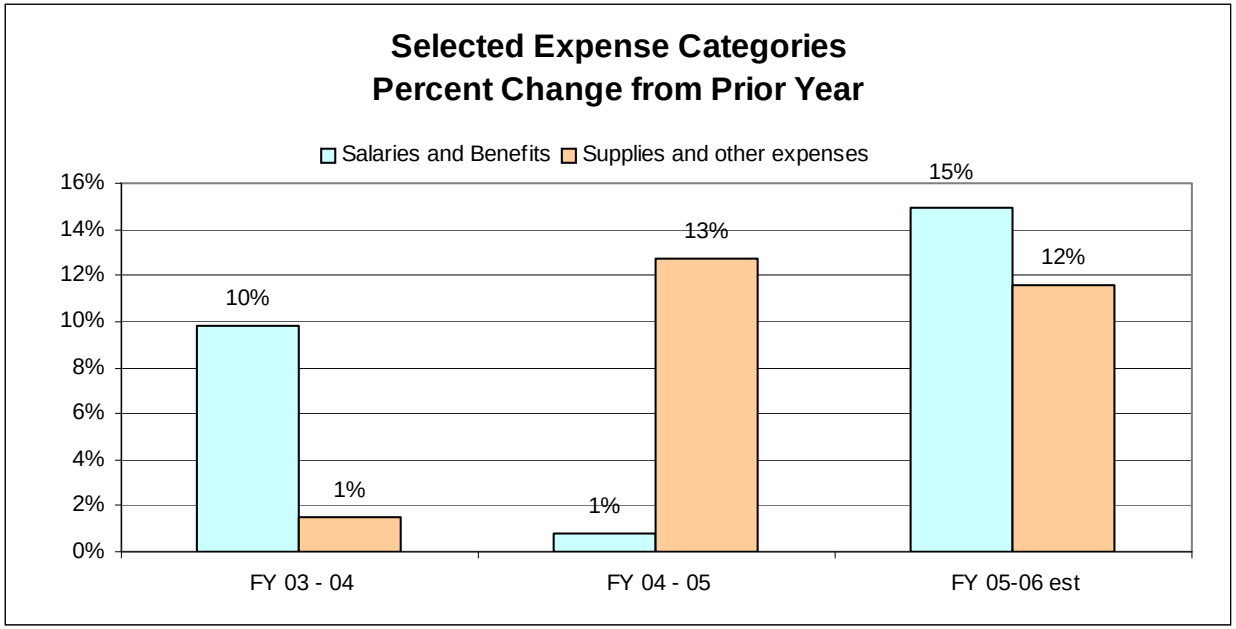
- Financial Statement Analysis (continued)
  - Revenue Analysis



- Gross Patient Revenue –Year over year growth in gross patient revenue
- Contractual Allowance –
  - Increase in FY 2005 directly related to reduction in Medicaid nursing home reimbursement
  - Decrease in FY 2006 directly related to CAH status which provided for incremental Medicare and Medicaid reimbursement
    - Note: FY 2006 contractual allowance does not reflect $600K positive Medicare settlement

Background – Financial Analysis

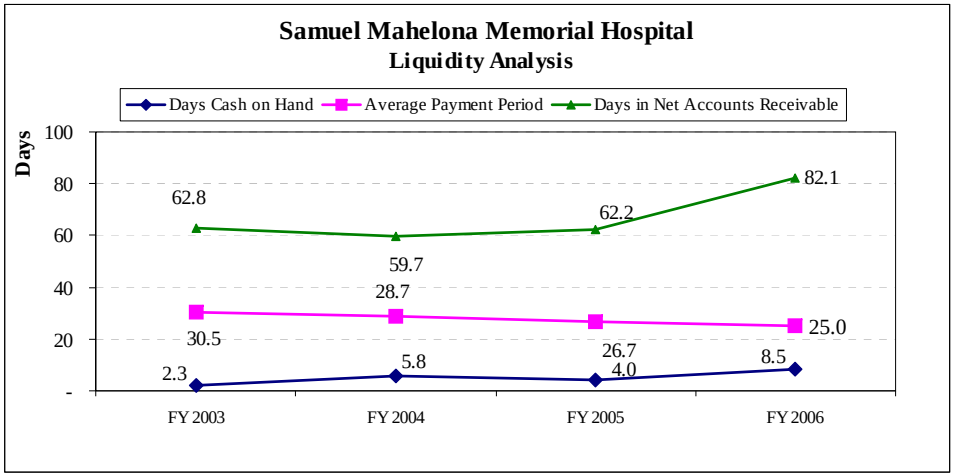
- Financial Statement Analysis (continued)
  - Expense Analysis



- Salaries and Benefits –FY 2006 growth directly related to incremental nurse staffing of emergency room and CAH nursing unit
- Supplies and Other Expenses – As discussed above, FY 2006 growth directly related to investments in plant, equipment, supplies, etc. to enable CAH designation and operation

Background – Financial Status

- Financial Statement Analysis (continued)
  - Liquidity Analysis



- Days of Cash on Hand
  - Remained relatively constant between FY2003 and FY2006, with changes tied to timing of cash infusions by HHSC to support ongoing operating losses
- Average Payment Period
  - Remained relatively constant between FY2003 and FY2006
- Days of Net Revenue in Accounts Receivable
  - 31% increase between FY2005 to FY2006 primarily the result of increase in hospital service billing and a need to restructure revenue cycle functions
- Due to Affiliates
  - While not specifically noted on this chart, Due to Affiliates (HHSC) has increased from $9.7M at 6/30/03 to $15.7M at 6/30/06 as HHSC has supported ongoing losses at SMMH

Financial Statements

- Financial Statement Conclusions
  - Overall Condition
    - Financial condition of SMMH has been poor over the last four years, reaching an annualized operating loss of $2.6M in FY 2006
      - However, annualized operating loss does not consider CAH benefit positive settlement of $600K for six months of CAH operations
        - On an annualized basis, net SMMH loss after accommodating 12 months of CAH operations would be closer to $1.4M ($2.6M less $1.2M)
    - Financial support provided by HHSC has enabled SMMH to maintain its operations while incurring operating deficits
    - Overall weak balance sheet position with limited cash on hand. Days of Net Revenue in Net A/R is increasing as A/R has increased, indicating deteriorating revenue cycle operations

Detailed Findings, Analysis, and Recommendations

Service Area

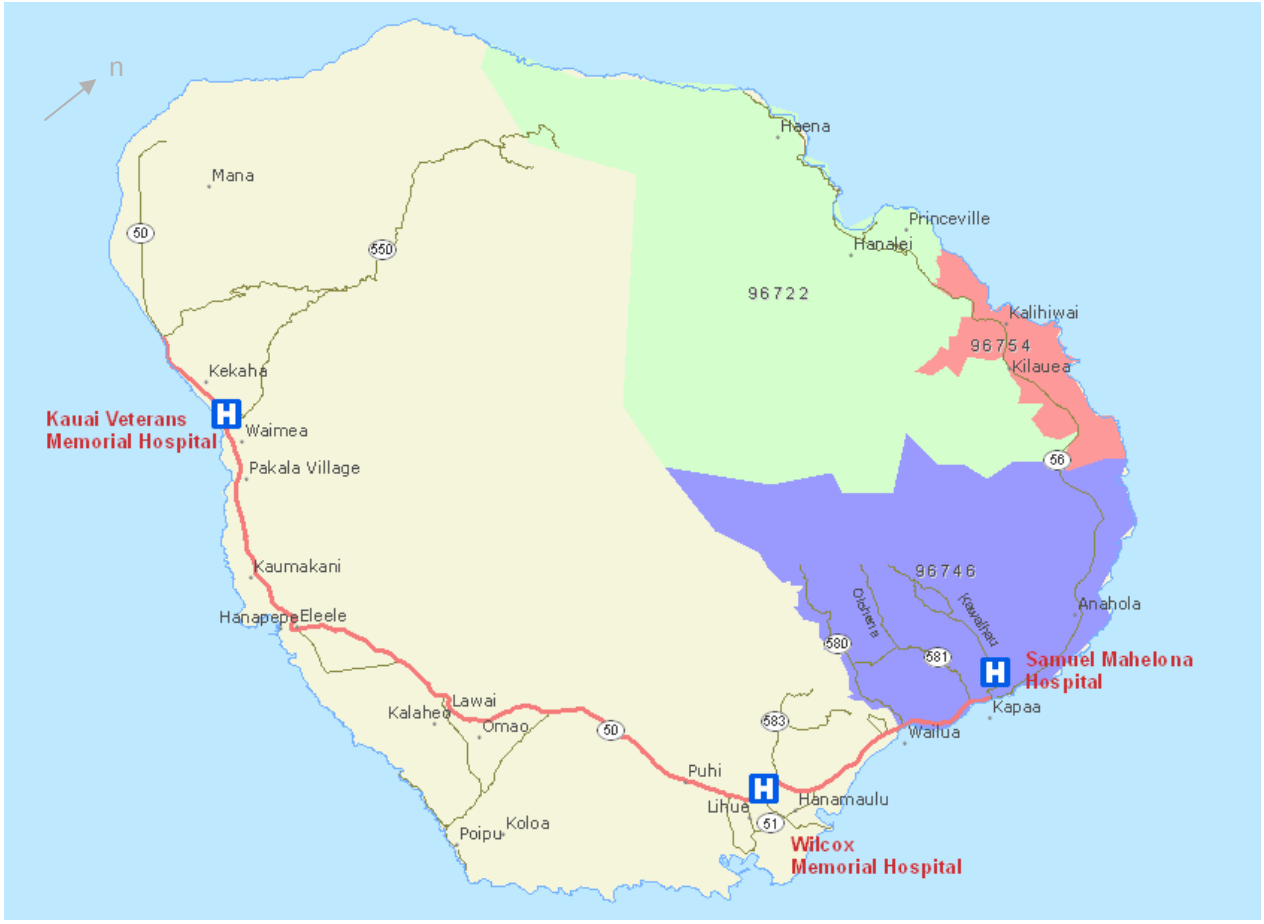
Clinical Services

Financial Management

Organizational Architecture

Recommendation Summary

Overview



Area of Detail

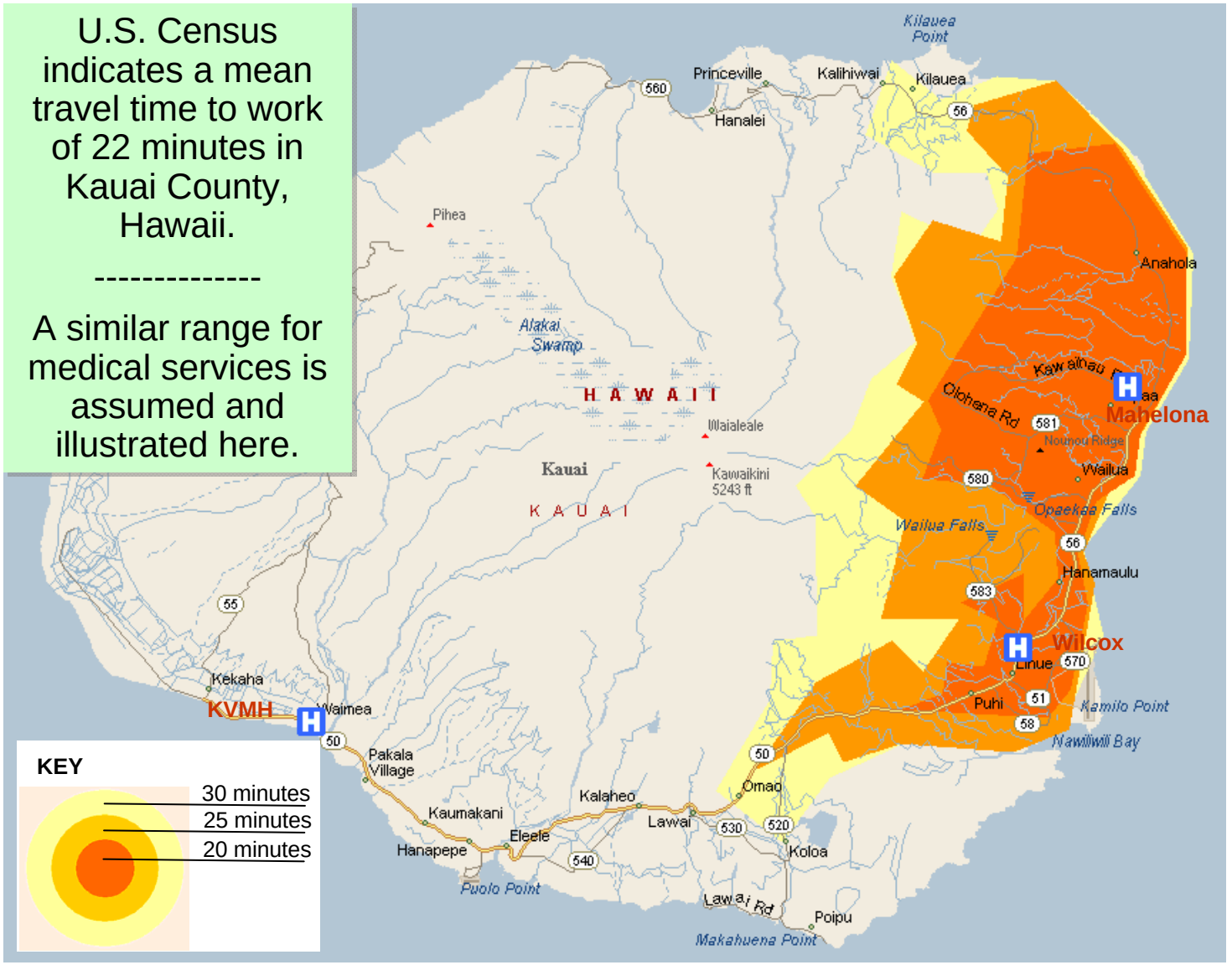
SMMH is one of three hospitals on Kauai, offering hospital inpatient, outpatient, and ancillary services.

Kauai Veterans Memorial Hospital is an HHSC facility serving the western region of Kauai. Wilcox Memorial Hospital is located in between the KVMH and SMMH.

Drive Time Analysis

U.S. Census indicates a mean travel time to work of 22 minutes in Kauai County, Hawaii.

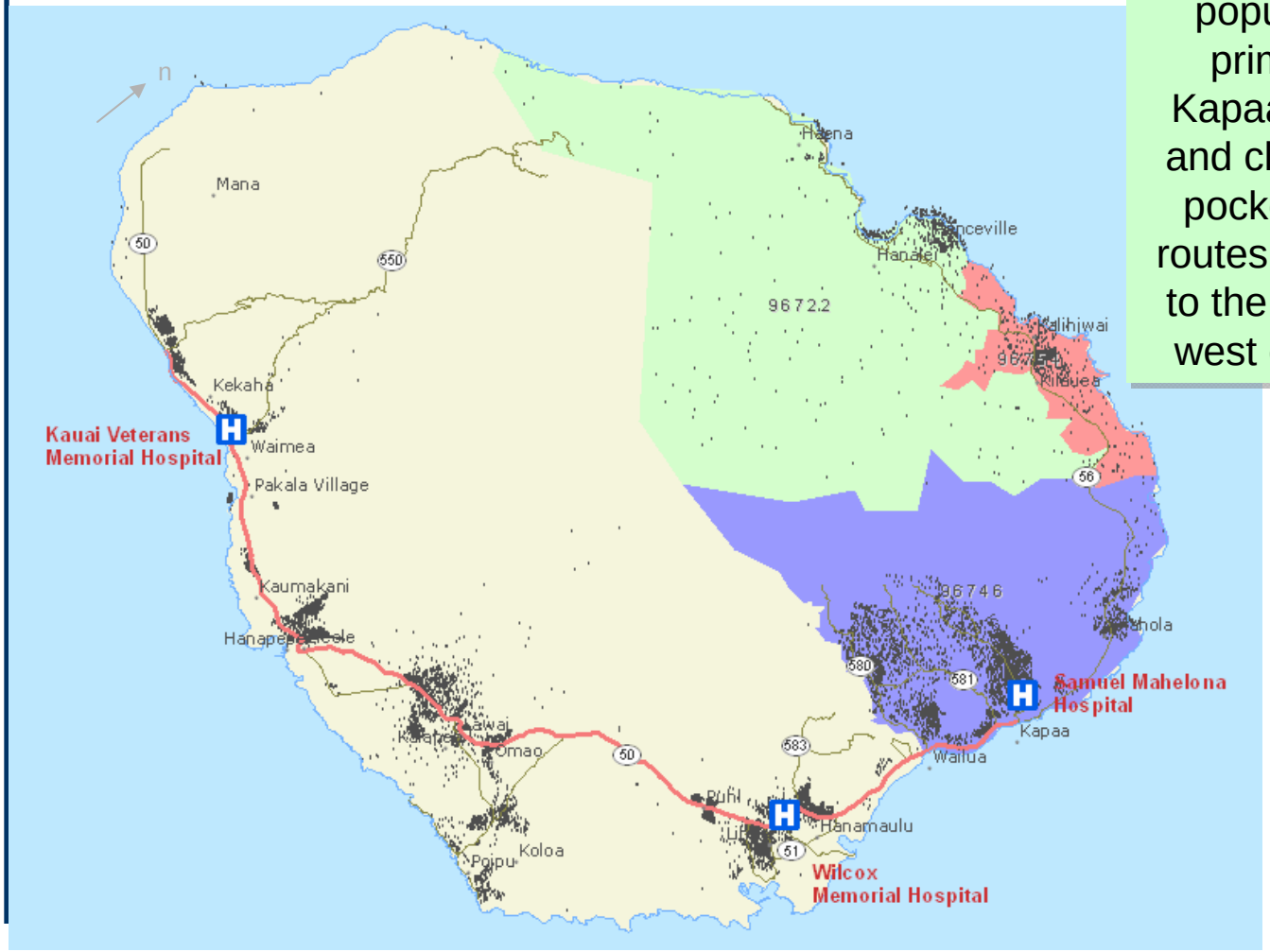
A similar range for medical services is assumed and illustrated here.



Population Geographic Distribution

- The map indicates population clusters throughout the service area

Each dot represents 5 persons



The Service Area population is primarily in Kapaa, Wailua, and clustered in pockets along routes 50 and 56 to the north and west of Kapaa.

Service Area Definition

- SMMH's service area population is estimated to total 24,618 in 2005

	2005 Population Estimate				
Primary Service Area	**0-19**	**20-44**	**45-64**	**65+**	**Total**
96746 Kapaa	5,703	5,914	5,508	2,163	19,288
Primary Service Area	*5,703*	*5,914*	*5,508*	*2,163*	*19,288*
Secondary Service Area					
96722 Princeville	513	617	805	239	2,174
96754 Kilauea	914	982	971	289	3,156
Secondary Service Area	*1,427*	*1,599*	*1,776*	*528*	*5,330*
Grand Total	7,130	7,513	7,284	2,691	24,618
Service Area	29%	31%	30%	11%	100%
Hawaii	27%	34%	26%	14%	100%
United States	28%	35%	25%	13%	100%

Sources: Applied Geographic Solutions and US Census.

MSOffice36

MSOffice36 Talk to Keith
, 1/21/2007

Service Area Definition

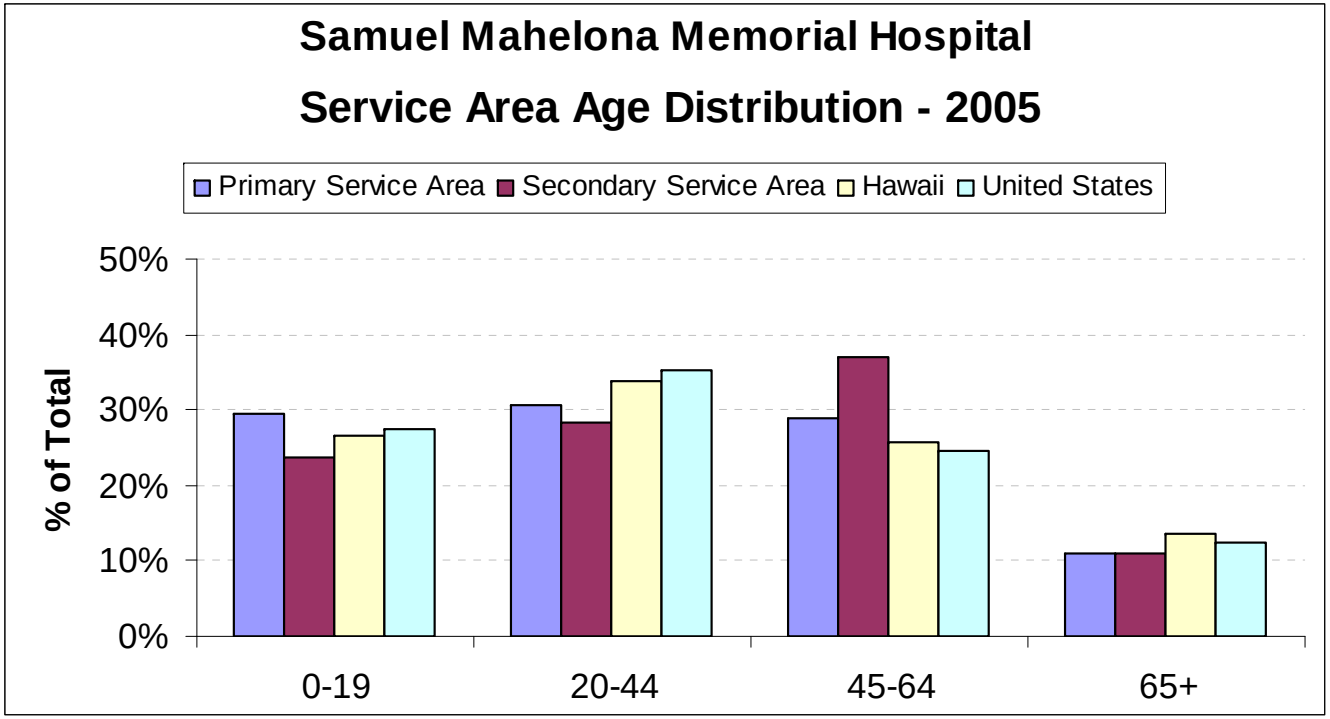
Using FY2006 Inpatient discharges by zip code as a guide, the following service areas were defined:

PSA: Kapaa, SSA: Princeville, Kilauea

Note: Secondary Service Area designation was given to SMMH's top discharging contiguous zip codes to the north /northwest of SMMH. Lihue is not included in the Secondary Service Area for inpatient acute, swing bed, and outpatient services due to proximity of Wilcox Memorial Hospital

Population Age Distribution

- The population age distribution of the service area does not closely approximate that of both state and US averages.
  - The 45-64 age cohort is significantly higher than state and US averages.
  - Lower proportion of the 65+ population indicates potential long term issue although expected population growth of this age cohort in the service area may offset this



Population Projections by Location

- According to Applied Geographic Solutions (AGS), the population of the service area is projected to increase 10% over the next 10 years, equal to both Hawaii and US growth estimates

	2005	2010	2015	2005-2015
Primary Service Area	**Estimate**	**Projection**	**Projection**	**% Change**
96746 Kapaa	19,288	20,058	20,895	8%
Subtotal	*19,288*	*20,058*	*20,895*	*8%*
Secondary Service Area				
96722 Princeville	2,174	2,368	2,582	19%
96754 Kilauea	3,156	3,400	3,668	16%
Subtotal	*5,330*	*5,768*	*6,250*	*17%*
Total Service Area	**24,618**	**25,826**	**27,145**	**10%**
Hawaii	1.23	1.30	1.36	10%
United States	296.2	310.5	326.6	10%

Note: State and US Population in millions.

Sources: Applied Geographic Solutions and US Census.

Population Projections by Age

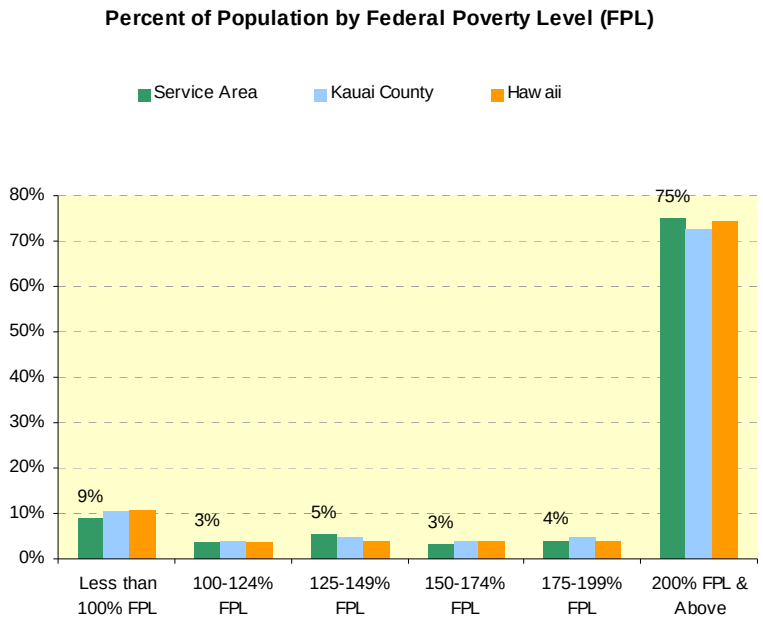
- Based on AGS predictions, most age sectors are projected to increase with the exception of the small negative growth rate of the 0-19 age cohort
  - The 65+ population is projected to see the highest growth rate, 30%, over ten years

	2005	2010	2015	2005-2015
Total Service Area	**Estimate**	**Projection**	**Projection**	**% Change**
0-19	7,130	7,103	7,079	-0.7%
20-44	7,513	7,904	8,318	10.7%
45-64	7,284	7,748	8,243	13%
65+	2,691	3,071	3,505	30%
Total	24,618	25,826	27,145	10%

- Literature on the increased demand for services due to the aging population is mixed, although most acknowledge the impact of increased consumer expectations are difficult to measure
  - Predominate view is that factors that have driven demand for hospital services in the past few years are more likely to continue than to abate
  - CMS projects a 55 percent increase in hospital spending from 2000 to 2012
  - Propensity of baby boomers and younger age cohorts to use health care services could cause hospital spending to increase between now and 2012 at a rate making the CMS projection look conservative (Source: *Health Affairs* 22, no. 6 [2003])
  - Recent studies have concluded the aging effect on the use of inpatient services is mitigated by changes in technology; however, aging will have a larger impact on use by patients with conditions that are more concentrated among the elderly (Source: Health Affairs [Web Exclusive, March 2006])

Population Household Income and Poverty

Samuel Mahelona Memorial Hospital
2005 Estimated Median Household Income and 2000 Poverty Rates



Area	Median Income Household	% of State
Primary Area	*$ 46,627*	*96%*
Secondary Area	*$ 45,734*	*94%*
Service Area Avg.	$ 46,434	96%
Hawaii	$ 48,398	100%
United States	$ 44,017	

The average median household income for SMMH service area is 96% of the state of Hawaii.

An estimated 9% of the service area is below 100% of the FPL and 25% are below 200% of the FPL.

Health Status: Causes of Death

- In Kauai County there are slightly higher mortality rates in malignant neoplasms, influenza/pneumonia, and chronic lower respiratory disease when compared statewide

Causes of Death (rate per 100,000)	*Kauai County*	*Hawaii*	*County as % of State*
Diseases of the Heart	190	190	100%
Malignant Neoplasms	186	163	114%
Cerebrovascular Disease	56	59	94%
Motor Vehicle Accidents	11	10	102%
Chronic Lower Respiratory Diseases	29	23	128%
Influenza/Pneumonia	20	18	110%
Diabetes Mellitus	13	16	82%

Source: Hawaii State Department of Health Vital Statistics Annual Reports

- Lifestyle of local population will have sizable potential impact of SMMH services on local health status
  - Chronic disease management systems and other IT infrastructure investments can positively impact mortality rates among the local population
  - Investment in IT is consistent with Institute of Medicine report: "Quality Through Collaboration: The Future of Rural Health" challenging rural providers to assume a leadership role for improving community health
    - Report available at: http://www.iom.edu/report.asp?id=23359
  - Public and third party payment systems are also evolving to pay for quality

Hospital Service Areas and Referral Regions

- Map shows the "Referral Regions" based on academic research of *inpatient services* (Dartmouth, 2001)

Inpatient Hospital Service Areas (HSA)

- Shows the historical patterns of utilization for **inpatient services** based on predominate flow of patients
- The island is divided into 2 inpatient HSAs: Waimea, and Lihue
  - Note that SMMH did not offer acute care services in FY 2001and thus not reflected in this HSA analysis

Primary Care Service Area

- Map shows the "Primary Care Area" based on academic research of *ambulatory services* (Dartmouth, 2001)

Primary Care Service Area (PCSA)

- Shows the historical patterns of utilization for **physician services** based on predominate flow of patients
  - Areas are defined independent of hospital
- PCSA indicates 100% towards Lihue
  - Analysis dated FY 2001 when a majority of Kauai MDs were affiliated with Lihue multi-specialty group

Area Hospitals

Surrounding Area Hospitals

	Distance (miles)	Staffed Beds	Admissions	Surgeries	Outpatient Visits	Emergency Room Visits	Births	Management	System Affiliation
Samuel Mahelona Memorial Hospital *Kapaa, HI*	-	81	210	-	NR	NR	-	State	Hawaii Health Systems
Wilcox Memorial Hospital *Lihue, HI*	9 miles S	181	5,016	6,237	68,387	22,041	648	Not-for-profit	Hawaii Pacific Health
Kauai Veterans Memorial Hospital *Waimea, HI*	35 miles W	45	NR	NR	NR	NR	NR	State	Hawaii Health Systems

(Source: usnews.com and American Hospital Association)

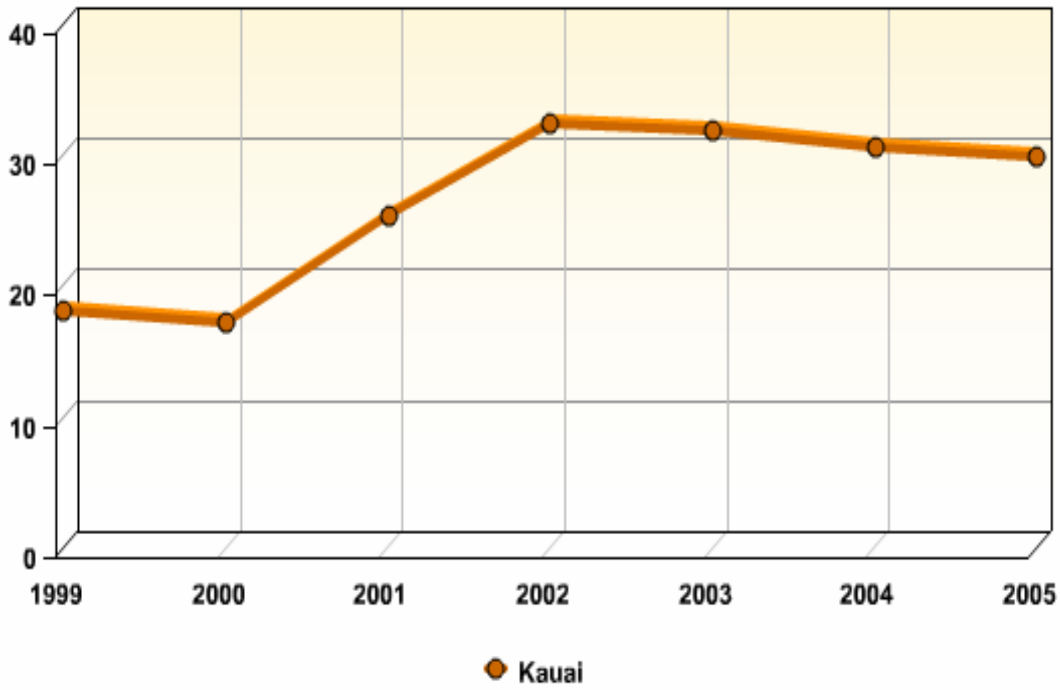
NR = not reported

- SMMH is 35 miles east of HHSC affiliated hospital Kauai Veterans Memorial Hospital, and 9 miles north of 181-bed Wilcox Memorial Hospital
  - *Note: SMMH and KVMH operate under a CAH designation which limits licensed beds to 25 or fewer*

Medicare Advantage

Medicare Advantage Plans – Kauai County

Medicare Advantage Plan Penetration



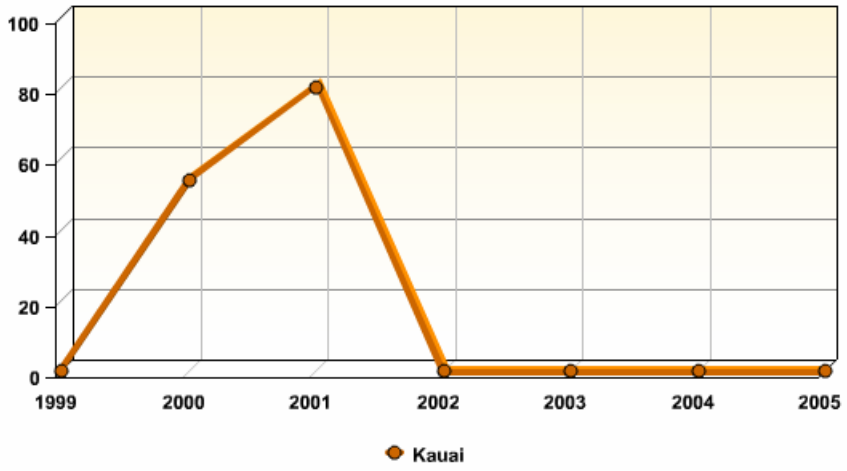
Medicare Advantage plans have moderate penetration in Kauai County.

Medicare Advantage plan is HMSA 65C+ which currently pays CAHs on a full cost basis similar to Medicare.

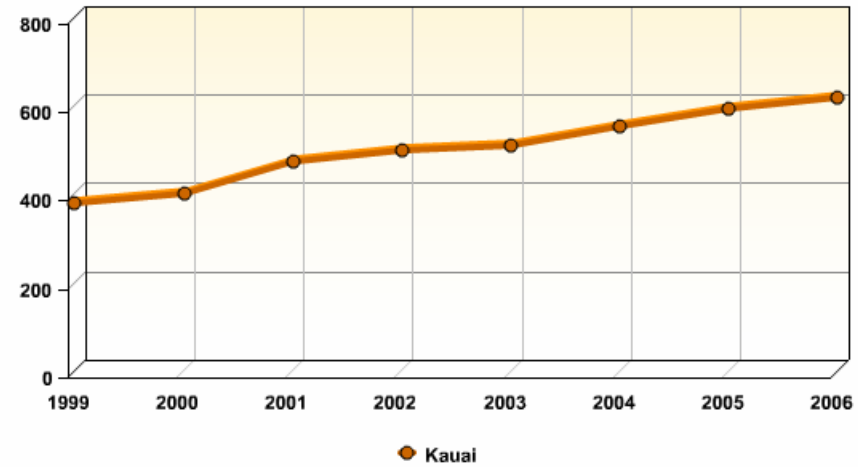
Source: Kaiser Family Foundation – www.kkf.org

Medicare Contracting

Medicare Advantage Plan Enrollment, by Plan Type (CCP/PPO Demo): 1999 - 2005



Local MA Benchmark (unweighted): 1999 - 2006 (in dollars)



Sources: Kaiser Family Foundation, *Medicare Health Plan Tracker*

Medicare Advantage is a managed care program offered by private health plans for Medicare recipients.

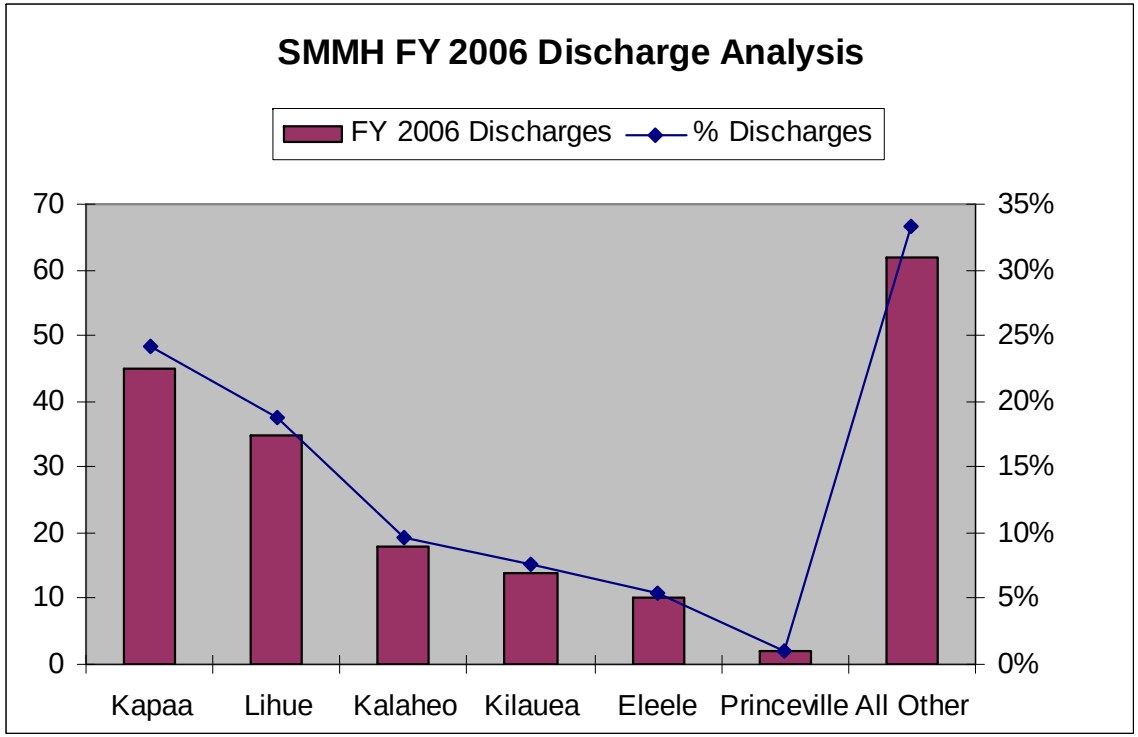
While plans are not required to pay CAHs on cost-basis, HMSA 65C+ does pay CAHs based on costs.

Availability of Medicare Advantage in Kauai County decreased from 80 plans in 1999 to 1 plans in 2006.

Medicare Modernization Act of 2003 increased payments to managed care companies as incentive to increase enrollment.

Average monthly payment for Kauai County increased ~64% ($379.84 to $620.32).

Discharges by Zip Code



- Kapaa, Lihue, Kalaheo, and Kilauea generated 60% of SMMH's FY 2006 total inpatient admissions (primarily acute adult psych and long term care)
  - Lihue and Kalaheo not included in Service Area defined in this report – inpatient admissions outlined above are primarily from nursing home services. As SMMH makes the transition to provide CAH type services for its community, a smaller proportion of patients will be served from zip codes surrounding Wilcox hospital

Market Share Adjustment

- To plan for needed services and avoid developing excess capacity, the total population of the service areas is adjusted down based on the market and service area analysis
  - 2005 service area population for planning purposes = 17,131
  - 2015 estimated service area population for planning purposes = 18,796

SMMH Market Service Area Calculation

Estimated Discharge Rate (per 1,000)*			91								
Primary Market Area	Zip Code	2005 Population	2005 Total Discharges*	FY2006 SMMH Discharges	Inpatient Market Share	Inpatient Hospital Service Area	Primary Care Service Area	Market Service Area Weighting**	2005 Service Area Population	2005-2015 Populuation Growth	2015 Est. Service Area Population
Kapaa	96746	19,288	1,755	45	3%	Lihue	Lihue	75%	14,466	8%	15,672
Total Primary Market Area		19,288	1,755	59	3%			75%	14,466	8%	15,672
Secondary Market Area											
Princeville	96722	2,174	198	2	1%	Lihue	Lihue	50%	1,087	19%	1,291
Kilauea	96754	3,156	287	14	5%	Lihue	Lihue	50%	1,578	16%	1,834
Total Secondary Market Area		5,330	485	41	8%			50%	2,665	17%	3,125
Weighed Service Area		**24,618**	**2,240**	**100**	**4%**			**70%**	**17,131**	**10%**	**18,796**

* Source: Healthcare Almanac 2004

** For planning purposes, total population is discounted by market service area weighting, an estimate based on inpatient market share, Hospital Service Area (Dartmouth), and Primary Care Service Area (Dartmouth).

**For planning purposes, total population is discounted by a "*Market Service Area Weighting*" derived using both quantitative and qualitative measures

- Quantitative: Inpatient market share
- Qualitative: Hospital Service Area (Dartmouth), Primary Care Service Area (Dartmouth), proximity of competitors, menu of services offered at KVMH, and field experience of Stroudwater consultants

Service Area Conclusions

- Conclusions
  - SMMH's targeted service area population is estimated to be **17,131** with over 84% of that population in the primary service area
    - 17,131 provides a large base for a full-service rural hospital and SMMH efforts should focus on increasing market share from the primary service area
  - The population age distribution of the service area does not closely approximate that of both state and US averages
    - The 45-64 age cohort is significantly higher than state and US averages
    - The 65+ age cohort, while a lower proportion in 2005 than state and US averages, is projected to grow by 30% between 2005 and 2015
      - SMMH should develop specific strategies to provide niche services targeted at this older population
  - While there is significant market penetration from a Medicare Advantage plan (HMSA 65C+), this plan pays CAHs on a cost-basis similar to Medicare
    - Will be mandatory to maintain this type of reimbursement structure in place
  - Malignant neoplasms, influenza/pneumonia, and chronic lower respiratory disease deaths are significantly more prevalent in Kauai County than in the state of Hawaii
    - Community health data can help guide service line development

Detailed Findings, Analysis, and Recommendations

Service Area

Clinical Services

Financial Management

Organizational Architecture

Recommendation Summary

Introduction to Clinical Services

- The rural hospital *mission* is to provide clinically appropriate healthcare services that improve individual health and support community vitality
- The rural hospital *success strategy* is to provide all healthcare services that are clinically appropriate and to capture all healthcare services that can be provided locally
- Although volume growth and efficiency are important rural hospital strategies, *healthcare quality and patient safety* always take priority over financial considerations
- Clinical Services data presentation, analysis, and recommendations are derived from clinical utilization data ("Operating Statistics") provided by the hospital and on-site interviews with key staff
- Financial trend analyses suggest financial impacts, not clinical appropriateness

Services Available

Units

- Emergency (ED)
- Inpatient/Observation
  - 1 private room + 2 semi-private
- Swing Bed

Ancillaries

- Radiology
  - Routine
- Laboratory (outsourced – non-revenue producing)
- Rehabilitation (PT, OT, SLP PRN)

Other

- 66-bed Long-Term Care unit
- 9-bed Psych unit

- SMMH provides very limited services even for a rural hospital
- SMMH was not using the acute beds when they were a PPS hospital and did not have an ED
- Opportunities for growth include:
  - CAH bed utilization for Acute, Medicare Skilled and Observation
  - OP services through increased utilization and availability
- Unfortunately, the present facility is not suited for acute IP or OP utilization other than ED

Physician Complement

- Community needs for primary care are met
  - Calculations based on population adjusted for market share
  - All known providers based in the identified SMMH primary or secondary service area were included in the calculations

Physician Shortage/Surplus	Service Area Population **17,131**		
Primary Care	Supply Studies Range	Existing	(Shortage)/Surplus Range
Family Practice	2.3 - 8.1	8.5	0.4 - 6.2
Internal Medicine	2.0 - 4.9	1.0	(3.9) - (1.0)
Pediatrics	1.3 - 2.6	0.0	(2.6) - (1.3)
Physician Primary Care Range		9.5	(2.0) - 1.3
Non-Phys Providers	1.2 - 3.9	1.0	(2.9) - (0.2)
TOTAL Primary Care Range			(4.9) - 1.1
Medical Specialties			
Cardiology	0.5 - 0.7	0.0	(0.7) - (0.5)
Gastroenterology	0.3 - 0.5	0.0	(0.5) - (0.3)
Hem/Oncology	0.4 - 0.6	0.0	(0.6) - (0.4)
Surgical Specialties			
ENT	0.1 - 0.6	0.0	(0.6) - (0.1)
General	1.0 - 2.3	0.0	(2.3) - (1.0)
OB/GYN	1.3 - 1.9	0.0	(1.9) - (1.3)
Ophthalmology	0.6 - 0.8	0.0	(0.8) - (0.6)
Orthopedic	0.7 - 1.2	0.0	(1.2) - (0.7)
Urology	0.4 - 0.5	0.0	(0.5) - (0.4)

See Attachments for supply data specifics and sources and others not shown here

Primary Care Providers

(FP, IM and Pediatrics) includes PAs and NPs when used

National ratios suggests a shortage of 4.9 FTE to a surplus of 1.1 FTE PCPs

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FTE PCP = 18 days/month
Mid-levels = 0.8 FTE

Primary Care / Specialty Care Clinic

- Findings and Analysis
  - **NOTE: Physician shortage/surplus caveats**
    - Determination of physician shortage/surplus is much more complex than comparisons to national ratios
    - Factors such as local access to care (e.g., delay for non-urgent appointments), community perceptions, current physician perceptions, projected service area change, etc., should be considered
  - Calculations based on estimated provider availability as of December 2006
    - Dr. Esaki, an independent FP who has agreed to accept admissions for unassigned patients
    - Dr. Yee, an independent FP at the Kauai Medical Clinic
    - 2 KMC clinics in the service area with providers as follows:
      - 2 FPs at KMC No. Shore Clinic
      - 2 FPs at Kapaa KMC Clinic
    - 1 PA and 1 FP at Kilauea No Shore Medical Center
      - 1 Neurologist visits ½ day per month
    - East Kauai Community Health Center (FQHC) on the grounds of SMMH
      - Covered by 1 FP and 1 IM

Primary Care / Specialty Care Clinic

- Findings and Analysis
  - Physicians shortage/surplus (continued)
    - Dr. Zimmerman is employed by SMMH as 0.5 FTE Med. Dir. for the LTC but has agreed to care for unassigned patients admitted to the CAH but not on a consistent basis
    - No visiting specialist at this time
      - SMMH was renting out a clinic space to 2 physiatrist but recently discontinued
        - SMMC looking at the possibility of opening a clinic in that space for a PCP
    - Visiting specialists is most often profitable for a hospital
      - New service in the area for the community
      - Increases access to care
      - Brings patients in that otherwise would potentially have not used the hospital
    - Procedures performed and ancillaries used by outreach physicians are an important income source for rural hospitals
      - Issue at SMMH is the limited availability of services which would benefit the hospital (Routine X-Ray and Therapy)
  - Hospital care is a three-legged stool requiring:
    - A *population* of sufficient size and loyalty to use the hospital
    - An *infrastructure* (facility, equipment, etc.) to house and provide hospital care
    - A *medical staff* committed to serving the population and utilizing the infrastructure
      - SMMH has
        - Sufficient population
        - Old facility in desperate need of upgrade
        - Lack of physicians willing to admit and/or care for patients at SMMH

Primary Care / Specialty Care Clinic

- Recommendations
  - Imperative to actively work with present local physicians including the FQHC to admit any patients whose needs could be met on an IP basis at SMMH
  - Continue working with the present medical staff to ensure commitment to the community and SMMH
  - PSA and SSA supports additional physician recruitment
    - A comment was made that there is a need for increase PCP given the # of unassigned patients using the ED
    - IM with a specialty in cardiology, pulmonology or GI would be ideal to meet local needs
    - More physicians does not necessarily ensure increase hospital utilization given the facility plant and lack of services
  - Work with the physicians to determine specific specialty needs and increase specialists availability and procedure volumes
    - Can some of the subspecialties from KVMH have clinic time at SMMH?
      - Would not only be beneficial for SMMH but also for KVMH for the services not offered at SMMH
    - Would it be more advantageous for a sub-specialist to come from another island if there were a few sites he/she could go on the same day or 1½ day?
  - Clinic space and services will have to be planned in advance to ensure a successful action plan
    - Ancillary services are determined pending the physicians we identify as willing to service the area

Primary Care / Specialty Care Clinic

- Recommendations (continued)
  - Visiting sub-specialist (continued)
    - Begin with physicians needing the present services
      - For instance: Ortho would increase x-ray and therapy utilization
  - Follow by looking for specialist needed in the community and for whom you could add services
    - For instance, SMMC could easily add EKG utilization, Holter Monitoring, potential for B/P Monitoring, initiate Stress Test, and added Lab, which would benefit HHSC
    - Recruiting an IM with endoscopy experience would add scope service which has a good reimbursement level
  - Facility plant review to determine an appropriate space for visiting specialists
  - SMMH's Administrator to meet with all providers on a regular basis to determine needs and work on addressing issues (independent, contracted and visiting specialists)
  - Track # of unassigned ED patients with no access to follow-up to assist in determining the community needs

Inpatient (CAH Bed Utilization)

- Findings and Analysis (Acute)
  - 5 CAH beds (1 private room set up for negative pressure) and 2 semi private rooms
    - The 3 rooms are closest to the Nursing Station with LTC resident rooms on each side
    - Patients admitted from ED have to pass through the LTC rooms
    - Rooms received a minor facelift, but still issues with lack of air conditioning
  - Unit had not been used by the on-site consultation in September due to lack of staff, nursing station set up, P&Ps etc, but urgency was discussed
    - Data from business office reports 5 admissions and a total of 10 days in October with none in November but ADON states that there were 7 admissions with mostly 1-2 day stays and one 4-day stay
      - Also believes that there were admissions in November
      - Reports that 2 of the admissions came directly to acute from the LTC which is very appropriate compared to transferring them out to another hospital when the care can be provided in-house
      - After questioning and research, it was identified that 2 patients were registered as IP when admitted

Inpatient (CAH Bed Utilization)

- Findings and Analysis (Acute) - continued
  - State of HI estimates 91* acute admissions/1000 population (not counting OB or SB)
    - 17,131 estimated service area /1000 = 17.131 x 91 = 1558.9 estimated admissions - *Source = 2004 Healthcare Almanac Admission Rate
  - Dr. Zimmerman has agreed to assist the process by admitting unassigned patients but is not consistent
  - Dr. Esaki reportedly is available to assist when needed
  - FQHC physicians reportedly are not finding that the facility is appropriate for IP care at this point though the Administrator has not heard such
    - Not clear but apparently Wilcox does have a hospitalist program
  - Potential for coming close to market share is minimal given the following:
    - Facility appearance and layout
    - Lack of ancillary or other services to keep an acute patient (CT Scan, telemetry, RT services)
      - Nursing are allowed to give RT treatments if they have documented competencies
    - Lack of active physician at the present time
    - Lack of nursing staff

Inpatient (CAH Bed Utilization)

- Findings and Analysis (Swing Bed)
  - Skilled days reported by the business office were from the LTC and not the CAH
    - SMMH is still not using the CAH beds for skilled level of care even when the patient is admitted from an external resource such as Wilcox
      - Case in point: on 12/6/06, a patient was transferred from Wilcox for 2 weeks of physical rehab before LTC admission and the patient was admitted directly to the LTC unit
      - Could have received skilled days in CAH bed then transferred to the LTC when at the maintenance level
  - Staffing was discussed as a potential issue – the need to call in staff for the SB patient
    - Yet the same staff is caring for the patient in LTC SNF bed
      - Staff can be shared as they are in most all other HHSC CAHs given the such low CAH census
      - Would require tracking of % of time each shift spent with the CAH patient vs. the LTC residents for appropriate reporting of cost on the cost report
    - Or is it that a commitment to use CAH beds has not been made or a plan devised to determine how to grow utilization?
    - Cross-training of staff is a must at least until the CAH bed utilization increases to being full at all times

Inpatient (CAH Bed Utilization)

- Findings and Analysis (Observation)
  - CMS allows CAHs to admit Observation patients to the CAH beds
    - HI DOH now allows for Observation patients to be cared for in an OP area as long as documentation requirements are met (refer to letter from Dianne Okumura
    - Data from business office did not clearly denote if there were Observations admissions or not
    - Observation utilization expected to continue increasing given the more stringent acute admission criteria and increased payor utilization of Observation vs. admission
      - CAH Observation is paid based on cost using a combination of IP and OP cost determination mechanisms
      - The IP mechanism is the determination of routine costs using the total number of observation days times the routine Adult & Pediatric routine cost per day
        - Requires tracking Observation days (total hours/24 – Observation days) to be reported accurately on the cost report
    - Ancillary payments for observation payments are paid through the department where charges are incurred
    - Observation reimbursement is made on an interim basis using the OP rate, which is usually based on an aggregate OP RCC
    - Settlement comes at year- end and takes into consideration the specific observation costs

Inpatient (CAH Bed Utilization)

- Findings and Analysis (Staffing)
  - NH staff presently consists of a reported average 3.5 NHPPD
    - LTC is divided in 3 sections with 1 RN (24/7)
    - 3 LPNs on days, 3 on eve. and 1-2 on night shift
    - 8-9 CNAs on days, 6-7 on eve. and 3-4 on nights
    - 1 unit sec. for both LTC and now the CAH beds in the Central Nursing Station
  - Administration is working on developing a PRN pool that would meet the needs of the CAH beds
    - SMMH's goal is to have an RN for day shift float nurse with Eve. and Night Supervisor who would cover IP until a nurse could be called in

Inpatient (CAH Bed Utilization)

- Recommendations
  - Continue to look for consistent physician support for IP admission (acute or swing bed)
    - See physician complement section
  - Consider a modified hospitalist model where
    - Dr. Zimmerman or other admits unassigned patients and follows the care of the patients admitted for skilled care – Dr Esaki covers days off
    - ED physicians admit and care for the patient during off hours
      - Time presently allows for this given the low average # of ED patients/day (8.8)
  - Imperative to put a staffing plan together ASAP
  - Assess nursing education needs and develop a plan for competency testing or continuing education using KVMH as needed
    - Example: KVMH RT to assess equipment needs, P&Ps and staff education/competency given that it frequently is a need for IP Acute, SB and for OP and ED
  - Commit to growing SB which is a level of care that the present staff should feel comfortable with
    - Most needs could be met by the LTC staff depending on acuity and frequency of care needed
    - Ensure system to track time working with patients in CAH beds vs. LTC by staff on all shifts when sharing staff to ensure appropriate cost allocation
    - Work with KVMH UR RN until level of comfort with different level of care (Acute vs. Skilled vs. Observation) improves
    - Call or e-mail mguyot@stroudwaterassociates.com if staff has questions

Inpatient (CAH Bed Utilization)

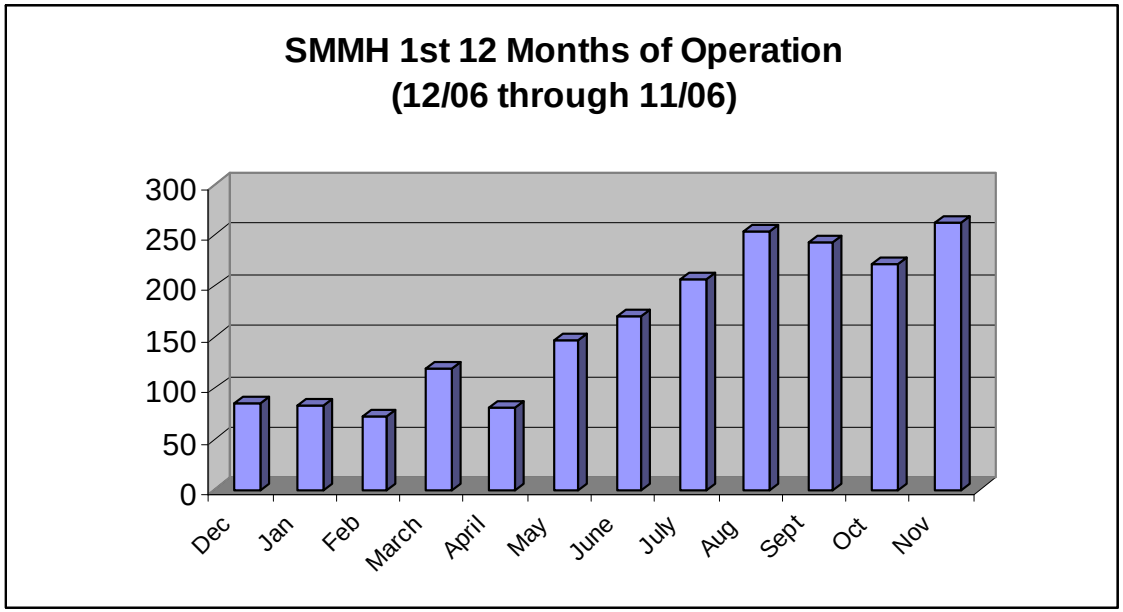
- Recommendations (continued)
  - Work with KVMH to obtain P&P and documentation system for Observation level of care
    - Track and report every hour of care from admission to discharge
    - Hours are documented on the ED UB92 along with ancillaries used during the Observation stay
    - Join other HI CAH administrators to lobby the DOH to allow the use of CAH beds for Observation admission
      - Improved patient comfort and most often easier to staff
  - Imperative to set up written processes now for registration and admission and midnight census tracking
  - Track data to correctly assess utilization and staff needs
    - Review and use data to better manage the "business" such as:
      - CAH bed: separately tract admissions, discharges and days for Acute, Swing Bed (Medicare), SB LTC wait list
      - Observation hours and days/month
      - ALOS to maintain average of 96 hrs per admission by FY end
      - Separate LTC utilization (admissions, discharges, days for LTC and days for Medicare Skilled)
    - Develop a midnight census form which tracks all of the above and is turned into the business office on a daily basis
      - ADON or Administrator to review said form every morning until comfort level is there concerning appropriate level assignment (ie: IP vs OP)

Inpatient (CAH Bed Utilization)

- Recommendations (continued)
  - No need to hire a Care Manager at this time but imperative that Administrator and ADON learn all they can about admission criteria for Acute vs. skilled vs. Observation through Regional UR RN and QIO
    - ED staff to also learn all they can about "Right patient - Right bed - Right time" to assist the physicians with admission criteria
  - Develop nurse recruitment and retention strategy
    - Staff satisfaction is reportedly good – official staff survey to be conducted through BSC project
    - RN and LPN staff meeting to discuss facility and staff needs
      - Involve the staff in planning what would work for SMMH given the present restraints
      - Involve staff in designing processes to get buy-in
      - Set up staff conferencing between other small HHSC CAHs such as Kula and Kohala to discuss their set-up, staffing, processes
    - Survey staff regarding likes and dislikes – assemble a team to work together on needs
    - Opportunity for continuing education is a must
      - Trend nursing education ($ or CEUs) per nursing FTE through RPM
      - See ED section for education – though for ED, good for all nurses in a small CAH given that nursing often need to float to assist another department
      - Also increase level of comfort
    - Offer full tuition for degree advancement in exchange for continued employment at SMMH (year for year) if not already a benefit

Emergency

- Findings and Analysis



- 1945 ED visits were reported for 10 months of operation
- Another 69 visits were reported in the 1st 6.5 days in Dec.
- Average # of visits per day in Nov. = 8.8

ED utilization is below the state average of *258.2 ED visits per 1000 population but understandably so given their newness and the fact that for all intense purpose, the facility was a LTC

(17,131 / 1000 x 258.2 = 4,423 estimated ED visits in the service area)

Annualized ED visits based on FYTD (Jul –Nov) = 2,854

Equates to 26% of market share

* Source: Universal Almanac 2004

Emergency

- Findings and Analysis (continued)
  - A total of 2014 reported ED visits from 12/05 to 12/7/06 (Only ½ day on the 7th)
    - 105 documented transfers in the same timeframe
    - 5 were admitted to acute from ED
    - After review, it is believed that 13 patients of the total # of transfers could have been cared for at SMMH given the staff
  - Physician coverage consists of individually contracted physicians reporting to Regional Med. Dir.
    - Core group cover 24 hr shift at a time but plans to change to 12 when the ED is too busy to get proper rest
  - Nursing is covered by an RN 24/7 (12 hr shifts)
    - 2 unit secretaries to cover every day of the week in ED including patient registration – in process of trying different shifts to see where they are most needed
      - Busiest times are presently from 7a-11a and 4p-7p
    - ED staff is new to ED but did have ICU experience with no management experience and naturally in particular ED
  - Space consists of 3 rooms (1 exam, 1 regular and 1 larger trauma room)
    - Reportedly lack of rooms at times – trauma room could hold 2 stretchers but lamp in middle of ceiling prevent it to add a tracked curtain
      - Curtains are no longer recommended due to lack of privacy
  - SMMH has attempted to improve on ED test availability on-site through stat lab equipment and ABG machine
    - Issues with State requirements which Administrator is still working on for Stat Lab
    - ABG reportedly very costly

Emergency

- Findings and Analysis (continued)
  - ED utilization is very important for a rural hospital, although it is costly to maintain given the often high self pay population
    - A generally high % of admissions come from ED
    - ED provides a significant % of ancillary utilization
    - ED is not only the front door of the hospital, but the front window – first and lasting impressions are made here
    - ED often viewed as the most important service provided by the local hospital
    - ED provides an opportunity to encourage the service area to use SMMH to meet their needs when appropriate
      - Patient satisfaction with ED is of utmost importance especially when there are other hospitals within driving distance
        - Staff state high patient satisfaction but not yet documented via surveys
  - Important to remember that ED is a costly "lost leader" unless it helps SMMH add revenue through IP and OP ancillary utilization
    - OP for SMH includes Lab, X-ray, EKG, could be RT
  - Regional Med. Dir. would like to use present RPM tracking data but also add what Sterling ED provider was tracking
  - ED Med. Dir. reportedly reviewing charts to ensure sufficient documentation to support appropriate level of care
    - No process implemented yet from the nursing aspect regarding documentation and charges
    - Stats from business office did not report any EKGs from ED
  - No process to collect payment at the point of service (POS) which is reportedly and issue given that visitors have been wanting to pay immediately – an issue with present union job description

Emergency

- Recommendations
  - Continue Pharmacy and Central Supply past 24-hr ED forms review for documentation and compared to charges before being sent for coding
    - Imperative not to delay coding and billing while ensuring accuracy
  - Work with KVMH to implement POS collection
    - If and when SMMH decides to adopt an up-front collection policy, ensure sufficient staff training and understanding of expectations regarding co-pay collection
    - Requires visible posting of expectations for patient/visitors to see
    - Also requires process to assist the patient who states he/she has no means to pay, such as Medicaid application and/or time to see a financial counselor
  - Monthly utilization report should include:
    - # of ED visit
    - # and % of visits per level for a snapshot of acuity
    - # and % of admits
    - # and % of transfers, reasons for and to where
    - # of OP procedures if ED is also used as such by local physicians (not to be intermixed in utilization data with ED visits)
    - Monthly reports prevent having to manually count when data is requested
  - Implement patient satisfaction survey through RPM and/or follow-up calls on the day post being seen in ED given staff time

Emergency

- Recommendations (continued)
  - Continue working on lab issues for ED and train staff in RT treatments which nursing could provide
  - Review reports of Medicare ancillary denials from ED and determine need for physician and staff training
  - ED nurses to be familiarized with admission criteria for acute or Observation to assist physicians and UR
  - Access to ongoing education for ED nurses on the web is an inexpensive method to increase comfort level for both ED and Med/Surg. nurses
    - http://www.google.com/search?hl=en&lr=&q=Emergency+Nursing+CEUs&btnG=Search
  - See website below for a copy of the MS Board of Nursing – Nursing Practice Law and Rules & Regulations (effective 07/01/06) as a sample
    - http://www.msbn.state.ms.us/pdf/rulesandregulations2006.pdf
  - RN triage – consider *Emergency Severity Index, Version 4: Implementation Handbook* published by the Agency for Healthcare Research and Quality
    - *See web site: http://www.ahrq.gov/research/esi/esihandbk.pdf#search=%22Emergency%20Severity%20Index%2C%20Version%204%3A%20Implementation%20Handbook%20published%20by%20the%20Agency%20for%20Healthcare%20Research%20and%20Quality%22*

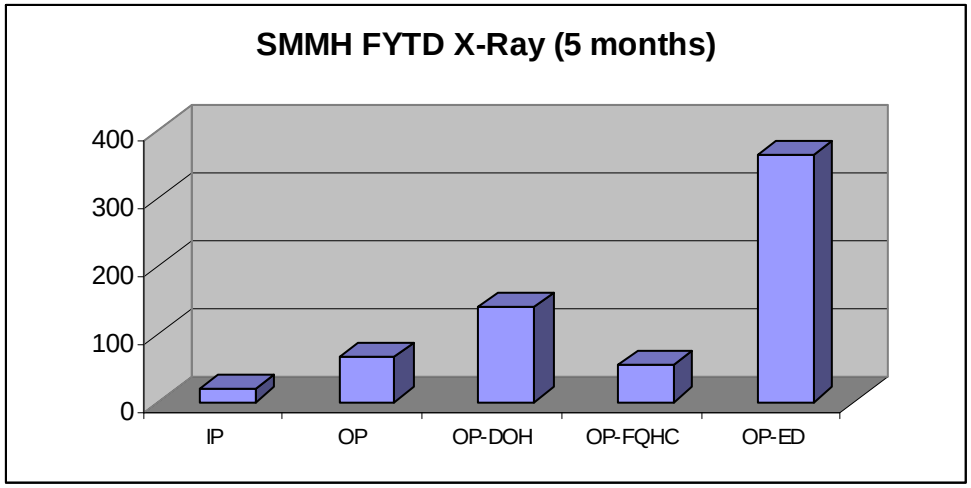
Emergency

- Recommendations (continued)
  - Expand Performance Improvement projects
    - Note that rural hospital quality metrics under review by CMS include an emphasis on ED processes and transfer protocols
    - Click on embedded document titled "UM Rural Quality Measures" for more information and quality improvement opportunities
    - Track outcome of CMS core measures, graph, and post
      - Focus team approach if not at 100%
  - Take advantage of all that can be tracked through RPM to better measure ED indicators, graph out and post for all staff to be aware of the outcome
    - Work with RPM to agree on new indicators to be added
    - Staff to meet with PI to agree on who would collect data and enter such in RPM – use outcome PRN but no less than quarterly to look for opportunities for improvement
  - Review X-Ray variance reports of preliminary ED reading vs. final radiology reading and ensure process in place to notify PCP and patient
  - Ensure that ED staff understand the need to promote patient satisfaction survey to ensure return rate – provide locked box for survey to ensure privacy
    - Consider completing telephone surveys if written one does not work

UM Rural Qua Measures

Radiology

- Findings and Analysis



• Total Routine for 1st 5 months of FY07 = 645 compared to 305 in same months of FY06

  - Annualized data based on 1st 5 months of FY07 = 1545.6 compared to total utilization for FY06, which was at 867 patients for the year
    - 78 reported IP; therefore, one is to assume that data is including LTC given that the IP beds were not used during that year
      - FY07 data tracking still does not separate IP CAH and LTC
    - Note: Reported data also states # of patients vs # of tests
      - These were assumed test but will need to clarify in future tracking of data
  - Imaging services consists of only chest, abdomen, and extremities
  - Telemedicine is used for readings: KVMH during radiologist working hours and Virtual Radiology Consult PRN at other times

Radiology

- Findings and Analysis (continued)
  - Routine test only but no fluoroscopy
    - Consists of mostly Chest, extremities, and abdomen
    - Mammography was discontinued in Sept. 2005
      - Old equipment with only 120 test for the year
        - Director is required to have at least 200 test/yr to maintain certification
  - Staff consists of the Director from 8-9 am to 3:15 pm (32 hrs/week)
    - Agency tech for 36 hrs/week at $58/hr + call at $2000/every other week
      - In-house from 3 pm to 10 pm
    - Director and agency tech share night and weekend call
    - SMMH has been recruiting with no success at this point
      - Reportedly salaries are not competitive with Wilcox
    - Staff would be qualified for CT Scan but no experience in US
  - Space is large but not conducive to OP business
  - OP registration is not organized like you would expect for a hospital
  - Retakes are reportedly low
  - Variances are addressed through ED – unsure of the process
  - No ABN process, no process to qualify diagnosis for Medicare payment and denial reports shared hence does not know the status
  - Charges are reportedly turned in within 48 to 72 hours including weekends
  - Unaware of last charge master review

Radiology

- Findings and Analysis (continued)
  - Based on Solucient data and weighed service area population, the estimated OP utilization is as follows:
    - Routine = 5,486 (including fluoroscopy)
    - CT- Scan = 962
    - US (general and vascular) = 1,057
    - Dexa Scan = 762
    - Mammography = 1,366
    - MRI = 524
  - SMMH is considering the purchase of a CT Scan due to ED
  - Goal is to grow other OP services but first need to assess space, staff needs
  - Bone densitometry requires reminders for physician and community education
    - Medicare recommend every other year after 65 y.o as a prevention measure
    - Recommended for woman with history or symptoms of osteoporosis and for woman post menopausal

Radiology

- Recommendations
  - Continue staff recruitment – may need to re-evaluate salaries
  - Work with Administration and business office to design as good of a process as possible for registration to increase level of confidence from patients
    - Include ABN process
  - All charges to be provided to business office the day of the test or next am after comparing to requests and work done
  - Utilization data tracking to be separate IP and OP for the CAH and LTC to have a better understanding of the business
  - Complete an ROI for CT Scan
    - Include discussions with local physicians to see their present rate of referral for such and whether they would plan to use OP CT- Scan if available at SMMH
      - If purchased, it will be imperative to not only notify all the physicians in surrounding service area and the community
        - A patient may be seeing a physician from out of the service area, but would prefer getting OP ancillaries closer to home if available
  - Next level of service to address at a later date would be availability of US
  - 3rd level would be for Bone Scan and Mammography when ready to improve on availability of wellness programs for the community
  - See Performance Improvement section and attachments for comprehensive PI projects in which Radiology should participate

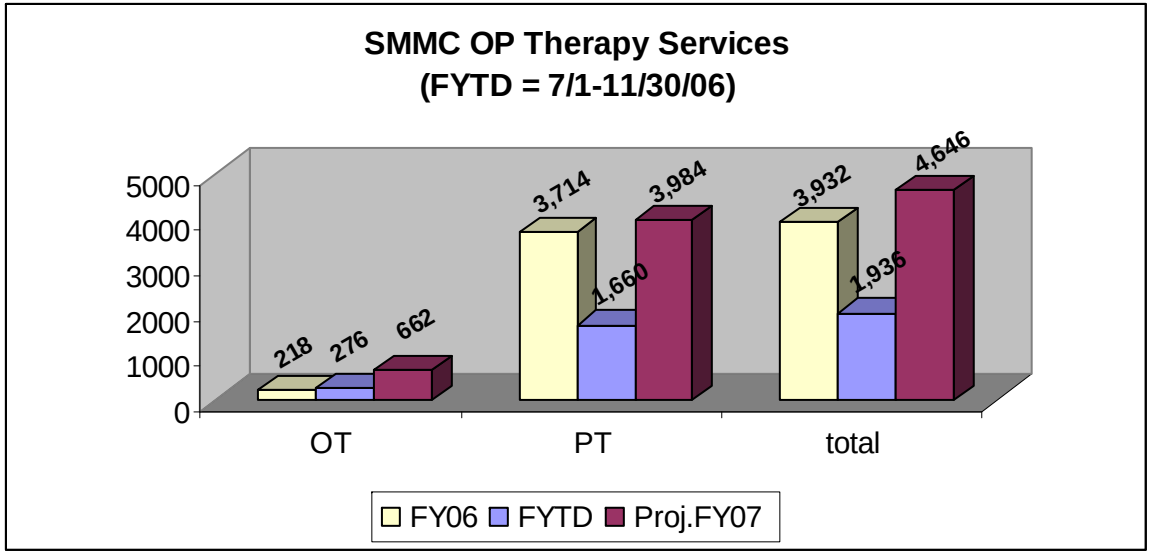
Laboratory

- Findings and Analysis
  - Clinical Lab (CLH) is a reference lab partially owned by HHSC (parent company)
  - CLH provides the OP lab for SMMH, KVMH OP and Wilcox's lab
    - All lab performed off-site
  - No cost or revenue from lab attributed to SMMH
  - No data available to see the impact of SMMH for CLH since becoming a CAH
  - CLH staff was not available for interview

- Recommendation
  - None at this time

Rehabilitation

- Utilization Data



PT & OT total

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- 18% increase in total OP billable therapy units in FY06 compared to projected FY07

  - Staff consists of 1 FTE PT + 1 FTE OT + 1 Restorative Tech
    - PT and OT reportedly rarely provide billable therapy on the LTC unit
      - Such as Medicare Part A for SNF and Part B for LTC
    - In FYTD, OT and Rehab Tech provided an average of 48 and 38 unbillable units/month, respectively
    - Also noted is rare work on the Psych unit which is unusual given the availability
  - Data provided is unclear due to terms used: procedure vs. units, IP vs. LTC and no distinctions between billable and non-billable units
    - I am assuming that procedures = units to determine productivity

Rehabilitation

- Utilization Data (continued)
  - Data also inconsistent with the verbal report received from PT which was an estimated 8-10 OP/day with an average of 2 units/patient
    - OT reported average of 1 OP/day (no reported # of patients/day in data)
  - PT reports needing assistance
    - May be so but the data does not reflect the high productivity and far from being at capacity
    - FYTD data reports an average of 2.52 OP per day (at 20 days/month) with an average of 6.6 units per patient = 16.6 units/day
      - 1 unit = 15 minutes = total of 4.15 hrs if only treating 1 patient at a time which is required for Medicare on OP but not the other payors
        - Benchmark = 6.5 billable hours/day
    - Above information does not insinuate that the PT is not busy but it does warrant a full evaluation of what is done or could be done differently to alleviate the feeling of being overwhelmed
      - Needs to take place in order to grow the business without increasing the cost to an unnecessary level
  - OP therapy is a revenue producing department when efficient and allows for margin vs. work at cost as it is for IP and LTC
  - No identified equipment need at this time
    - Space is better than for many other CAHs
  - Competition includes 2 independent clinics in the service of 1 PT each and 2 clinics in Lihue
    - SMMH has the only OT in the service area

Rehabilitation

- Recommendations
  - Re-design work load
    - Complete a time study with specific tasks to determine what could potentially be done by somebody else
  - Develop new OP programs and/or package them to promote to physicians and community
  - OT to assess LTC work and see what the Rehab Aid could perform leaving her more time to promote both PT and OT to physicians' clinics
    - Revenue for the department comes from growing the OP business while assisting in growing the SB business as needed
  - Imperative to track and assess data to better understand the needs and report on a monthly basis
    - Number of new referrals/month for OP (12/month is a good base for a viable program)
    - Wait time for an initial OP appointment (benchmark is 48 to 72 hrs or less)
    - Average number of units per visit (separate IP, SB, OP, NH, HH and others when provided)
      - Benchmark is 2-3 units/day for Acute depending on whether the patient will be needing SB, in which case it is less for the initial days
      - SB is x 2 visits/day at 2 to 3 units for PT and at least daily for OT with 3-4 units/visit when therapy is needed
      - 3 to 3.5 units/OP visit for PT and OT with 2 units for SLP for pedi and neuro
    - Average Length of Stay (ALOS) per OP – benchmark is 10-12 for Medicare
    - Track number of OP visits by program (ortho, neuro, wound, muscular, Pedi)

Rehabilitation

- Recommendations (continued)
  - Measure productivity to determine when to increase staffing
    - 12 visits/therapist/day is a general guideline, but variable depending on number of neurology vs. ortho cases seen and payer mix
      - Medicare population at this point still mandates 1:1 service
    - Another guideline is 6.5 billable hrs per therapist per day with 7 hrs for PTA or COTA
    - American Physical Therapy Association's 2002 productivity study for hospital-based OP clinics showed a mean of 24.5 billable units per day
  - Consider additional rehabilitative services
    - E.g., lymphadema care, incontinence training, vestibular training, splint design, hand therapy, wound management, school system OT, and industrial rehab
  - Clarify data
    - # of visits/month/therapist for IP (CAH) beds, LTC SNF and OP
    - # of units/month/therapist for IP (CAH beds, LTC SNF and OP
    - # of non-billable units for LTC NF by therapists and Tech
    - Billable units are used to look are revenue adding cost
    - Non-billable is tracked to determine productivity and what could be shifted to other non-licensed personnel to allow more time to grow the business

Rehabilitation

- Recommendations (continued)
  - Develop rehabilitation services marketing strategy
    - Measure and continuously improve patient satisfaction
    - Interview physicians regarding rehabilitation service needs
      - Include referral physicians from other hospitals
      - Quantify referral sources and review on at least a quarterly basis to determine who to thank for support and who to increase visibility with
    - Provide easy to use referral forms/rehab prescription pads
    - Frequent visits to physician is very important: often tend to refer to the last company they saw
    - Provide patient outcomes to physicians and "thank you" notes for referrals
    - Strong community marketing to ensure that local residents know they have choices
      - Consider community education programs such as:
        - "Living With Back Pain" - "Back Pain Prevention"
        - "Stroke Prevention and Rehab Needs Post Stroke"
        - "Making the Home Safe for the Elderly"
        - "Preparing for Your Hip Surgery," etc.
    - Highlight new services and/or new employees in the local media

Quality Improvement

- Findings and Analysis
  - NOTE: *Quality Improvement* (QI) addresses the clinical component of a comprehensive *Performance Improvement* (PI) approach
    - Please see Performance Management analysis and recommendations in the Organizational Architecture section
    - Quality improvement policies and procedures should be established within a Performance Improvement Program
    - Program memorialized in policy improves implementation
  - Senior leadership support is critical to an effective QI program
    - QI participation by all departments should be compulsory
    - Administrator should attend QI Committee to demonstrate commitment to QI process – quality often central to a hospital's *mission*
  - Department Directors require assistance for PI project design implementation and reporting
    - Department managers, and especially non-clinicians, need assistance designing, implementing, and reporting quality improvement
  - In the process of implementing the BSC and RPM for data entry and monitoring tools and charts

Quality Improvement

- Recommendation
  - Develop a *culture* of quality improvement and patient safety
    - Begin at the administrator level – include in every leadership/staff discussion
      - See www.justculture.org for developing a blame-free culture
    - Integrate QI and PI within strategy, operations, and budget
    - Improve healthcare quality and patient safety activity effectiveness through active involvement of all hospital staff (engenders a culture of quality and safety)
    - Although Quality Improvement Director leads quality efforts, administrator remains directly accountable to employees, Medical Staff, and Board for hospital quality improvement
  - Review attachments for QI activities
  - Incorporate QI in the BSC project which will hopefully be activated by January '07

Detailed Findings, Analysis, and Recommendations

Service Area

Clinical Services

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Organizational Architecture

Recommendation Summary

Benchmark Analysis

- SMMH Performance Against Benchmarks
  - Findings and Analysis
    - SMMH converted to CAH status in December 2005, and as of the assessment date, had not had an inpatient acute admission or discharge
      - Acute discharges serve as the baseline for benchmark comparison to peer rural hospitals and accordingly, analysis could not be completed
  - Recommendation
    - None

CAH Designation

- Findings and Analysis
  - SMMH adopted CAH status effective December 2005
    - SMMH's primary rationale for conversion to CAH status was to avoid provisions of Act 294, which would have reduced SMMH's nursing home Medicaid reimbursement substantially
      - Medicare benefit was projected to be limited
    - SMMH is currently transitioning from providing predominantly nursing home services and geriatric psych services, to providing additional "hospital-type" services including 24/7 ER, outpatient services, and limited inpatient acute and swing bed services
      - With this transition, Medicare benefit in future years will be more beneficial and should be regularly monitored
  - Year End Settlements
    - SMMH had not booked a due (to)/from Medicare or Medicaid at year-end to reflect any potential CAH benefit
      - Subsequently and upon cost report preparation, SMMH record an increase in Medicare and Medicaid reimbursement totaling over $600K
    - Many CAHs have created "Net Revenue Models" for estimating cost-based revenue on a monthly or quarterly basis to monitor monthly CAH cost-based reimbursement relative to interim payment amounts received from Medicare
  - Method II billing option is available to CAHs which allows CAHs to receive 115% of the physician professional fee for registered outpatients
    - Must make written election (see attachment at left)

CAH Method II Billing

CAH Designation

CAH Net Revenue Model

- Recommendations
  - Continue with CAH designation as SMMH upgrades its facilities and develops hospital type services
    - A portion of higher capital costs will be off-set through cost based reimbursement
  - Using the attached Medicare revenue model or some other model that estimates net Medicare and Medicaid revenue on a cost basis, calculate Medicare and Medicaid cost-based revenue on a monthly or quarterly basis and post "due to/due from" on an ongoing basis
  - Ensure the Method II billing is elected for ER physician services, as well as the hospital-based physicians doing procedures
    - Under Method II billing, CAHs are reimbursed at 115% of the applicable Medicare Physician Fee Schedule payment amount
    - More important after September 2006 as SMMH/KVMH employs all ER MDs
    - Must make election annually, 30-days prior to the Cost Report period

2005 Medicare Cost Report

- Findings and Analysis
  - A desk review of the FY 2005 filed cost report was completed to look for common errors in preparation or opportunities to enhance revenue or decrease expense.
    - There were no opportunities for improvement found
- Recommendations
  - None

Third-Party Contracting/Charge Master Updates

- Findings and Analysis
  - Approximately 83% of SMMH's gross revenue is from government payers (based on FY 2005 audited financial statements)
    - HHSC negotiates reimbursement contracts for all system facilities
    - As a CAH, margin must be derived from commercial payers as Medicare and Medicaid will only pay costs (plus 1%)
  - HHSC maintains charge master which is standardized across all facilities
    - Quarterly reviews are performed by independent consultants, recommendations made on a quarterly basis
- Recommendations
  - No recommendations for SMMH as third party contracting and charge master updates performed by HHSC

Facility Planning/Access to Capital

- Findings and Analysis
  - As noted previously, SMMH has recently made capital investments in ER space and personnel in order to meet requirements for CAH designation
  - It is strongly recommended that SMMH consider replacing its current facility within 5 years
    - Adjacent FQHC is not interested in using SMMH for inpatient and outpatient services, as the facility does not meet consumer standards for medical care
  - HUD, USDA, and private lenders have now developed programs that allow access to capital for renovations and plant replacements
    - Most lenders require a debt service coverage ratio of 1.25
    - Analysis below demonstrates SMMH's borrowing capacity assuming a debt service coverage ratio of 1.25

		Samuel Mahelona Memorial Hospital Debt Capacity		
		2004	2005	2006
Debt Service Coverage Ratio				
Change in Net Assets		(1,307,711)	(947,220)	(2,015,404)
Interest Expense		1,233	3,215	227
Depreciation Expense		326,175	309,123	331,000
Total (A)		(980,303)	(634,882)	(1,684,177)
Necessarty Debt Service Coverage Ratio		1.25	1.25	1.25
Annual Debt Service Available	(I)	(784,242)	(507,906)	(1,347,342)
Portion of Debt Service representing Incremental Capital Costs		100%	100%	100%
Incremental Reimburseable Capital Costs		(784,242)	(507,906)	(1,347,342)
Medicare Payer Mix* (Source: internal financial statementst)		7%	5%	5%
Incremental CAH Cost Based Reimbursement	(II)	(54,897)	(25,395)	(67,367)
Payment available for debt	(I)+(II)	(839,139)	(533,301)	(1,414,709)
Assumed Interest Annual Interest Rate		7.0%	7.0%	7.0%
Assumed Years		25	25	25
Present Value		$ (9,778,980)	$ (6,214,866)	$ (16,486,425)

*assume 2006 Medicare % same as 2005

Facility Planning/Access to Capital

- Findings and Analysis (continued)
  - SMMH Standalone Debt Capacity Analysis
    - Based on SMMH maintaining a 1.25 debt service coverage ratio, SMMH does not have any debt capacity through either HUD or USDA and would require a guarantee from HHSC and ultimately the State of Hawaii
  - Following pages represent a debt capacity model for a $30M replacement facility to determine the annual subsidy required to fund ongoing operations and new facility construction

Debt Capacity: Scenario Modeling

- Scenario Modeling: $30M Replacement Facility
  - Base Assumptions
    - Total project cost: $30,000,000
    - FY 2005 change in net revenue of -$947,220 was used as a baseline for net income (source: 2005 audited financial statements)
    - Debt Service Coverage ratio fixed at 1.25
    - Cost based reimbursement for Medicare and Medicaid
      - Medicare Mix FY2005: 5%
      - Medicaid Mix FY2005: 78%

Total Project Cost:			$ 30,000,000
Interest %			7.00%
Lending Period (years)			25.00
% Medicare & Medicaid			83.00%
Depreciation Estimates:			
	% of Total	$ Allocation	Useful Life
Building	70%	21,000,000	25
Land Imp.	5%	1,500,000	20
Fixed	15%	4,500,000	15
Maj. Moveable	10%	3,000,000	12
	100%	30,000,000	

Debt Capacity: Scenario Modeling

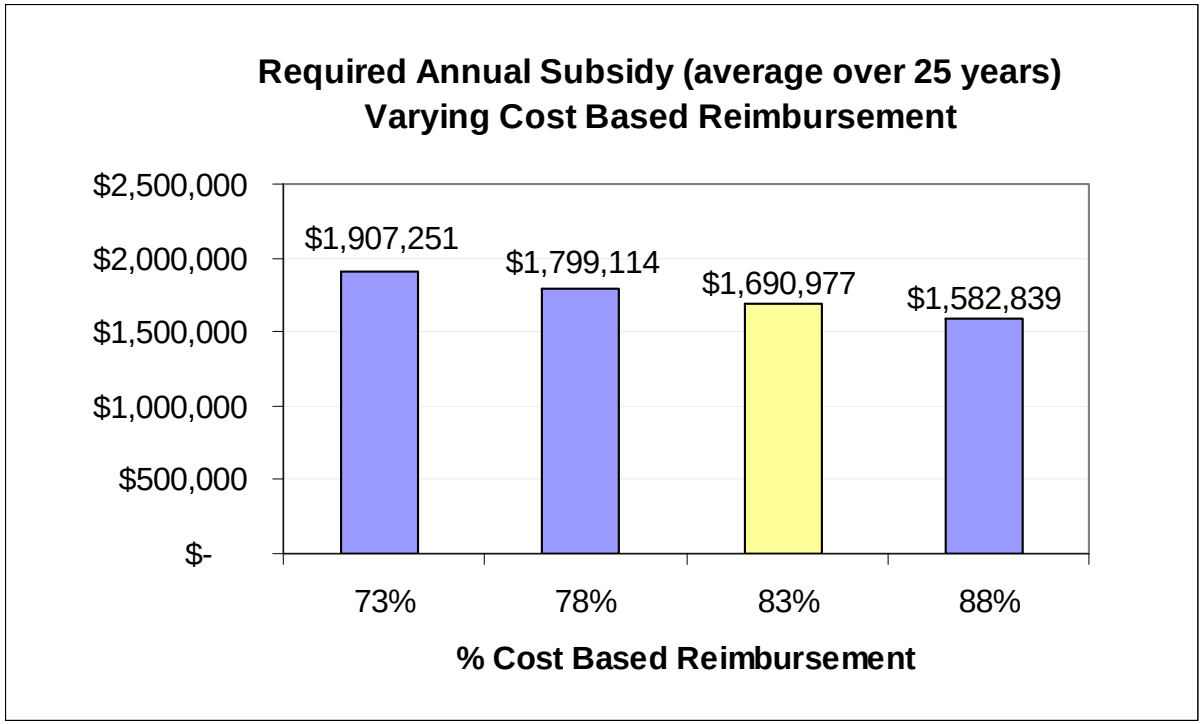
- Scenario Modeling: $30M Replacement Facility (continued)

	Year 1	Year 5	Year 10	Year 15	Year 20	Year 25
Cash Flow from Operations:						
Change in Net Assets (without subsidy)	($947,220)	(947,220)	(947,220)	(947,220)	(947,220)	(947,220)
Depreciation/Interest Expense (before new debt)	309,123	309,123	309,123	309,123	309,123	309,123
Total Cash Flow from Operations	(638,097)	(638,097)	(638,097)	(638,097)	(638,097)	(638,097)
Medicare Recapture of Depreciation and Interest	2,504,850	2,400,574	2,221,805	1,792,002	1,221,087	658,870
Total Cash Flow from Operations and Medicare Recap	1,866,753	1,762,477	1,583,708	1,153,905	582,990	20,773
Expenditures:						
Planned Annual Capital Expenditures	(100,000)	(100,000)	(100,000)	(100,000)	(100,000)	(100,000)
Debt Service Fund (2 years debt service funded over 10 yrs)	(508,881)	(508,881)	(508,881)	-	-	-
Debt Service on New Facility Mortgage	(2,544,405)	(2,544,405)	(2,544,405)	(2,544,405)	(2,544,405)	(2,544,405)
Total Expenditures	(3,153,286)	(3,153,286)	(3,153,286)	(2,644,405)	(2,644,405)	(2,644,405)
Net Cash Available	(1,286,533)	(1,390,809)	(1,569,578)	(1,490,500)	(2,061,415)	(2,623,632)

- If SMMH operations continue to realize a change in net assets of -$947,220, an annual cash subsidy would be required
  - As illustrated, under "net cash available," subsidy ranges from $1.2M-$2.6M over the life of the $30M loan
  - Cash subsidies in the later years is substantially more than that in the early term of the mortgage due to decreasing interest and depreciation expense
    - 83% of interest and depreciation paid through Medicare and Medicaid assuming that Medicaid will fund capital at 100% outside of the 200% RCL
  - The average annual required subsidy is $1.69M over 25 years

Debt Capacity: Scenario Modeling

- Scenario Modeling: $30M Replacement Facility (continued)



  - Varying the percentage of cost based reimbursement alters the average annual required subsidy for a $30M replacement facility
  - A higher cost based reimbursement percentage results in larger depreciation and interest payback to SMMH, ultimately reducing the required annual subsidy

Debt Capacity: Scenario Modeling

- Recommendations
  - SMMH should evaluate all options for facility replacement to address long term plant and equipment needs including:
    - Thoroughly understanding the impact cost based reimbursement has on debt service and building these assumptions into any formal debt capacity studies
    - Develop a formal debt service analysis that also incorporates changes in patient volume and services with a new facility
    - Presentation of debt service analysis to key stakeholders including politicians, community members, and State leaders

Revenue Cycle Functionality

- Findings and Analysis
  - Overview
    - Admitting office and billing office is regionalized (run from KVMH), covering both SMMH and KVMH
    - Registration office at SMMH does not report to Patient Financial Services Manager
    - Excellent "key performance indicators" report that tracks several metrics
      - Patient Financial Services Manager receives weekly report of cash receipts and days in A/R for KVMH, but does not receive this report for SMMH
      - Key performance indicators report not provided to Patient Financial Services Manager on a regular basis

Revenue Cycle Functionality

- Findings and Analysis
  - Performance Metrics
    - Days Net Revenue in Net A/R and Days in Gross A/R are primary performance metrics for SMMH to evaluate revenue cycle performance
      - Days in Gross and Net A/R has increased significantly in FY 2006, driven largely by $600K 9 months outstanding, in A/R, unpaid by the Adult Mental Health Division
      - HHSC Goal to reduce days in A/R from 80 to 60, aided by the addition of 3 new billing clerks at KVMH to accommodate growth in patient services and volume, primarily at KVMH

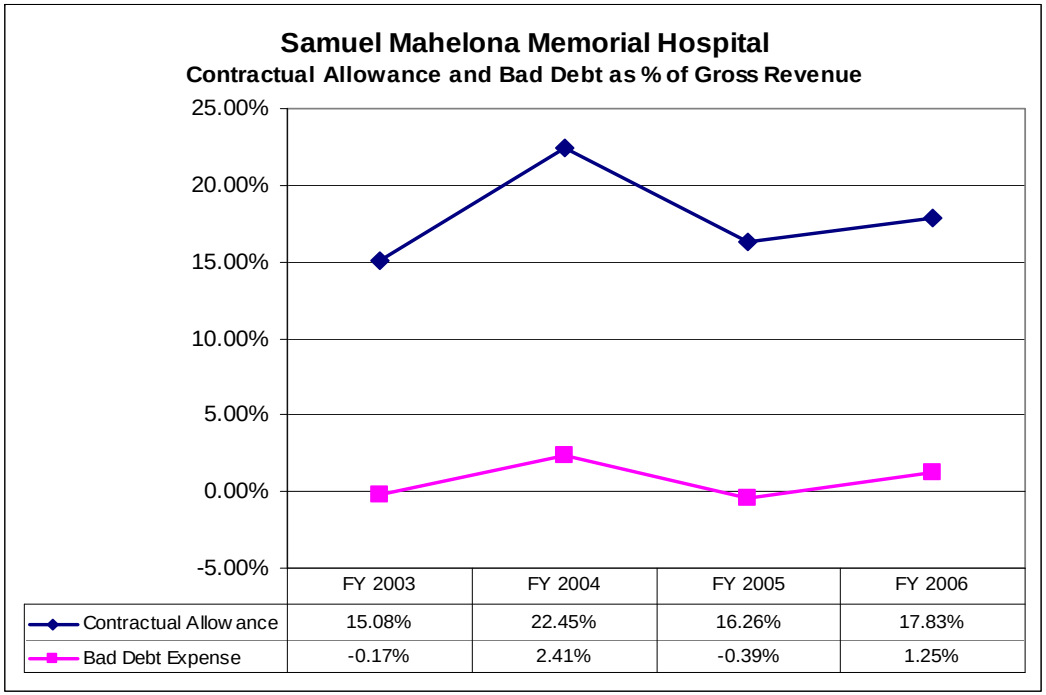
Days in Net Accounts Receivable	6/30/2003	6/30/2004	6/30/2005	6/30/2006
Net Accounts Receivable*	$ 1,191,996	$ 1,195,569	$ 1,310,786	$ 1,889,000
Net Patient Revenue*	$ 6,932,607	$ 7,308,094	$ 7,689,774	$ 8,395,000
Hospital Rate	**62.8**	**59.7**	**62.2**	**82.1**

**Note: Net of contractual allowances and bad debt expense*

Days in Gross Accounts Receivable	6/30/2003	6/30/2004	6/30/2005	6/30/2006
Gross Accounts Receivable	$ 1,818,242	$ 1,642,798	$ 2,161,429	$ 2,799,000
Gross Patient Revenue	$ 8,398,000	$ 8,606,000	$ 9,915,615	$ 9,979,000
Hospital Rate	**79.0**	**69.7**	**79.6**	**102.4**

Revenue Cycle Functionality

- Findings and Analysis (continued)
  - Performance Metrics (continued)



	FY 2003	FY 2004	FY 2005	FY 2006
Contractual Allowance	15.08%	22.45%	16.26%	17.83%
Bad Debt Expense	-0.17%	2.41%	-0.39%	1.25%

  - Contractual allowances as a % of gross revenue fell sharply from FY2004 to FY2005
  - Bad debt expense has remained very low, under 3% of gross charges every year.
    - Negative bad debt expense in FY2003 and FY2005 due to previous year surpluses in accrual
  - Total deductions off of revenue have remained relatively constant across the time period, with the exception of FY 2004

Revenue Cycle Functionality

- Findings and Analysis (continued)
  - Patient Registration
    - Patient registration takes place in the ER with the exception of physical therapy and occupational therapy
      - Nurses or ward clerks collect all pertinent data: open file, assign record number, and collect demographic information
      - No upfront collections are made in the ER, because there is no mechanism to allow cash to be paid, and because civil service duties do not allow for collection in ER
    - SMMH has authority to offer prompt pay discount up to 35%
      - There is no standard procedure in place for offering prompt pay discount
  - Charge Entry/Coding/Medical Records
    - Charge Entry/Coding/Medical Records functions performed by regional office at KVMH, findings found below:
      - X-Ray, PT, and OT enter own charges usually the same day patient is seen
      - Charges sent to registration for data entry for ER are usually sent the day after the patient is seen
      - Holds on all claims are at 5 days for inpatient discharges, and 3 days for outpatient discharges
        - Best practice CAHs generally have 3-day holds for inpatient discharges and 2-day holds for outpatient discharges

Revenue Cycle Functionality

- Findings and Analysis (continued)
  - Charge Entry/Coding/Medical Records (continued)
    - HIM director is out on leave and one coder recently resigned
      - Patient Financial Services Manager and one clinic employee are coders, both have been working overtime
      - KVMH plans to contract with coders to alleviate workload issue
  - Billing/Collections
    - Billing/Collections for SMMH performed by regional office at KVMH
      - "High Dollar List" A/R report printed monthly and distributed to all billing clerks
      - Billing clerks act as collectors: 3 current billing clerks cannot keep up with demand, KVMH plans hire 3 additional clerks which will service SMMH A/R
      - Current internal accounts per patient financial services FTEs are three times larger than other system hospitals
      - Bills are dropped manually to minimize back end work of cleaning up claims before they are dropped
        - KMVH has a claims scrubber

Revenue Cycle Functionality

- Findings and Analysis (continued)
  - Billing/Collections (continued)
    - All patient statements are sent out by a company on Oahu
      - After 2.5 to 3 statements, collection letter is sent to patient
      - Collections process includes KVMA checking Medicaid website for patient enrollment
      - KVMH/SMMH uses 3 collection agencies, 2 do not perform well, so most accounts are sent to the best performing agency
      - Denied claims handling: accountant makes copies of RA and provides to billing clerk

Revenue Cycle Functionality

- Recommendations
  - General
    - Develop regular reporting of key metrics to all business office employees, not just senior management
  - Patient Registration
    - Registration at SMMH to report to Revenue Cycle Director and not SMMH accountant
  - Charge Entry/Coding/Medical Records (Waimea business office)
    - No recommendation for charge entry/coding
  - Billing/Collections (Waimea business office)
    - Continue with plans to hire 3 additional billing clerks to support business growth

Information Technology

- Findings and Analysis
  - Stroudwater believes that successful hospitals of the future will deliver *demonstrable* quality, patient safety, and customer service
  - SMMH is using McKession HBOC version 10 platform
    - Been using for 20 years and is up-to-date on series
    - Clinics are using dos based system with no ability to interface with HBOC
      - RFP has been sent for clinic software replacement
  - Payroll is not linked because state payroll system does not allow interface
    - Demonstration took place at Hilo to move HHSC payroll off the state system, goal is to transfer to “Cronos”
  - HBOC does not have a strong finance package
    - Does not have departmental reporting functions, departmental reporting currently being performed manually using excel
  - Two EMR initiatives are currently under way
    - Kauai pilot test for “Open Vista” EMR scheduled for October. Kauai is the best location, with two critical access hospitals and clinics
    - Parallel EMR RFP for the entire system. RRP will be delayed until the results of Open Vista pilot test are known.
      - Physicians are interested in “EPIC” EMR

Information Technology

- Recommendations
  - Continue with current vision to make IT in integral part of the organization
    - Define vision beyond EMR
      - EMR is a means to and end with the “end” being improvement in quality and managing patient population
  - Make addition of a finance package to HBOC a strong priority

Detailed Findings, Analysis, and Recommendations

Service Area

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Organizational Architecture

Recommendation Summary

Key Organizational Elements

- Governance and Leadership
  - Visionary hospital leaders provide managers the resources to make wise and effective decisions
  - Visionary hospital leaders hold managers accountable for performance improvement and organizational value-added
- Decision Making and Accountability
  - Effective hospitals place decision-making at a level that leverages local information and improves hospital service value
  - Effective hospitals drive decision-making "down" as proximate to the consumer/patient as is practical
- Performance Measurement and Reporting
  - Continuously improving hospitals empower managers and other employee decision-makers with relevant and timely data
  - Continuously improving hospitals demand performance data collection and reporting on a frequent and recurrent basis
- Compensation
  - Competitive hospital employers reward, recognize, reinforce employees
  - Competitive hospital employers encourage employee entrepreneurship

Governance and Leadership

- Findings and Analysis
  - SMMH is an affiliate of Hawaii Health Systems Corporation (HHSC), which has ultimate fiduciary responsibility for SMMH
    - HHSC has a 20-member Board of Directors, encompassing 5 major regions in Hawaii
    - 5 Regional Management Advisory Committees (MACs) were appointed by HHSC as mandated by act 262
    - The 9-member Kauai MAC acts as an advisory body to both SMMH and KVMH
      - One member of each Region's MAC serves on HHSC's board
  - SMMH Administration consists of a 7-member Executive Management Team and 2 Medical Staff Officers
    - SMMH has an on-site administrator who reports to the Regional CEO
      - The Regional CEO is also the CEO of KVMH
    - All but one are also Executive Management Team Members of KVMH senior team
- Recommendations
  - No recommendations

Decision Making and Accountability

- Findings and Analysis
  - Every Wednesday, senior management team members from SMMH and KVMH have a roundtable meeting with Regional Chief Executive Officer
    - Monthly Departmental Reports (DPR) show expenditures and charges for current period, last year, and budgeted
    - Department heads must justify all expenditures not in line with budget

- Recommendations
  - No recommendations for changes to existing arrangement
    - Weekly senior management team meeting is excellent for communicating to managers
      - Imperative to bring the communication down to department heads through the senior management team on a regular basis
    - Excellent senior management communication structure

Performance Measurement and Reporting

- Findings and Analysis
  - Monthly Departmental Reports (DPR) show expenditures, charges, for current period, last year, and budgeted
    - Roundtable meeting with CEO is an excellent forum for performance measurement for establishment of performance improvement goals
- Recommendations
  - Senior management team should mentor department managers on running their departments as business units with responsibility for achieving their budgets
    - Special focus should be placed on accountability for volume
    - Added involvement in budget creation is a tool used to get department managers to assume ownership and become more entrepreneurial
  - Work to improve the accuracy of interim financial statements
  - Pursue a financial module addition to HBOC

Compensation

- Findings and Analysis
  - All positions within SMMH and HHSC are union represented except for senior management positions
    - Hawaii Government Employees Association (HGEA) represents: professional, clerical, supervisors, scientific, and nurse employees
    - United Public Workers (UPW) represents: CNSs, LPNs, housekeeping, maintenance employees
  - Compensation set by collective bargaining with unions
    - Employees of the government are considered civil service; all are paid on salary basis
    - Class specifications are defined by state statute for all civil service jobs
      - If a job doesn't exist in class specifications, there is a process in place to create a new class
    - Unions negotiate wages for each job specification
  - Raises
    - After new hire, raises provided at 3 month and 6 month review, and annually thereafter at the end of each fiscal year
    - Annual reviews are performed for the union, compensation is not tied to reviews
  - SMMH/KVMH management has historically enjoyed a good relationship with the unions
    - Hospital management is hindered when trying to implement changes in operations or job duties: union must be consulted and given 30 days to respond

Compensation

- Findings and Analysis (continued)
  - Benefits
    - Two defined benefits retirement plans are offered to SMMH employees
      - Contributory Hybrid Plan: employee contributes 6% of gross salary, hospital must increase 2.5% per year of service, employee can withdraw all personal contributions
      - Non-Contributory plan: at age 62 and after 10 years of credited service, employee receives benefit of 1.25% of AFC times number of years of service
    - Other benefits include 21 sick days, 21 vacation days, 14 state holidays, and health insurance, 40% of which must be paid for by employee

- Recommendations
  - Compensation set by HHSC and Unions, no opportunities for improvement

Detailed Findings, Analysis, and Recommendations

Service Area

Clinical Services

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Organizational Architecture

Recommendation Summary

Recommendation Summary

- Key Recommendations
  - SMMH has the objective to offer CAH services in addition to its long term care services. Critical aspects of the transition to this model include:
    - Recruitment of medical staff, especially ER physicians that combine ER services with hospitalist services
    - Investments in new medical equipment, particularly for diagnostics, to compliment the addition of the ER, as well as facility improvements or replacement
  - Opportunity to partner with Wilcox Hospital
  - Opportunity to more fully integrate IT systems

Clinical Services

- Physician Complement
  - Imperative to actively work with present local physicians including the FQHC to admit any patients whose needs could be met on an IP basis at SMMH
  - Continue working with the present medical staff to ensure commitment to the community and SMMH
  - PSA and SSA supports additional physician recruitment
  - Work with the physicians to determine specific specialty needs and increase specialists availability and procedure volumes
    - Clinic space and services will have to be planned in advance to ensure a successful action plan
    - Ancillary services are determined pending the physicians we identify as willing to service the area
    - Begin with physicians needing the present services
      - For instance: Ortho would increase x-ray and therapy utilization
  - Follow by looking for specialist needed in the community and for whom you could add services
  - Facility plant review to determine an appropriate space for visiting specialists
  - SMMH's Administrator to meet with all providers on a regular basis to determine needs and work on addressing issues (independent, contracted and visiting specialists)
  - Track # of unassigned ED patients with no access to follow-up to assist in determining the community needs

Clinical Services

- Acute Inpatient/Swing Bed/Observation
  - Continue to look for consistent physician support for IP admission (acute or swing bed)
  - Consider a modified hospitalist model
  - Imperative to put a nursing staffing plan together ASAP
  - Assess nursing education needs and develop a plan for competency testing or continuing education using KVMH as needed
  - Commit to growing SB which is a level of care that the present staff should feel comfortable with
  - Work with KVMH to obtain P&P and documentation system for Observation level of care
    - Track and report every hour of care from admission to discharge
  - Imperative to set up written processes now for registration and admission and midnight census tracking
  - Track data to correctly assess utilization and staff needs
    - Develop a midnight census form which tracks all of the above and is turned into the business office on a daily basis
  - No need to hire a Care Manager at this time but imperative that Administrator and ADON learn all they can about admission criteria for Acute vs. skilled vs. Observation through Regional UR RN
    - ED staff to also learn all they can about “Right patient - Right bed - Right time” to assist the physicians with admission criteria
  - Develop nurse recruitment and retention strategy

Clinical Services

- Emergency Department
  - Continue Pharmacy and Central Supply past 24-hr ED forms review for documentation and compared to charges before being sent for coding
    - Imperative not to delay coding and billing while ensuring accuracy
  - Work with KVMH to implement POS collection
  - Monthly utilization report should include:
    - # of ED visit
    - # and % of visits per level for a snapshot of acuity
    - # and % of admits
    - # and % of transfers, reasons for and to where
    - # of OP procedures if ED is also used as such by local physicians (not to be intermixed in utilization data with ED visits)
    - Monthly reports prevent having to manually count when data is requested
  - Implement patient satisfaction survey through RPM and/or follow-up calls on the day post being seen in ED given staff time
  - Continue working on lab issues for ED and train staff in RT treatments which nursing could provide
  - Review reports of Medicare ancillary denials from ED and determine need for physician and staff training

Clinical Services

- Emergency Department (continued)
  - Access to ongoing education for ED nurses on the web is an inexpensive method to increase comfort level for both ED and Med/Surg. Nurses
    - See report for sample web sites
  - RN triage – consider *Emergency Severity Index, Version 4: Implementation Handbook* published by the Agency for Healthcare Research and Quality
    - See report for web site
  - ED nurses to be familiarized with admission criteria for acute or Observation to assist physicians and UR
  - Expand Performance Improvement projects (see full report for more details)
  - Take advantage of all that can be tracked through RPM to better measure ED indicators, graph out and post for all staff to be aware of the outcome
    - Work with RPM to agree on new indicators to be added
    - Staff to meet with PI to agree on who would collect data and enter such in RPM – use outcome PRN but no less than quarterly to look for opportunities for improvement
  - Review X-Ray variance reports of preliminary ED reading vs. final radiology reading and ensure process in place to notify PCP and patient

Clinical Services

- Radiology
  - Continue staff recruitment – may need to re-evaluate salaries
  - Work with Administration and business office to design as good of a process as possible for registration to increase level of confidence from patients
    - Include ABN process
  - All charges to be provided to business office the day of the test or next am after comparing to requests and work done
  - Utilization data tracking to be separate IP and OP for the CAH and LTC to have a better understanding of the business
  - Complete an ROI for CT Scan
    - Next level of service to address at a later date would be availability of US
    - 3rd level would be for Bone Scan and Mammography when ready to improve on availability of wellness programs for the community
  - See Performance Improvement section and attachments for comprehensive PI projects in which Radiology should participate

Clinical Services

- Rehabilitation
  - Re-design work load
  - Develop new OP programs and/or package them to promote to physicians and community
  - OT to assess LTC work and see what the Rehab Aid could perform leaving her more time to promote both PT and OT to physicians' clinics
  - Imperative to track and assess data to better understand the needs and report on a monthly basis
    - See full report for recommended data tracking
  - Measure productivity to determine when to increase staffing
  - Consider additional rehabilitative services
    - E.g., lymphedema care, incontinence training, vestibular training, splint design, hand therapy, wound management, school system OT, and industrial rehab
  - Clarify data
    - # of visits/month/therapist for IP (CAH) beds, LTC SNF and OP
    - # of units/month/therapist for IP (CAH beds, LTC SNF and OP
    - # of non-billable units for LTC NF by therapists and Tech
    - Billable units are used to look are revenue adding cost
    - Non-billable is tracked to determine productivity and what could be shifted to other non-licensed personnel to allow more time to grow the business
  - Develop rehabilitation services marketing strategy

Recommendation Summary

- Expense Management
  - None
- CAH Designation
  - Continue with CAH designation as SMMH upgrades its facilities
    - A portion of higher capital costs will be offset through cost based reimbursement
  - To increase the accuracy of interim financial statements, post Medicare "due to/due from" on an ongoing basis
  - Using the attached Medicare revenue model, accurately calculate Medicare and Medicaid cost-based revenue on a monthly or quarterly basis
  - Ensure the Method II billing is elected for ER physician services, as well as the hospital-based physicians doing procedures
- 2005 Cost Report
  - None
- Third-Party Contracting/Charge Master Updates
  - No recommendations for SMMH, third party contracting and charge master updates performed by HHSC

Recommendation Summary

- Facility Planning/Access to Capital
  - SMMH should evaluate all options for facility replacement to address long term plant and equipment needs
- Business Office
  - Patient Registration
    - Registration at SMMH to report to Revenue Cycle Director and not SMMH accountant
  - Charge Entry/Coding/Medical Records (Waimea Business Office)
    - No recommendation for charge entry/coding
  - Billing/Collections (Waimea Business office)
    - Continue with plans to hire 3 additional billing clerks to support business growth

Recommendation Summary

- Information Technology
  - Continue with current vision to make IT in integral part of the organization
    - Define vision beyond EMR
      - EMR is a means to and end with the "end" being improvement in quality and managing patient population
  - Make addition of a finance package to HBOC a strong priority
- Governance and Leadership
  - No recommendations
- Decision Making and Accountability
  - No recommendations for changes to existing arrangement
    - Excellent senior management communication structure
    - Weekly senior management team meeting is excellent for communicating to managers
      - Imperative to bring the communication down to department heads through the senior management team on a regular basis

Recommendation Summary

- Performance Measurement and Reporting
  - Senior management team should mentor department managers on running their departments as business units with responsibility for achieving their budgets
    - Special focus should be placed on accountability for volume
    - Added involvement in budget creation is a tool used to get department managers to assume ownership and become more entrepreneurial
  - Work to improve the accuracy of interim financial statements
  - Pursue a financial module addition to HBOC
- Compensation
  - Compensation set by HHSC and Unions, no opportunities for improvement

Attachments

Attachment I (1/2)

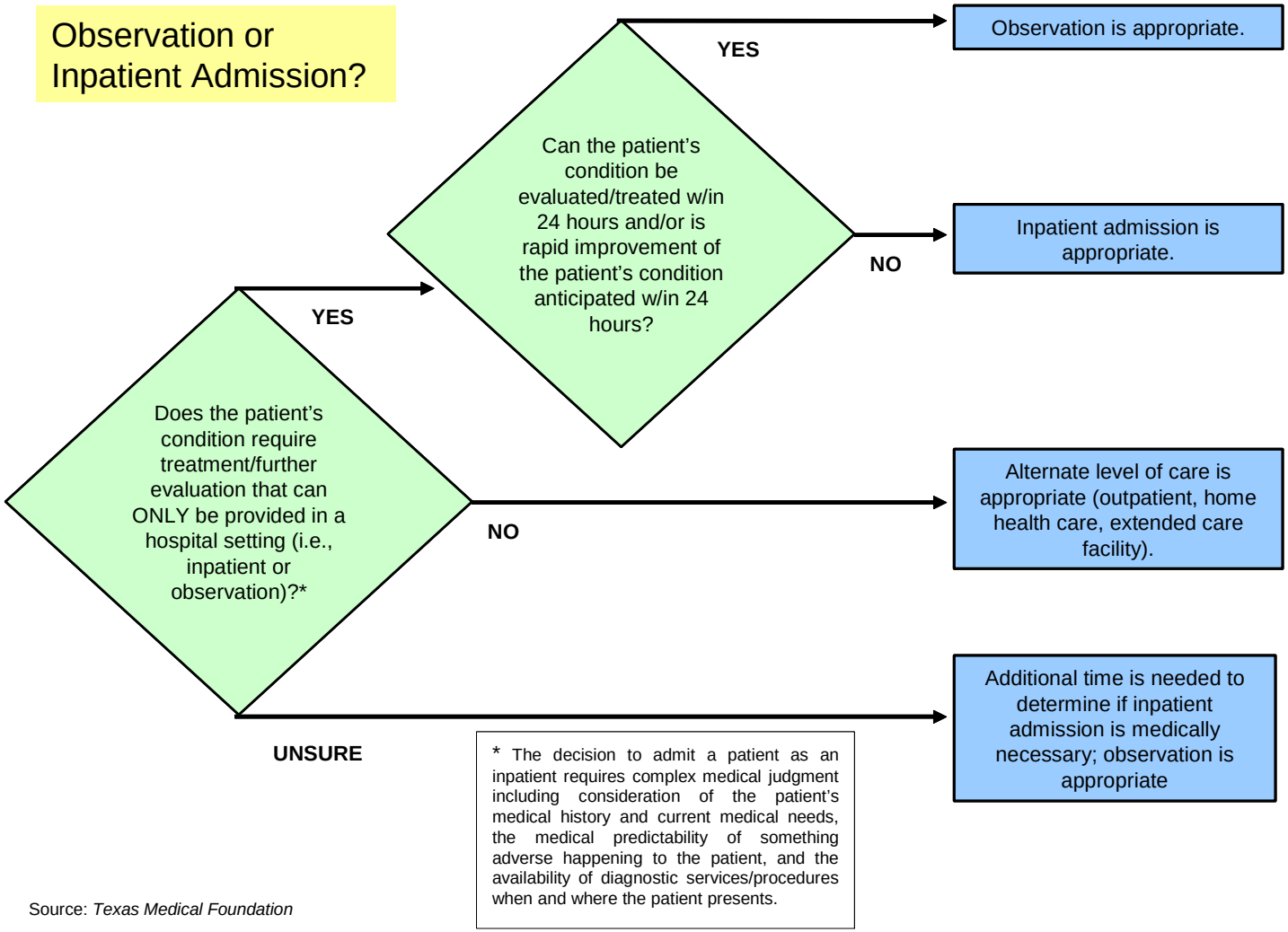
- Physician Need Calculations
  - Physician-to-population ratio data represents physician to 100,000 population rates from three large prepaid group practices that serve over eight million consumers
    - Source: Weiner JP, Prepaid Group Practice Staffing and U.S. Physician Supply: Lessons for Workforce Policy, *Health Affairs*, 4 February 2004.
  - Calculated need values for Family Practice developed by averaging Weiner data (above) and a state-specific ratio of family/general practice physicians to population
    - Source: Flowers et al. *State Profiles: Reforming the Health Care System*. AARP Public Policy Institute. 12th Edition. 2003
  - Area physician FTEs calculated as 18 days per month = 1.0 FTE. Mid-level provider FTE calculated as 0.80 FTE and added to Family Practice total

Attachment I (2/2)

Provider Demand/Supply (FTEs) for Service Area of					17,131
	Demand Indicators		Supply Indicators		
Primary Care	GMENAC	Hicks & Glenn	Kaiser	Group Health	Health Partners
Family Practice	5.9	5.8	2.3	8.1	3.8
Internal Medicine	4.9	3.0	4.8	2.0	4.6
Pediatrics	2.6	2.2	2.1	1.3	1.8
Subtotal	13.4	11.0	9.2	11.4	10.2
Non-Phys Providers			2.2	3.9	1.2
Medical					
Allergy	0.1	0.2	0.2	0.2	0.1
Cardiology	0.5	0.7	0.5	0.6	0.6
Dermatology	0.5	0.4	0.4	0.3	0.3
Endocrinology	0.1	0.1	0.2	0.0	0.1
Gastroenterology	0.5	0.3	0.4	0.4	0.3
Hem/Oncology	0.6	0.4	0.4	0.4	0.4
Infectious Disease	0.2	0.1	0.2	0.1	0.1
Nephrology	0.2	0.2	0.2	0.2	0.3
Neurology	0.4	0.4	0.3	0.4	0.5
Pulmonary	0.3	0.3	0.2	0.4	0.3
Rheumatology	0.1	0.1	0.2	0.2	0.2
Surgical					
ENT	0.6	0.4	0.4	0.5	0.1
General	1.7	2.3	1.0	1.2	1.3
Neurosurgery	0.2	0.2	0.1	0.2	
OB/GYN	1.7	1.9	1.8	1.3	1.5
Ophthalmology	0.8	0.8	0.6	0.7	0.6
Orthopedic	1.1	0.9	0.7	1.2	
Plastic Surgery	0.2	0.2	0.2		0.3
Urology	0.5	0.5	0.4	0.5	

Attachment II

- Observation Utilization Decision Tree



* The decision to admit a patient as an inpatient requires complex medical judgment including consideration of the patient's medical history and current medical needs, the medical predictability of something adverse happening to the patient, and the availability of diagnostic services/procedures when and where the patient presents.

Source: *Texas Medical Foundation*

Attachment III - Quality Improvement (1/7)

Adverse Events

Safe Care

- Use Core Measures and 100k Lives Campaign as templates for hospital-wide QI activities
  - Design and implement PDSA cycles lasting 1-3 months testing interventions to improve individual components of a Core Measure diagnosis
  - Design composite scores for Core Measures (i.e., the percentage of patients that receive all interventions for a particular diagnosis)
  - See attachments for additional Lab and Radiology QI suggestions
- Survey organizational safety culture and address identified opportunities
  - See www.ahrq.gov/qual/hospculture for AHRQ survey and support information
- Select a high-risk process and perform a failure modes and effects analysis (FMEA)
- Perform a root cause analysis on all sentinel events and adverse events
- Track "Adverse Events"
  - Click on embedded document titled "Adverse Events" that lists Minnesota's Adverse Event Reporting Law details (Mississippi may have a similar law)
- Develop policies to address National Quality Forum-endorsed set of 30 Safe Practices for Health Care
  - Click on embedded document titled "Safe Care" for additional information
  - Note that NQF Safe Practices are being updated in 2006
- Join National Association of Healthcare Quality – www.nahq.org
- Explore Institute for Healthcare Improvement website regularly for quality improvement topics, tools, and resources – www.ihi.org/IHI
- See Attachments for additional resource websites

Attachment III – QI (2/7)

- Radiology Quality Measure Options
  - **Percent change in procedure repeat rate** (denominator = total number of procedures) – *Change measure suggested because multiple variables will affect this rate including technique, equipment, physician ordering, radiologist preference, and workload. Not all variables indicate quality concerns. Goal is decreasing repeat rate. Value will be an analysis of where, who, and why procedures are repeated.*
  - **Percent of procedure results (images) reviewed with mentor** (denominator = total number of procedures) – *This can occur at two or more levels. A senior technician or an outside consultant could review images with department technicians. Also, a consortium of hospitals could hire a radiologist to review images ("over-reads") if this is not already performed by a radiology group.*
  - **Turn around time** (time in minutes from procedure request to report transmission) – *Report transmission can be via telephone, fax, or hard copy (hard copy turnaround time must include delivery time).*
  - **Mammogram review "score" by American College of Radiology (ACR)** – *Includes sending mammogram images to ACR for over-read. Required every three years.*
  - **Frequency of equipment calibration and settings –** *There are formal (ACR) and informal programs to complete this.*
  - **Ordering provider perception of radiology report quality –** *Requires surveying ordering providers. Survey question might read, "How well do radiology reports facilitate your patient care?"*
  - **Percent of procedures in adherence to evidence-based imaging protocols** (denominator = total number of procedures for which protocol is internally implemented) – *Protocols include contrast (type, volume, timing), number of sequences, type of scan, etc.*
  - **Technician and radiologist continued education** (total CEU/CME hours divided by department FTEs) **–** *Minimum would be required hours per FTE for department and/or individual accreditation.*

Attachment III – QI (3/7)

- *Do Not Use* List of Dangerous Abbreviations
  - Write "units" – *do not use "u"*
  - Write "international units" – *do not use "IU"*
  - Write "daily" and "every other day" – *do not use "Q.D." or "Q.O.D."*
  - Write "1" and "0.5" – *do not write "1.0" and ".5".* Eliminate trailing zeros and use leading zeros
  - Write "Morphine" and "Magnesium" – *do not use abbreviations like MSO4, MgSO4, and MS*
  - Write "mcg" – *do not use the Greek letter "µ"*
  - Write out all chemotherapy names
  - Write "eye" "ear" "left" "right" and "both" – *do not use "ad" "as" "au" "od" "os" and "ou"*
- Further Resources
  - ISMP List of Error-Prone Abbreviations, Symbols, and Dose Designations www.ismp.org/PDF/ErrorProne.pdf
  - Joint Commission (Implementation Tips for Eliminating Dangerous Abbreviations) www.jcaho.org/accredited+organizations/patient+safety/05+npsg/tips.htm
  - Joint Commission Official "Do Not Use" Abbreviations List www.jcaho.org/accredited+organizations/patient+safety/npsg.htm

Attachment III- QI (4/7)

- Quality and Patient Safety Resources
  - Joint Commission (ORYX Core Measures) at http://www.jcaho.org/pms/core+measures/index.htm
  - National Quality Forum (quality and safety initiatives) at www.qualityforum.org/publications.html
  - Centers for Medicare/Medicaid Services (Hospital Quality Initiative) at www.cms.hhs.gov/quality
  - American Hospital Association (The Quality Initiative) at www.hospitalconnect.com
  - Institute of Healthcare Improvement (safety culture development) at www.ihi.org
  - 2004 ISMP Medication Safety Self Assessment® for Hospitals www.ismp.org/Survey/Hospital/Intro.htm
  - ECRI – Medication Safety Solutions Kit www.ecri.org/Products_and_Services/Products/Medication_Safety/
  - Safety survey at www.ahrq.gov/qual/hospculture and www.ihi.org/IHI/Topics/PatientSafety/SafetyGeneral/Tools

Attachment III- QI (5/7)

- Pharmacy QI
  - Create a PI focus team to complete a "Medication Safety Self Assessment" to determine direction for performance improvement in medication patient safety arena
    - Click on embedded Institute of Medicine document "Preventing Med Errors"
    - Click on embedded document "Med Safety Self Assess" for process and tool
  - Implement the "do-not-use abbreviation list" if not in place
    - See Attachments for listing and resources
    - Requires physician and staff education
    - Posted reminders at key documentation areas
    - Tracking and graphing outcome through PI committee
      - May require tracking by staff members to know who to work with if not successful in meeting target

Preventing Med Errors

Med Safety Self Assess

Attachment III – QI (6/7)

- Pharmacy QI (continued)
  - Begin work on Medication Reconciliation if process not in place yet
    - Click on embedded document "Med Recon" for additional information
  - Budget for an automated prescription drug dispensing equipment designed to reduce medical errors
    - Companies such as MGD Medical, Pyxis Corp., San Diego and Omnicell all provide such system
      - Some now have more affordable systems targeted to small hospitals
      - Some have the capability of adding bar-coding system which is the next step to ensure patient safety but requires being cognizant of the potential for "new" errors
      - Click on embedded document "Bar Coding Errors" for additional information
  - Additional resources
    - Tools for safe medication practice

      www.ismp.org/Survey/Hospital/Intro.htm
    - ECRI – Medication Safety Solutions Kit
      www.ecri.org/Products_and_Services/Products/Medication_Safety/

Med Recon

Bar Coding Errors

Attachment III – QI (7/7)

- Pharmacy QI (continued)
  - Develop a SMMH medication error tracking and safety program
    - See www.qualityhealthcare.org for medication error tools and other innovative quality improvement ideas
    - Use National Coordinating Council and Medication Error Reporting and Prevention (NCC MERP) nomenclature. For index, algorithm, and other medication error information, see www.nccmerp.org/mederrorcatindex.html
    - Goal is to increase the proportion of errors that do not reach the patient, not decrease the total errors reported
    - Develop user-friendly medication error reporting mechanisms
    - Encourage non-punitive reporting (e.g., thank person reporting an error for opportunity to improve process)
    - Measurement goal is to increase the proportion of errors that do not reach the patient, and decrease the proportion of errors that do reach the patient