

A Comprehensive, Independent Review and Evaluation of



**HAWAII HEALTH SYSTEMS
CORPORATION**

"Touching Lives Every Day"

VOLUME I: The Report

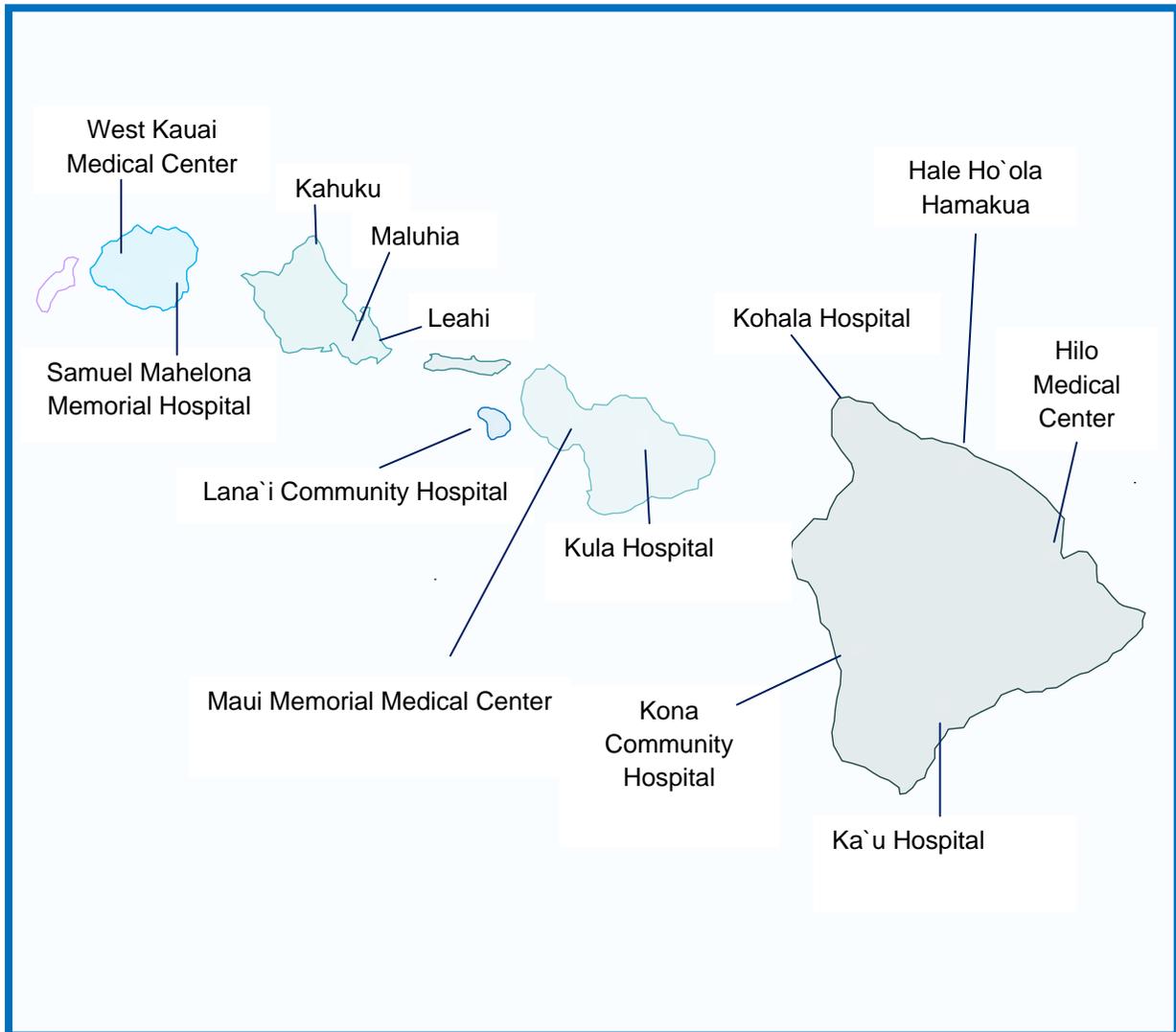


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Note that all appendices referenced in Volume I are located in Volume II of the report.

Study Purpose and Process

This study responds to the legislative mandate included in Act 182 (2009) for the Hawai'i Health Systems Corporation (HHSC) to arrange for, on behalf of the Legislature, a comprehensive, independent review and evaluation of HHSC. Specific elements of the study specified in Section 31 of HB 200 CD1 include the following:

- (1) A comprehensive facility-by-facility review of operations, detailing efficiencies, deficiencies, and any recommendations for corrective action;
- (2) Overall recommendations on improving effectiveness and efficiencies system-wide;
- (3) Determination of responsibilities of facility administration, regional boards, corporate office, and HHSC corporate board;
- (4) Determination of centralized services required by the facilities to be provided by the corporate office;
- (5) Performance benchmarks to be reported to the Legislature prior to the commencement of each regular session and upon request; and
- (6) Recommendations on transition plans deemed necessary;
- (7) Evaluation of effectiveness of the current legal structure and adherence to the State procurement code and salary structure;
- (8) Measures taken to address material control weaknesses and reporting issues cited in audits performed by the State auditor and HHSC's external auditor during fiscal year 2007-2008 and fiscal year 2008-2009; and provided further that the department shall submit the report to the Legislature no later than twenty (20) days prior to the convening of the 2010 regular session.

HHSC responded to this mandate by designing and implementing a selection process consistent with the Hawai'i Public Procurement Code. This resulted in contracting effective September 14, 2009 with Stroudwater Associates, a national healthcare advisory firm, to undertake the study. Stroudwater Associates supplemented its resources by entering into a subcontracting agreement with KMH LLP, a Honolulu-based accounting firm with prior working knowledge of HHSC in order to specifically support the review of issues related to the State and external audits.

Stroudwater and KMH commenced the study during the second half of September, 2009. The process it applied to completing the study included the following activities:

- a) Meetings with legislative leadership including Senator David Ige, Chair, Senate Committee on Health; Representative Calvin Say, Speaker of the House; and Representative Ryan Yamane, Chair, House Health Committee.
- b) Meeting with Linda Smith, Senior Advisor of Policy to Governor Linda Lingle.
- c) Meetings with each of the five HHSC Regional Boards.

- d) Site visits and staff interviews at all fourteen of the HHSC facilities.
- e) Meetings with the HHSC Board.
- f) Interviews with HHSC Corporate staff leadership.
- g) Meetings with the State Auditor as well as HHSC's External Independent Auditor and Internal Auditor.
- h) Meetings with leadership of external organizations including Hawai'i Pacific Health, Queen's Health Systems, Kuakini Medical Center, Kaiser, Hawai'i Government Employees Association (HGEA), and Union of Public Workers (UPW).
- i) Separate strategic and operational analyses of each of the three Medicare PPS (Prospective Payment System) hospitals in HHSC (Maui Memorial Medical Center, Hilo Medical Center, and Kona Community Hospital) which cumulatively represent over 70% of the total economic scale of HHSC.
- j) Review of strategic, financial, and operational analysis findings completed for each of the Critical Access Hospitals (CAHs) in the HHSC system previously completed under the auspices of the Hawai'i State Office of Rural Health. Additionally, a review of the most current year profit and loss statements was conducted.
- k) Analysis of State budget data, State demographic data, hospital financial data, hospital market and clinical performance data, and detailed financial data pursuant to the audit related study issues.
- l) Review of the performance of selected other U.S. public hospital corporations.

A more detailed summarization of meetings is included as Appendix A.

Executive Summary

“We can’t solve problems by using the same kind of thinking we used when we created them.”

Albert Einstein

This study of the Hawai`i Health Systems Corporation’s (HHSC’s) current status and future options is in response to a mandate by the Legislature for an independent review of HHSC and recommendations for defining its future and improving its performance. The context of the study includes unprecedented State budget deficits, State subsidization of HHSC that has grown to over \$111M annually and is projected to continue climbing, and a continuing need for HHSC capacities which serves approximately one-fifth of the total inpatient hospital volume in the State. The areas served by HHSC, excluding Oahu, represent nearly a third of the State population. This area is projected to grow by over 63,500 by 2017, a 17% increase.

HHSC is in a financially perilous condition. It received a “Going Concern” finding as part of its 2008 independent audit report, calling the future financial viability of the organization into question. Its liquidity is at dangerously low levels with barely enough current assets to meet current liabilities. It is far behind in its payments to vendors (80+ days). The age of its facilities and other physical assets are well above national averages. Its future viability is at risk, particularly if the State is unable to provide increasing levels of operating subsidies for HHSC going forward. We have assumed that the State will not have the capacity or tolerance to fund increasing subsidies going forward, and seeks options that will allow it to substantially reduce HHSC subsidies as part of its overall imperative to balance the State budget.

The study concludes that incremental change is unlikely to be sufficient to effectively address HHSC’s short term and long term challenges. It recommends three “essential changes” as a prerequisite for future strategic action.

The first “essential change” calls for a conversion of HHSC from a public benefit corporation to a private non-profit 501(c)(3) corporation. By definition, this change would end HHSC’s status as an agency of the State, disqualifying it from remaining part of the State’s civil service employment structure. By replacing the State’s existing retirement and paid time off benefits with a contemporary private sector benefit structure including a defined contribution benefit retirement plan and paid time off plan, HHSC can save an estimated \$50.3M in annual operating costs. Assuming other work rule related changes (e.g. re-mix of salaried/hourly employee status) and a willingness on the part of the State to assume HHSC’s existing operating liability for retiree health benefit costs, HHSC’s annual operating costs can be reduced by an additional estimated \$31.3M. It is also projected that HHSC would become far more effective in its ability to generate capital through solicitation of philanthropic support and Federal funding. In order to execute this “essential change” HHSC requires re-capitalization. We have estimated that HHSC should be re-capitalized using a State general obligation bond falling into a range between \$256M (\$56M cost

of conversion; \$200M recapitalization) and \$456M (\$56M cost of conversion and \$400M recapitalization). A detailed business plan including pro forma financials and cash flows will be required to generate a more precise estimate. The goal is to provide HHSC with adequate capital to retire a variety of existing financial liabilities which would be necessary as part of the conversion. The resulting financial performance improvement of HHSC would give it the ability to service the annual debt payment associated with this recapitalization estimated to total between \$20M and \$36M.

The second “essential change” calls for realizing operational efficiencies identified as part of this study, and allowing some portion of these savings to inure to the individual operating organizations that generate them. The results of an overall review of HHSC facilities operations identified performance improvement opportunities that would in aggregate result in annual financial performance gains within the range of \$20M to \$40M. Opportunities identified encompass: revenue cycle improvements, additional staffing savings, length of stay reductions, etc. Given the sharp time constraints related to this study and the inability to study and quantify every potential opportunity, additional potential savings certainly exist. However, all major performance improvement opportunities are linked to getting beyond the constraints of the current employment structure through a conversion. This creates the opportunity to drive accountability into the system by linking effort with reward at all levels of the organization from executive management down.

The third “essential change” calls for accessing efficiencies of scale that are inherent in the system model. While efficiencies of scale have never been broadly harvested by the HHSC system, they are currently being eroded as each of the individual regions begins to take on activities such as procurement and IT. Nationally, an estimated two-thirds of community hospitals operate within an affiliated system model—working to achieve efficiencies through a collaborative model with consolidation of shared services. The study conservatively identified annual operating savings related to these initiatives at \$6.5M annually.

Assuming this platform of “essential changes” is in place, the study identifies five key success factors to be used for judging the relative merits of four strategic options that could be pursued by HHSC. The five key success factors include: 1) A corporate, governance, and management structure that facilitates achieving strong performance by HHSC hospitals and nursing homes; 2) Broad application of efficiencies of scale and expertise; 3) A financial structure and performance plan that minimizes HHSC’s need for ongoing State subsidies; 4) The ability to understand the healthcare needs within the areas served by HHSC; and 5) The ability to consistently deliver high quality clinical care and patient services.

The study delineates five strategic scenarios that were considered and rejected, including the rationale for not pursuing these scenarios. Rejected scenarios include: 1) closure of the HHSC facilities and system; 2) re-integration with the Department of Health; 3) structuring HHSC’s regions into county hospital district entities; 4) spinning the three PPS hospitals into private independent corporations while retaining the CAH facilities under State sponsorship; and 5) creating a dual employee structure that grandfathers current HHSC in the civil service structure and employs all new staff outside of it.

Notwithstanding the five scenarios that were considered and rejected and assuming that the three essential changes described above are committed to and being actively pursued, we present four strategic options for consideration. Each option is tested against critical success factors for short and long term viability of the healthcare services now provided by HHSC for communities across the State of Hawai'i.

The first strategic option fully considered describes a region-centric HHSC with service bureau support from what are now HHSC corporate services. This option places control of regional assets, operating resources, strategy, management, and governance with the regions to the five Regional Boards and region management. It defines existing HHSC corporate services as a service bureau resource that regions utilize according to their self-defined needs and preferences. There is no obligation on the part of the regions to utilize any HHSC service bureau offerings. The service bureau would be funded by dues and service fees.

The second strategic option evaluated is a regional partnership break-up strategy. This option envisions that each region becomes an independent non-profit private corporation and engages in a process for attracting a capital/operating partner. The annual debt service obligation created by the conversion would be pro-rated among the regions. Potential interest in the market by such partners was validated. At the end of this process HHSC corporate services would no longer be needed, and would be ended.

The third strategic option evaluated is an HHSC corporate-centric strategy. This envisions that many of the duties and powers that have been delegated to the regions would be re-consolidated at the corporate level in order to link corporate accountability with authority, to simplify the process for achieving efficiencies of scale/expertise, and to create a more integrated clinical service delivery system. It concludes that while there was some logic to the delegation of power to the regions through Act 290 in 2007, the stark realities of the current recessionary environment demand a new approach that consolidates accountabilities and authorities at the corporate level.

The fourth strategic option evaluated is an HHSC system corporate partnership strategy. This envisions that HHSC would engage in a formal process as a system to identify a capital/operating partner including both in-state and mainland options to help accelerate its transformation to a high performing contemporary delivery system. This option rests upon the conclusion that as a system HHSC by itself is insufficient in scale to move to the highest levels of performance, and that so many of its basic systems and infrastructure are in need of major updating that it will take the in-place resources of a more advanced system to help it catch up. This will result in a sharing of governance authority between HHSC and a chosen partner.

The study recommends the fourth option as the most effective one for meeting the needs of the people served by HHSC over the short and long terms. It further recommends that this option be pursued at high velocity in light of the financial status of both HHSC and the State. This targets re-structuring of

HHSC governance and management, pursuit of operational efficiencies, conversion of HHSC to a 501(c)(3), and immediate pursuit of operational efficiencies identified. It further targets completion of a process for identifying the right partner with which to enter into a transaction. It recommends completing this entire process within the next 2-3 years. It identifies the need for continued State subsidy during the transition period, and ongoing support of the surviving entity based upon need beyond the transition. We recognize that these are aggressive time frames. We also recognize the intensity of financial pressures that motivate this proposed speed.

The following Sources and Uses of Funds table summarizes the financial impact of the “essential change” recommendations at the \$256M recapitalization level and the implementation of option four on HHSC’s financial future and State funding needs going forward.

Sources and Uses: Essential Changes and Option Four

Conversion of HHSC into a non-profit 501(c)(3) private corporation
Sources and Uses of Funds (\$000's)

Sources of Funds (\$000's)	State Fiscal Year			
	FY2011	FY2012	FY2013	FY2014
State of Hawai'i General Fund appropriations	\$ 60,000	\$ 50,000	\$ 40,000	\$ 30,000
Capital improvement funds	20,000	10,000		
Capital partner(s) contributions			50,000	20,000
General revenue bonds	255,800			
Total Sources of Funds	335,800	60,000	90,000	50,000
Uses of Funds	FY2011	FY2012	FY2013	FY2014
Conversion to 501(c)3				
Payoff of unused vacation	34,000			
Payoff of accrued compensatory time	3,500			
Unpaid workers' compensation claims	18,300			
Total Conversion Cost	55,800			
Recapitalization of HHSC	200,000			
Capital improvement projects and other infrastructure investments	20,000	10,000	50,000	20,000
Continued subsidies for hospital operations	60,000	50,000	40,000	30,000
Total Uses of Funds	\$ 335,800	\$ 60,000	\$ 90,000	\$ 50,000

It should be noted that all of the “essential changes” and options assume the need for an ongoing commitment by the State for subsidizing care in rural areas that is inherently inefficient to provide. We have recommended a glide path that reduces State financial support of HHSC from \$60M for operations and \$20M for capital in FY 2011 to an ongoing operations subsidy of \$30M by FY 2014. The study also emphasizes the difficult challenge related to successful implementation of the “essential changes” and each option. Successful execution will require strong leadership and management, sustained focus and discipline, a sense of urgency, and a commitment to success. While the mandated scope of this study did not evaluate leadership and management resources within HHSC, such an evaluation is warranted.

While there is considerable execution risk related to the recommendations, the financial cost of failure may be less than the long term costs of ever increasing State subsidies to HHSC. The political will required to make the necessary corporate structure, governance, management and operational changes is considerable. The potential return on investment related to applying this will is substantial.

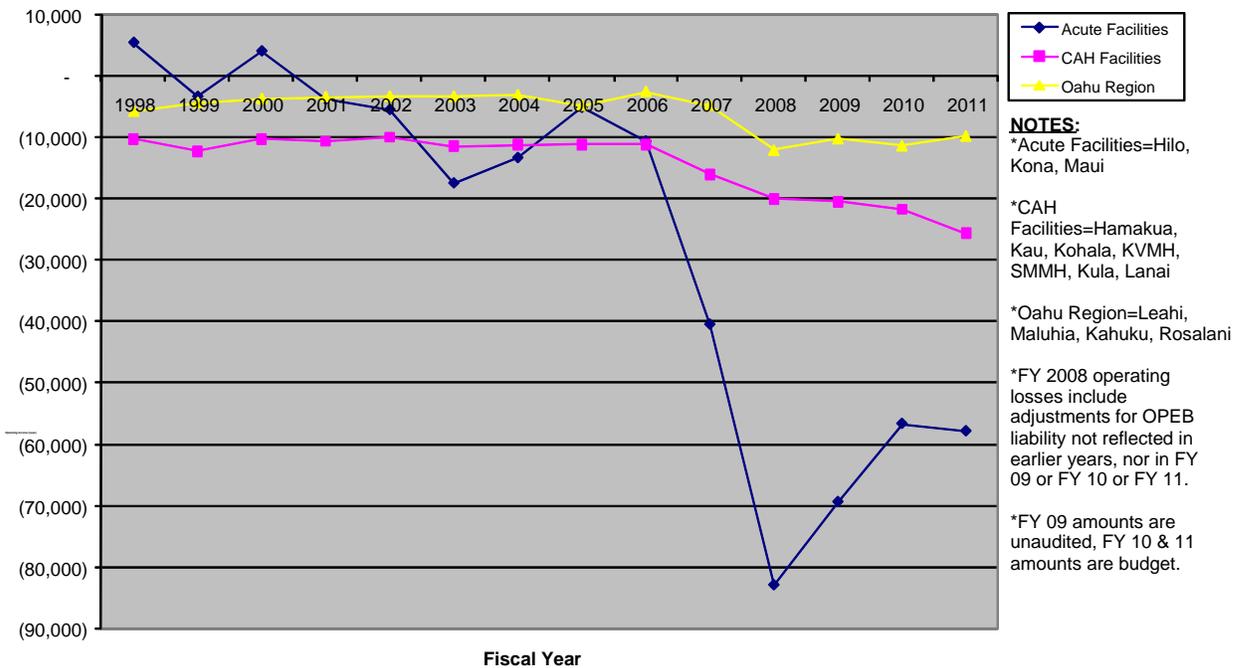
Finally, the study evaluates HHSC's compliance with State and private audit findings and with State procurement regulations. While problems are identified, they are not of sufficient gravity to delay pursuit of the recommendations in this report. A set of performance monitoring metrics are also presented as a recommended scorecard for tracking HHSC performance during this process.

Situation Summary

The State of Hawai`i and HHSC are colliding at the cross-roads of two major, competing imperatives. One is the shared responsibility of HHSC and the State to provide appropriate healthcare resources to meet the needs of a population served by HHSC that is growing, aging, disproportionately poor, sick, and under-served. The other is the legal and fiduciary imperative of balancing the State budget.

HHSC's current year subsidy of \$111.64M represents approximately 10 percent of Hawai`i's \$1 billion budget deficit.¹ What allows HHSC to continue operating are State subsidies from the General Fund, augmented by special allocations to individual HHSC regions. Over 16% of HHSC's operating budget depends upon State subsidies (excluding Medicaid and disproportionate share payments). As the following graphic highlights, the downward financial performance trajectory of HHSC under its current operating arrangements is expected to continue.

**Hawai`i Health Systems Corporation
Historical Operating Income (Loss) Trending
Fiscal Years 1998-2011
(000s)**



Source: HHSC Management Projections

¹ Hawai`i State Budget Web Page

HHSC is in a financially perilous condition as a viable going concern. Evidence documenting this peril includes the following:

- A “Going Concern” finding in HHSC’s 2008 audit. It notes that “...operating losses for 2010 and 2011 will exceed State of Hawai`i appropriations for general operations....” It further notes that: “HHSC is unable to keep current on payments to vendors.... HHSC’s primary acute facilities often have critical medical supplies and services vendors placing them on credit hold or cash on delivery status. **These matters create substantial doubt about HHSC’s ability to continue as a going concern.**”²
- FY 2009 unaudited loss on operations: \$111.64M
- FY 2010 budgeted loss on operations: \$99.0M [1st qtr. FY 2010 HHSC beat budget by \$7.8M]
- Days in payables: 80.9 days [\$35.4M as of 9/2009]
- Unrestricted net assets: [-\$46.2M as of 6/30/09—this number does not include unrestricted net assets invested in capital assets-net of related debt of \$198.3M] [assets other than fixed assets such as buildings, equipment, and cash restricted in use]
- Days cash on hand: 25.3 (as of 9/30/09) [the median days cash on hand for S&P BBB- credits is 113.5, and for S&P A credits is 176.7]
- Current Ratio: 1.06 (as of 6/30/09) [current assets divided by current liabilities. This means that all assets available to HHSC from current operations fall below the assets required to pay off liabilities currently due]
- Quick Ratio: .26 (as of 6/30/09) [cash on hand divided by current liabilities. This means that there are only 26 cents of available cash for every dollar of current liabilities]
- Days in receivables: 88.7 (as of 9/2009)

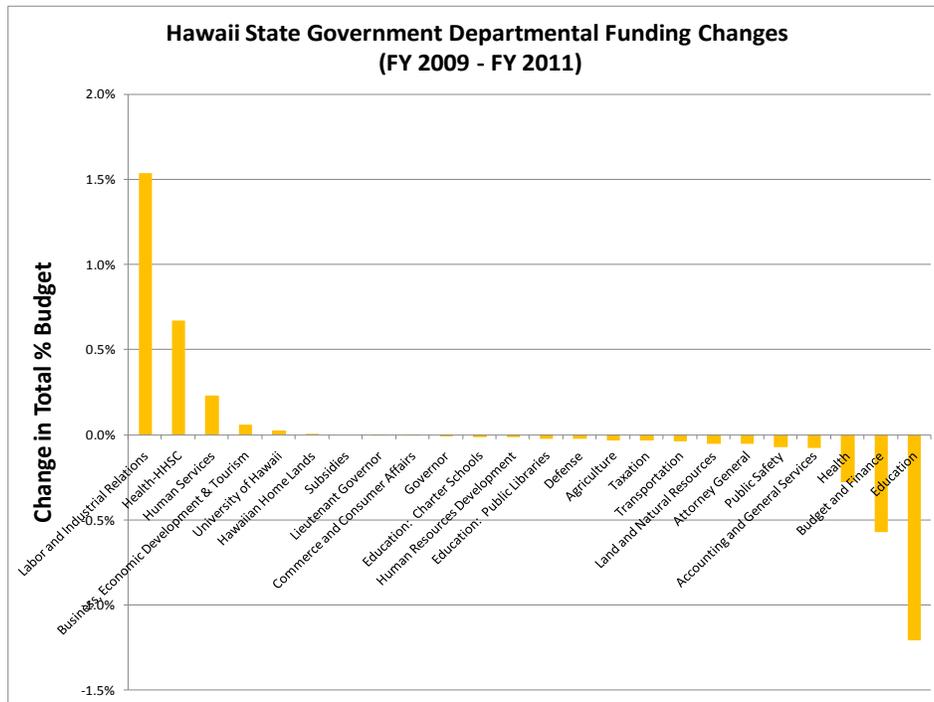
Source: All above numbers were sourced from internal HHSC documents and verified by the HHSC Comptroller

The following table compares some of these values to Thomson-Reuters national medians:

	HHSC Consolidated	Median Benchmark	Goal
Current Ratio	1.06	2.8	▲
Days in Accounts Receivable	88.7	50.7	▼
Days in Accounts Payable	80.9	44.9	▼
Days Cash on Hand	25.3	58.4	▲

As indicated in the following graphic, the State has made a substantial effort to spare HHSC from the pain of the budget crisis through FY 2010 by increasing its appropriated subsidy to \$111.5M. The subsidy for 2011 is budgeted to be reduced by \$15M to a total of \$96M.

² Deloitte & Touche HHSC 2008 Audit, pp. 21-22.



Source: State of Hawai'i Budget Web Page, Oct. 18, 2009

HHSC depends upon State subsidies for its continuing operational viability. The State expects that HHSC will not retain any financial resources beyond its operating needs. The result is that HHSC as a system has no ability to accumulate significant working or investment capital resources from operations. As a result it is in a total financial dependency relationship with the State for both operating subsidies and access to investment and working capital.

In general Hawai'i is a difficult operating environment for healthcare providers. In 2008, Hawai'i's hospitals lost \$187M on operations (note: excluding investment income or philanthropy), according to a study completed by Ernst & Young, LLP, on behalf of the Healthcare Association of Hawai'i. The study cites several structural factors which make Hawai'i a challenging environment for hospitals. These include:

- ✓ A shortage of long term care beds that require hospitals to provide over 74,000 patients days annually of sub-acute level care in acute care settings.
- ✓ A growing demand for charity care.
- ✓ Medicare and Medicaid payments that fall below the cost of providing the care.
- ✓ High costs related to the realities of island economies that are not reflected in government or private payment rates.
- ✓ Low provider payment levels for both hospitals and physicians compared to the ratio of commercial/Medicare payments nationally. [Cost shifting to commercial payers is how most markets make up for underpayment by government payers. Low payments in Hawai'i are justified by payers based upon the high percentage of the population covered (95%+) as a result of the Hawai'i Prepaid Healthcare Act (HPHCA)]

There are a variety of reasons HHSC specifically has experienced disproportionate and chronic operating deficits compared to Hawai'i's other hospitals. These include:

- a) **Scale:** The size of the markets served by many of HHSC's operating sites result in structural inefficiencies related to their small scale. HHSC is the sole source of health care for several isolated neighbor island communities (e.g., Ka'u, Kohala, Lana'i, North Shore of Oahu). Operating scale is a significant determinant of operational efficiency.
- b) **Management/Governance Structure:** The management and governance configuration of HHSC established by Act 290 (2007) and further modified by Act 182 (2009) has ended up being operationally and structurally dysfunctional. Initially it did create an opportunity for the regions to retain strong hospital operators, which was done. It did allow the regions to sidestep some of the inefficient processes related to HHSC corporate. However, structurally it delegated authority to the Region Boards while maintaining operational and financial accountability at the corporate level. It inhibits system efforts to establish efficiencies of scale and expertise. It has allowed system efficiencies previously pursued by HHSC to be scaled back to the regions. At the corporate level it gives management disproportionate voice in governance by having over 40% of the Board comprised of executive managers. There is a lack of checks and balances between the Corporate Board and the Regional Boards resulting in regional boards making decisions in the best interest of their region that can cost the system more and not be in the long range best interest of other regions. Conversely a single region now has the ability to stop a system initiative that could reduce cost and be in the long range best interest of all regions.
- c) **Clinical Duplication:** There is unnecessary duplication of clinical services within the system due to the inability of system governance and management to consolidate clinical resources at selected sites to serve the entire system.
- d) **Performance Management:** There is a lack of reporting transparency around system and site performance. There is little benchmarking of performance against internal or external best practices.
- e) **Capital Shortfalls:** There has been and continues to be chronic under-financing of capital investments that can improve operating efficiency and competitive positioning.
- f) **Operational Inefficiencies:** There are significant operational inefficiencies at various delivery sites. This reflects:
 - ✓ a lack of system consolidation;
 - ✓ failure to address root causes of underperformance resulting in expensive "work-arounds" and outsourcing;
 - ✓ expensive regulatory obligations (see point "g" below);

- ✓ inadequate management training and development processes;
 - ✓ a financial disincentive resulting from the State-HHSC relationship that deducts operating improvements from State subsidy totals;
 - ✓ financial and operating tactics aimed at maintaining some financial “cushion” by keeping improved efficiency options available to blunt the impact of possible future reductions in State subsidies.
- g) **Corporate Structure:** The public – private partnership corporate model under which HHSC operates (i.e. public benefit corporation) requires that HHSC comply with both civil service employment and State procurement rules that significantly increase operating costs. The precipitous increase in HHSC losses between 2005 – 2007 disproportionately reflects increases in civil service benefit costs and the mandate that HHSC operate under State procurement rules.

The State Administration and Legislature have persistently suggested that opportunities exist to improve the performance of HHSC. There have been suggestions that recent performance reporting by HHSC has been inaccurate or misleading. These have been exacerbated by a recent review completed by the State Auditor that included “material control weakness” findings.

National and State Trends Shaping HHSC's Future

While HHSC serves the island State of Hawai'i, it does not operate in isolation as a healthcare provider system. Like all U.S. healthcare providers, its future will be profoundly influenced by the larger economy, demographics, federal law and regulations, the national supply and demand of the market for physicians and other clinical and management talent, technology, and ultimately provider and patient needs and expectations. It is imprudent to select a strategic direction for HHSC without taking these powerful forces into account.

In this moment of high political drama in Washington D.C. regarding consideration of the largest health care reform proposal in the past 45 years, making precise environmental predictions is unusually difficult. State trends as they relate to demographics and economics are somewhat easier to decipher, although still far from precise. In both national and State environments it is however possible to discern directionality. The following points represent our judgment regarding the most powerful forces that will impact HHSC over the next five years.

Macro-Economics

National

Current federal deficits growing at over \$1 trillion annually will be exacerbated by the \$61 trillion in unfunded federal funding commitments that primarily reflect Medicare and Social Security liabilities. These structural realities will drive major healthcare provider payment reform as well as changes in benefits, beneficiary financial obligations, and other strategies for reducing federal financial obligations.

Provider payment reform will result in changes in Medicare's unit of service of payment system toward "bundled" or episode of care payments in the short run. In the long run, payment will be made for caring for defined populations, requiring far more integration and integrated systems of care than are the case today.

Implementation of federal health reform policies that significantly increase the percentage of people with health insurance coverage could ironically punish providers in Hawai'i by lowering Medicare payments based upon the assumption that provider bad debt and charity care costs will fall dramatically. Hawai'i's long term policy efforts aimed at maximizing healthcare coverage via State legislative initiatives has already achieved much of this goal, making it impossible for providers to reduce bad debt and charity care at the same levels that are likely possible in other markets.

Hawai'i

All recent projections conclude that Hawai'i's economy is unlikely to significantly rebound for at least another two years. Discussions with the State Budget Director pointed out that State deficit levels are

more likely to rise than fall based upon revenue projections, and that despite extremely aggressive cost reduction initiatives identified to date, the budget gap is still likely to fall in the \$300M -\$500M range by the end of CY 2009. HHSC's deficit currently represents approximately 5% of the total State budget, making it a meaningful expense that is worthy of focus.

Legislative/Regulatory Trends

National

The clearest policy directions emanating from Washington are around pay-for-performance, interactive electronic medical records (EMR), unit of service payments, and increasing health benefit coverage.

Pay-for-performance initiatives include:

- “Never events,” or those situations where iatrogenic diseases or conditions such as major medication errors, wrong site surgery, mis-matched blood transfusions causing injury or death will no longer be paid for by Medicare. The list of “never events” will continue to grow.
- Value-based purchasing (VBP) which uses CMS Core Indicators (standardized survey instrument for measuring clinical quality) and HCAHPs (standardized survey instrument for measuring patients' perspectives of hospital care) to determine whether individual hospital providers should receive full Medicare reimbursement, or be penalized for poor performance.
- Secondary diagnosis or conditions that were not documented as present on admission (POA) but were acquired during the hospital stay (e.g., pressure ulcers, vascular catheter associated infections, hospital acquired injuries, and catheter-associated urinary tract infections) will affect Medicare payment.
- RAC (Revenue Recovery Audit Contractor) audits aimed at recovering funds paid to Medicare provider organizations that were not in compliance with Medicare rules and regulations.

These pay-for-performance initiatives are transforming quality, service, and compliance into a revenue cycle issue for hospitals. In other words, not meeting quality, service and compliance standards, as well as improper documentation and coding now results in the potential for significant reductions in Medicare/Medicaid revenue. This trend will continue.

Interactive Electronic Medical Record (EMR) initiatives include functionality, security, and interoperability. Failure to meet Federally-defined “meaningful use” standards which are currently under development will result in reductions in Medicare payment by 2015 and ineligibility for nearly \$85B in federal funds targeted toward helping providers to meet these new expectations.

Unit of service payment trends are likely moving toward going beyond MS-DRG (Medicare Severity-adjusted Diagnostic Related Group) payment arrangements to episode of care and ultimately population based payment arrangements where providers are paid a fixed amount for caring for a defined population for specified period of time. This will require far greater coordination and integration among and between providers.

Finally, **increasing coverage** to reduce the number of uninsured Americans is the core feature of health reform. As previously noted, the State of Hawai`i could be hurt by this process if proposed legislation is passed that limits provider payments under the assumption of large reductions in bad debt and charity care that are not available in Hawai`i as a result of its 30 years of initiatives targeted toward independently achieving universal coverage.

Hawai`i

Given the current fiscal crisis in Hawai`i, the overwhelming trend is toward finding solutions for balancing the budget. Over the next several years this is likely to reduce resources available for Medicaid (\$400M of one-time federal stimulus money has been used to support Medicaid funding through next year) as well as for a variety of Department of Health programs and initiatives. The short term focus will inevitably be on the preservation of existing programs and capacities rather than new health policy initiatives.

Demographics

National

As noted above, growth in the population eligible for Medicare and Social Security benefits is the underlying unprecedented pressure on the federal budget, with a projected doubling of Medicare beneficiaries over the next 25 years.

Hawai`i

The State of Hawai`i can be characterized as experiencing growth and having a relatively high percentage over 65. Across the entire State, HHSC captures 19% of the total inpatient market. HHSC’s sources of funding are 38% private and 59% public. This compares to non-HHSC Hawai`i facilities with 32% of funding from private sources and 66% from public payers.

State of Hawaii

Population		HHSC Payer Mix (2008)		Market Share (2008)	
2007 estimated	1,298,043	Private	 38%	HHSC	 19%
10 year projected	11%	Public	 59%	Other	 81%
% over 65	14%	Self Pay	 3%		

Source: Applied Geographic Solutions and U.S. Census, HHIC database

Poverty Levels

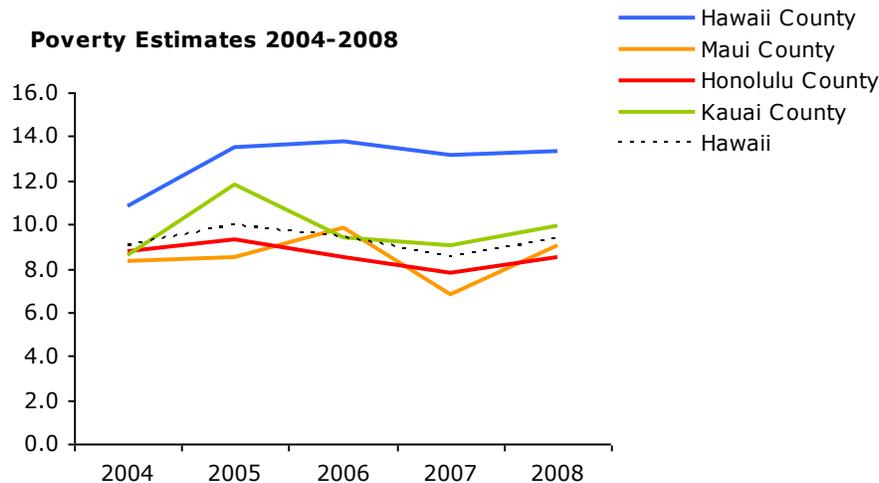
Poverty estimates for the State of Hawai`i are shown below. Hawai`i and Kauai`i Counties show poverty rates in excess of the State averages.

Poverty Estimates 2008

County	Number	Percent
Hawaii County	22,980	13.3
Maui County	12,798	9.0
Honolulu County	74,601	8.5
Kauai County	6,239	9.9
Hawaii	116,618	9.3

Source: US Census Bureau Small Area Income and Poverty Estimates, Nov. 2009 re
 No data available for Kalawao County
 Percentages in **bold** exceed state

Poverty Estimates 2004-2008



Death Rates

As noted in the table below, death rates for the State show significant variation by region. As with the poverty data, both Hawai`i and Kauai`i Counties have higher than average rates for most causes of death.

Causes of Death (rate per 100,000)	Hawaii	Hawaii County		Maui County		Honolulu County		Kauai County	
		rate per 100,000	% of state						
HEART DISEASE	182	209	114%	165	90%	180	99%	191	105%
MALIGNANT NEOPLASMS	168	186	111%	161	96%	164	97%	198	118%
CEREBROVASCULAR DISEASE	54	64	119%	41	76%	54	100%	53	98%
EMPHYSEMA AND OTHER CLRD	23	27	114%	29	124%	21	92%	28	121%
INFLUENZA AND PNEUMONIA	18	20	107%	14	77%	19	101%	22	119%
DIABETES MELLITUS	18	19	105%	22	121%	18	96%	19	104%
OTHER CIRCULATORY SYSTEM DISEASES	15	16	103%	9	60%	12	78%	17	114%
ALZHEIMERS DISEASE	15	24	156%	15	99%	11	74%	12	77%
NEPHRITIS, NEPHROSIS	12	11	87%	13	107%	12	101%	14	110%

Source: Hawaii State Department of Health 2003-2007 and US Census Populations
 No data available for Kalawao County
 Percentages in **bold** exceed state

Hawai'i County

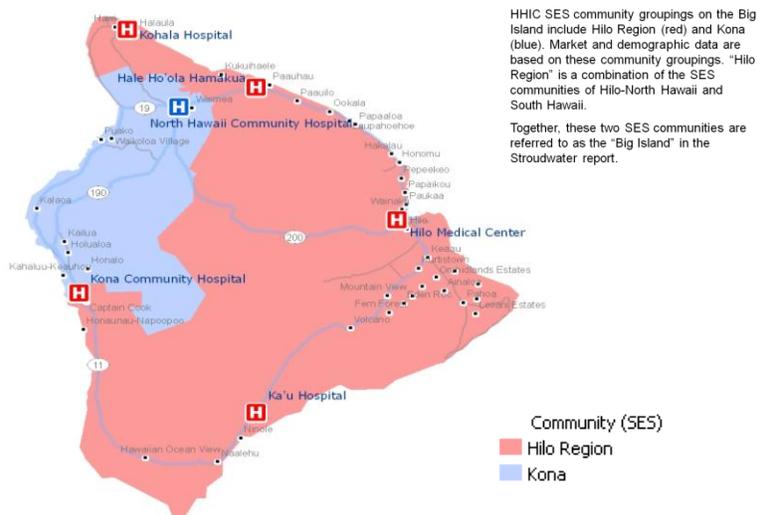
The population for the Hilo Region of Hawai'i County is estimated to total 123,000 with a projected growth of 18% over the next ten years. In this region, HHSC facilities capture 73% of the inpatient market share. In the Kona Region, the population is estimated at 52,000, with a projected growth of 23% over the next ten years, and HHSC market share of 51%.

Big Island

Community (SES)	Population	HHSC Payer Mix (2008)	Market Share (2008)
Hilo Region	2007 estimated	122,790	Private 29%
	10 year projected	18%	Public 68%
	% over 65	15%	Self Pay 3%
Kona	2007 estimated	51,548	Private 39%
	10 year projected	23%	Public 58%
	% over 65	11%	Self Pay 3%

Community (SES)	Market Share (2008)
Hilo Region	73%
Other	27%
Kona	51%
Other	49%

Source: Applied Geographic Solutions and U.S. Census, HHIC database



Hawai'i County's death rates and poverty indicators suggest that access to safety net services may be more difficult on this Island than on others. With over 30,000 additional people projected to be living on the Island by 2017, provision of adequate access to healthcare resources will be even more challenging.

Assuming 2.5 occupied beds per 1,000 population, an additional 77 beds are likely to be occupied at future population levels. At an aggressive operationally achievable occupancy rate of 75%, this will require 100 additional beds, excluding peak demand requirements. A total of 97 acute care beds are unfilled today on the Island. The demand for outpatient and long term care is growing much faster. There is significant evidence of a need for additional health services infrastructure investment in the future.

Maui County

The population for the West and Central Maui Region of Maui County is estimated to total 100,000 with a projected growth of 13% over the next ten years. In this region, HHSC facilities capture 85% of the inpatient market share. In the Moloka'i/Lana'i/East Maui Region, the population is estimated at 44,000, with a projected growth of 15% over the next ten years, and HHSC market share of 64%.

Maui Islands

Community (SES)	Population	HHSC Payer Mix (2008)	Market Share (2008)
West & Central Maui	2007 estimated	100,136	Private 44% Public 52% Self Pay 4% HHSC 85% Other 15%
	10 year projected	16%	
	% over 65	13%	
Molokai/Lanai/East Maui	2007 estimated	43,672	Private 45% Public 51% Self Pay 5% HHSC 64% Other 36%
	10 year projected	15%	
	% over 65	11%	

Source: Applied Geographic Solutions and U.S. Census, HHIC database



Maui's below average death rates and poverty levels suggest that access to safety net services may be less difficult on this Island than on others. With 22,000 additional people projected to be living on the Island by 2017, and assuming 2.5 occupied beds per 1,000 population, an additional 55 beds are likely to be occupied at future population levels. At an occupancy rate of 75%, this will require 73 additional beds, excluding peak demand requirements. On Maui, the biggest issue regarding adequate acute care beds will be the future ability to move sub-acute care patients out of acute care beds and into long term care settings

Kaua`i County

Population

The population for the East Kaua`i Region is estimated to total 33,000 with a projected growth of 10% over the next ten years. In this region, HHSC facilities capture 8% of the inpatient market share. In the North and West Kaua`i Region, the population is estimated at 30,000, with a projected growth of 12% over the next ten years, and HHSC market share of 37%.

Kauai Island		Community (SES) Population		HHSC Payer Mix (2008)		Market Share (2008)		
East Kauai	2007 estimated	32,838	Private	48%	HHSC	8%	Other	92%
	10 year projected	10%	Public	50%				
	% over 65	14%	Self Pay	2%				
North & West Kauai	2007 estimated	29,933	Private	44%	HHSC	37%	Other	63%
	10 year projected	12%	Public	54%				
	% over 65	15%	Self Pay	2%				

Source: Applied Geographic Solutions and U.S. Census, HHIC database

HHIC SES community groupings on Kauai include East Kauai and North & West Kauai. Market and demographic data are based on these community groupings. Together, these two SES communities are referred to as "Kauai Island" in the Stroudwater report.



Kauai County’s above average death rates and poverty levels suggest that access to safety net services may be comparatively challenging. With an additional 6,800 people projected to be living on the Island by 2017 assuming 2.5 occupied beds per 1,000 population, an additional 17 beds are likely to be occupied at future population levels. At an occupancy rate of 75%, this will require 23 additional beds, excluding peak demand requirements. Projected future needs will not tax the available inpatient capacity on the Island. Long term care beds including CAH swing bed capacity is inadequate, and the need for more primary care physicians in the future is apparent.

Oahu County

HHSC’s role in Oahu is dramatically different than on Maui, Kauai and Big Island. The population for the South and West Oahu Region is estimated to total 844,000 with a projected growth of 8% over the next ten years. In this region, HHSC facilities capture 10% of the inpatient market share. In the North Shore Region, the population is estimated at 73,000, with a projected growth of 8% over the next ten years, and HHSC market share of 1%. HHSC’s role in terms of acute care is limited to Kahuku Medical Center, which had 180 acute admissions and 5,590 outpatient visits last year.³

Oahu

Community (SES)	Population	HHSC Payer Mix (2008)	Market Share (2008)
South & West Oahu	2007 estimated	844,215	Private 27% Public 69% Self Pay 3% HHSC 10% Other 100%
	10 year projected	8%	
	% over 65	15%	
North Shore	2007 estimated	72,911	Private 14% Public 78% Self Pay 8% HHSC 1% Other 99%
	10 year projected	8%	
	% over 65	10%	

Source: Applied Geographic Solutions and U.S. Census, HHIC database



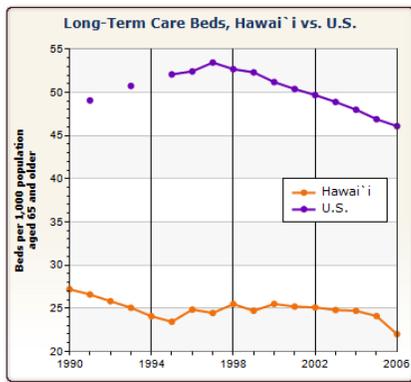
A more complete presentation of all of the demographic data is included in Appendix B.

³ 2010 AHA Guide

Long Term Care Trends

Long-term care is defined as a range of services required by persons with a reduced degree of functional capacity, physical or cognitive, and who are consequently dependent for an extended period of time on help with basic activities of daily living (ADL), such as bathing, dressing, eating, getting in and out of bed or chair, moving around and using the bathroom. This personal care component is frequently provided in combination with help with basic medical services such as help with wound dressing, pain management, medication, health monitoring, prevention, rehabilitation or services of palliative care.

This long term care bed capacity is a critically important resource in a State particularly with significant shortages of long term care resources. The following graphic compares Hawai'i's long term care bed capacity to that of the overall U.S. It shows State bed capacity at below half the U.S. overall average.



Source: Hawai'i State Department of Health, State Health Planning and Development Agency, Utilization of Inpatient Facilities by County Report; National Center for Health Statistics, Health, United States; Health Care State Rankings 2007, Morgan Quitno Press, using data from AHA, Hospital Statistics (2007 edition).
 Note: Effective CY 2005 the Acute/SNF living beds were moved from the Long Term Care Beds category and consolidated with the Total Acute Care Beds category. For 2006: Kahuku, Kohala, Kula and Maluhia Hospitals did not report in time for the 2006 publication.

LTC Bed Need for Hawai'i		
2009	HI Rate	US Rate
Population	189,351	189,351
Bed/1000	22	32
Est. Bed Need	4,166	6,059
2014	HI Rate	US Rate
Population	213,276	213,276
Bed/1000	22	32
Est. Bed Need	4,692	6,825

Using the Hawai'i rate of 22 estimated beds per 1,000 population for the 65+ age group, the long term care bed need totals 4,166. Applying the US rate of 32 beds per 1,000 the estimated need for Hawai'i in 2009 increases to 6,059 beds, a 45% increase.

Only 1.7 percent of Hawai'i's population aged 65 and older resides in a nursing home, ranking Hawai'i as the 5th lowest among all states. As stated in the report on Health Trends In Hawai'i (http://www.healthtrends.org/resources_longterm.aspx), the number of available long term care beds does not meet the need of Hawai'i's growing and aging population.

Hawai'i's overall long term care occupancy rate is reported as ranging between 93 to 94 percent, among the highest states. Of the 4,135 certified beds, 3,860 are occupied for a rate of 93%.

Healthcare Association of Hawai'i wrote a report in 2008 documenting the LTC bed need for Hawai'i which included a review of waitlisted patient days in the Acute Care hospitals in CY 2006. Waitlisted patients are those who no longer meet acute criteria but have no access to sub-acute beds or no provider able or willing to meet their SNF or ICF care needs. There were 60,328 days of waitlisted care

for CY 2006. That equates to an average daily census of 165 for all hospitals in Hawai'i. A review of the 2008 data for the three HHSC prospective payment system (PPS) hospitals shows an average of 51.7 waitlisted patients in an acute PPS bed. This limits the number of acute care beds available and represents an opportunity cost for hospitals from the loss of revenue due to the unavailability of beds for acute care patients and the high cost of meeting the care needs of sub-acute patients in an acute care hospital. Based upon a cursory review of the "waitlisted" reports from one of the HHSC facilities (MMMC) and on interviews with case managers and different Maui long term care providers (Nursing Home, Foster and Residential Homes and Assisted Living) the following reasons were identified as underlying impediments to patient placement:

- Patients with high care needs such as wound care with V.A.C. (vacuum assisted closure)
- Infections requiring private rooms
- Behavior issues (over and above dementia)
- Morbid obesity necessitating specialty beds, chairs, Hoyer lifts as well as extra staff
- Patients needing LTC and on dialysis
- Patients with diabetes on insulin to scale
- Uninsured with no Medicaid and limited financial resources
- No or limited rehabilitation potential and limited availability of short term PPS rehab beds at nursing homes

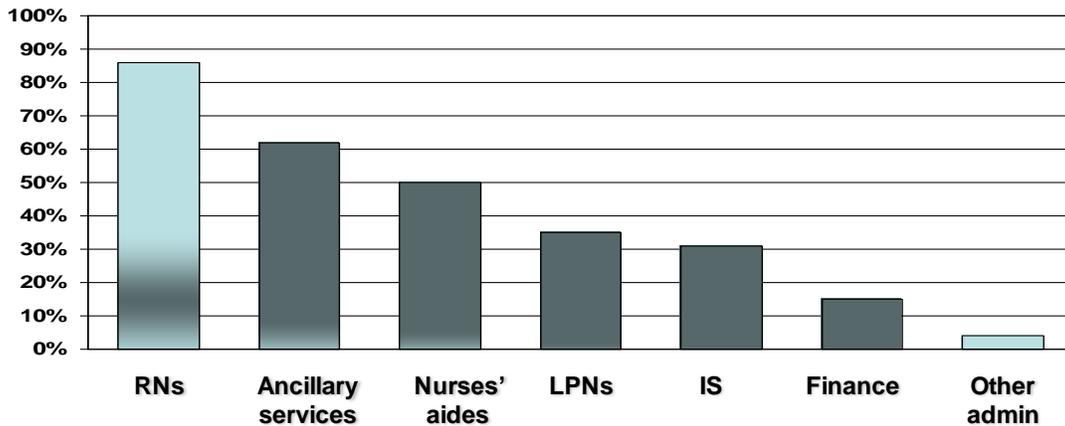
The shortage of long term care beds is a significant hospital performance rate limiter for HHSC facilities as well as all other acute care hospitals in Hawai'i. HHSC hospitals have worked aggressively to try to address this issue. For example, MMMC has received an appropriation commitment of \$5M in State resources to partially address this issue on Maui. While various attempts have been made to estimate the scale of the opportunity costs related to this shortage, we conclude that each is flawed and presents misleading results. While developing an alternative methodology exceeded the scope of this study, it is an absolute that this service gap results in many millions of dollars of avoidable costs within the HHSC system annually.

Staffing

National

While the recession has somewhat blunted the supply shortage in many professional service areas related to hospital operations by keeping employees working longer and even attracting some staff back into practice, there are already signs that this temporary stay is beginning to expire. The following graphic summarizes the percentage of hospitals reporting staff shortages by functional area.

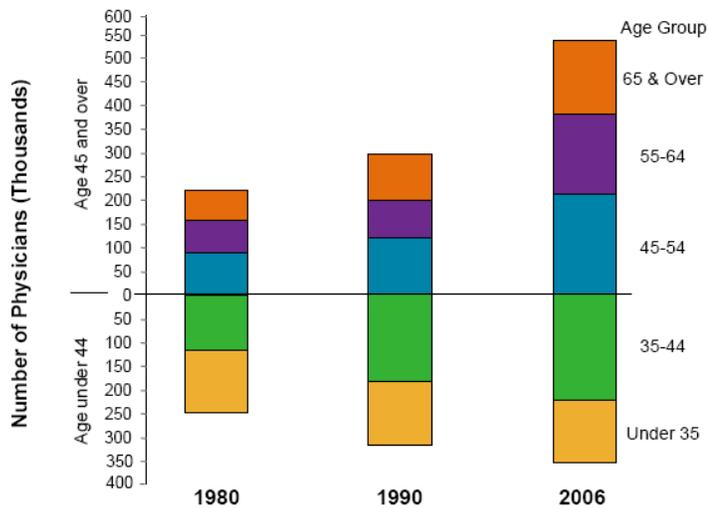
Hospitals Reporting Staff Shortages



Source: American Hospital Association, 2008

Shortages are not confined to nurses, technicians and therapists. Nationally, physician shortages are also recognized to be a pressing future challenge. The following graphic of the distribution of physician ages nationally shows significant increases over the past 25 years in the number of physicians over 55 years old.

Number of Physicians by Age, 1980, 1990, and 2006



Source: American Medical Association, "Physician Characteristics and Distribution in the U.S.", 2008 Edition

The physician shortage nationally is particularly acute for specialties including: primary care, urology, endocrinology, orthopedics, cardiology, and general surgery.

Hawai`i

The Healthcare Association of Hawai`i in its 2008 "Issues Impacting Hawai`i's Hospitals, Nursing Facilities, Home Care and Hospice Providers" prepared by Ernst and Young, includes as a major point of emphasis the "shortage of qualified health workers to fill vacant positions that exist in the healthcare

facilities in Hawai'i."⁴ Far from being immune to national trends, Hawai'i exhibits signs of even greater shortages based upon anecdotal reports of high utilization of agency nurses and locum physicians.

Technology

National

The growing availability of 3-D imaging, robotics, stem cell and gene control therapies, and devices for minimally invasive surgical interventions are putting even more pressure on both capital investment requirements and the need to deliver care more efficiently in order to be able to accommodate the growing operational costs related to these advances. This also requires more facility space specifically designed to accommodate the type of and growth in these modalities.

Hawai'i

With expenses exceeding net operating revenues for all Hawai'i hospitals in aggregate every year since 2000, the investment capital and operating margins needed to sustain contemporary levels of technology are just not available using the State as the source of capital. Access to affordable debt capital to fund investment is very difficult absent the credit enhancement of the State, which retains a AA rating with stable outlook.

Patient Expectations

National

As more personal financial responsibility is being shifted to patients through premiums, co-payments and deductibles, healthcare service pricing is becoming an increasingly important variable regarding consumer choice. By 2015 an estimated 12 million U.S. citizens will go abroad to access more affordable elective medical procedures.⁵ Choices are also becoming more informed as clinical quality and patient satisfaction data is becoming routinely available via the internet. Patients are increasingly searching for value at the confluence of price and quality.

Hawai'i

Based upon data from the CMS Hospital Compare web site, Hawai'i hospitals overall had patients respond affirmatively to the question of whether they would recommend the hospital where they received their care to friends and family 60% of the time vs. an average of 68% nationally.

Summary and Relevance to HHSC

HHSC is challenged to effectively respond to the following external environmental factors:

- Be prepared to care for populations that are growing, aging, disproportionately poor, and experiencing higher death rates than the rest of the Hawai'i population.

⁴ "Issues Impacting Hawai'i's Hospitals, Nursing Facilities, Home Care and Hospice Providers", p. 20.

⁵ The Deloitte Center for Health Solutions, "Medical Tourism, Consumers in Search of Value," 2008

- Define strategies to address the number of patients in acute beds waiting for access to long term care facility services due to the statewide shortage of nursing home beds.
- Respond to the imperative to meet increasingly aggressive federally established clinical quality and patient care standards.
- Respond to federal mandates to achieve functionality, security, and interoperability via electronic medical records.
- Position to thrive in a payment environment moving toward a broader bundling of payments.
- Address the growing national imbalance between supply and demand of physician and all other categories of clinical care providers.
- Generate sufficient investment capital to access the growing bolus of emerging technologies.
- Optimize price, clinical quality, service, and access to effectively compete for more informed and empowered patient populations.

HHSC's Quality Profile

“Ultimately, the hospitals that survive will be the ones that demonstrate that they are able to provide good quality care.”

Ira Moscovice, PhD, Professor, University of Minnesota, Minneapolis, Minnesota

Patients are increasingly making decisions on where they get their care by using data on the CMS Hospital Compare website, www.hospitalcompare.com. Stroudwater chose two of the most telling questions in the survey (2 of 10 posted on the web) based on CY 2008. The data demonstrates the need for improvement among Hawai'i hospitals as a whole and HHSC PPS facilities in particular as reported in the table below.

The results are from patients who had overnight hospital stays between 1/1/08 and 1/31/09. The last question on the survey addresses the overall rating of the hospital by patients. Ratings were on a scale of 0 to 10, where “0” means “worst hospital possible” and “10” means “best hospital possible”. The second question was a yes or no answer.

HCAHPS Survey Outcome		
How do patients rate the hospital overall?		
US 64%	HI 56%	HHSC PPS 40%
Would patients recommend the hospital to friends and family?		
US 68%	HI 60%	HHSC PPS 43%

CMS (the Center for Medicare & Medicaid Services) Core Measures are indicators which track a variety of evidence-based, scientifically-researched standards of care which have been shown to result in improved clinical outcomes for patients. CMS began publicly reporting data relating to the Core Measures in 2003. Currently, there are 30 inpatient core measures and 4 outpatient core measures. It is expected that hospitals will be reporting 44 measures by 2011.

Core measures are related to 4 - 7 indicators for the following conditions: heart attack, heart failure, pneumonia, and surgical infection prevention. HHSC PPS facilities were below the State values in 31 of the 72 indicators and at or above the State value for 38 of the 72 indicators.

Stroudwater’s strategic, financial, and operational assessments for the three HHSC PPS hospitals for this project did reveal varying levels of commitment to improving both the HCAHPS and the Core Measure scores; however, all were very aware that competing with quality is of utmost importance.

CMS also has a Nursing Home Compare where facilities are assigned a 1 to 5 star rating. The Five-Star Quality Rating System was created to help consumers, their families, and caregivers compare nursing homes more easily and help identify areas about which they may want to ask questions. This rating system is based on continued efforts as a result of the Omnibus Reconciliation Act of 1987 (OBRA '87), a nursing home reform law, and more recent quality improvement campaigns such as the Advancing Excellence in America's Nursing Homes, a coalition of consumers, health care providers, and nursing home professionals. Nursing home ratings are taken from the following three sources of data: Health Inspections, Staffing and Quality Measures. Quality measures are based on 19 different indicators. Overall rating as of 11/11/09 consists of 47 Nursing Homes (12 HHSC and 35 other Hawai'i facilities) in the survey. Four of twelve or 33% of the HHSC facilities received a 5-Star overall rating while eleven of thirty-five or 31% of the other participants received the same 5-Star rating. Below is the score for each category by HHSC and all other grouping.

Measure	1/5 stars		2/5 stars		3/5 stars		4/5 stars		5/5 stars	
	HHSC	Hawaii								
Overall Rating	1	4	3	10	2	10	2	12	4	11
Quality Measures	2	5	1	4		7	2	15	5	13
Nurse Staffing		1		3		9	3	18	6	11
RN Only		1	1	2		2		16	8	21
Health Inspections	2	10	4	11	3	10	2	10	1	6

CMS Star Rating from Nursing Home Compare- 47 Nursing Homes in Survey

Appendix C provides more detail of quality data at the region level.

Key Success Factors for HHSC

In order to evaluate study recommendations and the comparative vitality of various options, a set of key success factors offers a useful tool for framing such a comparison. Success factors cannot take elements of subjectivity or judgment out of vetting options. However, they can ensure a consistency of values and purposes is used to inform judgments. Based upon the many interviews and discussions that have served to inform this study process, we have generated the following five key success factors as a way of creating a common touchstone for evaluating recommendations and comparing options.

1. A successful HHSC requires a corporate, governance and management structure that enables high levels of operational performance and demands clear accountability using structures and processes that are transparent to all stakeholders. The structure must put people with high levels of expertise and commitment in the right positions with a commitment to serve in the role of change agents.
2. A successful HHSC must apply the most powerful tools accessible toward achieving efficiencies of scale and expertise within the system.
3. A successful HHSC requires a financial structure and performance trajectory that substantially reduces its financial dependence on State subsidies over time, ultimately resulting in its ability to continue as a financially viable health services provider organization.
4. A successful HHSC has the capacity to identify the scope and scale of healthcare needs that exist in the communities it serves.
5. A successful HHSC requires the ability to consistently deliver and document high quality clinical care and patient services by attracting and retaining well qualified physicians and clinical staff, and providing them access to contemporary facilities, technology, and system infrastructures.

These success factors have not characterized HHSC, especially within recent years. HHSC has focused disproportionately on political rather than performance solutions to address its challenges. This is understandable given the rational expectation that the residual generated by improved performance would be “zeroed out” via reductions in State subsidies. However, it has resulted in under-investment in facilities and technology, dysfunctional governance, quality performance that falls below federal standards now linked to payment, and low levels of operational efficiency.

Achieving these success factors requires a transformation of HHSC. There are no incremental solutions or “tweaks” that will enable these success factors.

Options Considered and Rejected

Before introducing the reader to the options proposed for consideration by HHSC and government leaders, it is important to note that a variety of other options have been identified and rejected as part of the study process.

1. Close HHSC System Facilities.

There are a variety of solutions available to the State and HHSC for addressing the dilemma of the need to reduce State spending while maintaining viable healthcare resources for the people of Hawai'i. Unwinding and dissolving HHSC is **not** among these options. For fiscal year 2008, HHSC's facilities accounted for 19% of all acute care discharges in the State of Hawai'i. HHSC is the sole source of health care for several isolated neighbor island communities (e.g., Ka'u, Kohala, Lana'i, Oahu North Shore). Its 800 long term care beds and CAH capabilities cannot be closed without major access issues emerging. Maui Memorial Medical Center (MMMC) is the primary acute care facility on the island of Maui. In large part because of HHSC's facilities on Maui, 81% of Maui County residents receive their care in Maui instead of having to fly to Oahu to receive care. HMC and Kona Community Hospital are the only acute care facilities with more than 50 acute beds on the island of Hawai'i. Over 67% of all residents in the County of Hawai'i receive medical services from HHSC's five facilities on the island of Hawai'i. Leahi Hospital functions as the primary tuberculosis hospital for the State of Hawai'i. HHSC's long-term care facilities provide the primary source of long-term care services for elderly people who cannot afford private care or nursing homes and do not have family that can care for them. There is insufficient capacity elsewhere within the State to accommodate this volume of services. One result of this scarcity of long term care beds is the acute care wait-list problem in Hawai'i and for HHSC that is not currently able to be addressed either by the State or HHSC.

2. Re-integrating HHSC into the State Department of Health.

This option was raised during last year's legislative session via SB 1673, SD 2, HD 1. This option was strongly opposed by the Department of Health due to their concern that the conversion would result in the inability of HHSC to bill for Medicare/Medicaid services during the 3-6+ months of the conversion. While we do not agree that a conversion results in the inability to bill for these services during the approval period (see following section entitled "Essential Changes Required to Support All Viable HHSC Options" for a more detailed explanation) we are unable to determine what performance improvement initiatives such a conversion would ignite to improve the financial or operational performance of HHSC. The current HHSC public benefit corporation model was established as a result of the perceived failure of the system under the management of the Department of Health. The Department of Health has expressed its lack of support for this approach. We have been unable to establish any evidence to suggest that this would improve the performance trajectory of HHSC. Instead, we conclude that this holds some risk of eroding

performance by applying a more politicized approach to HHSC operations and increasing the focus of HHSC as being a source of State subsidized employment.

3. Re-structuring HHSC's regions into county sponsored healthcare delivery systems.

This idea has been repeatedly articulated as an option worthy of potential consideration, particularly by specific regions. The rationale for this approach is that counties can create hospital district authorities and impose special purpose millage rates to provide subsidies to their local hospitals. We have rejected this option for several reasons. First, the fragmentation resulting from this approach would limit access to management expertise and economies of scale. Secondly, counties in Hawai'i are already projecting deficits well in excess of \$50M for the next fiscal year. Counties are very concerned about the impact of reduced property valuations in 2011 on property tax revenues. In addition, there has been some discussion of counties losing a portion of their share of revenue from the transient accommodations tax to offset a portion of the State's deficit, greatly exacerbating the revenue shortfalls already anticipated due to future lower real estate valuations. We conclude that it would be difficult to justify putting County tax payers or HHSC providers at risk given the current negative economic conditions.

More broadly, dozens of counties around the country over the past several years have been seeking to convert their publicly owned hospitals to either investor-owned or non-profit enterprises. Most recently, as reported in the November 23, 2009 Honolulu Star-Bulletin, Los Angeles County and the University of California have agreed to take over the Martin Luther King Jr. hospital which closed in 2007 after ongoing losses and grievous medical errors. The hospital will become a non-profit corporation governed by a seven-member Board comprised of two University and two County representatives respectively appointed, and three others jointly appointed. The County will continue to provide \$63M annually in subsidies. The article noted that this "...followed a pattern set by many other public centers across the nation that have found that teaming with outside help can lead to more efficient operations, and often improved care." We are aware of no hospitals in the U.S. in recent years that have converted to County-owned facilities from other corporate control models.

4. Spin-out HHSC's PPS hospitals (Maui, Hilo, Kona) into private providers independent of HHSC, retaining the CAH facilities within the current HHSC – State public benefit corporation structure.

This option has had a long life within HHSC circles. It is based upon the assumption that the PPS hospitals have the potential to be viable, particularly if they can attract economic partners. In contrast the CAH facilities are assumed to be structurally unviable from a business standpoint even with their advantageous cost-based Medicare payment status, and therefore should remain within a public benefit model that provides them ongoing access to State subsidies.

We have rejected this option for several reasons. First, it is inconsistent with the larger environmental forces summarized previously in this study that point to the future need for more robust integrated continuums of care across various care settings. Across the country PPS and CAH hospitals are integrating in order to position for the likelihood of episode of care payment models and accountable care organizations that reward integration becoming the new payment norms. Also, PPS hospitals that enter into a control relationship with CAH facilities are allowed to allocate overhead to the cost-based Medicare payment model enjoyed by CAHs. While this opportunity has not been fully harvested by HHSC to date, it remains available, as is noted in subsequent sections of this report. Creating structural and operational separation between HHSC’s PPS and CAH facilities will erode current and future performance potential.

A second factor is that the CAH facilities are on a trajectory to lose over \$25M by FY 2011. By maintaining a relationship with the CAH facilities where the State subsidy is set by “solving” to the operating deficit generated by the CAH’s, there is a financial disincentive on the part of the CAH’s to reduce subsidies. This results in the State providing ongoing subsidies to CAH facilities that reflect operating deficits vs. actual community health service value.

Finally, we are pessimistic that each of the PPS hospitals could quickly and independently find economic partners to support their capital and operational needs. This option has been accessible to them since the passage of Act 290, with no serious integration options identified to date.

5. Pursue special purpose legislation that changes the employment structure of HHSC by “grandfathering” existing HHSC employees as civil service employees, and employs all new employees going forward using private employer standards negotiated with the unions.

This concept was introduced in the form of draft legislation in the prior legislative session. We have rejected this concept for several reasons. First, it creates what almost surely would be an unworkable operational bifurcation of employment models. Beyond the obvious administrative complexity and additional costs related to running two entirely different employment structures with different work rules, benefit structures, payment structures, etc. within HHSC, it holds an inherent likelihood of generating significant cultural friction within the organization. Giving employees different employment rules and benefits based upon date of employment has the potential to create both the perception and reality of unfairness. This is would lead to achieving a dissatisfied and demoralized work force.

Second, even given the political cost and administrative complexity of this idea, it only provides small levels of savings for the first few years. Calculations estimating the maximum savings impact of this approach over the first three years result in the following savings (see Appendix D for detailed work sheet):

<i>Year 1:</i>	\$2.39M	<i>Year 2:</i>	\$9.30M	<i>Year 3:</i>	\$20.30M
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In light of the administrative complexity, cultural issues, political risks, and long time period required to realize significant savings, we have rejected this option.

Essential Changes Required to Support All Viable HHSC Options

During the course of this study, it became increasingly apparent that in order to meet the key design criteria presented earlier, there were certain threshold changes that were required regardless of the options available to the State and HHSC. These “essential changes” include: 1) Conversion of HHSC into a non-profit private corporation; 2) Execution of available operational efficiencies at each HHSC facility; 3) Refocus on accessing opportunities of scale inherent in the systems model; and 4) Reconsolidation of authorities and accountabilities. Each of these prerequisite changes is detailed below. They represent a baseline set of recommendations that are foundational to each of the optional directions described in a subsequent section of the study.

(1) Conversion of HHSC into a non-profit 501(c)(3) private corporation.

This concept has existed since the founding of HHSC. At that time, the public benefit corporation concept was viewed as a five year bridge that would provide time to build the necessary infrastructure to convert to a private non-profit corporate model.

As far back as 1988 the Hawai'i State Legislative Auditor's report of the State hospital system concluded that in order for the hospitals to operate effectively, a new organization, exempt from the controls of the State Department of Personnel Services, was necessary. We have found recommendations and conclusions going back to 2001 suggesting that the best solution for improving HHSC performance is to convert it to a private 501(c)(3) tax exempt corporation.

HHSC has had limited albeit successful experience in operating a small private tax exempt hospital in Kahuku (11 CAH beds and 10 LTC beds). Since its re-start with HHSC serving as its sole corporate member this small hospital has gone from all expense (i.e., 100% loss) to a -16.8% operating loss (\$1.5M on an \$8.9M annual operating budget). The current trajectory of performance improvement suggests the potential for achieving profitability within the next two years.

HHSC also owns Roselani Assisted Living Center on Maui which is a 501(c)3 operation with its management outsourced to a company from mainland. Even with their experience in the assisted living level of service, the operating loss for FY09 was \$173K in part due to the \$1.05 million in lease and mortgage interest. With renewed commitment from HHSC, the facility is projected to have a loss of approximately \$70,000 in 2010 based on the first quarter of the year.

We have been unable to identify any specific legal barrier constraining HHSC as a system from undertaking a conversion to a private corporation. Although we have not completed a comprehensive legislative and regulatory review of all existing rules and regulations related to this issue, some combination of HHSC corporate action and legislative initiative can set the stage for this action. Act 290 clarified that individual regions can pursue such a conversion in order to become viable candidates for potential economic and operating partnerships with other private non-profit health systems. This has

not occurred. Only the Maui Region has considered conversion as part of an initiative to attract a partner, and has been unable to attract a commitment to date.

The potential annual savings for HHSC related to such an initiative are very significant. They roughly fall into the following categories:

Savings Category	Annual Estimated Savings
Employee Retirement System (1)	\$ 31,900,000
Conversion to PTO System (2)	\$ 14,850,000
Fringe Benefit Reduction (3)	\$ 3,519,000
Subtotal	\$ 50,269,000
EUTF Retiree Health Insur. (4)	\$ 21,850,000
Work Rule Efficiencies (5)	\$ 9,412,000
Subtotal	\$ 31,262,000
Grand Total (6)	\$ 81,531,000

- (1) This assumes that the current civil service retirement benefit structure is converted to a 403(B) defined contribution plan with an employer match that ramps from 1% to 3% over three years. This results in a reduction in annual benefit costs of \$36.8M, and a compensating employer contribution to a 403(B) plan of \$4.9M, for net estimated savings of \$31.9M. All benefits vested under the existing civil service retirement benefit are retained by the employee. This further assumes, consistent with the private market, that there is a three year vesting period for the employer match.
- (2) The Paid Time Off (PTO) system would replace the current 21 vacation day, 21 sick day, 14 day holiday plan under the civil service employment model. The assumptions we have used for this modeling exercise are the following:
 - 1-3 years employment tenure 21 paid time-off days
 - 4-6 years employment tenure 26 paid time-off days
 - 7-9 years employment tenure 31 paid time-off days
 - 10+ years employment tenure 36 paid time-off days

Tenure for existing employees is assumed to carryover. The effective impact of the staffing efficiencies related to this conversion to a PTO system is a reduction of 260 FTEs, or a total of \$14.8M in savings.

- (3) Fringe benefit reductions reflect the reduced costs of State unemployment insurance, workers' compensation premiums, EUTF medical, vision, dental, life insurance, FICA and Medicare related to the reduction in employee count related to the PTO system.
- (4) EUTF retirement savings are assumed to be realized by HHSC, although they remain an ongoing liability that is assumed to be retained by the State. Since there would not be any further additional accrual of EUTF Retiree Health Insurance liabilities post conversion, these costs will decline over time, and ultimately be eliminated. We did not undertake an actuarial estimate of rate of this decline.
- (5) Reflects the reduction in staffing requirements due to reduced non-productive time required under the existing system related to activities such as overtime based on FLSA requirements and conversion of staff from salary to hourly status.
- (6) Work sheets detailing this analysis are provided in Appendix E.

The magnitude of potential savings identified above is consistent with external tests of validity. Based upon HHSC's 2008 independent audit, salary and benefits as a percentage of total expenses is 63.9% (adding professional fees and purchased services increases ratio to 74.5% of total expenses). To put this in some perspective, in order to earn a BBB- rating by S&P (the lowest available credit rating) HHSC would be expected to have a salary and benefit ratio to expenses of no more than 51.8%.⁶

A key question related to the ability to successfully execute this conversion recommendation relates to issues raised in the testimony provided by the Department of Health to the House Committee on Finance on April 2, 2009 related to a proposed conversion of HHSC back into a Division of the Department of Health. In this testimony the Department strongly opposed the measure due to the accurate assertion that such a conversion could take a minimum of 3-4 months to complete, and the additional contention (with which Stroudwater disagrees) that none of the HHSC hospitals would be able to bill for services rendered to Medicare and Medicaid beneficiaries either concurrently or retrospectively following a conversion. (see appendix F for a copy of the testimony). The Department expressed further concern in the testimony that such a conversion could result in the loss of Critical Access Hospital designation by CMS for HHSC hospitals.

A change of ownership (CHOW) does not require relinquishing an existing Medicare provider number (if this were the case it would trigger the result predicted by the Department of Health). If a decision were made to re-structure HHSC providers in a manner where, for example, the three PPS hospitals (Maui, Hilo, Kona) were re-structured into three divisions of a single provider entity, Medicare/Medicaid payments would not be available during the period of conversion because a new Medicare provider number would need to be acquired from CMS. Stroudwater is not recommending any such re-structuring.

Based upon our review of CMS regulations and our experience in converting publicly controlled hospitals into private non-profit corporations, we assert that it is possible to receive payment for services rendered during the conversion process. The CMS Manual guidance regarding CHOWS Per Section 3210 of the State Operations Manual, notes that when a CHOW occurs, the provider agreement is automatically assigned to the new owner unless the new owner expressly rejects assignment of the agreement.

Regarding the potential loss of CAH designation by HHSC hospitals as a result of the conversion, this also would only apply in a circumstance where a completely new Medicare provider number is required. This is not what is being recommended. As applied specifically to CAHs, these rules result in very little risk to CAH status of a CAH undergoing a CHOW, so long as the new controlling entity accepts assignment of the provider agreement. Similarly, the conversion without a change in Medicare provider number will not jeopardize the sole community provider designation enjoyed by various HHSC hospitals.

⁶ Standard & Poor's Commentary Report, July 7, 2009

When a change of ownership or control is completed while maintaining the existing Medicare provider number, all liabilities under the former ownership or control relationship are shifted to the new owner/controlling entity.

Stroudwater concludes that a conversion and requisite re-licensing of HHSC hospitals does not require a replacement of their Medicare provider numbers (if such requirement existed it would result in a funding gap). Based upon our experience with such conversions, it is our opinion that it will not result in a loss of Medicare/Medicaid payments during the period of the conversion.

This is not to say that significant one time conversion costs related to such a conversion will not be required. These include the following:

Conversion Cost Category	Amount
Accrued vacation benefits (1)	\$ 34,020,000
Accrued compensatory time (2)	\$ 3,502,000
Unpaid workers compensation claims (3)	\$ 18,299,000
Accrued sick leave (4)	\$ -
Total	\$ 55,821,000

- (1) Vacation benefits accrued by existing employees would have to be paid as they convert from civil service employees to private corporation employees. At that point in time, vacation benefits would immediately begin accruing under the proposed PTO plan format.
- (2) Reflects the value of additional time off benefits earned by HHSC employees.
- (3) Unpaid workers compensation claims will have to be paid upon final adjudication of outstanding claims. It will be necessary to escrow adequate funds for this purpose within the converted HHSC private corporation.
- (4) HHSC also has a liability of \$58.3M in accrued sick leave. However, as noted in the 2008 audit document (p.35) "Sick pay can be taken only in the event of illness and is not convertible to pay upon termination of employment. Accordingly, no liability for sick pay is recorded in the financial statements." A conversion would effectively eliminate this liability.

This conversion cost is part of a larger need for a significant re-capitalization of HHSC. Given the current cash and overall capital structure status of HHSC, we conclude that HHSC would run out of cash well before being able to meet the conversion costs, let alone having sufficient working capital and a healthy enough balance sheet to access debt capital going forward.

We have reviewed the level of re-capitalization of HHSC that would be required to enable it to receive various credit level ratings. The following table, when combined with the conversion table above, provides an estimate of overall recapitalization costs.

	Days Cash on Hand			Capital Required to Match S&P Days Cash Median (000s)	
	<u>S&P Median</u>	<u>HHSC 2008</u>	<u>HHSC 2009</u>	<u>2008</u>	<u>2009</u>
	AA	393.7	24.5	26.0	\$ 508,995
AA-	252.2	24.5	26.0	\$ 313,895	\$ 299,023
A+	185.1	24.5	26.0	\$ 221,377	\$ 210,889
A	176.7	24.5	26.0	\$ 209,795	\$ 199,856
A-	164.8	24.5	26.0	\$ 193,388	\$ 184,225
BBB+	131.5	24.5	26.0	\$ 147,474	\$ 140,487
BBB	117.5	24.5	26.0	\$ 128,170	\$ 122,098
BBB-	113.5	24.5	26.0	\$ 122,655	\$ 116,844
Unrated	64.3	24.5	26.0	\$ 54,818	\$ 52,221

	Long Term Debt to Total Capitalization			Capital Required to Match S&P LTD to Tot Cap Median (000s)	
	<u>S&P Median</u>	<u>HHSC 2008</u>	<u>HHSC 2009</u>	<u>2008</u>	<u>2009</u>
	AA	24.5%	195.4%	44.5%	336,714
AA-	26.7%	195.4%	44.5%	305,455	\$ 135,823
A+	32.2%	195.4%	44.5%	244,576	\$ 77,124
A	33.2%	195.4%	44.5%	235,976	\$ 69,000
A-	37.4%	195.4%	44.5%	204,412	\$ 38,644
BBB+	39.0%	195.4%	44.5%	193,515	\$ 28,175
BBB	42.7%	195.4%	44.5%	172,956	\$ 8,415
BBB-	44.4%	195.4%	44.5%	164,543	\$ 296
Unrated	54.8%	195.4%	44.5%	124,038	\$ (38,705)

It takes approximately \$200M in re-capitalization for HHSC to achieve the cash level equivalent of an S&P "A" rating (this excludes the additional \$55.8M in conversion costs summarized above), based on FY 2009 performance. HHSC will require approximately \$256M in fresh capital to meet all conversion costs including re-capitalization expenses and have adequate cash available on its balance sheet to be a bankable credit. At a 4.5% yield (most recent State of Hawai'i issuance yield was 4.6%) and a 20 year term, annual debt payments would be approximately \$20M.⁷ However, given the time which will be required to achieve the performance improvement related to both the conversion, the efficiencies, and the economies of scale, the ultimate re-capitalization requirements could be as high as \$400M plus conversion expenses. This clearly represents a very significant investment. However, based upon the projections of HHSC subsidies likely to be required going forward, this investment level is roughly equivalent to 3 years of future HHSC subsidies that inure to the State only in the event of a default.

The following table calculates the annual debt payment service costs at various yields and maturities at the lower \$256M level of recapitalization:

⁷ This is a preliminary estimate only. It does not include issuance costs, the potential for future changes in the cost of debt capital, re-financing strategies, etc.

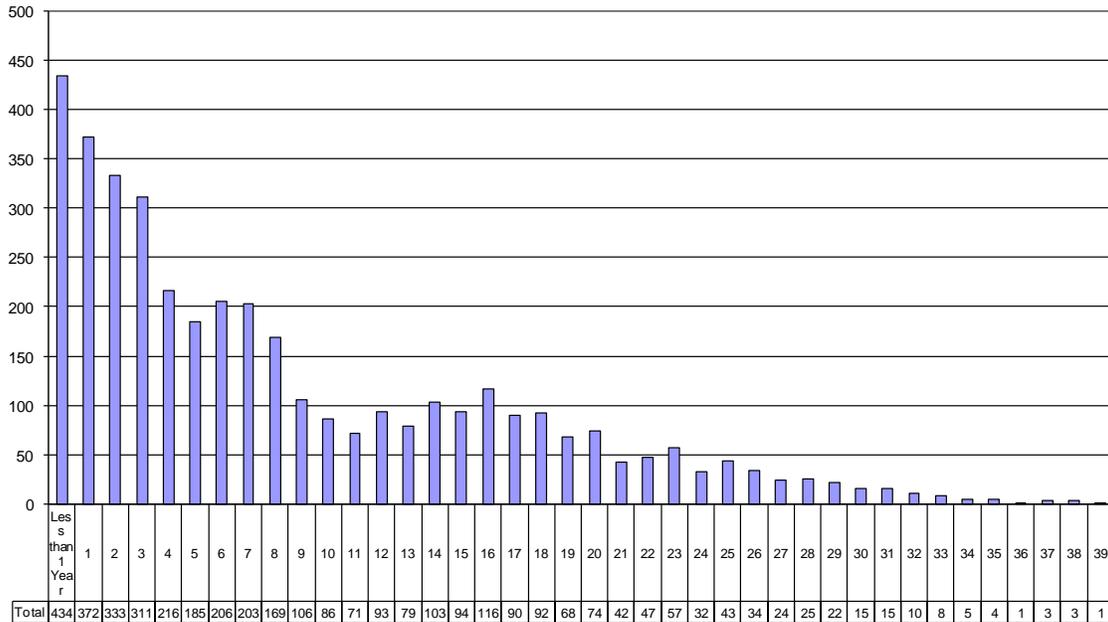
		Annual Debt Service (\$000's)					
		4.00% Yield		4.5% Yield		5.00% Yield	
		20-Yr	30-Yr	20-Yr	30-Yr	20-Yr	30-Yr
	2008						
Operating Capital	\$ 236,000						
Conversion Capital	55,800						
Total	\$ 291,800	\$21,471	\$16,875	\$22,432	\$17,914	\$23,415	\$18,982

		Annual Debt Service (\$000's)					
		4.00% Yield		4.5% Yield		5.00% Yield	
		20-Yr	30-Yr	20-Yr	30-Yr	20-Yr	30-Yr
	2009						
Operating Capital	\$ 200,000						
Conversion Capital	55,800						
Total	\$ 255,800	\$18,822	\$14,793	\$19,665	\$15,704	\$20,526	\$16,640

After reducing the annual projected savings by the incremental debt service requirement of the re-capitalization, annual savings are estimated at \$35.8M (\$55.8M in conversion capital less debt service costs of \$20M), which is only a portion of the potential financial performance improvement opportunities available to HHSC (see following sections for additional projections).

Another key factor regarding the practicality of this conversion recommendation is its impact on HHSC employees. In order to better understand the impact on HHSC employees related to a conversion to a private non-profit corporation and away from the civil service employment structure, Stroudwater reviewed the frequency distribution of the employment tenure of all HHSC employees. The purpose of this exercise was to understand the proportion of HHSC employees who have invested large portions of their careers in accruing civil service benefits vs. the percentage who have relatively short periods of time within HHSC. The following bar chart summarizes the results of this exercise:

HHSC Workforce - Years of Creditable Service
Total of 3892 Employees (Data as of 7/1/2009)



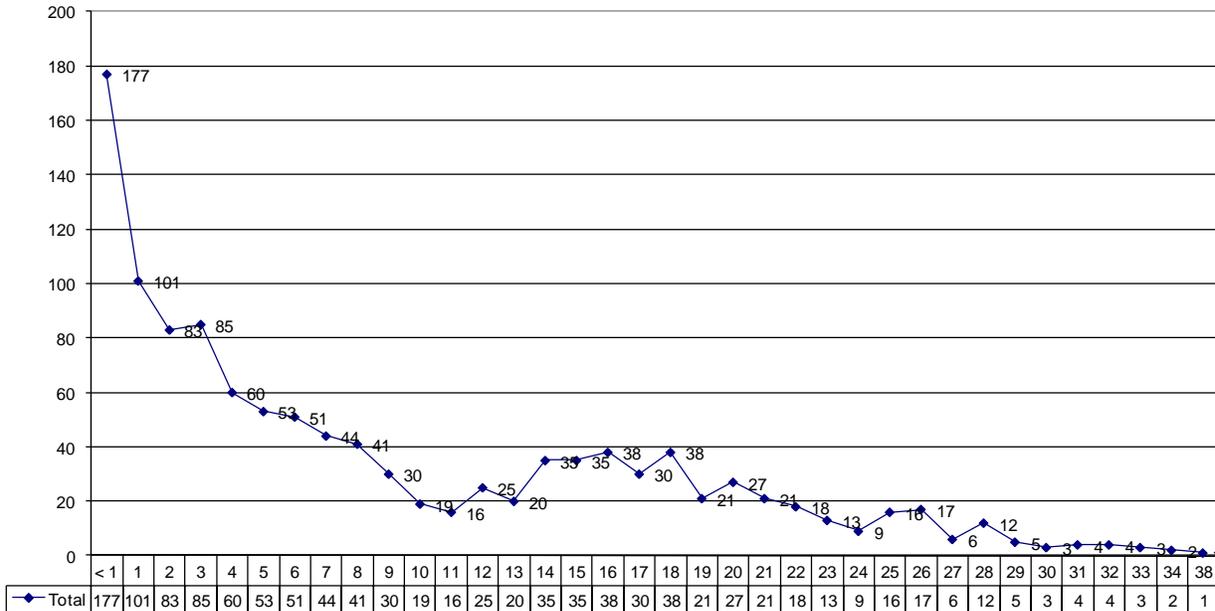
Source: HHSC Internal Data

Out of a total of 3,892 employees in HHSC, 47.5% have been employed for five years or less, and 20.7% have been employed one year or less. The impact of this on vesting within the civil service retirement system is dramatic. A total of 55.7% of all HHSC employees have insufficient tenure to qualify for ERS retirement benefits based upon insufficient years of credited service. Over 65% of current employees are not vested in retirement health plan benefits at any level.⁸ This has at least two implications. One is that the common hypothesis that HHSC would lose a large percentage of their work force as a result of a conversion is likely inaccurate. Discussions with management and human resources staff within HHSC emphasize that new workers place a higher value on current income levels to meet current cost of living needs rather than benefits accrued through long term tenure required for vesting of various benefits. This is further amplified by the fact that the mobility of workers in Hawai'i is compromised by the geographic realities of being an island state, and the rural nature of many of the markets served by HHSC.

Of particular concern is the large category of nurses. Given the relative scarcity of nursing staff and the agency nursing costs (\$7.2M in FY 2009) we elected to drill down in this category specifically. The following chart summarizes the tenure of HHSC nursing staff:

⁸ See Appendix E for detailed presentation

**HHSC - Registered Nurse
Creditable Service
Total of 1163 RNs (Data as of 7/1/2009)**



Source: Internal HHSC Data

Politically, one major barrier to the conversion concept is that HHSC would no longer fall within the State civil service employment system, since it would no longer be an agent of the State, but instead a private corporation. Since the inception of HHSC the State has had sufficient revenues to meet HHSC’s subsidization requirements without draconian opportunity costs. This is not to say that any administration or legislature during these years has not aggressively questioned the growing burden of subsidy payments to HHSC, since this has surely been the case.

This is no longer the case. State reductions in force, furlough days, service cuts, and other expense initiatives are already deep, with (as previously noted) as much as a half billion dollars in deficits left to overcome. Substantial opportunity costs of allowing the HHSC subsidy to grow or even remain at current levels are now very real.

It seems as if it would be difficult to increase the debt or tax burden on Hawai`i citizens to accommodate ongoing HHSC subsidy requirements in light of the heavy burdens that already exist. For example, Hawai`i State budget costs represent 16.4% of the total State gross domestic product (i.e., all revenues generated by all businesses and individuals within the State). This compares to 6.1% for the State of Maine (a State with 1.3M people) and 4.8% for California.⁹ Hawai`i is second in the nation (exceeded

⁹ Hawai`i, Maine, and California web-based budget summaries.

only by Connecticut) in the amount of economic debt per capita at \$7,640.¹⁰ When this metric is changed to debt as a percentage of personal income, Hawai'i has the highest burden at 18.87% of income.¹¹ Increasing this burden of tax and debt on taxpayers within the State is a difficult challenge.

Interviews with Hawai'i Governmental Employee Association (HGEA) and United Public Workers (UPW) leadership that were completed as part of this study revealed an understanding and appreciation of this reality. Realistically, unions, legislators, and State administrators do not want to be put in a position to decide whether or not to allocate money away from sorely needed education, unemployment or other services that support union and non-union workers alike in order to continue subsidizing HHSC operations. This is, however, the current choice on the table absent a new approach to dramatically improving the performance of HHSC.

Another impediment to the conversion concept is that if HHSC is no longer an agent of the State, then it is no longer eligible for ongoing subsidies from the State. Post conversion any ongoing financial support from the State will have to occur via grants.

It is also important to note that a full-scale legal analysis of all existing structural issues and corporate relationships was not completed due to time and resource constraints. For example, the State is the owner of much of the land upon which the HHSC hospital facilities are located. Upon conversion, some type of lease arrangement will need to be established in order to provide proper arrangements for these private entities to continue to use State land. We anticipate that many other issues will be identified. However, we have been unable to uncover any impenetrable barriers to the approach to date.

One important opportunity that can potentially be unleashed as a result of the non-profit conversion is that of philanthropy. While various foundations exist within HHSC, none have been successful in attracting a substantial amount of philanthropic giving despite pockets of very significant wealth located throughout Hawai'i. One of the most obvious historical impediments to philanthropic giving to HHSC and its facilities is the public benefit status of the system. There is a strong perception and risk that a major donation to HHSC or one of its facilities would ultimately result in a reduction in the State subsidy provided to the system, essentially re-targeting the gift from HHSC to the State. HHSC enjoys relationships with potentially large donors who can be approached with a significantly different giving opportunity than is currently available.

Another source of capital worthy of exploration related to this option is federal funding. As part of this study we reviewed the financial and operating performance of a number of safety net public benefit corporation hospital systems around the country. All of them are operating in financial distress. While our intent was to find a highly successful model for HHSC to emulate, we were instead struck by the common challenges faced by similar organizations in other parts of the country. In short, HHSC's financial problems are emblematic of a larger national problem. We believe that it would be

¹⁰ Loop Analytical Markets Special Commentary: State Pension Funding Review; November 16, 2009, p. 12.

¹¹ Ibid. p. 12

appropriate to approach Hawai'i's Congressional Delegation to help source federal funding in order to create a national model for informing the efforts of other communities.

In summary, this recommendation to convert HHSC into a private non-profit 501(c)(3) corporation results in an annual projected reduction in subsidy by the State to HHSC of approximately \$60M in FY 2011 declining to \$30M by FY 2014. However it is not without front-end investment requirements summarized below in the following Sources and Uses of Funds table:

Sources of Funds		Uses of Funds	
General Obligation Bond Proceeds	\$ 255,800,000	Accrued Vacation Benefit Pay-off	\$ 34,000,000
		Workers' Comp. Liability Escrow Fund	\$ 18,300,000
		Accrued Compensatory Time	\$ 3,500,000
		Re-capitalization of HHSC Balance Sheet	\$ 200,000,000
Total	\$ 255,800,000	Total	\$ 255,800,000

The subsequent "Recommended Next Steps" section of this report provides a more complete presentation that relates sources of funds to their uses, and seeks to validate the operational sustainability of this conversion model over time.

(2) Execution of available operational efficiencies at each member facility

There are material opportunities for improving internal financial performance at the regional level, especially within the three PPS hospitals. This section summarizes the findings from the strategic, financial, and operational assessments completed for each of the three PPS hospitals as part of this study. In aggregate, we estimate the potential range of opportunity as being between \$20M - \$40M. These additions to revenues or reductions in expenses are incremental to those represented in the FY 2009 financial statements of the hospitals. In some instances, these improvements were already underway when we arrived, and in other cases, immediate improvement efforts were initiated by our visits. As such, some of the performance improvements that we have identified are already taking place in the course of FY 2010. In all cases of performance improvement opportunities, it is important that the regions realize and maintain some portion of the financial benefit resulting from the initiatives.

There is a particular reason for our focus on the PPS hospitals. In FY 2009, these three facilities represented approximately 73% of HHSC, as defined by net patient revenue, and consumed 67% of the funds appropriated for HHSC by the State of Hawai'i. In 2005, the net losses from operations at these hospitals, before assignment of corporate overhead or application of any subsidies, were just over \$10M. Comparatively, in 2009, these same three hospitals had combined operating losses of over \$71M. General fund appropriations from 2005 to 2009 grew from \$37.8M to \$90.6M, an increase of \$52.8M. As such, the necessity for the growth in appropriations over this period was driven entirely by the growing losses of these hospitals. This is not to say that there are not other facilities within the organization that can benefit from a review of strategic, financial and operational opportunities.

However, reducing dependency on State subsidies must focus on those facilities which have become most dependent.

The process for performing a PIA involved rapid and focused analyses of targeted financial, operational, and clinical areas of the organization. A specific focus was put on opportunities for improving clinical service volumes, reimbursement and cash flow, reducing hospital operating expenses, improving profitability of selected service lines, affiliation relationships, and organizational architecture and management principles.

The analyses relied upon data gathered from various sources, including detailed inpatient and outpatient utilization data provided by the hospital, patient origin data from the Hawai'i Health Information Corporation, recently filed Medicare cost reports, historical and most recent audited financial statements, and an intensive two-day site visit, including interviews with KCH executives and selected department managers.

In addition to the summary reports provided in this section, we have prepared for each facility a detailed report with recommendations. These detailed reports are included as Appendices G, H, and I.

Our observations and recommendations are informed by Stroudwater's analyses of limited amount of data that could be made available within the tight time constraints of this study, by staff interviews. Many of the issues identified require more detailed analysis by staff at the hospitals, by HHSC or with external assistance in order to more accurately quantify the financial potential and to identify the necessary steps to implement the recommendations. Study findings and recommendations are presented in the spirit of organizational improvement, and not in a context of blaming individuals.

Kona Community Hospital (KCH)

Kona Community Hospital (KCH) is in the midst of a turnaround. Having incurred significant operating losses over the past several years, KCH is implementing many changes that will improve profitability and enhance quality of care over the next several years. There are additional opportunities for savings and for operational improvement that we will recommend, but most important among the changes already underway at KCH is the development and proliferation of an understanding that whether success is measured as a clinical quality score or as net income, each and every person in the organization is responsible for the hospital's success. While some hospitals require opportunities identified as well as guidance on realizing these opportunities, KCH is ready, willing, and able to undertake the challenges and opportunities presented.

KCH is the largest facility in the West Hawai'i Region of HHSC. Founded in 1914, KCH currently operates with 94 licensed beds: 49 acute, 11 psychiatric, and 34 extended care beds. Over the past four fiscal years (2006-2009), KCH has generated cumulative net losses, before application of subsidies, in excess of \$56M. Annual losses increased from \$8.4 M in 2006 to \$17.1 M in 2009.

The KCH senior management team has, over the past two years, been substantially replaced with executives who bring extensive hospital operating experience. Several of these team members have experience from for-profit hospital systems, and bring to KCH a new focus on the business functions of the organization. This does not distract from KCH's mission, but rather reinforces the concept of hospitals "being in the business of providing healthcare." These new team members are implementing many management "best practice" processes. Additionally, they are pushing business accountability down throughout the organization.

While it is too soon to draw any conclusions, it is noteworthy that the first quarter of FY 2010 shows improved financial performance. KCH has reported operating losses of \$2.4M through September 30, 2009 compared to operating losses of \$4.1M for the same period last year. These results put KCH more than \$1M ahead of budget for the first quarter of the fiscal year. Still, with a budgeted operating loss of \$15M for the year, even this improved level of performance would result in an operating loss of \$10M. And annualized inpatient discharges for FY 2010 are running 5% behind FY 2009. There is still much cause for diligence.

Ultimately, KCH must continue efforts to increase patient volume and/or decrease staff. Over the past four years, KCH inpatient market share has declined from 53% to 49% of total inpatient discharges for people living within the Kona Region (as defined by HHIC). KCH has experienced significant declines in 6 of its top 10 service lines, with particularly large drops in cardiology, general surgery and orthopedics. Pulmonary is the only major service line to experience an increase in market share over the period.

Acute inpatient volume (discharges) has decreased by 26% from 2006 through 2009. At the same time, acute average length of stay (ALOS) increased from 2.87 in 2006 to 4.05 in 2009. As such, patient days, and costs, have increased in spite of lower discharges. But because the hospital is paid for its inpatient services primarily on a "per case" basis, patient revenues have remained relatively flat or even dropped over the past four years, while costs have continued to increase.

Recruiting physicians to the neighbor islands is difficult, but KCH is working creatively to rebuild the medical staff, which has lost physicians to retirement and to other facilities. In the meantime, KCH must manage down its staffing expenses, and several of our recommendations are offered in that vein.

KCH also should work harder to collect every dollar that it is due for its services. As mentioned above, the new chief financial officer has already implemented many industry best practices within KCH's business office, and those changes are already producing positive results. There are additional opportunities for improving reimbursement, which we have included in our recommendations. These recommendations also include opportunities to increase reimbursement from the Medicare program. These opportunities do not involve any additional cost on behalf of KCH.

While our detailed report includes over two dozen recommendations, we include here a list of improvements that are targeted at financial improvement and that are more readily quantifiable than some of the other recommendations we offer:

1. Reduce staffing in the skilled nursing facility by reducing nursing hours per patient day to industry standards.
2. Reduce acute length of stay to 3.5 days. The hospital has operated at this level in the past, even with slightly higher patient intensity. The reduction in patient days would result in a reduction in the variable costs associated with caring for patients. Any staffing savings are already captured in item (1).
3. Eliminate outsourced contracts for pursuit of aged accounts receivable. The cost to perform these services in-house is approximately one half of what is currently being paid to contractors.
4. Reduce administrative adjustments from accounts receivable by improving revenue cycle practices. In the past, the hospital has had to write off many accounts that were not collectible for reasons such as having exceeded deadlines for billing, lack of documentation of medical necessity, and other administrative reasons. KCH has already made significant process with regard to this recommendation.
5. Implement new medical record coding software. A more comprehensive coding package will likely improve coding, resulting in higher reimbursements from all insurers who pay on a “per case” basis.
6. Grow inpatient psychiatry business through community outreach. The Hospital’s inpatient psychiatric unit currently runs below breakeven volume, even though population statistics support a higher level of volume. KCH must work with community providers and agencies to make them aware of their services in order to grow volume in that unit above breakeven.
7. Medicare Low Volume Adjustment. In the event that a hospital experiences a decline in inpatient discharges of more than 5% from one year to the next, the Medicare program provides for a potential adjustment to its reimbursement levels to lessen the impact of fewer “per case” payments. KCH has already applied for an adjustment for the reduction in cases from 2006 to 2007. KCH experienced further declines in 2008 and in 2009, each with should qualify KCH’s continuation of the low volume adjustment. KCH should continue to file for these adjustments so long as they are available while it attempts to rebuild inpatient volume.
8. Medicare cost report adjustments. KCH is classified by Medicare as a Sole Community Hospital (SCH). As such, KCH’s reimbursement rates are determined in part based on Medicare’s costs as determined using a historical Medicare cost report. We identified several opportunities to amend

the cost report, as it was prepared, which would result in increase cost being allocated to Medicare and increased reimbursement to KCH.

Hilo Medical Center

Hilo Medical Center (HMC) is the largest facility in HHSC. Built by the Hawaiian government in 1897 with 10 beds, HMC currently operates 275 licensed beds: 141 acute care, 22 skilled nursing care and 112 extended care. Over the past four fiscal years (2006-2009), HMC has generated cumulative net losses, before application of State subsidies, of \$84M. Annual losses increased from \$9.3M in 2006 to \$25.2M in 2009.

Like its Kona neighbor on the Big Island, HMC is also on course to improve its operational performance. But unlike KCH, HMC has maintained its market share and has experienced modest growth in volume over the past three years. Unfortunately, revenue growth has not matched the growth in patient volume and the expenses that accompany the delivery of more services. HMC is now working on several fronts to position the organization for growth and improved profitability in the future. And, as with KCH, early results for FY 2010 are promising.

The HMC senior management team has, over the past two years, been substantially replaced with executives who bring extensive hospital operating experience. Armed with a new strategic plan, the new CEO is working to align incentives between HMC and the medical staff. A fairly new technology savvy CFO is moving forward with the implementation of an Electronic Medical Record (EMR) system that promises to improve clinical quality and provide the information for managing the business of the organization that managers have been lacking in the past. The process to educate department managers and push accountability for business success farther down in the organization is already well underway.

Though HMC continues to incur large operating losses, first quarter of FY 2010 shows improved financial performance. Through September 30, 2009, HMC experienced an operating loss of \$2.4 Million compared to an operating loss of \$6.8 Million for the same period last year. With a budgeted operating loss of \$20.8 Million for FY 2010, HMC is operating more than \$2 Million ahead of budget for the first quarter of the fiscal year.

Much of HMC's opportunity lies in being paid more appropriately for its services. HMC appears to have a low "case mix index," which measures the intensity of the patients served by HMC, and significantly affects the amounts paid to HMC by insurers. The ability to accurately report case mix requires: detailed documentation by caregivers, full capture of all services, drugs and supplies used to treat the patient, and complete and proper coding of patient bills. Patient billing is a long multi-step process with many points open to degradation or failure. We have seen evidence that there is room for improvement in this process at HMC which can yield higher payment for services provided.

Additionally, there is opportunity to improve reimbursement through the restructuring of the inpatient psychiatric program. Medicare recognizes the unique challenges of operating a distinct inpatient psychiatric unit within a general acute care hospital, and pays higher rates for services provided in a distinct unit than for psychiatric services provided in a general acute setting. But HMC must manage and report on the unit as separate and distinct from its general medical units. Currently, HMC operates its inpatient psychiatric unit as a physically distinct unit, but does not report on it as such, and is not reimbursed at the higher payment level. This situation should be remedied as soon as is practicable.

HMC also must work harder to collect every dollar that it is due for its services. Along with steadily increasing cash tied up in accounts receivable, HMC also writes off a fairly large number of accounts annually for which the failure to collect is based on administrative processes within the Hospital's control. The chief financial officer is working with his revenue team to address these issues, and those efforts will be greatly aided by information that will eventually come from the EMR system.

HMC has managed expenses relatively well. Staffing costs are high because of the high cost per employee, but the number of employees has been managed down over time, with HMC having reduced over 60 full time equivalents (FTEs) through attrition over the past twelve months.

While our detailed report includes many recommendations, we include here a list of improvements that are targeted at financial improvement and that are more readily quantifiable than some of the other recommendations we offer:

1. Apply for certification of the Hospital's inpatient psychiatric unit as a Distinct Part Unit under the Medicare program.
2. Reduce administrative adjustments from accounts receivable by improving revenue cycle practices. In the past, the hospital has had to write off many accounts that were not collectible for reasons such as having exceeded deadlines for billing, lack of documentation of medical necessity, and other administrative reasons.
3. Implement new medical record coding software. A more comprehensive coding package will improve coding, resulting in higher reimbursements from all insurers who pay on a "per case" basis.
4. Increase home health visits. Given the population of the Hilo area, home health services are highly underutilized. Management indicates that there is a lack of awareness of the services available at HMC. We recommend aggressive marketing and outreach of home health services in order to leverage those costs already in place and grow the business to a level where it can operate profitably.

5. Medicare cost report adjustments. HMC is classified by Medicare as a Sole Community Hospital (SCH). As such, the Hospital's reimbursement rates are determined in part based on Medicare's costs as determined using the Medicare cost report. We identified several opportunities to amend the cost report, as it was prepared, which would result in increase cost being allocated to Medicare and increased reimbursement to HMC.
6. Examine Emergency Department staffing levels. Our review suggests that staffing in the Emergency Department exceeds industry standards. While each Emergency Department operates uniquely, we believe there is adequate room to move closer to the industry standards without compromising the quality of care provided in the department.

Maui Memorial Medical Center

Maui Memorial Medical Center (MMMC) is the largest operating entity within the HHSC system, employing over 1,100 people and operating 197 licensed beds. MMMC's primary service area population is over 132,000 and is projected to grow 16% over the next ten years. It operates as the sole community hospital for the island and its leadership provides management support to Kula Hospital and Lana'i Hospital, both CAHs.

MMMC is in transition. The leadership of MMMC has stabilized in recent years following a rapid succession of CEOs. MMMC has historically focused its service mission on community hospital services. Over the past several years it has taken steps to develop more of a regional referral center presence, most notably with the development of cardiovascular surgery services. MMMC's strategy and performance can be enhanced through the process of clarifying goals and objectives and connecting strategies, facilities, operations, and financial performance into a coherent plan. This is a critical time in the history of MMMC. Alignment among the governance, executive and management team, physicians, and other community stakeholders is important.

Historically, MMMC has enjoyed high market share for inpatient services, providing at or above 80% of the care on average across all service lines for the island of Maui. From 2004 to 2007, a private group, including a number of local physicians, worked to develop a competing hospital, Maluani Health and Medical Center, in South Maui. While its proposal was ultimately denied certificate of need approval, it divided the local medical community. Since 2006, MMMC has seen an overall decline in market share, with some service lines harder hit than others. Some of this relates to physicians leaving and difficulties in recruiting in the current environment. MMMC has experienced declines in 8 of its top 10 service lines, with particularly large drops in Orthopedics, Cardiology, Neonatology, General Medicine and General Surgery. Cardiology services, for example, declined from 86% market share in 2006 to 74% by 2008.

MMMC offers substantial outpatient and ambulatory care capabilities. Across nearly all departments, from surgery to radiology to rehabilitation, the facility and staff capacity is far in excess of the utilization. Like many mainland hospitals, MMMC is challenged to promote its ambulatory services while existing

medical groups, such as the Maui Medical Group and Kaiser, have similar offerings. MMMC leadership is challenged to grow its ambulatory program and build physician relationships concurrently. Management has recognized these challenges are not unique and has started researching options for improving physician alignment.

Financially, MMMC has lost \$75 million on operations over the past four fiscal years (2006-2009) combined. Eliminating capital costs, MMMC's earnings before interest depreciation and amortization (EBIDA) over the four year period was a loss of \$48 million. Over approximately the same period, MMMC has invested over \$75 million in facilities and infrastructure development. Financial losses and construction funding have been funded through State appropriations. However, MMMC remains undercapitalized for its needs. Recognizing that the development of cardiovascular services would require an influx of one time resources, MMMC sought outside capital from the market. After receiving an initial \$11 million, the capital markets froze and MMMC was unable to access the additional capital needed. Plans were scaled back and funding has been through operations. The overall impact is that the program has been delayed with a much longer startup period, increasing costs and resulting in lower than expected volumes. A re-evaluation of the program, an accounting of costs-to-date and future costs obligated, and an operations and financial strategy is needed immediately.

From FY 2006 through FY 2009, overall patient volumes have been flat (as measured by adjusted discharges) while staffing is up 4.3% per year (full time equivalents). While this in part reflects the reality of work rules, it is inconsistent with the changes that were achieved in other HHSC facilities with the same rules. Net patient revenue is up 3.7% per year, while non-capital expenses were up 7.2% per year. FY 2010 performance data, through October, shows operating profits are 11% below budget. Despite 3% lower expenses, patient revenues are down 5% based on lower than expected patient volumes. These trends reveal opportunities for different financial management strategies in the future.

Operationally, MMMC must either increase patient volume or decrease staff. As previously noted, MMMC's market share remains high and while there are opportunities to recapture lost market share, the inpatient business cannot be grown enough to correct MMMC's financial problems. In ambulatory services, MMMC can eliminate some barriers to physician referrals for outpatient and ambulatory services, but more importantly, leadership can emphasize and hold managers accountable for growth in outpatient services.

MMMC has not reduced staffing to match lost market share, recognizing that certain staffing increases have been realized in advance of full utilization (e.g., cardiovascular program development). Benchmarking shows that after adjusting for the generous benefits package enjoyed by the employees of HHSC, overall staffing levels are above the 75th percentile for the Pacific region, which includes Hawai'i, Alaska, Washington, Oregon and California.

With increasing pressures overall in healthcare payments, MMMC must ensure it gets paid appropriately for the care that is provided. A review of the financial data shows an unusually high number of accounts

that are not collected due to a variety of deficiencies in the revenue cycle. Recognizing outside assistance was needed, management contracted with a consultant to provide a comprehensive review of its processes, and rapid implementation of these recommendations must be a top management priority. In addition, MMMC has over-relied on outside contracts to assist in its collection effort. While warranted in the short term to recover cash, these relationships are at risk of becoming a dependency, and are an additional expense and management concern. Other HHSC hospitals have begun implementing industry best practices within the business office, and while larger in scale than the other system hospitals, MMMC can learn from its peers.

While Stroudwater's detailed report includes over many recommendations, we include here a list of prioritized improvements:

1. Develop a clear strategic plan with supporting objectives, action plans, and commitment of resources in concert with a master facility plan to guide further the organizations future investment strategy; drive accountabilities to the manager level for both clinical and financial indicators, as appropriate.
2. Recapture inpatient market share and pursue ambulatory service growth in concert with a physician alignment strategy that is expanded to complement the current approach of employing physicians, as well as a review of transfers from the MMMC emergency room.
3. Reduce inpatient length of stay through improved case management, development of additional long term care capacity at Kula Hospital and development of swing beds at Lana'i Hospital, to reduce utilization of acute beds for waitlist patients.
4. Develop existing inpatient psychiatric services as a Medicare-certified unit to improve payments.
5. MMMC/HHSC should investigate competitive options for the provision of clinical laboratory and pathology, including a "make vs. buy" analysis.
6. Update the historical analysis of CV program operating and capital costs spent to-date, quantify costs of future related contractual obligations, reevaluate market volume and competitor quality data on CV services and develop a revised volume forecast with projected referrals by source and quality standards resulting in a pro forma financial analysis.
7. Immediately target a reduction in administrative allowances from revenue, implementation of upfront collections and other consultant recommendations in the revenue cycle, and invest in better technology and decision-making systems to improve operations control.

8. Aggressively manage staffing and other expenses relative to patient volume, recognizing some staffing investments are fixed in advance of full utilization (e.g., cardiovascular service program development).
9. MMMC is classified by Medicare as a Sole Community Hospital (SCH). As such, the Hospital's reimbursement rates are determined in part based on Medicare's costs as determined using the Medicare cost report. We identified several opportunities to amend the cost report, as it was prepared, which would result in increased costs being allocated to Medicare and increased reimbursement to MMMC.

Critical Access Hospital (CAH) Status Overview

Stroudwater has, over the past three years, conducted strategic, financial, and operational assessments at all critical access hospitals under the umbrella of the Hawai'i State Office of Rural Health (HSORH). Through the HSORH, Stroudwater has remained in contact with the CAHs for training and technical assistance purposes. As such, given the time allotted for this study, we limited our examination of the CAHs to a review of their financial statements along with telephone conversations with selected CAHs to update status on Stroudwater historical recommendations.

CAHs are intended to provide access to care in remote locations. Hawai'i CAHs on Big Island (3), Kauai (2), Maui (1), Lanai'i (1) and Oahu (1) are part of the HHSC system. The remaining CAH is on Molokai and is part of The Queens' Health Systems. As such, all of the HHSC CAH staff are considered civil service employees except for Kahuku, which is a 501(c)(3) hospital. The HHSC CAH facilities are made up of 66 swing bed (acute and skilled care) and 325 long term care beds. In FY09, HHSC CAHs provided a total of 10,134 acute and swing bed days (average daily census of 27.8) and 114,534 long term care days (average daily census of 286). The total adjusted patient days (including Acute/SB/LTC/OP) was equivalent to 177,108 days. In 2009, the total operating loss for all of these facilities collectively was \$21.6M. This equals an operating loss of \$122 per adjusted patient day. Excluding capital costs (depreciation and interest) the loss was \$104 per adjusted patient day.

Attempts to keep employee costs down are demonstrated by the low range of 1.3 to 2.9 FTEs per adjusted patient day except KVMH which is at 3.9, a level that falls between the other CAHs and smaller PPS hospitals. Though CAHs are cost-based for the Medicare population and their SNF/ICF is reimbursed up to 200% Routine Cost Limit, it is very difficult for them to break even in the Hawai'i operating environment. As stated earlier in this report issues such as physician, ancillary and qualified business office staff recruitment, salary and benefit cost as a percent of total cost, commercial payors reimbursing under cost, and the dispersed population are all factors.

Nevertheless, there are remaining opportunities to be harvested which can increase access to care in rural communities while improving the operating margins for the CAHs and the Regional System hospitals:

- Improve revenue cycle processes in all but one of the CAHs to be at the median benchmark
- Emphasize physician recruitment
- Strong initiative to increase Medicare swing bed utilization working with regional hospitals and medical centers off-island
- Increase acute admissions
- Develop and/or increase outpatient services
- Develop opportunities with telemedicine for specialty consultation
- Implement remote pharmacy at every CAH to include the nursing homes, preferably using a collaborative approach through HHSC vs. supporting the cost of outsourcing
- Decrease cost of ED coverage by using Nurse Practitioners (NP) and Physician Assistants (PA) using the physicians from the regional PPS hospital as consultants with telemedicine from the regional hospitals as needed for all smaller CAHs.
 - As an alternative, adopt an ED/Hospitalist model to care for the patients locally when the CAH can meet their needs vs transferring them out

These initiatives all require that the CAHs work closely with regional hospitals in HHSC and other nearby hospital(s) in order to be successful.

Free Standing Nursing Homes

Over and above the long term care beds in the CAHs (see table below of all of the long term care beds in the system with number of beds by facility) there are three free-standing long term care facilities. These include: two on Oahu, Leahi Hospital (dually certified as SNF/ICF), and 9 Acute/Tuberculosis beds and Maluhia (SNF/ICF). The third largest long term care facility is at Hilo. This free-standing facility is considered as a department of the hospital and was therefore reviewed as the total facility strategic and operational assessment completed as part of this study. This project did not include a comprehensive assessment of the two Oahu facilities except to review their P&L and FTE reports.

Hospital/LTC	Beds	Type
Leahi	179	SNF/ICF
Maluhia	158	SNF/ICF
Hilo	112	SNF/ICF
Hilo	22	Hospital Based SNF
Kula	99	SNF/ICF
SMMH	66	SNF/ICF
Hale Ho`ola Hamakua Hospital & NH	46	SNF/ICF
Kona	34	Hospital Based SNF
Kohala	24	SNF/ICF
KVMH (WKMC)	20	SNF/ICF
Kau	16	SNF/ICF
Lanai	10	SNF/ICF
Kahuku	10	SNF/ICF
Total	796	

The Hawai`i Long Term Care Association reports that 85% of the 4,000+ residents in Hawai`i skilled and intermediate care nursing beds are covered by the Medicaid program. Reimbursement from Medicaid only covers 80% - 85% of the actual cost of providing the care required. This low reimbursement compounded by the cost of labor with civil service employees makes it impossible to break even.

Both Leahi and Maluhia are on a positive trajectory. Leahi had an operating loss of \$6.7M in FY 2008, which decreased to \$6.3M in FY 2009. They are projected to decrease their loss to \$5.04M in FY 2010 based on the first three months of operation. Maluhia is experiencing an even greater financial improvement. The operating loss for FY 2008 was \$5.3M, down to \$3.9M in FY 2009 and projected to be at \$2.8M in FY 2010 based on the first three months of operation. This improvement is partly due to a decrease in FTEs as follows: Leahi decreased from 344 FTEs in July 2008 to 289.5 FTEs in September 2009. During the same time frame Maluhia went from 244 FTEs to 217 FTEs.

Additional opportunities include a thorough review of cost and ensuring capture of Medicare Part B charges. A review of documentation and processes for the MDS completion to ensure the highest case mix possible is also warranted. Finally, a study of the RUG level for Medicare SNF residents to ensure the highest RUG rate possible supported by documentation is essential in a nursing home taking Medicare SNF patients after an acute hospitalization.

(3) Re-commit to accessing opportunities of scale inherent in the system model.

HHSC's corporate services have endeavored to provide a broad spectrum of services on behalf of its member hospitals. The following lists the major service categories that HHSC has historically provided:

- (1) Human Resources
 - a. Union Guidance
 - i. Strategy Development
 - ii. Negotiation Services
 - b. Claims Management Activity
 - i. TPA Support
 - ii. CSS Billing

- iii. Workers' Compensation Claims Management
 - c. Criminal Background Services
- (2) Compliance/Internal Audit
 - a. Audit Plan and Status Reports
 - b. Cost Assessment Services
 - c. Annual Compliance Risk Assessment
 - d. Summary of Overall Effectiveness
- (3) Public Affairs
 - a. Media Relations
 - b. Legislative Affairs
 - c. Communication Plan
 - d. Regional Communication Support
- (4) Financial Services
 - a. Third Party Negotiations
 - b. Allocation of State Subsidy Funds to Regions
 - c. Revenue Cycle Management
 - d. Medicare Cost Report Preparation
 - e. Charge Master Updating
 - f. Decision Support
 - g. Process Evaluation Services
 - h. Municipal Leasing Support
 - i. Grant Writing Support
 - j. Corporate Comptroller Services
- (5) Information Technology
 - a. Central provision of approximately 65 varied IT applications to facilities (see Appendix J for inventory)
 - b. Maintenance of Wide Area Network
 - c. Help Desk Functions
- (6) Group Purchasing
 - a. Fleet Vehicle Management
 - b. Biomedical/Facilities Engineering Support
 - c. Clinical Laboratory
 - d. Clinical Supply/Pharmacy Supply Procurement Support
 - e. Maintenance of MedAssets Group Purchasing Organization Relationship
- (7) Legal Services/General Counsel Support
 - a. Contract Review and Management
 - b. Development and Maintenance of Policy and Procedure Infrastructure
 - c. Development and Oversight of Legislative Agenda
 - d. Insurance Coverage and Risk Management
 - e. Overall General Corporate Counsel Services

As previously noted, Act 290, which became effective July 1, 2007 created regional boards and gave them the prerogative to assume substantial control and responsibility for management of the HHSC facilities including their operations and assets. It also gave each region the ability to retain revenues generated from within the region. It further exempted the regions (not HHSC corporate) from Hawai'i revised Statutes 103D, which is the public procurement code.

Act 290 had the support of HHSC and its constituent facilities, and reflected in no small measure the distrust between the hospitals and HHSC corporate, especially as it related to how state subsidy funds were distributed between the facilities. It further reflected disappointment in the performance of HHSC corporate and the services that they delivered. In a very real sense, Act 290 was a strategy for attempting to improve HHSC performance through an indirect approach to substantially re-organize and re-distribute authorities rather than a direct attempt to improve system performance within the existing organizational structure.

The result of this indirect approach has been an erosion of HHSC as a true hospital system, along with all of the inherent advantages of efficiencies of scale and expertise. It runs against the tide of the overall directions of increasing integration occurring throughout the overall U.S. hospital and healthcare system. It will increasingly generate significant opportunity costs for HHSC.

A tremendous amount of time and energy has been invested since the passage of Act 290 to develop a Policies and Procedures infrastructure that describes in detail how each service will relate to corporate and regional platforms.

Currently, the following services historically provided at the corporate level are in the process of being independently established within one of more of the regions (given the velocity of change, this list is likely incomplete): IT services (including development of EMR capabilities); public affairs; revenue cycle management; legal services; compliance services; purchasing services; legislative affairs; clinical laboratory; internal audit; IT help desk functions; and contract management).

The following section is an attempt to quantify at a high level the range of opportunity costs which have been or are about to be incurred by HHSC if it does not re-commit to consolidating support services at the corporate level. Inversely, it is a calculation of the incremental financial performance improvement opportunity that exists if HHSC corporate services are granted the authority to re-consolidate services, and can establish the discipline and expertise to execute effectively.

Opportunity Costs/Performance Improvement Opportunities

Many of the following opportunities require more than simply assignment of the authority and accountability to HHSC corporate to execute. They also require a system-wide commitment to work toward common commitments that put system quality and financial performance above the preferences

of individual facilities, regions, or physicians. The ability to establish and maintain decision processes that support this kind of standardization is characteristic of mature, high performance health systems.

As noted in the KMH analysis of procurement processes within HHSC, there is a general consensus among CFOs and contract managers at each of the regions that the ability to capture efficiencies and cost savings is currently sharply limited by organizational structure, information technology and human resources.

a. **Supply Chain:**

- i. **Surgical Supplies:** HHSC has a total annual supply expense of \$51.5M or 16.1% of total operating expense.¹² Based upon benchmarking of HHSC hospitals against peer hospitals with similar case mix index characteristics there is a \$2M annual opportunity for savings on medical supplies (primarily surgical implants and supplies). Achieving this level of savings requires several types of initiatives, including high levels of compliance with GPO (Group Purchasing Organization) contracts and agreement on standardizing various types of surgical implants. This requires a participatory process for selecting items, and an organizational commitment to working within a system-wide set of processes.
- ii. **Vendor Rebates:** Additional vendor rebates are available to HHSC hospitals in response to compliance with GPO contracts for routine items ranging from tongue depressors to lab coats to patient tooth brushes. The estimated maximum total in this area is \$950,000.¹³
- iii. **Pharmaceuticals:** HHSC providers spend over \$14.6 M per year on pharmaceuticals. Given this volume of purchasing, opportunities for savings related to compliance with use of generics and formulary standardization among HHSC hospitals is significant. HHSC's GPO has undertaken a preliminary study of the potential for savings in this area, and they are significant. Typical savings on a switch from brand to generic equivalents is between 20% - 90%. The annual purchase volume of branded drugs that will be coming off patent over the five years is nearly \$60B nationally.¹⁴ A conservative estimate of potential savings related to full conversion of brand to generic equivalents is well over \$1.5M per year. The most efficient way to achieve standardized conversion is through centralized purchasing and development and compliance with a system-wide drug formulary. This requires system centralization, broad participation in establishment of the formulary and

¹² Supply Intensity Metric Analysis Results; created for HHSC by Aspen Healthcare Metrics, a MedAssets Company, August 20, 2008, p. 2

¹³ Cost analysis by hospital prepared for HHSC by MedAssets, HHSC's GPO.

¹⁴ MedAssets proprietary estimate

commitment to it. By adding a system-wide formulary structure it is reasonable to expect that another \$0.5M in additional annual savings could be achieved based upon the experience of other systems who have implemented similar processes.

- iv. **Sutures:** HHSC currently spends approximately \$3M annually on sutures. By establishing a standardized set of suture options, staff, working with vendors, has estimated annual savings ranging in the 3% - 7% range, or \$90k - \$210k per year. Again, this requires moving beyond acceding to the preferences of each individual surgeon and developing and committing to a standardized line of products.

HHSC does not currently have operational IT systems that allow it to either quantify potential savings in terms of procurement, or to efficiently execute such opportunities. Savings are currently either estimated by vendors who appropriately bring their own business interests to the analysis, or by manual intensive special studies based upon creating specialized data extraction routines.

- b. **Revenue Cycle:** Other than negotiations with third party payers, providing standardized revenue cycle performance measures, providing revenue cycle “consulting” services, and preparation of Medicare cost reports, HHSC has not been significantly involved in the provision or support of revenue cycle services for the HHSC hospitals. Based upon a review of relevant performance metrics, there is strong evidence to suggest that there are major opportunities for increasing HHSC revenue through more robust systems. For example, HHSC falls at the 25th percentile of its peers in terms of gross revenue generation, suggesting that charges may be set too low, and that there are possible issues with charge capture and clinical service documentation. These assumptions were validated in interviews that we completed during site visits to each of the hospitals.

Additionally, HHSC hospitals are between the median and the 75th percentile in terms of deductions from gross revenue. This suggests a possible high claims rejection rate, lack of timely filing resulting in lost opportunity to be reimbursed for services, low third party payment rates, and/or failure to accurately document medical necessity.

In aggregate, targeting administrative adjustments to expenses for reduction to industry standards of 0.5% to 1% of net revenue would yield \$4M - \$6M in incremental annual revenue compared to existing administrative adjustment levels. These performance improvement opportunities have been more fully detailed in this report at the individual hospital operations assessments in the previous section on addressing available operational efficiencies at each member facility. These savings are reflected in that section of the report.

Even beyond these opportunities, another opportunity for improving HHSC performance at the system level is development of a centralized billing office. We have not attempted to

quantify the performance improvement potential in terms of staffing, the value of specialization of billing staff to specific clinical areas, and standardization of systems. However, the experience of other multi-hospital systems suggests that this is a very high value area of performance improvement potential. Under a centralized billing approach HHSC could potentially provide similar support at an equivalent or lesser cost.

- c. **Information Technology:** HHSC has not established a clear direction for system wide information technology implementation. Accordingly, two regions, East Hawai'i and Maui, are currently pursuing independent paths toward the development of IT systems. There are many negative financial and operational implications if this continues unabated. The acquisition and implementation costs will be substantially higher than if a single solution were to be designed and implemented. The ongoing maintenance costs will be significantly higher. The ability to integrate data within the system will become dramatically more complex and expensive. Even near term opportunities for federal funding under Title XIII of the ARRA, the Health Information Technology for Economic and Clinical Health (HITECH) Act, which for HHSC as a system holds the potential to approach \$20M in grant funding over the next two years, will be nearly impossible to access given the current "Tower of Babel" approach to IT which characterizes the current IT situation within HHSC. Even more ominously, in the future failure to meet "meaningful use standards" which are currently being developed as part of the Act will result in reductions in Medicare and Medicaid payments to providers that do not meet the HITECH meaningful use thresholds.
- d. **Community Partnering:** HHSC has relatively high costs in many areas of routine operations including: dietary, grounds, housekeeping, laundry and linen, and plant maintenance. HHSC has historically "made" these services by employing staff rather than "buying" these services by contracting with community partners who are generally local entrepreneurs who are able and willing to provide equivalent or improved services at between 20% and 30% less than HHSC's costs of making them internally. The conversion of these services which currently employ 524 FTEs in HHSC at an annual cost of \$20.1M to a community partnering model will result in a projected range of savings of between \$4M - \$6M annually.¹⁵ These savings would likely be materially reduced in the circumstance of a conversion of HHSC to a private non-profit corporation, since much of the above savings reflects the structural inefficiencies related to civil service employment benefits. In order to remain extremely conservative in terms of the potential in this arena, we have used an annual savings estimate of \$1M or 17% to 25% of the savings projected above that are based upon the assumption of the existing public benefit corporation structure.
- e. **Clinical Laboratory:** HHSC spends approximately \$20M per year on clinical laboratory services. From 2002 until early 2009, HHSC was in a partnership with Clinical Laboratories of Hawai'i, Inc., St. Francis Healthcare Enterprises, Inc., and Kapiolani Service Corporation

¹⁵ Based upon internal analysis completed by HHSC Finance staff at the request of Stroudwater

called Clinical Laboratories of Hawai'i LLP (Partnership). In 2009 HHSC divested its portion of the business to the remaining partners, but continues to lease space and personnel to the Partnership and continues to purchase clinical laboratory and pathology services from the Partnership. There is merit in investigating competitive options, including "making" these services by establishing a centralized HHSC reference laboratory, or competitively bidding a centralized contract with another outside vendor. Based upon a cost report review of the Queens Health System to identify margins generated by this system we have conservatively estimated the potential for a 3% - 6% increase in margin from such an initiative, or \$600k to \$1.2M in financial performance improvement. This area requires a much more detailed analysis in the future.

As summarized in the following table, we conservatively estimate that annual savings related to re-emphasizing system related efficiencies of scale at \$6.5M.

System Savings Category	Amount
Surgical Supplies	\$ 2,000,000
Vendor Rebates	\$ 950,000
Pharmaceuticals	\$ 1,500,000
Sutures	\$ 150,000
Community Partnering	\$ 1,000,000
Clinical Laboratory	\$ 900,000
Total	\$ 6,500,000

It is important to emphasize that this is a very high level and incomplete assessment, and the numbers summarized in the above table substantially understate the full potential. It does not for example address the significant additional costs that must be addressed by HHSC related to information technology and electronic medical record investments, nor the related opportunities to secure federal grant dollars to help offset some proportion of these costs. This analysis does not address staffing in areas such as clinical laboratory, procurement, and pharmacy where additional savings may be achievable through operational restructuring of these services. It does not assume any savings related to system-wide establishment of standard order sets that in other systems have been able to materially reduce the cost and utilization of ancillary services and supplies. It does not evaluate the potential for substantial savings related to the conversion of traditional film-based imaging structures within HHSC to a PACS (Picture Archived Computer System) approach to imaging that will significantly change both supply costs and potentially staffing costs over time. In short, the \$6.5M savings estimate is conservative and incomplete.

Recommended HHSC Approach for Minimizing Opportunity Costs and Maximizing Savings

HHSC, like many multi-hospital systems, has conceptualized and operationalized corporate services as a central service provided within a corporate headquarters environment. For example, most HHSC

corporate staff are physically located at HHSC headquarters, the hardware supporting IT services provided by HHSC to its members is located at HHSC headquarters, etc.

Given a re-commitment to aggressively pursue the efficiencies of scale that are available through a system-based HHSC focus, we recommend that a new approach be taken for developing these performance improvement capacities. This approach should focus on basing HHSC shared service infrastructure at existing facilities that already have developed at least the beginning of a core competency in a support services area. For example, IT services could be located at one of the HHSC hospitals that has already established an initial staffing infrastructure and set of competencies. This could apply to clinical services such as clinical laboratory and diagnostic imaging services as well as support services.

Making choices regarding where services are best developed within the system should be based upon a rigorous portfolio analysis process. Criteria for success including the ability to recruit and retain staff, available space for supporting additional staff, leadership capabilities available for developing the service, etc., need to be carefully and impartially reviewed. The ability to compartmentalize system vs. individual hospital service costs and establish “due to – due from” accounting procedures will require more robust accounting capabilities than currently exist within HHSC. For example, corporate roll-ups of individual hospital and system reports can only be done using Excel at this point. Decisions need to be made on the basis of capability to serve rather than politics.

Fortunately, existing technology and the trajectory of future information and communications technologies make this distributed model much easier to pursue and execute than was the case at the founding and early development of HHSC. This approach will require a new leadership and management philosophy in order to succeed.

Beyond the essential changes detailed above, the most critical need for HHSC is for a clear strategy that both the State and the HHSC Board can commit to going forward. There are, of course, optional strategic courses to consider. The following section presents the strategic options that we believe hold the most potential for HHSC. This is followed by the strategic option that we recommend and the rationale for this recommendation, the tasks and timeline related to pursuing it, and the performance metrics that the State should track during the pursuit of these options.

HHSC Strategic Options

Each of the four strategic options detailed below assumes that the three essential changes detailed in the prior section (i.e. conversion, operating and scale efficiencies) are committed to and are being actively pursued. Following the presentation and discussion of options, we have identified the option that we recommend based upon the analysis. We do this with a clear understanding that we are not policy makers for HHSC or for Hawai'i. That is the domain of the HHSC Board and the Legislature. We respect that responsibility of each of these bodies, and present the following material and conclusions as support for your deliberations and decisions. Ultimately, the decision and the responsibility to execute belong to the HHSC Board and management.

Option 1: Region-Centric HHSC with Service Bureau Support Strategy

Summary

This option solidifies the shift in authorities initiated by Act 290 and advanced further by Act 182. It places control of regional assets, operating resources, strategy, management and governance of the regions to the five Regional Boards. It defines existing HHSC corporate services as a service bureau resource that regional management and governance utilize according to their self-defined needs and preferences. There is no obligation on the part of the regions to utilize any HHSC service bureau offerings.

Corporate Structure

Currently the HHSC regions are not formal corporate entities. Their authorities are defined by a portfolio of policies and procedures that define the respective roles of corporate and the regions. These policies and procedures were developed as a tool for implementing the intent of Act 290.

This option would envision that this existing arrangement would change. HHSC and each of the regions would become separate 501(c)(3) non-profit private corporations. The HHSC corporate (service bureau) Board would be responsible in conjunction with management with identifying and promoting the value proposition, selling and executing the performance improvement potential of utilizing shared services that can help access the savings estimated in the prior section.

Governance Structure

Service Bureau governance structures are typically comprised primarily of user representatives. This would mean that some combination of management and governance representatives from each of the regions would comprise the HHSC corporate board. This board would make decisions regarding the level of base funding for supporting shared service development. It would set service program priorities. It would not be empowered to mandate the utilization of any service offered by any of the regions.

Financial Structure

Each of the regions would become completely independent organizations financially. Any support of a region by the State would have to be separately negotiated and arranged by the region. This would eliminate one of the primary complaints that the regions have had toward HHSC corporate; the distribution of State subsidy funds among the regions. As previously noted, the conversion concept precludes the State from making any ongoing funding commitments to the regions (the Legislature can only make grant commitments to private organization not exceeding a biennial legislative term), since they would no longer be agents of the State. In terms of negotiations with commercial payers, it will almost certainly be necessary within this model for individual regions to negotiate their own provider contracts independently. Since there will no longer be a meaningful delegation of authorities to corporate, the ability to jointly negotiate would most likely fall outside of any anti-trust exemptions.

The HHSC service bureau structure would be funded via dues paid by each of the regions. Generally, these are set with 50% equal contribution and 50% based upon relative scale. Core management and development staff for a service bureau is general modest (<10 FTEs), with additional staff related directly to the scope and scale of shared services.

Given the historical relationships between the regions and their shared commitment to the HHSC service bureau concept, it would likely be politically feasible to set up inter-regional lending relationships to deal with cash flow issues experienced by the regions. It would even be possible to set up an obligated group which would enable the regions to take joint and several responsibility for debts incurred in behalf of individual members of the group. Assuming such inter-region financial relationships would be at the sole discretion of two or more of the regions, and would not be a mandatory obligation of the entire HHSC system.

Service Structure

The scope of support services provided and the level of participation by each region would be solely determined by the member regions. In terms of clinical services, the same model would apply. For example, if two or more of the regions confirm the merit and practicality of sharing resources in a clinical support area such as clinical laboratory or digital imaging services, they could pursue this opportunity either independently or using the support of the HHSC service bureau resource.

Since each region would be financially motivated to achieve a positive operating margin, it would be extremely unlikely that any region would elect to consolidate major clinical service programs such as cardiovascular services or oncology services into a single system-wide center of clinical excellence.

Key Success Factors	Grade	Discussion
1 High performance capacity governance and management structure		This model places major business oversight responsibilities on the regional boards, which have variable capabilities for assuming the breadth of governance responsibilities required.
2 Access efficiencies of scale and expertise		Voluntary nature of service bureau participation generally results in minimal participation in shared services.
3 Reduce dependence on subsidies		Reduces the potential for efficiencies related to combined scale and expertise, increasing the potential need for subsidies.
4 Identify scope/scale of market needs		Preservation of strong regional boards would provide an ongoing local resource for monitoring community needs.
5 High quality clinical care/patient services		The ability to build common quality and safety programs and the IT infrastructure needed to support this would be compromised.

Option 2: Regional Partnership Break-up Strategy

Summary

This option assumes the regions become independent non-profit private corporations. It further assumes that the individual regions do not have the scale or ability to successfully execute and operate independently so that they are able to minimize or eliminate their dependencies on on-going State financial support to remain financially viable.

This option envisions each individual region going out and seeking a capital/operating partner independently, and that corporate shared services would be provided through the partners' existing infrastructure and resources. Although the Maui Region has attempted to do this without success in the past, the assumption is this reflects in large part the existing public benefit corporation structure, the negative net worth of the system, the absence of a clear operational performance improvement plan, and the lack of a clear strategy that articulates the relative roles of the regions and HHSC corporate. We estimate that the essential changes previously identified will in combination sufficiently address these barriers that this approach will prove more viable.

As part of the study, Stroudwater completed interviews with leaders from Kaiser Permanente, Queens Health Systems, Hawai'i Pacific Health, and Kuakini Medical Center. Various representatives of these parties expressed some tentative level of interest in considering a potential alliance or integration with anywhere from one HHSC hospital to a region. To emphasize, this was not a formal exercise in seeking out potential partners for HHSC facilities. Instead, it was a test of the potential appetite for investigating various relationships given that the essential changes were being implemented. Based upon the input that we received from these interviews, it is our determination that several (but possibly not all) of the regions have the potential for attracting a capital/operating partner if the essential changes are pursued and implemented. If this option were to be pursued, each region would need to seek out the services of an transaction advisor, legal counsel and other advisors in order run a structured process for identifying partner options and selecting the best option. The downside risk of this approach is that it is quite possible that one or more regions are unable to find a partner other than the State. These are likely to represent regions in the least attractive markets and with the most needs, thus significantly increasing the risk to the State that they end by default back in a financial dependency relationship with the State, or alternatively out of business.

While affiliation strategies may result in contributed proceeds from external partners in some transactions, this is unlikely to be the case in this option considering the historical operating performance, capital needs, and current capitalization of the regions.

Corporate Structure

As indicated in Option 1, the HHSC regions are not formal corporate entities. This option would also envision that policies and procedures developed as a tool for implementing the intent of Act 290, would be eliminated as regions would become separate 501(c)(3) non-profit private corporations. The HHSC

corporate function would likely be discontinued upon the completion of transactions by all of the regions.

Governance Structure

In every instance the existing regional governance structures, including both their composition and their authorities would be modified. Any capital/operator partner will require some significant voice and level of both governance and management control as part of the design of such an affiliation or integration. While the State will have some say in each individual transaction in terms of a CON review in the situation of a change of control, its long term relationship to these new partnerships would be equivalent to other existing non-profit systems operating in Hawai'i.

Financial Structure

As part of each region's process of structuring a capital/operator partnership arrangement, one of the elements of an agreement is seeking some level of commitment to address outstanding capital investment needs. Each of the regions has significant unmet capital investment needs, and one of the goals of a partner initiative is to seek to meet at least a portion of them.

The financial operating structure of each region would likely be replaced by a partner. In fact, one of the selection criteria for a partner would be the level of sophistication and maturity of revenue cycle, accounting, internal audit, and compliance systems. This is one of the areas where each region could, with the help of a partner, catch up from their current disadvantaged position.

Service Structure

As each individual region enters into partnerships, it may or may not retain the prerogative of maintaining every existing service currently provided. New services may be established to generate more revenue and create a more competitive position for the region in their respective market. These decisions would most likely remain the prerogative of the partner system.

Key Success Factors	Grade	Discussion
1 High performance capacity governance and management structure	▶	This option would likely add governance strength to the regions as a result of access to leadership in place at larger systems. The strategy could fail one or more individual regions.
2 Access efficiencies of scale and expertise	▲	Depending upon the partner chosen, the scale accessible to each region successfully attracting a partner would most likely increase.
3 Reduce dependence on subsidies	▶	Subsidies would likely disappear for those regions successful in attracting partners. Any that are unsuccessful are at risk of reverting back to a financial dependency relationship with the State.
4 Identify scope/scale of market needs	▲	Likely preservation of regional boards would provide an ongoing local resource for monitoring community needs.
5 High quality clinical care/patient services	▶	There would likely be variation in the level of clinical quality and patient services reflective of the differences that exist among potential partners.

Option 3: Corporate-Centric HHSC Strategy

Summary

This option concludes that the “essential changes” detailed in the prior section are made, and that the authorities that have been delegated to the Regional Boards as a result of Acts 290 and 182 are re-consolidated at the corporate level. Currently, there are 33 specific duties and powers that have been specified related to HHSC.¹⁶ Most of these duties and powers have been delegated via policies and procedures to the regional boards, while the ultimate accountability for system performance remains at the corporate level.

This is a fundamentally flawed organizational architecture. De-coupling authorities from accountabilities can result in the potential of performance expectations being leveled at the corporate level that it does not have the authority to execute. The purpose of re-establishing governance and management authorities at the corporate level is to be able to more effectively bring the system advantages of efficiencies of scale and expertise to improving the overall performance of the system. Under the current structure, these system advantages can only be pursued by seeking and receiving the agreement of each individual regional CEO and/or Board to participate in such initiatives. This does not imply that the Region Boards do not have a significant role to play in the governance and management of HHSC. On the contrary, they are essential to the effective operation and future improvement of HHSC performance. We conclude that the delineation of corporate and regional duties and powers as described below will provide HHSC with the ability to act at the speed justified by the State budget crisis to quickly and dramatically improve the financial performance of HHSC while preserving and improving the overall clinical care and service attributes of the system.

The essential distinction between corporate and regional authorities detailed below is based upon which duties and powers best benefit from system scale, and which duties and powers best benefit from local input, management and oversight.

The authorities and processes we recommend reside at the corporate governance/management level are the following:

- System strategic planning and approval of integrated region specific strategic plans
- Approval of system and region budgets
- Development and approval of capital plans
- Revenue cycle systems and processes
- Supply chain systems and processes
- IT strategy and operations
- Approval of regional CEO appointments
- Quality improvement and safety processes

¹⁶ Chapter 323F, Hawai'i Health Systems Corporation

- Acquisition and divestiture authority
- Contracting authority over a specified threshold
- Leadership development
- Third party contracting
- Risk management
- Compliance
- Clinical system integration
- Media and government relations
- System-wide and region performance goal setting and monitoring
- Rate setting
- Borrowing authority

The authorities and processes we recommend reside at the regional governance/management level are the following:

- Day to day regional clinical service delivery and operations management
- Development of regional strategic plan
- Development of regional operating and capital budgets
- Philanthropy
- Medical staff credentialing
- Recommendation of regional CEO candidates for corporate approval
- Approval of all other senior management team appointments
- Staff development
- Continuing medical education
- Staff recruitment and retention
- Implementation and effective utilization of corporate systems
- Regional community needs assessments
- Service collaboration and integration with other non-HHSC local providers
- Medical staff development plan

Corporate Structure

Under this option HHSC would be converted from a public benefit corporation to a private non-profit corporation as a system. The regions would not need to be established as separate 501(c)(3) organizations, and could retain the existing relationship that they currently have with corporate.

Financial Structure

The fullest manifestation of this option would take the entire revenue cycle process for HHSC and consolidate it into a single integrated corporate service. This would not only save considerable staffing costs as a system, it would allow for specialization and the development of deep expertise among corporate staffers regarding specific aspects of the revenue cycle process. Many systems have staff that

focus on highly circumscribed elements of the revenue cycle (e.g., billing only for outpatient Medicare invasive radiology procedures). This is unlikely to be achieved at the scale of each of the individual regions.

The allocation of State funding will be re-established as an important role of HHSC corporate on a going forward basis. This allocation process will have to be revamped so that it is based upon supporting explicit goals and needs that are compared using a portfolio analysis approach that compares and contrasts needs using standard system criteria. A common complaint regarding the current process is that the allocation of State funds was more a political process than an analytical one.

As a private non-profit corporation, HHSC will also have to take a very different approach to capital structure planning and development. This must include clear goals related to the size and structure of debt, the role and goals of philanthropy, and a decision process driven by comparative financial and service return on investment analysis.

Governance Structure

The existing HHSC governance structure would be revamped under this option. First, it would not be appropriate for the five regional CEOs to serve on a corporate Board that will have substantial duties and powers over the system. The Governance Institute in its national survey of governance structures and practices in hospitals and health systems found that with an average Board size of 13.1, the average number of executive members is 0.6, with the median value zero. Fewer than half these Board member CEOs have voting rights as members.¹⁷ The reasoning behind this design is that for the Board to effectively execute its management oversight duties it cannot appoint the executives they are overseeing to objectively provide such oversight.

Physician participation on hospital/system Boards averaged 2.1, with a median value of 2.¹⁸ As more physicians are operationally integrated into hospital structures, and as the emphasis on clinical quality and safety becomes more pronounced (see environmental overview section) the logic of this arrangement is obvious.

Among the important duties of health system Boards are: 1) advocating on behalf of the communities served in order to ensure that healthcare needs are being effectively addressed; 2) overseeing and protecting the financial resources of the entity; and 3) setting strategic direction.¹⁹ We conclude that it is appropriate and important that HHSC Regions have some representation on the corporate Board.

¹⁷ Governance Structure and Practices: Results, Analysis, and Evaluation; The Governance Institute, 2009 Biennial Survey of Hospitals and Healthcare Systems

¹⁸ Ibid, p. 5

¹⁹ Ibid., p. 26

Finally, having “at large” Board representation that offers specific knowledge and skills on a Board ranging from “institutional memory” (i.e. knowledge of the historical context of prior actions and decisions) to financial, legal, organizational development, and other categories of expertise can be invaluable to creating a high performing Board. Based upon these factors, under this option we would envision the following corporate Board composition:

- Regional Representative(s): at least one to provide regional input
- Physician Representatives: at least one with privileges to practice at one or more HHSC facilities.
- At-large: Members should bring special knowledge or skills to enhance Board effectiveness.
- Executive Management: Corporate CEO and one Regional CEO, each ex-officio
- Total Board membership: Target between 9-13 members

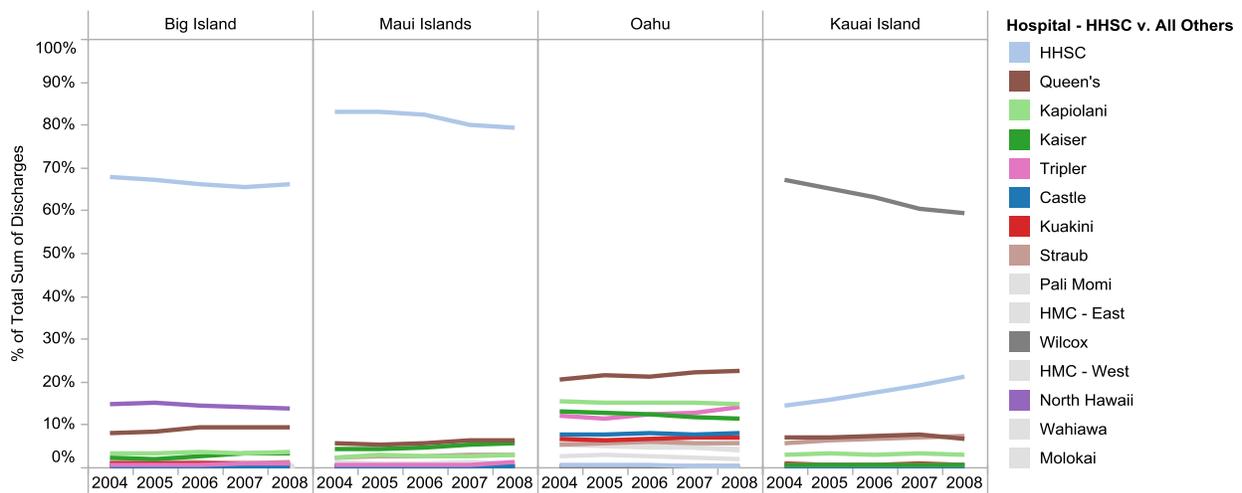
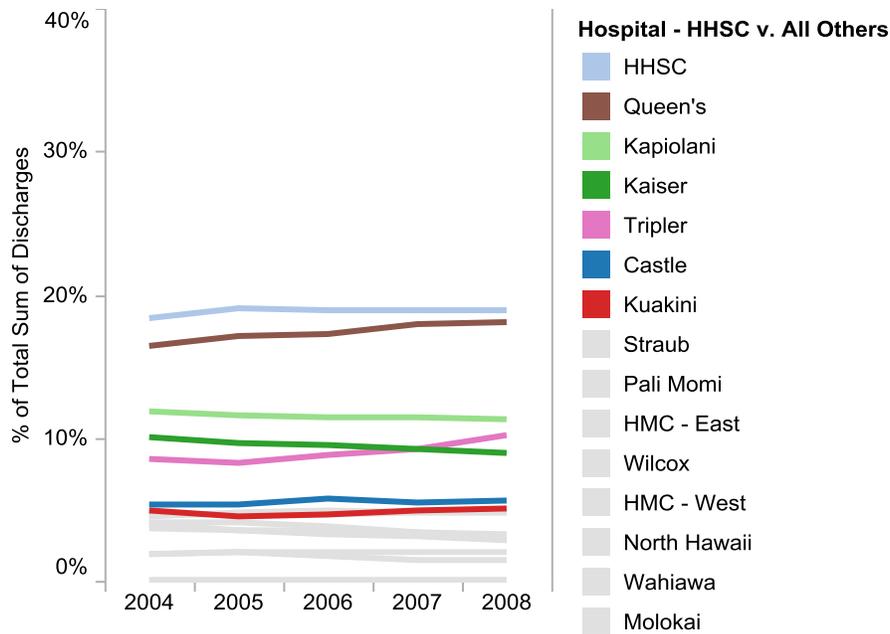
Currently, HHSC corporate Board members are all nominated by the regions. This reflects an effort to achieve representational governance. This process has not resulted in a high performance Board. HHSC currently needs a Board comprised of individuals with a deep understanding of the profound changes occurring in healthcare that will only accelerate going forward, with business experience in turning around troubled organizations, and with a commitment to aggressively defining performance goals and holding management accountable for meeting these goals. Absent such a Board, even if Stroudwater’s recommendations are embraced and pursued, the execution risk will be extremely high.

The composition of the existing Regional Boards we believe to be appropriate and should be maintained in its current composition and configuration.

Service Structure

Many multi-hospital systems are aggressive in seeking to consolidate clinical services as a strategy for maximizing both clinical efficiency and quality. This is especially relevant for sub-specialty services, since consolidation of service to a single center of excellence by definition reduces geographic access, which is important to preserve for routine services.

HHSC, as a system, has a State market share of 19% and a total annual discharge volume of 22,161 (excluding newborns). It is among the largest inpatient service provider in Hawai‘i. HHSC’s market share has remained relatively constant over the past five years, while its next nearest competitor, Queens Health System has gained market share from 16% to 18% over the same period.



In terms of individual clinical specialties, the geography of Hawai'i, the location of HHSC facilities, the specific demographic realities of each of the regions, and the scope of services available on Oahu limits HHSC's ability to think about service consolidation except between Maui and Big Island. Therefore, the following review of HHSC system clinical integration opportunities focuses specifically on the Maui – Big Island geographic adjacencies and demographics. A detailed presentation of this analysis is included in Appendix K.

The one exception to this may be telemedicine. Telemedicine technology is particularly useful in leveraging local service capabilities by providing real time interactive access to specialty consultation services. This can often lead to a sufficiently robust care plan and clinical oversight of its implementation to allow for the management of patients in local hospitals that might otherwise need to be transferred

to a regional facility. It also serves to improve case finding for procedure-oriented services such as cardiovascular peripheral vascular care. There is substantial merit in developing a detailed plan for the application of telemedicine services within HHSC.

In reviewing market share trends on a region-specific basis, two overarching findings emerged. One is the difference in market capture rates, especially in comparing Big Island and Maui markets. Specifically, HHSC captures a consistently higher inpatient market share by clinical specialty area in Maui County compared to Hawai'i County. This reflects the advantage of a consolidated delivery site in Maui compared to a bifurcated system on Big Island. Second, HHSC's 79%-83% historical market share capture in Maui County reflects the upper limits of market share capture and limits related future volume growth to overall increases in the population. Appendix K details individual clinical service lines.

Key Success Factors	Grade	Discussion
1 High performance capacity governance and management structure	▲	This option re-establishes a contemporary governance system model for HHSC.
2 Access efficiencies of scale and expertise	▲	This option aligns the largely latent opportunities to achieve efficiencies of scale and expertise with the necessary authorities to achieve it.
3 Reduce dependence on subsidies	▼	This option will require ongoing financial support of HHSC by the State, but at a reduced level. Efficiencies of scale, staffing models, some clinical integration, and system improvements are factors reducing the subsidy level.
4 Identify scope/scale of market needs	▲	The preservation of regional boards will provide an ongoing local resource for monitoring community needs.
5 High quality clinical care/patient services	▶	While this option should help create common system-wide standards of clinical care, safety and service, it does not necessarily generate sufficient access to capital in the near and intermediate term to fund investments in people, technology and facilities required.

Option 4: HHSC System Corporate Partnership Strategy

Summary

This option assumes that the conversion of HHSC to a private tax-exempt corporation and successful implementation of Option 3. Even with these advances, our judgment is that HHSC is so far behind in the development of so many basic elements of a contemporary operating and delivery infrastructure that it will be difficult for it to succeed in the intermediate and long term without help. Examples of high need areas include information technologies, electronic medical records, telemedicine, supply chain systems, private employer human resource systems, demand based staffing systems, revenue cycle systems, advanced quality improvement and safety systems, staff development resources, equipment and facilities maintenance systems, etc.

Attracting an operating/capital partner for HHSC as a system has not been a viable idea given its corporate status as a quasi-state agency so it has never been seriously pursued. While the individual regions have had the prerogative to structure themselves to establish such partnerships, their corporate and financial status has made it challenging to date to attract candidates willing and able to execute a transaction.

Conversion and re-capitalization of HHSC as a private tax exempt corporation completely changes the dynamic in terms of attracting operating/capital partners at the corporate level. As part of this process we have validated the potential interest of systems both in Hawai'i and nationally in terms considering a partnership with a re-structured HHSC. As previously noted, interest exists among potential in-state and mainland partners in considering both individual regions and HHSC as a system.

This option requires that discipline be applied to seek partners for HHSC only as a system. As in all multi-site hospital systems, some segments of the markets HHSC serves and related assets and operations serving them are more attractive than others. By allowing consideration of individual regions by potential partners, there is a risk that the most needy and financially vulnerable portions of HHSC's service area would not attract partners, placing their future in potential peril. This would jeopardize HHSC's service mission and values, and could ultimately result in reversion of these facilities back to the State of Hawai'i, a future that could be otherwise be avoided.

Corporate Structure

In this option, the corporate structure of HHSC would be subsumed and integrated into the larger partner system. Based upon the cultural attributes of both HHSC and Hawai'i overall, we recommend that a partner selection process be limited to only non-profit systems. There is likely to be interest among various investor-owned systems in HHSC following a conversion. However, a change of control transaction with an investor-owned health system would require yet another conversion to a taxable corporate entity. It would also create an internal tension within HHSC between meeting the needs of shareholders and meeting the needs of disproportionately rural, poor, and unhealthy communities

served by HHSC. We can envision an unending skepticism within the communities served by HHSC regarding the foundational motivation of an investor-owned partner. There are a sufficient number of viable potential non-profit partners to put the investor-owned option aside at this juncture.

Governance Structure

Under this option HHSC would be combined under the governance structure model of any partner selected. It is routine as part of structuring such arrangements that significant governance representation is retained within the local entity. Also, the idea of regional boards would, for many large non-profit systems we are familiar with, be looked at as an important asset. Mature systems understand and appreciate the critical importance of local input from communities served to establish and maintain healthcare delivery systems that are responsive to the needs and priorities of each local community. Again, this aspect of HHSC's current structure can almost certainly be maintained within a partnership structure with a larger system.

Financial Structure

As part of structuring a capital/operator partnership arrangement, one of the elements generally included as part of an agreement is some commitment to address outstanding capital investment needs. In the subsequent section entitled Recommended Option and Rationale there are financial projections that assume that a partner would bring \$70M in additional investment capital to the system in FY 2013-2014. While these values are no more than conjecture at this point, they do represent investment levels that are comparable to other arrangements we are familiar with that have been put into place in recent years.

The financial operating structure of HHSC would likely be replaced by the partner's. In fact, one of the selection criteria for a partner should be the level of sophistication and maturity of revenue cycle, accounting, internal audit, and compliance systems. This is one of the areas where HHSC could with the help of a partner catch up from the current disadvantaged position that it currently experiences.

Service Structure

The service structure for HHSC would, over time, be integrated in various ways with a larger partner health system. This should also be one of the selection criteria included in the process. The level of development of telemedicine infrastructure will be a relevant aspect of a review of potential partners. A geographic reality is that Hawai'i based systems will have a natural geographic advantage in their ability to integrate clinical service systems. As noted in prior options, clinical centers of excellence are an opportunity for HHSC, and one that can certainly be enhanced based upon a large system partner relationship.

Key Success Factors	Grade	Discussion
1 High performance capacity governance and management structure	▲	This option will add governance strength to the HHSC governance structure.
2 Access efficiencies of scale and expertise	▲	Depending upon the partner chosen, the scale accessible to HHSC facilities should grow dramatically.
3 Reduce dependence on subsidies	▲	Any ongoing financial support with the new system will require documentation and negotiation.
4 Identify scope/scale of market needs	▲	Likely preservation of regional boards would provide an ongoing local resource for monitoring community needs.
5 High quality clinical care/patient services	▲	A single standard of improved clinical care and patient services would be an essential partner requirement.

Recommended Option and Rationale

It is important to re-emphasize that any option pursued should be based upon a platform that includes active implementation of the three “essential changes.” Conversion of HHSC to a private non-profit 501(c)(3) corporation, aggressive pursuit of all available operational efficiencies within each region and facility, and maximization of efficiencies of scale as a system. Absent this foundation of change, the ability to achieve any of the four options presented is tenuous at best, and even if an option is successfully implemented the near term results will be significantly constrained.

It is also important to emphasize that these transformation recommendations require extremely difficult challenges related to successful implementation of the “essential changes” and each option. Successful execution will require strong leadership and management, sustained focus and discipline, a sense of urgency, and a commitment to success. While this study did not evaluate leadership and management resources within HHSC, such an evaluation is warranted.

The following two tables summarize the fiscal impact of the “essential change” recommendations on the State and on HHSC operations for the conversion period (FY 2011) and the three succeeding fiscal years. The first table outlines the sources and uses of funds over the period. This includes a large inflow and outflow of dollars in FY 2011 for the initial conversion process, followed by continuing but declining appropriations for the subsidy of hospital operations in the out years. We conclude that the operation a system which includes a series of small remote facilities such as the Critical Access Hospitals and Nursing Homes within HHSC will continue to require approximately \$30 million in ongoing annual operating support.

While the sources and uses table primarily involves State funds, we have built in the impact of the introduction of a capital partner beginning in 2013. Based upon our experience in other markets, we believe that a new partner would likely make a large initial financial infusion into the system to accelerate capital improvements, followed by more modest investments moving forward. A key assumption in this model is that the levels of appropriation are fixed, and that HHSC will need to operate within the restrictions of these appropriations.

Conversion of HHSC into a non-profit 501(c)(3) private corporation
Sources and Uses of Funds (\$000's)

Sources of Funds (\$000's)	State Fiscal Year			
	FY2011	FY2012	FY2013	FY2014
State of Hawai'i General Fund appropriations	\$ 60,000	\$ 50,000	\$ 40,000	\$ 30,000
Capital improvement funds	20,000	10,000		
Capital partner(s) contributions			50,000	20,000
General revenue bonds	255,800			
Total Sources of Funds	335,800	60,000	90,000	50,000

Uses of Funds	State Fiscal Year			
	FY2011	FY2012	FY2013	FY2014
Conversion to 501(c)3				
Payoff of unused vacation	34,000			
Payoff of accrued compensatory time	3,500			
Unpaid workers' compensation claims	18,300			
Total Conversion Cost	55,800			
Recapitalization of HHSC	200,000			
Capital improvement projects and other infrastructure investments	20,000	10,000	50,000	20,000
Continued subsidies for hospital operations	60,000	50,000	40,000	30,000
Total Uses of Funds	\$ 335,800	\$ 60,000	\$ 90,000	\$ 50,000

The second table displays how the various initiatives proposed in the report will result in reducing the system's dependence on the State to an amount required to maintain remote access on the neighbor islands.

We include continued funding from the State for capital projects for FY 2011 and FY 2012 at \$20M and \$10M respectively. It is our assumption that after that time, the recapitalized and reorganized system will be able to access capital funding from other sources such as commercial lenders.

We also assume that as a private non-profit corporation that HHSC will be able to build a base of philanthropy as a routine source of funding. This will be important, since earnings retained by HHSC as detailed in the following table, are insufficient to fully fund future capital needs of an organization of its financial scale.

Reconciliation of subsidies for hospital operations	FY2011	FY2012	FY2013	FY2014
Baseline Operating Losses (Based on HHSC FY 2009 unaudited results)	\$ (120,000)	\$ (120,000)	\$ (120,000)	\$ (120,000)
Reduction in employee benefit costs	81,500	81,500	81,500	81,500
Job conversions and use of local privately owned businesses	1,300	2,600	3,900	5,200
Operational improvements	7,500	15,000	22,500	30,000
Debt service for revenue bonds	(20,000)	(20,000)	(20,000)	(20,000)
Savings from "system" efficiencies	2,000	4,000	6,000	6,000
Operating losses after implementation of all initiatives	(47,700)	(36,900)	(26,100)	(17,300)
Philanthropy	2,500	5,000	7,500	10,000
State subsidies for hospital operations	60,000	50,000	40,000	30,000
Earnings retained by HHSC	<u>\$ 14,800</u>	<u>\$ 18,100</u>	<u>\$ 21,400</u>	<u>\$ 22,700</u>
Capital improvement projects and other infrastructure investments	<u>\$ 20,000</u>	<u>\$ 10,000</u>	<u>\$ 50,000</u>	<u>\$ 20,000</u>

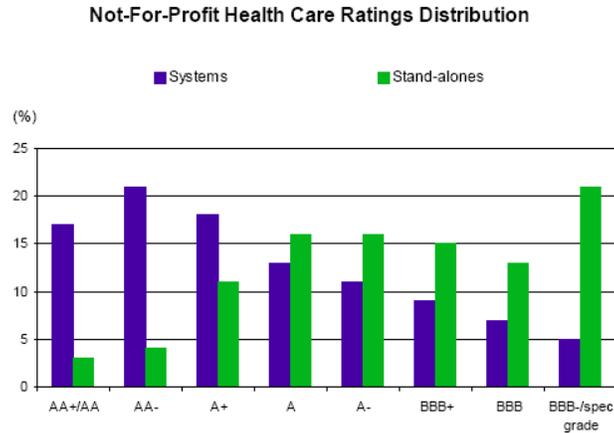
For the State, the projections in the above table exhibit a declining glide path of financial support to HHSC between FY 2011 - FY 2014 of \$80M, \$60M, \$40M, and \$30M.

The study concludes that the best option to pursue on this platform of “essential changes” is Option 4, the HHSC corporate partnering strategy. Based upon our interviews with in-state and mainland systems, we believe that there is sufficient preliminary interest in HHSC following implementation of the “essential changes” to suggest that this is a viable option. It should be emphasized that even if a partner is ultimately unavailable for HHSC, the “essential changes” will result in a far more operationally viable HHSC than is currently the case. Also, we do not advocate for embracing a capital/operating partner based upon terms that are unacceptable in terms of maintaining quality, access, and cost performance levels that meet the stewardship responsibilities of both HHSC and the State.

There are several key factors that bring us to the conclusion that the HHSC corporate partnering strategy is the best option. These include:

1. HHSC does not have experience in operating as a highly integrated healthcare delivery system. It is actually more of a confederation of facilities today and less of a system than it was two years ago. It would benefit from help from an experienced operator with mature system infrastructure, operating knowledge and cultural attributes to successfully complete such a transition.
2. A partner will help to accelerate the transition to a higher performing system. Accessing the leadership, management and technical expertise to achieve the performance potential of a highly integrated health system will take far more time for HHSC to achieve independently than is the case if it were to be assisted through this process by a more mature system. Given the financial challenges of both HHSC and the State, time is at premium.
3. At its existing scale, HHSC is not large enough to access the highest levels of healthcare system performance as evidenced by health services research in this arena. For example, large hospital chain operating expenses per discharge are on average 8% lower than comparable services in smaller stand-alone hospitals and systems.²⁰ Ongoing research by Citibank has found that the difference in operating margins between systems <\$1B in annual revenues vs. systems with >\$3B in annual revenue favors the larger system by a multiple of nearly four. As summarized in the following table, the cost of capital for larger systems is generally lower as well based upon their debt rating profiles.

²⁰ “The Effect of Chain Membership on Hospital Costs,” Health Services Research, June, 1997, Terri J. Menke



- 4. As noted elsewhere in this report, HHSC is facing a significant challenge in achieving exemplary levels of clinical and service quality. As with other infrastructure challenges, the ability to put into place an effective set of systems in the areas of safety, quality improvement, EMR and clinical decision support services, etc. will take significant time and resources. A helping hand will move this forward more quickly and effectively.

In summary, we believe that a partner will help HHSC to address its challenges and opportunities better, faster, and less expensively than it could achieve on its own.

HHSC Compliance with State and Independent Audits/ HHSC Compliance with the State Procurement Code and Follow-up on Significant Prior Audit Findings

One of the assignments related to this study of HHSC was a review of:

1. HHSC's adherence to the State Procurement Code including detailed testing of the design of the compliance program in connection with procurement and testing operating effectiveness of a sample of procured services for compliance with the defined procedures.
2. Prior Findings Follow-up – Follow-up on the measures taken to address material control weaknesses and reporting issues cited by the State Auditor and the most recent external audit reports.
3. Annual Internal Audit – Although not specifically identified as a primary objective of the study, we reviewed management's progress toward compliance with the annual internal audit requirement of Act 182 and provided recommendations on the key elements needed to build an effective Internal Audit process.

The following material summarizes each of the areas identified above. Each section details the observations of KMH LLP, the Honolulu-based accounting firm we engaged to complete this portion of the study. The material summarizes the results of testing, and discusses systemic issues and areas in which opportunities exist for improvement for HHSC. A full, detailed presentation of analysis, scope of the work performed, findings and recommendations is included in Appendix L.

Procurement Review

The passage of Act 290, effective July 1, 2007 provided the HHSC regions an exemption from Hawai'i Revised Statutes 103D – *Hawai'i Public Procurement Code* (State Procurement Code). To implement this provision of Act 290 and transfer the custody of procurement authority, the regions were required to develop procurement policies and procedures consistent with the goals of public accountability and procurement practices.

Transfer of custody is defined as HHSC's internal process of review and approval of proposed regional procurement policies and procedures. The HHSC approval process entails review and approval of the regional executive management, regional board, HHSC executive management, and the full HHSC board.

Up until the transfer of procurement authority to a region, all regions were subject to the State Procurement Code. A more detailed summary of the key legislation impacting the procurement areas at HHSC is provided in Appendix 1.1 of Appendix L. The timeline for the *transfer of custody* of procurement authority to the regions follows:

Region	Transfer of Custody
East Hawai`i	August 2008
Kaua`i	September 2008
Maui	November 2008
O`ahu	January 2009
West Hawai`i	October 2009

Summary Results of Testing & Observations

Directly related to the evaluation of HHSC's compliance with the State Procurement Code and internal policies and procedures, only one instance (out of 60) of non-compliance with internal policies and procedures was identified. This exception related to the lack of appropriate documentation under the Corporate Procurement Policy which requires the issuance of an amended purchase request (PUR Form 18) in the situation where price has increased by 10% or more from the original approved purchase request. Although this was noted as an exception to the Corporate Procurement Policy, it did not however, result in non-compliance with the State Procurement Code.

As part of this evaluation, several observations were identified as opportunities for improvement for HHSC relative to procurement. These include:

- Capturing economies of scale to promote efficiencies and cost savings that include but are not limited to:
 - Leveraging vendor relationships to obtain better pricing;
 - Maximizing share-backs and incentives from group purchasing organization participation;
 - Developing a centralized knowledge base; and
 - Reduction of redundancies and duplicated procurement actions.
- Investing in information technology to enhance contract monitoring and strengthen contract analysis capabilities.
- Using a strategic approach to human resources, and consideration of centralization of procurement functions to provide for the following benefits:
 - Mitigate the systemic causes identified by the limited talent pool;

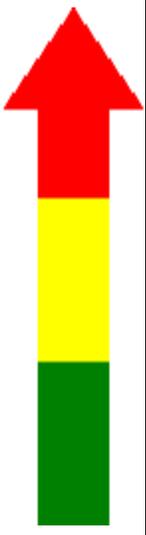
- Provide for continuity of services in the event of contract manager turnover; and
- Further support a centralized knowledge base and allow for the development of procurement specialists, especially in key areas such as physician contracts, physician preference items, etc.
- Maintaining procurement files electronically to mitigate the risk of non-compliance with internal policies and procedures as a result of lost or unfiled documentation. Currently most of the required documentation already exists in an electronic format.
- Improving procurement practices at recently acquired subsidiary entities (i.e., Kahuku Medical Center and Ali'i Community Care, Inc.). Currently, the procurement and purchasing practices are extremely limited, falling well short of the procurement policies and procedures implemented by the HHSC regions.

While centralization of procurement would be optimal to take advantage of many of these opportunities, each of these areas should be considered to capture short-term improvements as identified in the body of the report.

Prior Finding Follow-up

Procedures were designed to follow up on measures taken by HHSC management to address material control weaknesses and reporting issues cited by the State Auditor and the most recent external audit reports to meet the requirements of Section 31 of HB 200 CD1. As the scope provided under Section 31 includes “reportable issues” which are less in severity than material control weaknesses, this review included the *significant deficiencies* identified by the external auditor.

The table below defines the various levels of deficiencies in accordance with *Government Auditing Standards*. “Reportable issues” is not a term recognized by *Government Auditing Standards* and is not defined in the State Auditor’s report.

Severity	SAS 115 Definitions
	<p>Material Weakness – A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity’s financial statements will not be prevented, or detected and corrected on a timely basis.</p>
	<p>Significant Deficiency - A significant deficiency is a deficiency, or a combination of deficiencies, in internal controls that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.</p>
	<p>Control Deficiency – A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct misstatements on a timely basis.</p>

The responsibility for remediating any findings or deficiencies has been delegated to the management of each region. Currently there is no system-wide tracking or monitoring mechanism that provides a status of all issues previously identified and currently outstanding.

Summary Results and Observations

This review identified that corrective actions have been taken on 19 of the 27 findings previously identified by the State Auditor and HHSC’s external auditors. For five of the remaining findings, management has accepted the residual risk²¹ after consideration of its mitigating controls²² currently in place. Management notes that these five deficiencies have not resulted in any significant errors or transgressions. For the remaining three findings, no corrective action was taken as the deficiencies were not communicated to the process owners.

Several issues were also noted in the areas of Human Resources and Information Technology (“IT”) that are pervasive to HHSC financial and management reporting. Specific to human resources, historically several audit findings were caused by the limited pool of qualified employees, especially on the neighbor islands. With regards to IT, significant reports are generated by manually manipulating data extracted from the system. Manual “work-arounds” of IT limitations are labor intensive and may compromise the data integrity.

Observations to capture efficiencies in these areas are similar to those identified related to procurement and include:

²¹ See Appendix L section III.C for a complete description and definition of residual risk.

²² See Appendix L section III.C for a complete description and definition of mitigating controls.

- Capturing economies of scale to promote efficiencies which include but are not limited to:
 - Developing a centralized system to mitigate the impact of employee turnover;
 - Developing a centralized knowledge base; and
 - Reduction of duplicated actions and efforts.
- Investing in IT to enhance financial and management reporting capabilities to provide the following benefits:
 - Enhanced monitoring tools;
 - Enhanced management and analysis tools;
 - Reduced manual work-arounds which allow for the reallocation of human resources; and
 - Ensure data integrity.
- Using a strategic approach to human resources to provide for the following benefits:
 - Mitigate the impact of employee turnover through succession planning and
 - Develop employees and requisite skill sets internally.

Annual Internal Audit

Act 182, effective July 1, 2009, establishes the following mandate for the HHSC Internal Audit Department, specifically stating that:

“There shall be an annual internal audit of the management and operations of the corporation and regions. The corporation, in cooperation with the regional system boards, shall submit a report to the legislature at least twenty days prior to the convening of each regular session on the results of the annual internal audit of the management and operations of the corporation and regions.”

A primary objective for this piece of the evaluation included the review of management’s progress toward compliance with the annual internal audit requirement of Act 182 and the identification of the components needed to build an effective internal audit process. An annual internal audit is not a defined or common term in the internal audit profession. For this evaluation, the annual internal audit requirement was interpreted as the completion of the mission and scope of work of the Internal Audit Department including the completion of a risk focused, balanced internal audit plan. Additionally, an assessment was made as to whether the Internal Audit Department completed fundamental steps to build a strategically focused internal audit department.

The assessment was guided by the standards for the professional practice of internal auditing promulgated by the Institute of Internal Auditors, Inc., (“IIA”). The IIA has standards and practice

advisories for the practice of internal auditing that encompass independence, professional proficiency, scope of work, execution of audit processes, management of the internal audit function, and quality assurance reviews. Additionally, this framework was supplemented with the understanding of prevailing practices among internal audit departments in the community and beyond.

Summary Results & Observations

Based on the results of the assessment, HHSC's Internal Audit Department has yet to fulfill the Legislative mandate of Act 182. In addition, significant investment will be required to close the gap between current practices and the expectations of legislative and other stakeholders.

Currently, the existing audit plan does not cover all the required internal audit areas such as information technology, corporate ethics, information technology governance, and fraud risk management. The primary cause identified for the incomplete internal audit plan is a lack of resources. Additionally, the Internal Audit Department does not meet all of the professional practice standards promulgated by the IIA. To meet these standards and stakeholder expectations will require strengthening the internal audit framework and risk assessment, additional staffing and the full support of management and the board of directors.

Several additional observations were identified to improve the Internal Audit function, these include:

- Increasing the oversight of the Internal Audit Department through various measures including:
 - Completing and approving the Finance, Information Systems and Audit Committee ("FISAC") charter;
 - Providing ample time for Internal Audit on the FISAC agenda;
 - Establishing Internal Audit executive sessions with FISAC;
 - Assessing the communication and interaction of the Internal Auditor with the Corporate and Regional boards; and
 - Inviting the Internal Auditor to appropriate Corporate and Regional board meetings.

- Increasing the Internal Audit resource assistance to ensure that audit coverage is sufficient to address myriad of issues for the size and complexity of HHSC.

- Enhancing the Internal Audit planning and risk assessment processes including:

- Reevaluating the universe of auditable entities;
 - Ensuring the entire risk assessment process is documented; and
 - Presenting more detailed information on the Risk Assessment to FISAC, including the entire audit universe, staffing plan and resources required, consulting and discretionary activities, financial budget, etc.
-
- Developing an Internal Audit Framework guided by industry leading practices and the IIA to include engagement risk assessment methodologies, working paper standards, audit issue escalation, reporting, etc.

Recommended Next Steps

The study recommends the following next steps in order to expeditiously act on the recommendations.

1. The HHSC Board should immediately consider the findings and recommendations of this study, and decide on a preferred option.
2. All legislative actions and regulatory approvals required to implement the recommended conversion of HHSC to a private non-profit corporation should be identified immediately, and shared in detail with the Legislature and Administration. All efforts should be made to determine methods for expediting this conversion process. We assume that the State has considerable latitude as the vehicle for making rules and regulations to find ways to make the conversion as efficient and fast as possible.
3. A communications and public relations strategy for informing and responding to all stakeholders needs to be developed and implemented.
4. Aggressively initiate implementation of the performance improvement recommendations included in the study for the PPS hospitals. Work with the State Office of Rural Health to complete an update of the performance improvement opportunities for the Critical Access Hospitals. Establish as a system operating priority the efficiency of scale opportunities identified in the study. These achievements are important for enhancing the credibility of the bond financing initiative.
5. Upon approval by the HHSC Board, initiate the process for securing the bond financing required for the conversion. This will require a much more detailed operating plan for achieving the performance improvement goals detailed in this study. It will also require choosing and developing a working relationship with a transaction advisor and working closely with the State Department of Budget and Finance.
6. Implement the recommendations related to re-structuring the HHSC Board and make any related necessary changes to the HHSC By-laws. One of the first charges for the new Board should be a review of the leadership and management resources within HHSC, and a plan for deploying and supplementing to best support successful implementation of the strategies approved.
7. Develop a human resources benefit structure for a private corporation.
8. Begin a planning process with HHSC unions related to the conversion of HHSC to a private non-profit corporation.

9. Establish an aggressive time line and target dates for major milestones in the process. At a minimum, we recommend targeting completion of the conversion of HHSC to a private non-profit corporation by the end of CY 2010. This also requires completion of the re-capitalization strategy.

10. Identify and engage subject matter experts required to complete the above within the targeted time frames. A budget for accessing this expertise should be developed and considered by the State as a short term investment to expedite the major savings achievable over multiple years.

Performance Monitoring

HHSC has historically focused performance measurement ultimately through one perspective: The annual amount of the subsidy request from the Legislature. This reflected not only the autonomy of each operating entity, but the lack of operations involvement from the system as a whole. Recently, an increasing focus on measurement has evolved, although this has primarily been limited to financial measures. Examples of existing performance tracking metrics now being used by the HHSC Board are included in Appendix M. A future comprehensive and balanced approach to performance measurement is strongly recommended.

In the operational assessments completed under this initiative, it became very apparent that in spite of past HHSC efforts to develop scorecards, there was no system approach to performance measurement. This is evidenced by the fact that many within the hospital interviewees did not reference reporting and tracking of data by HHSC corporate, and each entity had a different approach and emphasis.

Performance measurement is most effective when it is connected tightly to strategic planning. Data without a linkage to strategy offers no perspective or meaning, while key performance indicators aligned with strategy offer a critical evaluation of the strategy's implementation success and impact. As HHSC enters a new phase, the timing is right for a strategic performance monitoring system that allows it to constantly improve and achieve excellence. This approach supports accountability being driven to the operating entities and creates a monitoring system for all stakeholders to track and benchmark performance. More importantly, a complete performance measurement system connected to the overall strategic plan calls for clear initiatives and an action plan for improvement.

In selecting measures for a performance management system, we recommend using a Balanced Scorecard framework, which preserves a comprehensive viewpoint. As previously referenced in the environmental overview, quality performance is increasingly tied to the hospital's financial success. Pay-for-performance systems require attention to both the clinical quality and the financial implications, for example.

The Balanced Scorecard introduces four perspectives to performance measurement:

- A. Financial Performance
- B. Customers: Community and Physicians
- C. Clinical and Business Processes
- D. Staffing and Infrastructure

Example indicators in each of the areas may include:

- A. Financial Performance

- a. Operating Expense per Adjusted Discharge: Measures the operating efficiency of the organization relative to the total volume
 - b. Days Cash on Hand: Measures the availability of cash relative to the total operating expenses
 - c. Net Revenue Increase: Measures the growth in net patient revenue, usually relative to the same time period of prior year
- B. Customers: Community and Physicians
- a. Physician Engagement: Measures physician satisfaction with hospital services, staffing, and responsiveness of leadership
 - b. Patient Satisfaction: Utilizing publically reported measures of satisfaction, such as “would you recommend this hospital”
- C. Clinical and Business Processes
- a. Clinical Quality Measures: Publically-reported CMS Core Measures and/or Joint Commission quality measures
 - b. ED Wait Time/Time to Treating Provider: Measures amount of time for patients to receive initial medical screening, and to be seen by a provider
 - c. FTEs per Adjusted Discharge: Measures the number of efficiency of staffing in full time equivalents per unit of service
- D. Staffing and Infrastructure
- a. Staff Engagement: Measures overall staff satisfaction, by region, hospital, or department
 - b. Average Age of Plant: Measures overall level of investment in facilities and equipment

Following the selection of the preferred HHSC system option and in concert with the strategic development of the system, we recommend simultaneous design and implementation of a customized performance management model that will connect the overarching system objectives with the individual strategic priorities of the community and CAHs. A successful performance monitoring system meets the following objectives:

1. Reaffirm and translate the system’s mission, vision, values and strategic objectives into a scorecard to enable management level initiative development and performance monitoring.
2. Develop a management framework that aligns and expresses how all system providers share common strategic objectives.

3. Quantify network and hospital performance from four perspectives including but not limited to Financial Growth, Customers: Community and Physician, Clinical and Business Processes, and Staffing and Infrastructure.
4. Implement a monitoring system that automates data collection, reporting, analysis and benchmarking processes for all hospitals.
5. Utilize technologies to synchronize objectives, targets and initiatives as a means of establishing appropriate accountability at all levels of the system.
6. Automate a process to aggregate hospital-level data into a system-wide executive decision support system.

When fully implemented, HHSC would possess a fully integrated performance management system that links all hospital providers into a strategic framework and set of metrics.