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CREEKSIDE COMMUNITY HOSPITAL (A)

ASSESSING HOSPITAL PERFORMANCE

CREEKSIDE COMMUNITY HOSPITAL is a 210-bed, not-for-profit, acute care hospital with a long-standing reputation for providing quality healthcare services to a growing service area. Creekside competes with three other hospitals in its metropolitan statistical area (MSA)—two not-for-profit and one for-profit. It is the smallest of the four but has traditionally been ranked highest in patient satisfaction polls.

Hospitals are accredited by the Joint Commission on Accreditation of Healthcare Organizations, an independent not-for-profit organization whose mission is to improve the safety and quality of healthcare provided to the public through accreditation and related services. (For more information on the Joint Commission, visit their web site at www.jcaho.org.) Although accreditation is optional for hospitals, it is generally required to qualify for governmental (Medicare and Medicaid) reimbursement, and hence the vast majority of hospitals apply for accreditation. Creekside passed its latest Joint Commission accreditation with "flying colors," receiving full accreditation, the highest of six accreditation categories.

In recent years, competition among the four hospitals in Creekside's service area has been keen but friendly. However, a large for-profit chain recently purchased the for-profit hospital, which has resulted in some anxiety among the managers of the other three hospitals because of the chain's reputation for aggressively increasing market share in the markets they serve.

Relevant financial and operating data for Creekside are contained in Tables 1.1 through 1.4, and selected industry data are contained in Tables 1.5 and 1.6. (Note that the industry data given in the case are for illustrative purposes only and do not represent actual data for the years specified. For a better idea of the type of comparative data actually available for hospitals, see the Ingenix web site at www.hospitalbenchmarks .com.)

In addition, the following information was extracted from the notes section of Creekside's 2005 Annual Report.

1. A significant portion of the hospital's net patient service revenue was generated by patients who are covered either by Medicare, Medicaid, or other government programs or by various private plans, including managed care plans, that have contracts with the hospital that specify discounts from charges. In general, the proportional amount of deductions is similar between inpatients and outpatients. The gross/net revenue

TABLE 1.1 Creekside Community Hospital: Statements of Operations (millions of dollars)

	2001	*2002*	*2003*	*2004*	*2005*
Revenues					
Net patient service revenue	$25.661	$27.236	$28.796	$30.576	$34.582
Other revenue	1.305	1.261	1.237	1.853	1.834
Total revenues	$26.966	$28.497	$30.033	$32.429	$36.416
Expenses					
Salaries and wages	$10.829	$11.135	$12.245	$12.468	$13.994
Fringe benefits	1.496	1.731	1.830	2.408	2.568
Interest expense	1.341	1.305	1.181	1.598	1.776
Depreciation	1.708	1.977	2.350	2.658	2.778
Provision for bad debts	0.548	0.589	0.622	0.655	0.776
Professional liability	0.102	0.157	0.140	0.201	0.218
Other	7.874	8.389	9.036	10.339	11.848
Total expenses	$23.896	$25.283	$27.404	$30.327	$33.958
Excess of revenues over expenses	$ 3.070	$ 3.214	$ 2.629	$ 2.102	$ 2.458

TABLE 1.2
Creekside Community Hospital: Balance Sheets (millions of dollars)

	2001	2002	2003	2004	2005
Assets					
Cash and investments	$ 3.513	$ 5.799	$ 4.673	$ 5.069	$ 2.795
Accounts receivable (net)	5.915	4.832	4.359	5.674	7.413
Inventories	0.338	0.403	0.432	0.523	0.601
Other current assets	0.693	0.294	0.308	0.703	0.923
Total current assets	$10.459	$11.328	$ 9.772	$11.969	$11.732
Gross plant and equipment	$37.999	$42.005	$47.786	$55.333	$59.552
Accumulated depreciation	8.831	10.092	11.820	14.338	17.009
Net plant and equipment	$29.168	$31.913	$35.966	$40.995	$42.543
Total assets	$39.627	$43.241	$45.738	$52.964	$54.275
Liabilities and Net Assets					
Accounts payable	$ 1.068	$ 1.273	$ 0.928	$ 1.253	$ 1.760
Accruals	0.692	0.942	1.460	1.503	1.176
Current portion of LT debt	0.136	0.290	0.110	1.341	1.465
Total current liabilities	$ 1.896	$ 2.505	$ 2.498	$ 4.097	$ 4.401
Long-term debt	15.959	15.775	15.673	19.222	17.795
Net assets	21.772	24.961	27.567	29.645	32.079
Total liabilities and net assets	$39.627	$43.241	$45.738	$52.964	$54.275

breakdown for both inpatient and outpatient services is given below (in millions of dollars):

	2001	2002	2003	2004	2005
Gross patient service revenue					
Inpatient	$25.161	$25.275	$26.117	$29.148	$33.216
Outpatient	4.748	5.969	6.535	9.130	11.912
Gross patient revenue	$29.909	$31.244	$32.652	$38.278	$45.128
Revenue deductions					
Contractual allowances	$ 2.489	$ 2.053	$ 1.729	$ 5.196	$ 7.516
Charity care	1.759	1.955	2.127	2.506	3.030
Total deductions	$ 4.248	$ 4.008	$ 3.856	$ 7.702	$10.546
Net patient service revenue	$25.661	$27.236	$28.796	$30.576	$34.582

TABLE 1.3
Creekside Community Hospital: Statements of Cash Flows (millions of dollars)

	2002	2003	2004	2005
Cash Flows from Operating Activities				
Income from operations	$3.214	$2.629	$2.102	$2.458
Noncash expenses	1.952	2.326	2.633	2.756
Change in accounts receivable	1.083	0.473	(1.315)	(1.739)
Change in inventories	(0.065)	(0.029)	(0.091)	(0.078)
Change in other current assets	0.399	(0.014)	(0.395)	(0.220)
Change in accounts payable	0.205	(0.345)	0.325	0.507
Change in accruals	0.250	0.518	0.043	(0.327)
Change in current portion of LT debt	0.154	(0.180)	1.231	0.124
Net cash flow from operations	$7.192	$5.378	$4.533	$3.481
Cash Flows from Investing Activities				
Fixed asset acquisitions	($4.722)	($6.402)	($7.686)	($4.328)
Cash Flows from Financing Activities				
Increase (decrease) in long-term debt	($0.184)	($0.102)	$3.549	($1.427)
Net increase (decrease) in cash	$2.286	($1.126)	$0.396	($2.274)
Beginning cash and investments	$3.513	$5.799	$4.673	$5.069
Ending cash and investments	$5.799	$4.673	$5.069	$2.795

Note: The noncash expenses and fixed asset acquisitions data in the statements of cash flows are somewhat different than they would be if calculated directly from the other financial statements because of asset revaluations.

2. Inventories are stated at the lower of costs—determined on a first-in, first-out basis—or market value.
3. The breakdown of operating expenses between inpatient and outpatient activities is as follows (in millions of dollars):

	2001	2002	2003	2004	2005
Inpatient expenses	$18.635	$19.221	$20.573	$22.229	$24.771
Outpatient expenses	5.261	6.062	6.831	8.098	9.187
Total operating expenses	$23.896	$25.283	$27.404	$30.327	$33.958

4. Creekside has a contributory money accumulation (defined contribution) pension plan that covers substantially all of its employees. Participants can contribute up to 20 percent of earnings to the pension plan. The hospital matches, on a dollar-for-dollar basis, employee contributions of up to 2 percent of wages and pays 50 cents on the dollar for contributions over 2 percent and up to 4 percent. Because the plan is a defined contribution plan (as opposed to a defined benefit plan), there are no unfunded pension liabilities. Pension expense was approximately $0.543 million in 2004 and $0.588 million in 2005.
5. The hospital is a member of the State Hospital Trust Fund under which it purchases professional liability insurance coverage for individual claims up to $1 million (subject to a deductible of $100,000 per claim). Creekside is self-insured for amounts above $1 million

	2001	2002	2003	2004	2005
Medicare discharges	3,008	2,960	2,721	2,860	2,741
Total discharges	9,680	9,311	8,784	8,318	8,576
Outpatient visits	30,754	31,960	32,285	32,878	36,796
Licensed beds	210	210	210	210	210
Staffed beds	192	196	193	197	178
Patient days	45,296	45,983	44,085	42,434	40,062
Case mix index	1.2531	1.2674	1.2869	1.2993	1.3161
Full-time equivalents	604.5	618.1	610.8	625.8	619.3

TABLE 1.4
Creekside Community Hospital: Selected Operating Data

TABLE 1.5
2005 Selected Industry Financial Data (200–299 Beds)

	+Quartile	Median	–Quartile
Profitability Ratios			
Deductible ratio*	0.34	0.26	0.18
Profit (total) margin	5.58%	3.48%	0.53%
Return on assets	5.80%	3.10%	0.40%
Return on equity	15.66%	6.01%	0.62%
Liquidity Ratios			
Current ratio	2.53	1.99	1.48
Days cash on hand	32.35	15.89	6.24
Debt Management Ratios			
Debt ratio	62.90%	48.40%	35.20%
Long-term debt to equity	127.00%	64.70%	26.90%
Times interest earned	4.29	2.23	1.14
Fixed charge coverage	2.18	1.35	1.02
Cash flow coverage	5.32	3.22	1.76
Asset Management Ratios			
Inventory turnover	98.68	63.95	43.99
Current asset turnover	3.94	3.38	2.88
Fixed asset turnover	2.20	1.76	1.49
Total asset turnover	1.04	0.89	0.75
Average collection period (days)	87.53	75.67	63.33
Average payment period (days)	71.24	56.52	45.84
Other Ratios			
Average age of plant (years)	8.86	7.39	6.14

*Deductions/Gross patient service revenue

Notes: 1. The industry data shown here are for illustrative purposes only and hence should not be used outside this case.

2. The upper quartile is based on the higher numerical value for the ratio and the lower quartile on the lower numerical value, regardless of whether a high value is good or bad. The interpretation is left to the analyst.

but less than $5 million. Any liability award in excess of $5 million is covered by a commercial liability policy; for example, the policy pays $2 million on a $7 million award. The hospital is currently involved in eight suits involving claims of various amounts that could ultimately be tried before juries. Although it is impossible to determine the exact potential liability in these claims, management does not believe that the settlement of these cases would have a material effect on the hospital's financial position.

Assume that you have just joined the staff of Creekside Community Hospital as assistant administrator. On your first day on the job, the administrator, Melissa Randolph, stated that the best way to get to know the financial and operating condition of the hospital is to do a thorough financial statement and operating indicator analysis; thus, she assigned you the task. Although you also believe that this is a good way to start, you wonder whether Melissa has any ulterior motives. Perhaps the hospital is having problems and she thinks that you can spot them or perhaps she wants to test your analytical skills. Melissa is from the old school of hospital management and has been looking for someone to bring modern management methods to the hospital.

In any event, she has already scheduled a financial and operating performance analysis presentation at the next board of trustees meeting as a way for you to meet the board members. To help you structure your presentation, Melissa suggested that you make the following points:

1. Interpret the hospital's statements of cash flows.

3. Use ratio analysis to identify the hospital's financial strengths and weaknesses.
4. Use operating indicator analysis to identify the operational factors that explain the hospital's current financial condition.
5. Summarize your evaluation of the hospital's financial condition. However, *don't just rehash the numbers;*

TABLE 1.6
2005 Selected Industry Operating Data (200–299 Beds)

	+Quartile	Median	–Quartile
Profit Indicators			
Profit per discharge[a]	$89.04	($21.30)	($120.08)
Profit per visit[b]	$ 6.22	$ 0.66	($ 7.01)
Net Price Indicators			
Net price per discharge	$4,091	$3,411	$ 2,815
Net price per visit	$ 201	$ 139	$ 98
Medicare payment percentage	43.47%	36.60%	31.25%
Bad debt/charity percentage[c]	7.89%	4.76%	2.97%
Contractual allowance %[d]	25.27%	20.02%	12.12%
Outpatient revenue %	25.26%	21.03%	17.44%
Volume Indicators			
Occupancy rate	67.12%	58.10%	47.84%
Average daily census[e]	173.23	144.73	114.39
Length of Stay Indicators			
Average length of stay (days)	6.80	6.07	5.41
Adjusted length of stay[f]	6.48	5.36	4.52
Intensity of Service Indicators			
Cost per discharge	$ 3,937	$ 3,392	$ 2,972
Adjusted cost per discharge[g]	$ 3,417	$ 2,924	$ 2,572
Cost per visit[h]	$202.23	$141.97	$111.53
Case mix index	1.2795	1.1756	1.0259
Efficiency Indicators			
FTEs per occupied bed	4.59	4.15	3.77
Outpatient man-hours per visit[i]	4.68	5.84	8.66
Unit Cost Indicators			
Salary per FTE[j]	$24,447	$22,517	$20,347
Employee benefits percentage[k]	19.58%	17.04%	15.18%
Liability costs per discharge[l]	$ 80.94	$ 42.05	$ 18.31

[a](Net inpatient revenue – Inpatient cost)/Total discharges
[b](Net outpatient revenue – Outpatient cost)/Total visits

TABLE 1.6 (continued) Selected Industry Operating Data

[c](Bad debt + Charity care)/Gross patient revenue
[d]Contractual allowances/Gross patient revenue
[e]Patient days/365
[f]Average length of stay/Case mix index
[g]Cost per discharge/Case mix index
[h]Total outpatient expenses/Total outpatient visits
[i](Outpatient FTEs x 2,080)/Total visits
[j]Total salaries/FTEs
[k]Fringe benefit costs/Total salaries
[l]Inpatient professional liability costs/Total discharges

Notes: 1. The industry data shown here are for illustrative purposes only and hence should not be used outside this case.

2. The upper quartile is based on the higher numerical value for the ratio and the lower quartile on the lower numerical value, regardless of whether a high value is good or bad. The interpretation is left to the analyst.

rather, present your views on the potential underlying economic and managerial factors that might have caused any problems that surfaced in the financial and operating analysis.

6. Make any recommendations that you believe the hospital should follow to ensure future financial soundness.

In preparing for the presentation, several relevant factors came to light. First, in reviewing the policy decisions made by Creekside's board of trustees over the past decade, you noted that in 2000 the board made the decision to significantly expand the hospital's outpatient services. The rationale was that many procedures that historically were done on an inpatient basis were now being done in an outpatient setting, and if Creekside did not offer such services it would lose the patients to other providers.

Second, you discovered that board members were complaining that too much time is being spent at quarterly meetings discussing the hospital's financial condition. "There is so much to accomplish," said one member, "that we just don't have the time to consider a large number of ratios at each meeting."

You know that many healthcare providers are now using dashboards to focus on key performance indicators (KPIs). A dashboard is nothing more than a way to summarize an organization's financial and operating performance. Of course, the name stems from an automobile's dashboard, which contains gauges that give drivers essential information about the car's performance and operating condition. Thus, you plan to develop two dashboards, each containing no more than five KPIs. One dashboard will use financial ratios to focus on financial performance, while the other will use operating indicator ratios to focus on operating performance. You plan to present your recommendations for the contents of these dashboards, along with the rationale for the ratios chosen, at the board meeting. Your ultimate goal is to replace the full financial and operating performance discussion at future board meetings with a limited dicussion of the KPIs.

The day before your presentation, Melissa stopped you in the hallway. In addition to asking if you are ready to go, she asked whether or not management should be concerned about the hospital's annual economic value added (EVA) performance. Apparently, she just read an article in *Fortune* magazine that discusses this measure of managerial performance. (For more information on EVA, as well as market value added [MVA], see the Stern Stewart & Co. web site at www.eva.com.) Then she said, "By the way, our overall (corporate) cost of capital is 10 percent."

You are not quite sure why she passed that information on to you, but you jotted it down just in case.