

Flex Monitoring Team Briefing Paper No. 21

**The Capital Investment Needs of CAHs: Fire
and Life Safety Code Compliance and
Organizational Performance**

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The Flex Monitoring Team is a consortium of the Rural Health Research Centers located at the Universities of Minnesota, North Carolina at Chapel Hill, and Southern Maine. Under contract with the Federal Office of Rural Health Policy (PHS Grant No. U27RH01080), the Flex Monitoring Team is cooperatively conducting a performance monitoring project for the Medicare Rural Hospital Flexibility Program (Flex Program). The monitoring project is assessing the impact of the Flex Program on rural hospitals and communities and the role of states in achieving overall program objectives, including improving access to and the quality of health care services; improving the financial performance of Critical Access Hospitals; and engaging rural communities in health care system development.

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The Medicare Rural Hospital Flexibility Program

The Medicare Rural Hospital Flexibility Program (Flex Program), created by Congress in 1997, allows small hospitals to be licensed as Critical Access Hospitals (CAHs) and offers grants to States to help implement initiatives to strengthen the rural health care infrastructure. To participate in the Flex Grant Program, States are required to develop a rural health care plan that provides for the creation of one or more rural health networks; promotes regionalization of rural health services in the State; and improves the quality of and access to hospital and other health services for rural residents of the State. Consistent with their rural health care plans, states may designate eligible rural hospitals as CAHs.

CAHs must be located in a rural area or an area treated as rural; be more than 35 miles (or 15 miles in areas with mountainous terrain or only secondary roads available) from another hospital or be certified before January 1, 2006 by the State as being a necessary provider of health care services. CAHs are required to make available 24-hour emergency care services that a State determines are necessary. CAHs may have a maximum of 25 acute care and swing beds, and must maintain an annual average length of stay of 96 hours or less for their acute care patients. CAHs are reimbursed by Medicare on a cost basis (i.e., for the reasonable costs of providing inpatient, outpatient and swing bed services).

The legislative authority for the Flex Program and cost-based reimbursement for CAHs are described in the Social Security Act, Title XVIII, Sections 1814 and 1820, available at http://www.ssa.gov/OP_Home/ssact/title18/1800.htm

Table of Contents

Executive Summary	
Introduction	1
Methods	3
Survey Results	4
Discussion	9
Conclusions	13
References.....	14
Appendix A: CAH Investment Needs, 2004 and 2007	17
Appendix B: Acronyms Used in this Report.....	19

EXECUTIVE SUMMARY

Introduction

Strengthening the economic viability of Critical Access Hospitals (CAHs) to maintain access to appropriate healthcare services of high quality in rural areas is a major goal of the Medicare Rural Hospital Flexibility Program. As our nation's rural hospitals continue to age, with many institutions (especially smaller facilities that typically converted to CAH status) over forty years old and in need of immediate renovation or replacement, access to capital has become critical. Without sufficient capital resources, hospitals face considerable challenges in keeping pace with depreciation, as well as remaining current with health code requirements, advances in medical technology, and changing population needs. This report describes current CAH capital needs and their experiences obtaining the capital critical for remaining compliant with fire and life safety codes and essential for maintaining effective and efficient operations.

Methods

Data for this report were collected through a national telephone survey of CAH administrators conducted between January and May 2007. A random sample of 450 out of the 1,267 CAHs in operation as of December 2005 were selected for participation in the survey. Surveys were completed for 381 of these facilities for a response rate of 85 percent. A section of the survey collected information on CAH capital needs for fire and life safety-related projects, projects that would improve facility operations, and their experiences obtaining needed capital.

Results

The need to comply with state and federal safety codes, keep pace with depreciation, and meet changing patient and market needs present significant financial challenges for CAHs. Total itemized needs for all surveyed CAHs amount to \$1.2 billion. The majority of CAH capital need is associated with improving operational efficiencies and effectiveness (\$650 million) followed by total facility replacement (\$469 million) and compliance to fire and life safety (F&LS) codes (\$80 million). The total capital need for the surveyed CAHs, which includes itemized needs, is \$2 billion.

The majority of operational performance projects and non-F&LS project costs reported in the 2007 survey were similar to the 2004 survey responses with physical plant, clinic, and patient area renovations accounting for the bulk of projects and project costs. However, while the average project cost for renovating physical plant space (e.g., boilers, roof replacement, ventilation systems, patient rooms and waiting areas) increased between 2004 and 2007, there were fewer projects identified in 2007 (24% versus 35%). The most notable difference in project focus was a doubling of the reported capital need for health information technology (HIT) infrastructure and a tripling of HIT projects.

Although fire and life safety project needs represent the smallest proportion of total reported capital need, they are among the most critical for patient safety and building security. Just over one-half of all F&LS projects (52%) involve installing, updating, or replacing fire suppression systems (e.g., sprinklers, water pumps and valves). Fire and smoke barriers (e.g., fire doors and barrier walls) account for an additional 27 percent of F&LS projects.

The relatively high success rate for loan applications (83%) suggests that CAHs continue to receive appropriate advice on strategies for meeting their capital needs (85% success rate in 2004). Of those CAHs reporting not seeking a capital loan, over half (56%) did not do so because they either did not have a significant need or could meet their needs through alternative strategies. However, the remainder did not seek a loan because they either could not afford to take on more debt or were considered unable to meet investment-grade benchmarks.

Overall, the survey findings suggest that the financial profile of CAHs is improving compared to 2004. The proportion of CAHs unable to pursue a capital loan because they could not assume more debt decreased by almost half and the proportion of CAHs engaged in capital project planning doubled between 2004 and 2007. In addition, while the proportion of CAHs seeking to replace their facility in 2007 is similar to those seeking new facilities in 2004, over half the CAHs surveyed in 2007 were successful compared to none in 2004.

After accounting for those CAHs that do not have a capital need or can meet their needs through non-loan strategies, the \$2 billion in reported total capital need is reduced to approximately \$1.3 billion. Assuming the sample represents the population of CAHs in existence as of December 2005 (n = 1,267), the total capital need for those CAHs would be \$4.5 billion or about twice the amount calculated from the 2004 survey on the 718 CAHs operating as of December 2002.

While some CAHs face delays in project implementation because of the inability to obtain capital funding, others face critical safety needs that, if delayed, could have significant consequences for both patients and the facilities that serve them. This is critical for CAHs needing to improve or expand their fire suppression systems. Fire suppression systems such as sprinklers represent over one-half of all F&LS projects and when extrapolated to the general population of CAHs in December 2005 could account for approximately 90 facilities.

Conclusions

The survey findings suggest that the financial viability of CAHs continues to improve since last assessed in our 2004 survey. Fewer CAHs face barriers to access the capital needed to meet fire and life safety code requirements and improve operational performance and older facilities are being replaced. While the trend in CAH replacement may reflect the building trend occurring in the overall hospital sector, these replacements are occurring among facilities that traditionally did not qualify for capital investments of such magnitude.

However, almost three-quarters of the surveyed CAHs have needs that, in all likelihood, will be met through sources of capital outside their organization. Their ability to access these sources of capital over the coming years becomes increasingly important if they are to keep pace with depreciation, address important fire and life safety issues, and remain current with evolving practice and technological advances important for performance improvement. If these and other CAHs facing similar challenges are to continue to serve a critical health care role in their communities, it will be necessary to identify strategies that help them provide high quality services as well as gain access to the capital needed to implement these strategies.

INTRODUCTION

Our nation's rural hospitals are aging; many, especially those built under the Hill-Burton Program, are over forty years old and in need of immediate renovation or replacement (HFMA, 2005; Shell and Haapala, 2006). For some hospitals, a significant portion of their renovation and replacement capital cost needs involves correcting long-standing deficiencies in meeting building and life safety codes (Stensland, Moscovice and Christianson, 2002; Gregg, 2005). The limited financial resources of small rural hospitals challenge their ability to fund depreciation, correct code deficiencies, and keep pace with changing medical technologies, patient needs, and emerging quality, performance, and patient safety initiatives (HFMA, 2006; Serb, 2007). These technological and infrastructure needs are certainly not unique to rural hospitals (MedPAC, 2008). However, compared to larger, urban facilities, small rural hospitals' ability to obtain the capital to meet such needs has been uneven and the gap between those with narrow versus broad capital access has been widening in recent years (HFMA, 2005; 2007).

A variety of funding options are available for nonprofit hospitals including cash flow earnings, charitable contributions, taxing authority, grants, and system resources. However, for smaller, financially weaker hospitals, these sources rarely provide the funds needed to complete major capital projects; their most common source of capital is through commercial lending and tax-exempt revenue bonds. Access to capital through loans or bond markets depends on a hospital's ability to demonstrate the ability to repay debt in a timely fashion and meet lender profitability or hold harmless conditions. Hospitals able to meet these conditions tend to have a strong record of profitability, the ability to provide services in a low-cost setting, stable medical and labor staff, and limited competition (Green, 2006). Access to capital for facilities that cannot meet investment-grade conditions depends on their ability to afford the higher loan costs associated with higher risk of default (i.e. escrow requirements, interest rates, and closing costs)

or to obtain mortgage insurance that shields lenders against default and keeps loan costs affordable.

Small rural hospitals are typically considered higher-risk borrowers than larger facilities because of historic losses, recruitment issues, limited opportunities for service expansion and other market factors. As a result, they are often held to higher investment standards than their financial performance might otherwise suggest (Gregg, Knott, and Moscovice, 2002; Green, 2006; Lawton, 2007). The magnitude of their unfunded depreciation as well as the growing costs of other unfunded liabilities (e.g., pension plans, malpractice insurance) further compounds the challenge of risk (Moody's Investors Services, 2005; HFMA, 2006; Lawton, 2007).

Over the last several decades, some lower-rated rural hospital borrowers have been able to find capital through two federal programs: the Community Facilities Program under the U.S. Department of Agriculture (loans, loan guarantees, and grants) and the Hospital Mortgage Insurance Program under the U.S. Department of Housing and Urban Development (HUD 242). The creation of the Medicare Rural Hospital Flexibility Program (Flex Program) and certification of Critical Access Hospitals (CAHs) provided an opportunity for these programs to help other below investment-grade hospitals finance new facilities, renovations and related projects. Although the eligibility criteria under the HUD 242 program did not change, the manner in which borrowers were rated no longer used actual historic data but estimated future results based on cost-based assumptions. Over recent years, capital resources for CAHs have accounted for the greatest amount of health project funding under the USDA Community Facilities Program (OMB, 2008).

However, access to traditional capital markets to meet depreciation needs is likely to continue to be a challenge for CAHs, largely because their small size can magnify credit

deficiencies and reduce the kind of financial flexibility that lenders require (Gregg, 2005; FitchRatings, 2006; Green, 2006). In addition, obtaining capital from commercial markets, especially for lower-rated facilities, will continue to be problematic, given the rise in risk-related premiums and the potential for tightened investment criteria following the recent collapse of the subprime mortgage bond market and rising credit uncertainty (MedPAC, 2008; Evans, 2008).

Access to capital for small rural hospitals has evolved over the last several years with the advent of the Flex Program, both through the modification of existing funding sources and a changing attitude about the relative risk involved in lending capital to CAHs. Previous efforts to monitor the capital needs and loan experiences of CAHs have identified differences between those hospitals that converted early versus those that converted later in the Flex Program (Gregg, 2002; 2005). Several changes have occurred since those earlier surveys that may have expanded access to needed capital (e.g., changes to the HUD 242 eligibility criteria and increased confidence in the financial strength of CAHs on the part of lenders). This report presents the findings of the Flex Monitoring Team's most recent survey of CAHs and discusses them in light of previous results concerning capital need and access.

METHODS

Data for this report were collected through a national telephone survey of CAH administrators conducted between January and May 2007. Flex Monitoring Team members from the University of Minnesota and the University of Southern Maine (USM) developed the survey instrument. The survey was fielded by the USM Survey Research Center. The survey contained sections focusing on community benefit, quality improvement, and access to capital.

A random sample of 450 CAHs was selected for the telephone survey, representing approximately 35% of all CAHs certified by CMS as of December 2005. Hospitals selected for inclusion in the survey had at least one full year of operation as a CAH. A total of 381 CAHs responded to the survey for a response rate of 85%. All states participating in the Flex Program were represented in the survey and the distribution of respondents reflected the national distribution of CAHs as of December 2005.

CAH administrators were asked about their facilities' experiences over the two years preceding their participation in the survey. A subset of the questions focused on CAH capital needs associated with critical fire and life safety code deficiencies in need of correction, total capital needs for correcting all existing fire and life safety deficiencies, immediate capital needs considered essential for efficient and effective operation and experiences acquiring capital to meet identified needs.

SURVEY RESULTS

Fire and Life Safety Capital Needs

Approximately 20% of the respondents (n = 76) identified one or more fire and life safety code (F&LS) deficiencies in need of correction and a total capital need of \$80 million. Seventy-one respondents (19%) identified their single most critical F&LS need. These projects averaged \$850,000 and totaled \$56 million. Critical F&LS projects were in five areas: 1) suppression systems; 2) fire and smoke detection systems; 3) fire and smoke barriers; 4) safety projects specific to clinic and patient areas; and 5) electrical and general building modifications (Table 1).

The majority of critical F&LS projects (52%) involved fire suppression systems such as sprinklers, pipe systems, water pumps and other key infrastructure components. Projects involving the renovation, replacement, and construction of fire and smoke barriers were the next

Table 1
Most Critical CAH Fire and Life Safety Needs, 2007
(n = 76)

Capital Needs	Percent All Projects	Percent All F&LS Costs	Average Cost (millions)
	(n = 71)*	(n = 66)**	(n = 66)**
Fire and Smoke Detection	3%	<1%	\$0.20
Fire and Smoke Barriers	27%	55%	\$1.80
Fire Suppression Systems	52%	17%	\$0.27
Clinic & Patient Areas	10%	11%	\$0.87
Electrical & General Building	8%	17%	\$1.93

* Five of the 76 respondents reporting a F&LS capital need did not provide a description of the project needed.

** Five of the 71 respondents reporting a description of the F&LS project needed did not identify the amount of capital required to complete the critical project.

most commonly reported critical F&LS project (27%). These projects, including the installation or replacement of fire doors, heat resistant walls, and the elimination of open spaces between walls and ceilings, accounted for the majority of F&LS capital needs.

A smaller, although not insignificant, portion of F&LS projects focused on specific area improvements such as installing or replacing exhaust hoods in pharmacies and kitchens, raising ceilings in surgical suites, installing showers in laboratories, improved patient room egress, and updating public address systems. Proportionally, electrical and general building projects were as expensive in terms of the overall capital need as fire and smoke barrier projects. These projects included the installation of smart elevators, external fire escape routes, backup generators for

alarm and suppression systems, and improved grounds for emergency egress. Detection systems represented the smallest proportion of both projects and capital need.

Operational Needs

Two hundred and fifty-nine respondents (68%) identified an immediate capital need essential for efficient and effective operations (e.g., operational performance).¹ These essential projects were associated with four key areas: 1) remodeling and renovation of hospital physical plant; 2) remodeling and renovation of patient and clinical services areas; 3) purchase of clinical equipment; and 4) purchase of health information technology (HIT) (Table 2).

Table 2
Most Important CAH Capital Needs for Essential and Effective Operations
(n = 259)

Capital Needs	Percent Projects (n = 229)*	Percent Costs (n = 214)**	Average Cost (millions) (n = 214)**
Renovate Physical Plant Space	24%	40%	\$4.88
Renovate Clinic/Patient Areas	31%	45%	\$4.70
Clinical Equipment	24%	8%	\$0.98
Health Information Technology	21%	7%	\$0.97

* Does not include 30 respondents reporting capital needs to fund total facility replacement.

** Fifteen of the 229 respondents reporting non-F&LS capital needs did not identify the amount of capital required to complete the critical project.

Respondents reported a total capital need of \$650 million for improving hospital performance with an average project cost of \$3 million. The largest number of projects and the greatest proportion of capital need involved renovations and expansions of clinical and patient care areas for a total need of almost \$300 million and an average project cost of \$4.7 million. Clinic and patient area-related projects were associated with a variety of areas including nursing

¹ Out of the two hundred and seventy-four respondents reporting an important capital need, fifteen were dropped from the analysis due to poorly specified or missing data.

units, emergency rooms, replacing and renovating patient room amenities (beds, showers, space) and outpatient clinic areas among others. Renovation projects accounted for 85 percent of all important capital need and just over half (55%) of all non-F&LS projects.

Although the purchase of medical/clinical equipment and health information technology represented 45 percent of all needed projects, they represented only 15 percent of non-F&LS needs. The replacement or acquisition of clinical equipment including diagnostics (CT scanners, MRI machines, and digitized radiographic equipment) as well as updating medical equipment (new sterilizers, defibrillators, and other emergency intervention equipment) totaled over \$50 million and averaged just under \$1 million per project. HIT represented seven percent of the projects, with an average project cost just under \$1 million. HIT projects included remote links, teleconferencing, accounting and general computer availability. Electronic medical records (EMRs) were a little over one-third of all HIT projects.

Facility Replacement

Approximately 11% of the respondents reporting a major non-F&LS project capital need indicated that the purpose of the project was complete replacement of their hospital. Replacement project capital-related need accounted for a significant proportion (42%) of non-F&LS capital needs. One respondent identified F&LS issues necessitating total facility replacement. The estimated capital need for all facility replacements totaled \$469 million, and an average project cost of approximately \$16 million.

Total Capital Need

With itemized F&LS and operational needs reported to be \$733 million and replacement estimates of \$469 million, the total itemized capital need of surveyed CAHs is \$1.2 billion. This estimate understates the total capital need of the respondent hospitals because the costs are

limited to projects that are considered to be the most important/critical to address. To obtain a global estimate of capital need, CAH administrators were asked to estimate the total capital needs of their facilities (including all F&LS, operational, and replacement project costs). Over 90% of the respondents reported capital needs for a grand total of \$2 billion, with an average project cost of \$5.7 million. One-quarter of the total capital need was associated with facility replacement projects.

Capital Loan Experiences

Forty percent of all responding CAHs reported pursuing a capital loan during the two years preceding the survey and 83% were successful in obtaining capital (Table 3). The majority of successful applications involved the renovation or expansion of general building, clinical, or patient areas. Just under one-third were information infrastructure and medical technology investments. One-quarter of the successful applications were used to fund facility replacements or to retire old debt. The number of applications focusing on total facility replacement was small (11%) but their success rate was significant compared to previous years (45%). Capital needs for replacement totaled more than \$190 million.

Table 3
Purpose of CAH Loan Applications
(n = 154)*

Capital Needs	Applications (n = 138)	Proportion All Approved Loans by Category (n = 116)**
Renovate Physical Plant/Clinic & Patient Space	59	45%
New Technologies and Equipment	36	29%
Refinance Existing Debt	19	15%
Facility Replacement	24	11%

* There were 16 missing, unspecified, or multiple project descriptions

** There were 12 applicants missing outcome information and ten loan denials

Hospitals not submitting loan applications over the two years preceding the survey reported a variety of reasons for the decision (Table 4). Almost one quarter of the respondents (24%) did not seek a loan because the hospital could not afford additional debt or meet existing investment benchmarks.

Table 4
Reasons for Not Pursuing a Capital Loan, 2007
(n = 227)

Can't Afford More Debt	20%
Don't Have a Capital Need	17%
Meeting Capital Needs through System	15%
Meeting Capital Needs Internally	15%
In Planning Stage	16%
Have a Better Source of Funding	9%
System, Board, Government Refusal/Barrier	4%
Other	4%

However, more than half (56%) did not pursue a loan because they either had no significant need or could meet the need through non-loan strategies (e.g. system resources, hospital reserves or cash flow, fundraisers, grant awards).

DISCUSSION

Findings on the capital needs and loan experiences of CAHs from the 2007 Flex Monitoring Team survey are similar to the 2004 survey findings in terms of the magnitude of capital need, loan activity, and success obtaining capital funding for important projects. For example, in 2004, the total capital needs for critical F&LS projects was \$89 million (11% of all itemized need) while it was \$80 million (7% of all itemized need) in 2007. Capital needs related

to non-F&LS needs totaled \$383 million (47% of itemized need) in 2004 and \$650 million (54% of itemized need) in 2007. Similarly, each survey identified 29 CAHs that felt a strong need to replace their facilities. In 2004, the total capital needs for replacement was estimated at \$346 million (42% of capital needs) while the 2007 respondents estimated a total of \$469 million (39% of needs). Approximately the same proportion of CAHs applied for a capital loan during the two-year period preceding the surveys (42% in 2004 and 40% in 2007) with similar levels of success (85% in 2004 and 83% in 2007).

However, looking closely at the proportion of needs related to F&LS projects and those considered important for financial and operational performance, reveals several significant differences between the results of the two surveys. Aside from the expected increase in average project costs within each category, comparison of F&LS capital needs for 2004 and 2007 indicates a major shift from detection and general building and electrical projects to suppression systems and physical barriers (see Appendix A, Table A). Fire and smoke barrier projects were the largest contributor to overall F&LS costs in 2007. In part, this may be the result of the greater scope and complexity (e.g., labor and materials costs) involved in making significant changes to brick and mortar infrastructure versus retrofitting suppression systems (e.g. mounting sprinkler pipes to ceilings rather than placing them within ceilings and walls).

The greater need for suppression and barrier projects could be the result of increased focus on meeting the 2000 National Fire Protection Association Life Safety Code required under the Medicare Conditions of Participation, which went into effect in March 2006. Unfortunately, as was the case for the 2004 survey, almost half of all CAHs reporting a need to improve their sprinkler systems could not find funding to meet the need.

Although the difference in non-F&LS capital needs was only slightly higher in 2007, the bulk of that increase is due to the costs of renovation and remodeling in both general as well as clinic and patient areas. Except for physical plant projects, capital needs for clinic and patient areas and the purchase of medical equipment remained comparable between the 2004 and 2007 surveys (see Appendix A, Table B). The most notable shift was a more than twofold increase in the proportion of important projects and project costs for the area of HIT. The increase in HIT-related activity suggests that CAHs are responding to the growing emphasis on updating hospital accounting and data management functions as well as increased clinical information needs.

The proportion of CAHs reporting that they sought a capital loan during the two years prior to the 2007 survey (40%) was similar to those reporting they sought loans during the 2004 survey (41%). The success rate for each of these groups of CAHs was also similar with 83 percent successful applications in 2007 and 85 percent successful in 2004. Although roughly the same number of CAH administrators surveyed in 2007 and 2004 reported the need to replace their entire facility, the number of successful loan applications for facility replacement increased dramatically (see Appendix A, Table C). Of the 29 facilities that identified an important need for replacing their physical plant in 2004, there were no successful loan applications to meet those needs. In 2007, the same number of CAHs reported the need to replace their facilities, but more than half of the 24 CAHs that applied for capital loans to address this need were successful.

A comparison of the 2007 and 2004 survey findings associated with the decision not to seek a capital loan suggests that CAH financial profiles, on average, are improving. Fewer CAHs reported that they could not assume additional debt in 2007 (20%) compared to 2004 (34%) and a greater number of CAHs were engaged in capital project planning in 2007 (16%)

compared to 2004 (8%). Access to alternative sources of capital to meet identified needs (internal, system-related, grants, and tax levy) in 2007 was comparable to the findings in 2004.

The 2007 survey findings are based on a random sample representative of all CAHs in operation as of December 2005 (1,267 facilities). The total, reported capital need (including F&LS, operational and other needs) for the sample is approximately \$2 billion and an average project cost of almost \$5.7 million. After excluding the respondent CAHs that reported they are able to address capital needs without pursuing a capital loan, the total capital need drops to \$1.3 billion with an average project cost of approximately \$5 million.

Assuming that the same proportion of CAHs able to meet capital needs through non-loan strategies is the same for the 1,267 CAHs existing in December 2005, the total capital need for all CAHs at that time would be \$4.5 billion or approximately twice the amount calculated from the 2004 survey findings. The increase is likely due to a variety of factors including increases in labor and material costs, and the increasing need to expand and/or renovate existing infrastructure and service capacity to meet growing patient and technological needs.

Limitations

Some caution is advised when comparing the findings of the 2004 and 2007 surveys due to the differences in sampling design. The 2007 survey used a random sample of all CAHs certified at a given point in time, while the 2004 survey used a sample that was stratified by date of certification to allow comparisons with a subset of CAHs that had participated in prior surveys conducted by the Flex Team. However, since the 2004 survey sample represented approximately two-thirds of all CAHs in operation at the time, the difference in sampling frames was not considered a significant issue in comparing the survey results.

CONCLUSIONS

The number of CAHs has continued to grow since 2004, although slowing dramatically by 2006 when the number of annual certifications fell below 100 for the first time since 1999. Previous studies have demonstrated that CAHs are typically older than most other facilities and have a history of poor access to capital to keep pace with depreciation and changing market conditions. The findings of this study suggest that participation in the Flex Program continues to provide opportunities for small rural facilities to improve their financial performance and access to capital resources. The level of building and expansion need identified in 2004 continues, including the replacement of whole facilities as well as significant increases in information infrastructure. While this building trend certainly reflects the general building trend across the hospital industry, support from sources such as the HUD 242 Mortgage Insurance Program and the USDA Community Facilities Program has increased over recent years providing much needed capital to a growing number of CAHs.

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Appendix A: CAH Investment Needs, 2004 and 2007

**Table A
Most Critical Fire and Life Safety (F&LS) Needs, 2004 and 2007**

Capital Needs	Average Cost (millions)		Percent All F&LS Projects		Percent All F&LS Costs	
	2004	2007	2004 (n = 137)	2007 (n = 71)	2004 (n = 130)	2007 (n = 66)
Fire and Smoke Detection	\$0.19	\$0.20	13%	3%	4%	<1%
Fire and Smoke Barriers	\$1.47	\$1.80	12%	27%	23%	55%
Fire Suppression Systems	\$0.18	\$0.27	37%	52%	9%	17%
Clinic and Patient Areas	\$0.82	\$0.87	12%	10%	12%	11%
Electrical and General Building	\$1.40	\$1.93	26%	8%	52%	17%

**Table B
Capital Needs Essential for Effective Operations,* 2004 & 2007**

Capital Needs	Average Cost (millions)		Percent All Non-F&LS Projects		Percent All Non-F&LS Costs**	
	2004	2007	2004 (n = 272)	2007 (n = 229)	2004 (n = 202)	2007 (n = 214)
Renovate Physical Plant Space	\$1.93	\$4.88	35%	24%	48%	40%
Renovate Clinic/Patient Areas	\$1.69	\$4.70	33%	31%	39%	45%
Clinical Equipment	\$0.66	\$0.98	23%	24%	10%	8%
Health Information Technology	\$0.48	\$0.97	9%	21%	3%	7%

* Does not include fire and life safety or facility replacement capital needs

** 2004 Project costs reported if \geq \$250K. Only five of the 2007 HIT projects are less than \$250K. When removed from the study, the average project cost remains approximately \$.97 million and the number of projects represent 19% of all non-F&LS projects.

Table C
Capital Needs for Total Facility Replacement, 2004 and 2007

	2004 (n = 29)	2007 (n = 29)
Proportion of Projects	6%	12%
Proportion of Capital Need	42%	42%
Average Project Cost (in millions)	\$11.9	\$16.2
Proportion of CAHs Successfully Obtaining Capital for Facility Replacement	0%	54%

Appendix B: Acronyms Used in This Report

CAH: Critical Access Hospital

A CAH is a facility that is designated as a CAH by the State in which it is located and meets the following criteria:

- Is a rural public, non-profit or for-profit hospital; or is a hospital that was closed within the previous ten years; or is a rural health clinic that was downsized from a hospital;
- Is located in a State that has established a State plan with CMS for the Medicare Rural Hospital Flexibility Program;
- Is located more than a 35-mile drive from any other hospital or CAH (in mountainous terrain or in areas with only secondary roads available, the mileage criterion is 15 miles); or is certified by the State in the State plan as being a necessary provider of health care services to residents in the area;
- Makes available 24-hour emergency care services 7 days per week;
- Provides not more than 25 beds for acute inpatient or swing bed care; and
- Provides an annual average length of stay of less than 96 hours per patient for acute care patients.

HIT: Health Information Technology

Health information technology (Health IT) allows comprehensive management of medical information and its secure exchange between health care consumers and providers. Broad use of health IT will:

- Improve health care quality;
- Prevent medical errors;
- Reduce health care costs;
- Increase administrative efficiencies;
- Decrease paperwork; and
- Expand access to affordable care.

Source: <http://www.hhs.gov/healthit/>

Flex Program: Medicare Rural Hospital Flexibility Program

The Medicare Rural Hospital Flexibility Program (Flex Program) was authorized by section 4201 of the Balanced Budget Act of 1997 (BBA), Public Law 105-33. The Flex Program provides funding to States for the designation of critical access hospitals (CAHs) in rural communities and the development of networks to improve access to care in these communities. Under the program, hospitals certified as CAHs can receive cost-based reimbursement from Medicare.