

MEDICARE RURAL HOSPITAL FLEXIBILITY PROGRAM PROGRAM EVALUATION



IOWA DEPARTMENT OF PUBLIC HEALTH
DIVISION OF HEALTH PROMOTION AND
CHRONIC DISEASE PREVENTION
BUREAU OF HEALTH CARE ACCESS



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SECTION 2: EXECUTIVE SUMMARY

Iowa engaged in a state Medicare Rural Hospital Flexibility (Flex) Program evaluation process that was completed August 31, 2004. Over 200 state and local stakeholders participated in the evaluation. This report documents the evaluation methods, findings, tools, and outcomes from the evaluation and makes recommendations for Iowa Flex Program changes.

Rural Health Solutions, a rural health program development and research firm located in St. Paul, Minnesota conducted Iowa's Flex Program evaluation. The evaluation occurred over a period of six months in four phases: preparation, implementation, analysis, and reporting. The evaluation included focus groups; surveys; a review and analysis of available state, local, and Critical Access Hospital (CAH) data; key informant interviews; and case studies. In addition, a grant tracking database and a networking tool were developed to assure that Iowa is able to continue monitoring and tracking state mini-grant and networking activities. This was the first comprehensive evaluation of the Iowa Flex Program.

During the past five years, Iowa has obtained \$2,141,378 from the Health Resources and Services Administration, Office of Rural Health Policy to implement the Flex Program in Iowa. This amount is 86.7% of Iowa's requested funding (\$2,469,406) and an average of \$428,275 per year. Although Iowa currently has 56 CAHs (3rd most of 45 states), it is 15th of 45 states in the amount of funding obtained since the program's inception.¹

The Flex Program in Iowa has focused on CAH designation related activities and the regionalization of EMS services. Other areas that have been addressed include hospital quality improvement and performance improvement, rural health planning, networking, and evaluation. Grant funding has been made available to local health care providers, including: \$551,342 to CAHs or CAH eligible hospitals for conducting financial feasibility studies, network agreements, system development, and quality improvement initiatives; \$112,000 to tertiary hospitals for networking activities; \$10,000 to support CAH participation in quality improvement training; and \$285,150 to support EMS. This local funding represents 45% of Iowa's Flex Program funding. In addition, workshops, an annual state EMS conference, quarterly CAH Peer User Group meetings, health care economic impact studies, a hospital utilization study, and Critical Care Paramedic scholarships have been supported to advance various Iowa Flex Program goals. Although Iowa had not formally evaluated its state Flex Program, evaluation mechanisms were built into training, workshop, and conference activities and its grant making process (as of 2003).

Iowa's Flex Program staff includes its Flex Program Coordinator, Grants Administrator, and staff time in each of the EMS regions in the state. Complimenting these staff activities are the Flex Program funded staff services provided by Iowa State University, the Iowa Hospital Association, and other contractors.

¹ HRSA, Office of Rural Health Policy, <http://ruralhealth.hrsa.gov/funding/>

The evaluation resulted in many key findings², an overview of findings includes:

- Flex Program stakeholders are satisfied with the implementation of the Flex Program.
- Flex Program grants have been effective in converting small rural hospitals to CAH status and supporting networks, EMS, and quality improvement and performance improvement activities in CAHs. CAHs continue to prefer smaller, less competitive grants to larger, more competitive grants.
- Stakeholders were initially involved in the development of the Flex Program and have been informally involved in the implementation of the Flex Program; however, they would prefer more formal involvement in Flex Program planning.
- Fifty-six small rural hospitals converted to CAH status. All CAHs have formal contracts for referral, transfer, peer review, and credentialing and many are part of formal health care systems.
- Every Iowa Flex Program stakeholder agrees that the greatest impacts of CAH conversion are improved financial status and an increase in recruitment and retention of health care providers.
- Most CAHs have added outpatient specialty services and some have eliminated services.
- Limited research into the effects of the Flex Program on improving communities' health status indicates that the Flex Program has been in place for too short a period of time with little data available, to determine if the Flex Program has improved health status.

Based on all of the evaluation findings, the following program recommendations³ are being submitted to further enhance and develop Iowa's Flex Program. Therefore, Iowa's Flex Program should:

- Re-engage in a formal Flex Program planning process.
- Host a state Flex Program conference.
- Address communication and awareness issues.
- Respond to key CAH technical assistance needs.
- Continue to provide grants to CAHs and CAH eligible hospitals.
- Continue to support CAH Peer User Group Meetings but should make changes to make them more efficient and effective.
- The Iowa Foundation for Medical Care (IFMC), the state Quality Improvement Organization, should be re-engaged in the Iowa Flex Program.
- Iowa's Flex Program should continue to monitor and evaluate program outcomes.

² A complete description of evaluation findings is included in section 11 of this report.

³ A full description of evaluation recommendations is included in section 12 of this report

SECTION 3: EVALUATION METHODS

The Iowa Flex Program evaluation was a six month project that included three *CAH community case studies*, four *focus groups*, five *surveys*, two *questionnaires*, state stakeholder *key informant interviews*, *CAH financial data analysis*, a review and analysis of available *state and local data*; *documentation review*, development of a *grant tracking database*, and development of a *network tracking tool*. The goals of the Iowa Flex Program evaluation were to:

- Measure satisfaction with activities performed at the state level, in CAHs, and communities;
- Determine the effectiveness of grants made to support EMS, CAHs, networks, and other Flex Program related activities;
- Identify stakeholder involvement in the development and implementation of the Flex Program;
- Report specific CAH and community outcomes as they relate to CAH designation, other aspects of the Flex Program, changes in health status, and changes in the delivery of health services; and
- Make program recommendations related to program planning, development, implementation, and evaluation.

As part of the evaluation process, Rural Health Solutions' staff spent 22 days on-site in Iowa reviewing documents, collecting data, meeting with and interviewing state and local Flex Program stakeholders, discussing and making plans with staff to develop a Flex Program grant tracking database that meets their tracking and reporting needs.

A. CASE STUDIES

CAH community case studies were conducted in three Iowa communities: Primghar, Osage, and Bloomfield. The case studies involved both primary and secondary data collection and analysis, including: CAH health provider questionnaires (physician and mid-level practitioners), CAH staff key informant interviews, community health provider surveys, community focus groups, review of reported public health and demographic data, and other data as available. Table 1 outlines the case study participants and Table 2 identifies CAH staff that participated in the key informant interviews. Community selection for case study participation was based on characteristics of each CAH, such as: CAH conversion date, state mini-grants obtained, services, network affiliation, ownership, number of admissions, and participation in the state CAH Peer User Group meetings as well as community location, size, and business sectors.

Participants in the case study **community focus groups** included representatives of faith-based entities, business, education, government, and consumers. The case study focus groups concentrated on issues affecting the CAH community as a whole, including:

- Community participation in the CAH conversion process,
- Perceptions of the CAH,
- Impressions of the CAH's quality of care,
- Overall value of the CAH to the community,
- Experiences related to EMS services, and
- Community health care needs and issues.

As noted in Table 1, 22 community members participated in the three community focus groups.

Physician and Mid-level practitioner questionnaires (included in the Appendix) were also conducted as part of the community case studies. Eight physicians and ten mid-level practitioners (nurse practitioners and physician assistants) practice in the three case study communities. Surveys were administered by hospital staff and returned by mail to Rural Health Solutions. As noted in Table 1, 18 of 20 CAH case study practitioners completed the questionnaires. The questionnaires reported provider information related to:

- Demographics and medical practice,
- Changes in practice and referral patterns due to the hospital's conversion to CAH status,
- Recruitment and retention,
- Support for hospital conversion to CAH status,
- Perceptions of changes in hospital quality of care,
- Participation in statewide Flex Program activities, and
- Community health care strengths, weaknesses, and concerns.

CAH Staff Key informant interviews were conducted in each case study community to provide both historical program planning and implementation information as well as information on future planning needs and direction. The key informant interviews focused on the following:

- CAH conversion process,
- State level Flex Program technical assistance,
- Flex Program grants and related outcomes,

- CAH activities addressing key Flex Program goals (networking, quality improvement, EMS integration, rural health planning),
- Community involvement in the CAH conversion and planning process, and
- Future of the Iowa Flex Program.

Staff that was interviewed is noted in Table 2.

The **Community Health Care Provider Survey** was a mailed survey (with a follow-up mailed survey) that was conducted in each of the three case study communities. Health care providers surveyed included: dentists, mental health providers, non-CAH clinic physicians and mid-level practitioners, nursing home administrators (when not attached to the CAH), home health care directors (when not affiliated with the CAH), assisted living center directors, chiropractors, optometrists, and pharmacists. A copy of the survey instrument is included in the Appendix. This survey was conducted to determine community provider:

- 1) Knowledge of and involvement in the hospitals' conversion to CAH status,
- 2) Changes in practice patterns, referrals, and utilization due to CAH conversion,
- 3) Perceptions of the CAHs' quality of care,
- 4) Vertical networking activities,
- 5) Community health care strengths, weaknesses, issues and concerns,
- 6) Current and on-going community health planning activities, and
- 7) State level community health planning strategies.

Table 1 - Case Study Participants

Community	Hospital Staff Interviews	Focus Group Participants	Board Member Interviews	Community Provider Survey Respondents	Physician Questionnaire Respondents	Mid-Level Practitioner Survey Respondents	Dates of On-site Activity
Bloomfield	8	7	Chair	NA	1/3	3/3	June 7 - 9
Osage	5	6	Chair	NA	3/3	4/4	July 12 - 14
Primghar	6	9	Chair	NA	2/2	3/3	May 24 - 27
Total	19	22	3	22/49	6	10	

Table 2 - CAH Staff Key Informant Interviews

Community	CEO	CFO	QI Coord.	DON	EMS Coord.	Nursing Home DON	Dir. Home Health	Dir. Ancillary Services	Dir. Marketing/ Development
Bloomfield	✓	✓	✓	✓	✓	✓	✓	✓	✓
Osage	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A
Primghar	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A

Other **case study service area data** were also collected based on goals, objectives and indicators described in Healthy People 2010⁴ to support case study work and to identify any possible correlation between changes in community level health status and the implementation of the Flex Program. Other data tracked hospital utilization, changes in financial status, and service mix as well as service area demographics, topography, climate, and economic development.

B. DIRECTORS OF NURSING FOCUS GROUP

A DON Focus group was conducted via teleconference. This focus group included six DONs from non-case study CAHs as indicated in Table 3. The intent of the DON focus group was to identify statewide Flex Program strengths and weaknesses related to the following:

- Role of DONs in CAHs and the conversion process,
- Community involvement in the CAH conversion process,
- CAH quality of care and performance improvement activities,
- Community health needs and issues,
- Community health planning and partnerships, and
- Integration of EMS.

⁴ <http://www.cdc.gov/nchs/hphome.htm#Healthy%20People%202010>

Table 3 - DON Focus Group Participants

Hospital Name	Hospital City
Central Community Hospital	Elkader
Decatur County Hospital	Leon
Marengo Memorial Hospital	Marengo
Belmond Medical Center	Belmond
Avera Holy Family Health	Estherville
Alegent Health Community Memorial Hospital	Missouri Valley

C. CAH ADMINISTRATOR AND CAH ELIGIBLE ADMINISTRATOR SURVEYS

Surveys of CAH administrators and CAH eligible administrators were conducted on the Web as well as follow-up telephone surveys. Data was collected to identify strengths and weaknesses in the overall implementation of the Flex Program as well as to identify current and anticipated rural hospital issues and needs. Survey topics included:

- Reasons for conversions
- CAH necessary provider application process
- CAH conversion process
- Technical assistance provided and level of satisfaction
- Grant funding
- Overall participation in the Flex Program planning and implementation process
- Post-CAH conversion issues and concerns

An 84% (47/56) response rate was obtained from the CAH administrators and a 58% (19/33) response rate was obtained for the CAH eligible hospital administrators. Information obtained through the survey was stored in Excel spreadsheets for data analysis purposes. A copy of the survey instruments and responses are included in the Appendix.

D. EMS GRANTS SURVEY

A telephone survey of EMS grantees was conducted to identify outcomes resulting from Flex Program EMS grants, the state EMS conference, and other support as well as to identify future programming needs and concerns. Sixteen of 32 EMS grant recipient communities were surveyed. Information obtained through the survey was stored in Excel spreadsheets for data analysis

purposes as well as for grant tracking and monitoring purposes. A copy of the survey instrument is included in the Appendix.

E. STATE STAKEHOLDER KEY INFORMANT INTERVIEWS

Stakeholder involvement and buy-in is key to the success of any state Flex Program. Therefore, Iowa Flex Program stakeholders were interviewed to measure their satisfaction with program operations, management and implementation; discuss their involvement in the development of the Flex Program; and identify Flex Program planning, development and implementation needs and next steps. State stakeholders are identified in Table 4.

Table 4 - State Stakeholders

Organization	Name	Role
Iowa Department of Public Health	Marvin Firsch	Flex Program Coordinator
Iowa Department of Public Health	Kate Payne	Program Planner and Contract Manager
Iowa Department of Public Health	Ray Jones	EMS Bureau Chief
Iowa Department of Public Health	Kathy Williams	SORH Director
Iowa Department of Public Health	Doreen Chamberlin	Bureau Chief
Iowa Department of Public Health	Julie McMahon	Division Director
Iowa Department of Public Health	Steve Poole	Grants and Contracts Coordinator
Iowa Department of Inspection and Appeals	Larry Frazier	Program Coordinator
Iowa Hospital Association	Art Spies	Senior Vice President
Rural Health and Primary Care Advisory Committee	Nancy Norman	Past Chair
Iowa Foundation for Medical Care	LaVern Robinson	Coordinator of Rural and Underserved Projects

F. CAH FINANCIAL AND OTHER DATA

CAH Financial Data

CAH financial data from 1997 – 2002 was obtained from the Iowa Department of Health, Bureau of Health Statistics and the Iowa Hospital Association as well as from the original financial feasibility studies conducted on behalf of rural hospitals by various accounting firms. The source of the Iowa Department of Public Health data is the annual American Hospital Association (AHA) survey of

hospitals. The AHA data was used to examine pre and post CAH conversion financial indicators as well as to compare CAHs to other hospitals in Iowa. Financial feasibility studies were also reviewed to compare projected financial status to actual financial status.

Other CAH Data

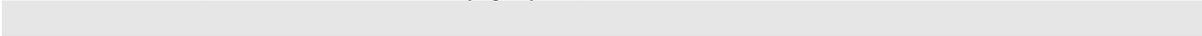
The AHA survey was also used to analyze and report service delivery, networking and other trends related to pre and post CAH conversion. Examples of information that was included in this analysis are: changes in admissions, service delivery, staffing, networking, and length of stay. Data was aggregated except for those from case study communities.

G. PROGRAM IMPLEMENTATION DOCUMENTATION

Program implementation information provided a historical perspective of the program's development and identified entities involved. It also shed light on the relationships between program implementation activities and program outcomes. Information collected and reviewed included:

- Iowa Rural Health Plan;
- 1999, 2000, 2001, 2002, and 2003 Iowa Applications for Federal Funding;
- Workshop participation information;
- Meeting agendas, notes and participant lists;
- 58 hospital applications for state Necessary Provider status;
- Requests for Proposals and other grant making guidelines as developed by the Iowa Flex Program;
- 129 grant applications for state Flex Program funding;
- Invoices and reports submitted as part of the grant funding process;
- 31 contracts for state planning, research, and program implementation activities;
- EMS grant tracking spreadsheets;
- E-mail exchanges and written documentation between grantees, contractors, or state Flex Program stakeholders and Flex Program staff.
- Reports completed as part of the Iowa Flex Program, including: Emergency Medical Services Status Report, Iowa Department of Public Health, January 2002; the Economic Impact of the Health Care Sector reports for each rural county in Iowa, Iowa State University, 2001

and 2002; and Hospital Utilization, Changing Demographics, and the Implications on Rural Health Care, Iowa State University, July 15, 2004.



SECTION 4: PROGRAM OVERVIEW

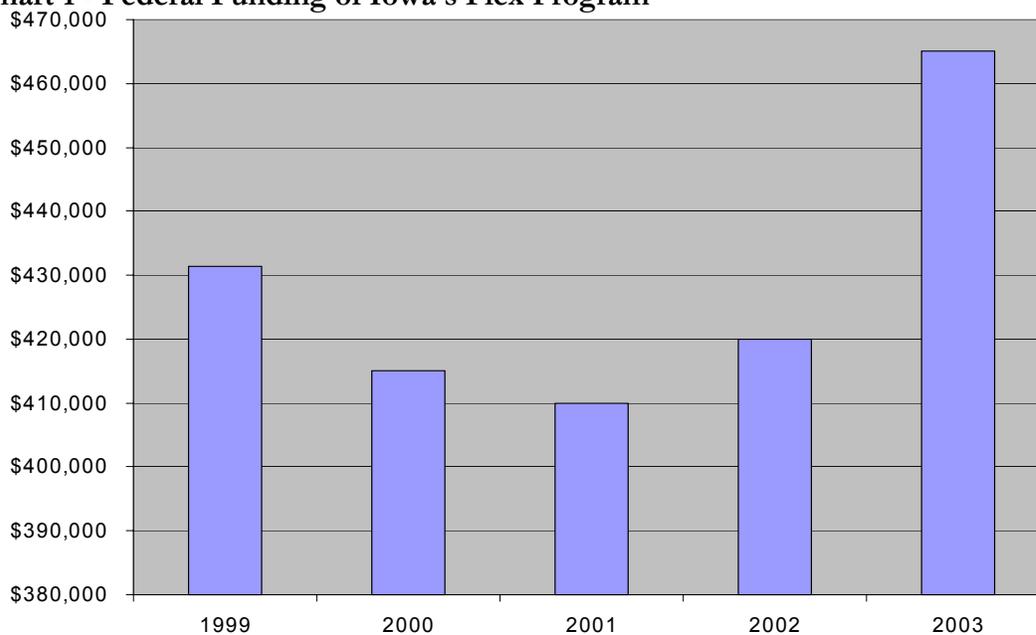
Although Iowa's Flex Program was slow to start compared to other mid-western states, it was one of the first states nationally to include EMS as part of its program planning and funding efforts. In the past two years Iowa's Flex Program has far surpassed all expectations for the number of CAH designations in the state (56 as of April 1, 2004). Iowa included several statewide stakeholders in its initial Flex Program planning process and have informally discussed program plans since that time. Iowa has been consistent in its approach to designate a sizeable portion of Flex Program funds for community/CAH grants: during the past five years \$958,492 (45%) of grant funding has supported local Flex Program activities. The remaining funding has supported the state's administrative capacity to manage Iowa's Flex Program, administer grants, provide technical assistance and program information to CAHs, support CAH performance improvement workshops, support local and state rural health planning, and promote the regionalization of EMS services statewide.

A. BACKGROUND

Iowa's Flex Program was first implemented in 1997 when the Iowa General Assembly approved \$50,000 in funding for the Iowa Department of Public Health, Bureau of Rural Health and Primary Care to develop the Iowa Flex Program. Iowa's next major Flex Program milestone was approval of its Rural Health Plan on February 22, 1999. Since that time, Iowa's Flex Program has evolved from primarily focusing on CAH designation to focusing on CAH performance improvement and other aspects of the program. Chart 1 summarizes Iowa's Flex Program funding for the past five years.

During the past five years, Iowa obtained \$2,141,378 from the Health Resources and Services Administration, Office of Rural Health Policy to implement the Flex Program in Iowa. This is 86.7% of its requested funding (\$2,469,406) and an average of \$428,275 per year. Chart 1 displays program funding during the past five years.

Chart 1 - Federal Funding of Iowa's Flex Program



Iowa has had the same Flex Coordinator managing its program for the past five years. Staff turnover was an issue for the program from 2000 – 2002. In 2002, a grants administrator was hired which has provided continuity and stability for the program as well as enhanced program support. It should also be noted that several state government policy changes affecting the grants administration process were made at this time. Examples of the changes made include requiring grantees to thoroughly report program outcomes and compete in a competitive bidding process for all grants. These changes have resulted in a significant improvement in administrative accountability and data reporting.

Early on, Iowa's Flex Program established a conservative approach to its Flex Program's funding; seen in the financial limits set for grant funding support and in its applications for federal funding. For example, the Iowa Flex Program support for financial feasibility studies has been set at \$5,000, much lower than most states nationally. Although not all CAHs requested or obtained this support, funding has supported 31 hospitals' financial feasibility studies. Iowa's conservative approach to requests for federal funding is also seen by its average amount requested of \$493,881 over the five years when funding was available (\$775,000 was available the first year, \$700,000 was available per year in years 2-5).

Emergency Medical Services

Iowa's Flex Program has a formal relationship with the Iowa Department of Health, Bureau of EMS, active since 2000. The relationship originated with support for one Flex Program staff in the Bureau of EMS and it was expanded to include administering EMS grant funding through that office, launching an annual EMS conference, and supporting EMS rural health planning research. Flex Grant funding has supported \$285,150 in EMS provider grants, including 14 of 28 grants that supported EMS providers based in CAHs. EMS is a key focus area during Flex Program evaluation since little data is available to judge outcomes.

Flex Program funding supported local CAH EMS coordination and planning efforts through the CAH Grant Program (September 1, 2000 – August 8, 2001) and the CAH Phase II Grant Program (March 15, 2000 – August 31, 2000). Applicants indicated that they planned to use this funding for countywide meetings of EMS and hospitals; however, many recipients were unable to complete the work as indicated.

Quality Improvement

Flex Program related quality improvement work in Iowa has been a combination of quality improvement (QI) and performance improvement (PI) in CAHs with a focus on the latter. This work has included workshops and grant funding. Examples of workshops are "Quality Improvement", a workshop held on May 12, 2004 that focused on setting benchmarks, and using data quality improvement; "Trustee Leadership for a New Century", a workshop held on June 22, 2000 that focused on management training; and "High Impact Strategies for Creating a Positive Workplace and Retaining Your Best And Brightest" held on February 11, 2002 and focused on staff recruitment and retention strategies.

Grant funding supported CAH staff attendance at QI conferences around the country (up to \$2,000 per hospital, totaling \$9,575 in grants) as well as PI activities. Examples of conference registrations

that were submitted for 2004 grant funding are the 2004 Institute for Clinical Systems Improvement/Institute for Healthcare Improvement Colloquium on Clinical Quality Improvement, "Harvesting Innovation-Better Patient Care through Creative Redesign" and the American College of Health Care Executive's "Quantifying Healthcare Quality: Realities and Blueprints". Outcomes related to these grants are not included as part of the evaluation due to completion dates.

CAH Conversion/Supporting CAHs

Flex Program Iowa Rural Hospital and Network Hospital grant program grants to CAHs cover several activities including:

- Charge master reviews
- Claims processing software
- Studies to identify CAH services that are not cost effective
- Strategic planning activities
- Management development education
- Development of a locally accessible certified diabetes self-management education program
- Emergency room nurse training in trauma/emergency needs using Trauma Nurse Core Courses

Rural Health Planning

A state rural health plan was completed in 1999. The goal of the Iowa Flex Program was to complete a rural health plan that would allow its participation in the federal Flex Program. Since 1999, the Iowa Flex Program has supported other rural health planning activities including: completing Rural Health Works projects in each of the 91 rural counties, conducting EMS research studies and reports, and most recently completing a preliminary investigation of hospital utilization and changing rural demographics and the implications for rural health care services. The Rural Health Works projects are updated periodically and have been completed by Iowa State University. Although not a future Flex Program funded activity, the Iowa Hospital Association will continue making the data available on the Web to hospitals.

Table 5 - Flex Program Activities 1999 - 2004

Activities	Level of Support	Activity Dates
CAH Designation		
Developing, implementing, and overseeing the IA Necessary Provider Application process	Administrative	1999 - Present
Administering and making available grants to 30 hospitals to support strategic planning, legal fees associated with networking, and financial feasibility studies	Administrative and \$285,342 grant funding	1999 - Present
Providing technical assistance to 70 CAH eligible hospitals by answering questions, providing program updates, hosting a website, and supporting CAH conversion needs	Administrative	1999 - Present
Hosting CAH designation related workshops and the CAH Peer User Group	Administrative and \$20,000	2000 - Present
Rural Health Planning		
Development of the state Rural Health Plan that allowed Iowa to participate in the Flex Program	Administrative	1999
Hosting the CAH Advisory Committee	Administrative	1999 - 2000
Researching rural demographic changes and the distribution and utilization of health services to make comparisons of utilization related to health care pricing, quality and availability	Administrative and \$49,998	2004
Rural Health Works conducted and updated in all rural counties	Administrative and \$91,000	2002 - Present
Quality Improvement & Performance Improvement		
Hosting CAH workshops such as leadership training, strategic planning, and revenue enhancing strategies	Administrative and \$68,800	2002 - Present
Administering and providing grants to rural hospitals to support activities such as charge master reviews, management development education, and health service delivery studies	Administrative and \$266,000 grant funding	2003 - Present
Supporting CAH participation in QI conferences	\$10,000	2004
Administering and providing grants to rural and network hospitals for QI activities	Administrative*	2001 - Present
Emergency Medical Services		
Making an EMS Regional Coordinator available to support EMS activities locally	Administrative	2000-Present
Providing EMS grants to local EMS, including 13 based in CAHs	Administrative and \$285,150 grant funding	2002-Present
Administering and providing EMS grants to rural hospitals to develop an integrated EMS system for the hospital's service area	Administrative *	2000-Present
Coordinating on statewide EMS policy issues to assure CAHs are included in the policy development process	Administrative	1999-Present
Initiating and continuing on-going support of the annual Iowa EMS Conference	Administrative and \$55,000	2000-Present

Supporting critical care paramedic scholarships	Administrative and \$40,000	2002, 2003
Network Development		
Hosting network related workshops	*	2000 - Present
Administering and providing grant funding for networks	Administrative and \$112,000	2001 - Present
Evaluation		
Surveying workshop and conference participants	Administrative	2000 - Present
Requiring grantees to report project outcomes	Administrative	2003 - Present
Conducting a full program evaluation	Administrative and \$94,387	2004

*Grant funding is represented in other areas of the table

SECTION 5: CRITICAL ACCESS HOSPITALS

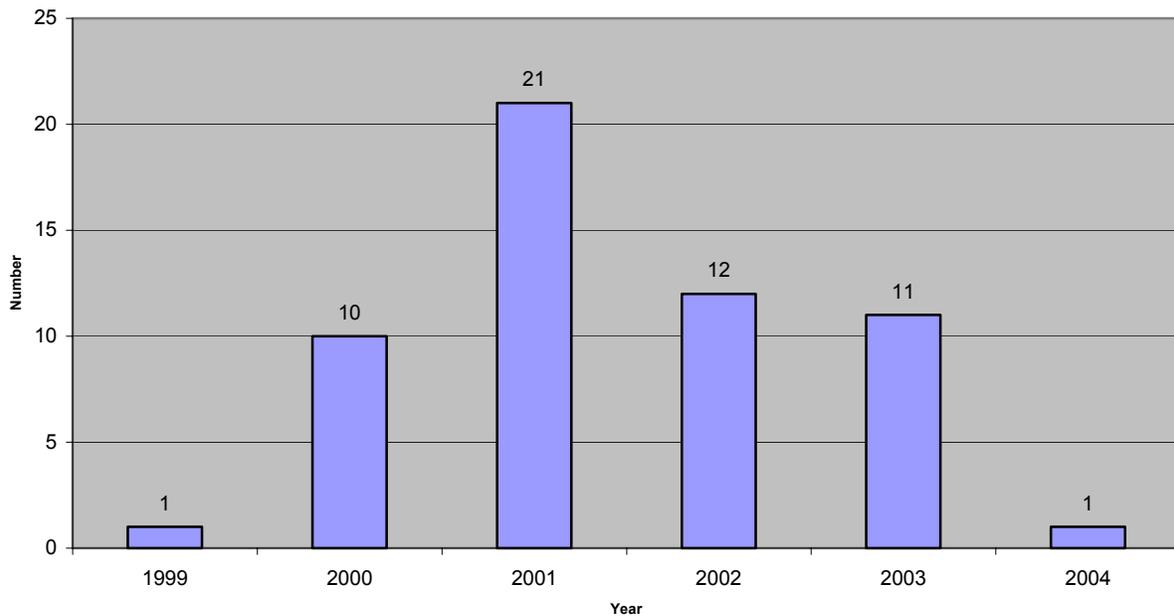
This section of the Flex Program evaluation focuses on Iowa CAHs. Iowa's Flex Program has invested the majority of its resources in CAHs, both in terms of technical assistance and financial assistance. Information reported here was obtained through the CAH Administrator and CAH Eligible Administrator Surveys, the Director of Nursing Focus Group, and data from the Iowa Department of Health, Iowa Department of Inspection and Appeals, and the Iowa Hospital Association.

In order to make comparisons between CAHs and other hospitals in Iowa, Iowa Hospital Association hospital classifications were used to define the other hospital groupings. They are as follows:

- Rural: All locations in the state not located within a standard metropolitan area (SMA) or classified as rural referral.
- Rural Referral: Hospitals not located within a standard metropolitan area and meeting specified requirements for discharges, case mix, and physician specialties.
- Urban: Hospitals located within a standard metropolitan area (SMA) and located in metropolitan counties of less than one million people. This includes the CAH located in Perry.

A. DESIGNATIONS

Iowa hospitals are fairly evenly dispersed throughout the state: about 20 miles between each hospital. As of April 1, 2004, there were 56 CAHs in Iowa as indicated in Map 1. In addition, 8 hospitals have attained necessary provider status, and 9 are seriously considering applying for necessary provider status. Based on current data, Iowa is projected to have 73 CAHs in the state by the time the necessary provider option sunsets January 1, 2006. The projected number of CAHs represents 63% of the state's hospitals (116) and 77% of the state's rural hospitals (88 less those hospitals located outside a federally designated metropolitan statistical area). The number of CAHs in Iowa will likely be amongst the highest nationally. 0 displays the number of CAH certifications per year from 1999 – April 1, 2004.

Chart 2 - CAH Conversions

On average, CAH administrators have been working 9.3 years in their hospital. Most hospital administrators managed and participated in their CAH conversion process. Ninety-eight percent were satisfied or very satisfied with their pre-application/CAH decision making activities, 93% with their necessary provider application process, 88% with their survey and certification process, and 90% with post-certification operations.

B. LICENSURE AND CERTIFICATION

A first step in the Iowa CAH certification process is application for necessary provider status (no hospital in Iowa is 35 miles or greater from the next nearest hospital). Applicant hospitals must provide documentation that it meets six of 11 state necessary provider criteria identified in the application materials; complete a financial feasibility study; provide copies of required network agreements; provide a description of community health planning activities; and describe the hospital's organizational structure, services, and utilization. The hospital must also show compliance with other CAH requirements, such as the previous 15-acute care bed limit or the revised 25-acute/swing-bed limit, business status, and compliance with the 96-hour average annual length of stay limit. The CAH designation process resulted in 44 hospitals reducing 654 State licensed and Medicare certified beds in Iowa. Seventy-two percent of hospitals reported that the necessary provider application process was somewhat difficult (34%) or not difficult (38%) and 92% reported that they were very satisfied (36%) or satisfied (45%) with the process.

Hospitals must also complete the state licensing and Medicare certification process to be certified as a CAH. Unique to Iowa is that a hospital must operate as a CAH prior to its initial survey.

Therefore, when the hospital is surveyed, policies and procedures must reflect the survey guidelines and there must be evidence that the policies and procedures have been followed. Fifty-three percent of CAHs reported that the survey and certification process was difficult or very difficult; however, 79% reported that they were either satisfied or very satisfied with the process. Many attributed the “difficulty” to the need to update and implement new hospital policies and procedures, something that they found very beneficial in the long-term.

Of the Iowa hospitals that completed the initial survey, one hospital had no survey deficiencies. Of the hospitals that completed follow-up surveys, none were deficiency free. The average number of deficiencies was 3.8. The most common deficiencies found in hospitals as of August 2004 are identified in Table 6. Initial surveys identified issues with hospitals’ required networking contracts that were either too limited in scope or lacked documentation supporting implementation of the network agreement. Swing-bed documentation was also an issue. Follow-up survey deficiencies reflected policies and procedures that were in place (not necessarily required policies and procedures) but not being followed.

During the past three years, CAHs have networked informally and within their formal networks to conduct mock surveys in preparation for their hospital licensure and CAH certification surveys. CAHs report that the mock surveys have been, “very beneficial” and have improved relations among CAHs. Data is not currently available to quantify outcomes related to this work; however, given the angst hospital staff report regarding the hospital licensure and survey process, it should be tracked and monitored for future program planning purposes.

Table 6 - CAH Certification and Licensing Survey Deficiencies

CAH Interpretive Guidelines, Tag number	Number of Hospitals with Deficiency	Deficiency
152	26	IA practice requirements related to the delegation of physician responsibilities to nurse practitioners, clinical nurse specialists, and physician assistants.
192	21	Patient referral and transfer.
222	25	Housekeeping and preventative maintenance programs to ensure that all essential mechanical, electrical, and patient care equipment is maintained in safe operating condition.
271	23	Health care services are furnished in accordance with appropriate written policies that are consistent with applicable state law.
276	15	Rules for the storage, handling, dispensation, and administration of drugs and biologicals. These rules must provide that there is a drug storage area that is administered in accordance with accepted professional principles, that current and accurate records are kept of the receipt and disposition of all scheduled drugs, and that outdated, mislabeled, or otherwise unusable drugs are not available for patient use.

279	19	If providing inpatient services, procedures that ensure that the nutritional needs of inpatients are met in accordance with recognized dietary practices and the orders of the practitioner responsible for the care of the patients, and that the requirement of 483.25(i) is met with respect to inpatients receiving post hospital SNF care.
321	15	Practitioners are designated who are allowed to perform surgery for patients, in accordance with approved policies and procedures. Those who can perform surgery include: doctor of medicine, osteopathy, dental surgery, dental medicine, or podiatric medicine.
337	29	All patient care services and other services affecting patient health and safety are evaluated.
384	26	Preventing employment of individuals who have histories of neglect and abuse in a health care setting.
395	24	Comprehensive care plans for each resident that includes measurable objectives and timetables to meet a resident's medical, nursing, mental and psychosocial needs that are identified in the comprehensive assessment.
Total	223	

C. COMMUNITY INVOLVEMENT AND DECISION MAKING

As part of the necessary provider application process, hospitals are required to, “demonstrate involvement with local community health planning initiatives that identify community health care needs.” Seventy-four percent of CAHs report that they completed a community needs assessment prior to conversion and 95% report that representatives from the local community were involved in the conversion process. For those hospitals that included community members in the decision making process,

- 13% reported community involvement as hospital board members only,
- 30% reported that non-board community members actively participated in the decision making process,
- 41% presented information at community forums,
- 66% presented information in local media outlets, and
- 15% reported hospital board involvement, non-board community involvement, presentations at community forums, and information presented in local media outlets.

Many hospitals reported that conversion to CAH status was, “invisible to the community” while others reported that community members saw it as “an opportunity to stabilize their hospital.”

D. TECHNICAL ASSISTANCE

Iowa’s rural hospitals have had access to CAH technical assistance since the program was made available in 1999. Assistance has varied from one-on-one telephone calls and e-mails between

hospital staff and state Flex Program stakeholder staff to on-site training and education in CAHs, organized workshops, conferences, and meetings. As part of the CAH Administrator Survey, hospitals were asked to identify who provided assistance and to rate their satisfaction with the assistance provided. In response, all CAH administrators reported that they obtained some assistance from at least two state Flex Program stakeholders to convert to CAH status (average was 4 per CAH). Of those that obtained assistance, 85% or more report receiving assistance from the Iowa Hospital Association, the Iowa Department of Inspection and Appeals, and their network tertiary hospital as indicated in Table 7. Hospitals that converted later in the process reported receiving the majority of assistance from other CAHs. In general, hospitals were satisfied with the assistance they received; however, they were most satisfied with the assistance received from other CAHs (90%), the Iowa Hospital Association (68%), and the state Flex Program (66%).

Table 7 - CAH Administrator Satisfaction with CAH Technical Assistance Sources

State Stakeholder	CAHs Reporting Assistance Obtained	Rating the Assistance as Very Helpful
Iowa Hospital Association	87%	68%
Iowa Flex Program	64%	66%
Department of Inspection and Appeals	85%	40%
Network Tertiary Hospital	85%	47%
Fiscal Intermediary	36%	47%
Hospital Accounting Firm	74%	54%
Other*	23%	90%
* Other CAHs were the only "other" identified		

Additional information regarding the technical assistance provided by Iowa's Flex Program staff was also obtained. Sixty-four percent of hospitals reported getting some assistance from Flex Program staff. All but two CAHs agreed or strongly agreed that the technical knowledge and assistance provided by the Flex Program staff was beneficial. Several CAHs commented on the accessibility and timely responses of Flex Program staff. CAHs were also surveyed about their use and value of the Flex Program website. Over 58% of respondents either did not use the Flex Program website or did not find it useful.

As noted earlier, Iowa's Flex Program has coordinated quarterly CAH Peer User Group meetings to provide program updates and announcements, share best practices, respond to issues and concerns, and encourage networking amongst CAHs. Seventy-eight percent of CAHs report attending the CAH Peer User Group Meetings. Of those that participate, 88% reported that the meetings are beneficial. CAHs were also asked what they would like to see different at the meetings. Comments reflected the following:

- Travel time to and from CAH Peer User Group meetings frequently does not warrant attendance or limits the staff that is able to attend.

- A need to devote less time to state stakeholder and other presentations and more time to CAH best practices.
- CAH administrators are interested in the upcoming performance improvement projects.

CAHs were also asked about their information resources, and more specifically where they get updates on CAH issues and changes. Almost all CAHs (96%) reported the Iowa Hospital Association as an information resource. Other common resources included: the Iowa Flex Program (64%), the fiscal intermediary (53%), the Iowa Department of Inspection and Appeals (79%), and the Centers for Medicare and Medicaid Services (66%). When asked about their involvement in the statewide planning and development of Iowa's Flex Program, 73% reported that they are not involved in these efforts. Six of the CAHs stated that they had attended the national Flex Program Conference, 100% reported that this was beneficial.

E. GRANTS

Flex grant funding has been made available to CAHs since 1999. Initially, funding was directed to CAH conversion related activities: financial feasibility studies, legal fees, and updating policies and procedures. Since 2003, while funding is still available for CAH conversion activities, the focus has changed to the development of networks, quality improvement (QI), and performance improvement (PI). Map 2 identifies grant funding by hospital and Table 8 provides a sample of grant funding outcomes.

Table 8 - Flex Program Grant Outcomes Examples

Hospital/Org Name	City	County	Funding Awarded	Activity Funded	Grant Outcomes
Baum Harmon Mercy Hospital	Primghar	Obrien	\$ 8,000	Charge master review, strategic planning and staff CQI training	Charge master review was completed. This improved billing process and quality. Hospital did not have a QI coordinator on staff. A nurse was trained to work part-time as the hospital QI Coordinator. A QI process is now in place that has affected patient flow issues, medication errors and pain management. In addition, the QI person is now working with other hospitals in the region on regional QI issues.

Baum Harmon Mercy Hospital	Primghar	O'Brien	\$ 13,000	Network Development: collaborate with Hawarden and Mercy MC, Sioux City, IA to address management development needs and conduct management development training (enhance job and communication skills, employee relations, and foster professional growth). Update foundation by-laws, recruit board members, update vision and mission statement	Since the hospital had a change in ownership upon CAH conversion, they changed their hospital board from elected to appointed. Hospital managers received management training. Employee satisfaction surveys report that employee morale has increased and job satisfaction has increased. Finally, the hospital moved from a board only strategic planning process to a staff driven strategic planning process that is more inclusive.
Central Community Hospital	Elkader	Clayton	\$ 4,000	Improve patient safety by researching options, attending meetings, and developing plan	Reported meetings attended, QI indicator options reviewed and selected, reviewed hospital programs/services and related safety issues (fetal monitor - eliminated, bedrail guidelines changed, entrance issues raised, identified ideas to hold a Nurses Week), reviewed financial statements from successful CAHs to identify options, QI staff person added as a direct result of project.
Community Memorial Hospital	Sumner	Bremer	\$ 8,000	Financial assessment of services to determine whether to streamline or eliminate services. Updating network agreements.	Completed detailed costing of all services, determined 12/30 services non-profit for year-end 6/30/00; reviewed operations, decided all 12 will continue to be offered. Network agreements in compliance.
Guttenberg Municipal Hospital	Guttenberg	Clayton	\$ 7,000	FFS, CAH Conversion, education of board re: results, policy and procedure development.	5 educational sessions re: CAH were held for staff and board members, an internal CAH committee was established for on-going monitoring of CAH compliance, policies and procedures were updated.
Jones Regional/St. Lukes Medical Center	Anamosa	Jones	\$ 9,000	Study to identify services that aren't cost effective, seek community and network input re: non-profitable services continuing at JRMC or moving to network hospital (St. Lukes HC, Cedar Rapids). Legal fees to update policies and procedures	Identified and determined that unprofitable services will be maintained.
Marengo Memorial Hospital	Marengo	Iowa	\$ 5,000	Strategic planning to complete a 5-year financial forecast that would evaluate current services and determine new service areas or expansion services. Forecast, community survey, master site/facility plan, and technical energy analysis	Used plan to determine equipment upgrades, equipment/systems that will be used in the renovation of the hospital as well as the new hospital addition. This includes using geothermal heating in a portion of the hospital.
Van Buren County Hospital	Keosauqua	Van Buren	\$ 5,000	Charge master review	Staff is better informed about the chargemaster and its impact on reimbursement, improved system to determine and update charges, and current data for benchmarking.

Iowa Flex Program support for financial feasibility studies was set at \$5,000, much lower than other states nationally. This was primarily due to the large number of small rural hospitals in the state and the overall level of program funding that was available. CAHs were also able to apply for \$1,000 funding to support EMS related conversion needs, including collaborating with local EMS. Four grants were made to CAHs that included funding for this work; however, most were unable to use the funds as planned. Not all CAHs requested or obtained financial support for conversion activities; however, funding supported 36 (64%) hospitals' financial feasibility studies and on average \$2,989 per CAH for the conversion process. Eighty-six percent of CAHs reported that Flex Program grant funding met their conversion needs. Fourteen CAHs have not received any Flex Program grant funding.

Once converted, CAHs were also able to apply for Flex Program grant funding for quality improvement training, network development, and performance improvement activities. A total of 29 grants have been made to support these activities. Most of the Flex Program grant awards focused on QI training activities, charge master reviews, identifying services that are no longer financially viable and determining whether to continue to provide services. CAHs were eligible to apply for up to \$2,000 per hospital to support staffs' attendance at a QI workshop or conference. Five hospitals received grant funding through this grant. As part of the grant-making process, the Flex Program requires that at least one representative who attended the QI workshop or conference present information learned at an upcoming CAH Peer User Group Meeting. Due to the grant period, presentations and related outcomes will not be available until after this evaluation.

F. NETWORKING

At the time of CAH certification, all Iowa CAHs had, at a minimum, the required networking agreements in place. Many of the networks existed prior to hospitals engaging in the CAH designation process, while others resulted from CAH certification activities. For example, some of Mercy Health System's networks date back to the mid-1980s. Two of Iowa Health System's CAHs were contract managed by the Iowa Health System years prior to conversion. These hospitals ceased contract management relations. Some CAH networks function according to the networking requirements of CAH licensing and certification, while many go beyond those requirements. The Appendix includes a chart of CAH network relationships.

Data indicates that 30 CAHs are engaged in formal management or affiliation agreements with tertiary hospitals. CAHs in these networks often have a combination of the following: management staff that are employees of the tertiary hospital, integrated information technology systems, coordinated quality improvement plans, integrated peer review and credentialing processes, access to legal council, and staff training opportunities. Network staff report that although some tertiary hospitals established relationships with CAHs to enhance patient referral and transfers, referral patterns have changed very little, while the relationships have expanded.

Twenty-six CAHs are engaged in networks with tertiary hospitals that more closely reflect the CAH guidelines for participation, including: peer review, credentialing, and referral and transfer agreements. Although many of these facilities had informal processes in place prior to conversion (in particular for referral and transfer activities), most did not have formal network agreements.

Flex Program funding has been made available to CAHs and their tertiary hospitals to support and foster networking related activities. Examples include:

- Iowa’s Flex Program supported nine CAHs in creating or updating network agreements for referral, transfer, and health care provider credentialing and peer review.
- Mercy Medical Center of North Iowa, a network that includes 6 CAHs, obtained \$17,900 in Flex Program grant funding to complete a diabetes project. The diabetes project assessed, enhanced, and integrated diabetes education programs across the network, including: standardizing materials; upgrading requirements to meet the American Diabetes Association, Centers for Medicare and Medicaid Services, and Iowa Department of Public Health standards; and improving and expanding program service delivery methods, data collection processes, and evaluation systems. CAHs involved in the project report that the project has resulted in tools, staff skills, and community programs that can better address the increasing demand for diabetes management and care services. In addition, through the project, the CAHs have developed a network of CAHs to trouble-shoot issues that arise and to identify strategies to develop their local level diabetes programs.
- Another network grant funded leadership development activities between three CAHs. The CAHs obtained joint training of management staff, on-site training and coaching, and tools to monitor progress. Each CAH has realized increased employee satisfaction, improved retention rates, and the CAHs have a means to support one another and to track and measure progress among similar facilities and staff.

When CAH staff were asked about the impact of the Flex Program and CAH status on establishing and/or fostering network development, common themes included: “CAH has helped our network evolve”, “the network relationship has forced us to be better at what we are doing,” and “networking has created new opportunities for our hospital, staff, and patients.”

G. UTILIZATION AND SERVICE MIX

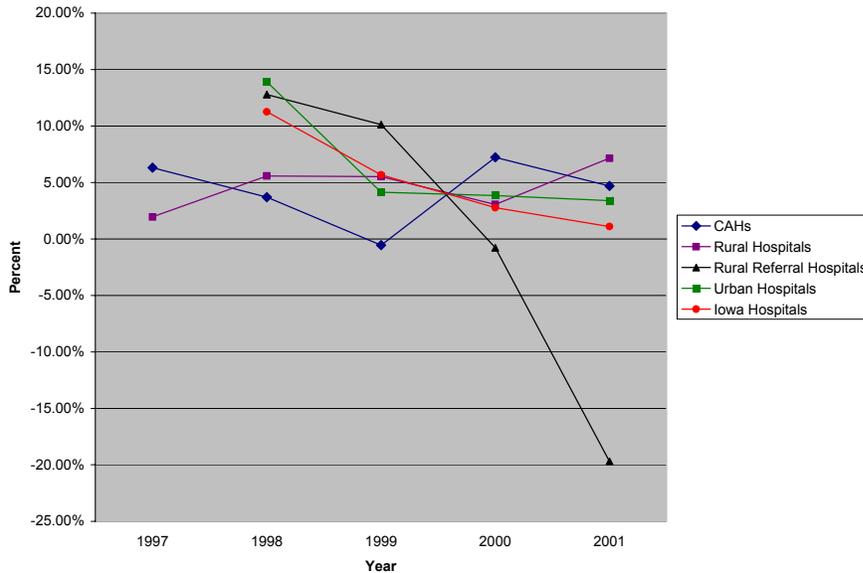
During the period 1997 – 2002 acute care admissions in Iowa CAHs peaked in 1999 while other types of hospitals have seen more sporadic acute admission rates. Outpatient admissions however have been more consistent across all hospital types and have realized an overall increase in admissions. These changes are displayed in Table 9 and Chart 3.

Table 9 - CAH Admissions By Year

Average Number of CAH Admissions						
	1997	1998	1999	2000	2001	2002
Acute	505	508	513	486	494	487
Outpatient	21,444	22,889	23,770	23,642	25,486	26,740
Swing-bed	239	248	248	239	236	229

Between 1997 and 2002 the number of outpatient visits in CAHs increased 24.7%; this includes an increase of 66% in one CAH as well as losses in others. The rate of increase in most hospital classes peaked in 1998 while it peaked in 2000 for CAHs. Only rural referral hospitals have experienced a year without an increase in outpatient visits. Chart 3 displays the annual increases/decreases in the average number of outpatient visits for each hospital type in Iowa.

Chart 3 - Annual Average Changes in Hospital Outpatient Visits



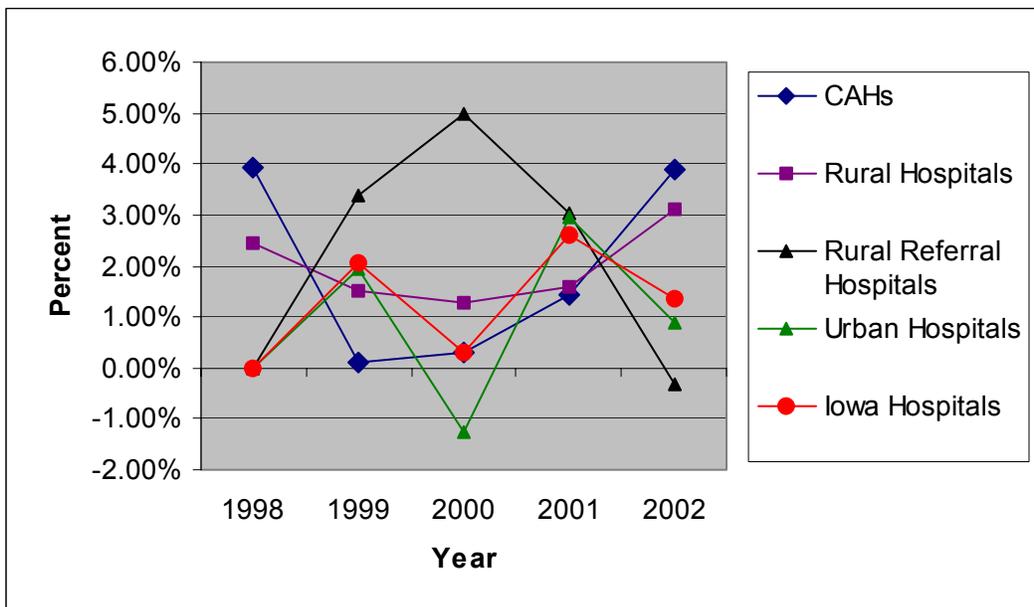
The number of surgeries occurring in CAHs is also increasing and a greater percentage of these surgeries are outpatient. This trend is consistent with all rural, rural referral, and urban hospitals in Iowa (rural hospitals experiencing the greatest increases) as displayed in Table 10.

Table 10 - Hospital Surgeries 1998-2002

Number of Surgeries					
Surgeries	1998	1999	2000	2001	2002
Rural	77826	82143	89866	90097	96138
Rural Referral	46114	48393	48579	49885	54029
Urban	254606	256337	260364	259907	259527
IA	378546	386872	398809	399889	409694
Percent of Surgeries that are Outpatient					
	1998	1999	2000	2001	2002
Rural	78.8%	80.7%	81.6%	81.9%	83.1%
Rural Referral	68.2%	68.0%	68.0%	67.5%	69.1%
Urban	68.6%	70.9%	71.3%	71.2%	71.5%
IA	71.3%	72.6%	73.2%	73.2%	73.9%

Thirty-four percent of CAH administrators report that their second greatest reason for converting to CAH status was to improve their ability to attract and retain key health care professionals. Therefore, it is not surprising that the number of personnel employed in CAHs has increased (4 staff per hospital) from 2000 - 2002 as displayed in Chart 4. Given the limited years of data available, it is unclear as to whether this will remain a trend or whether it is an adjustment that was made because of historical losses.

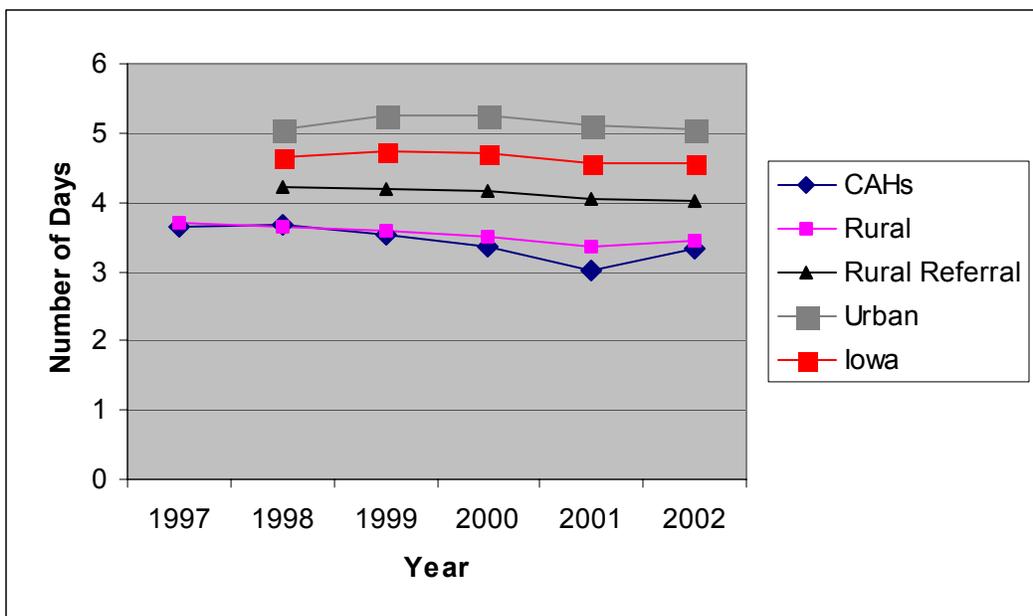
Chart 4 - Annual Percentage Change In Number of Hospital Personnel



Designation as a CAH requires that the hospital maintain an annual average length of stay (ALOS) that is less than 4 days. As displayed in Chart 5, hospital lengths of stay in Iowa declined slightly between 1997 and 2001, with the greatest decline in CAH hospitals. In 1997 CAHs' ALOS was 3.639 and in 2002 it was 3.33 compared to all hospitals in Iowa that had an ALOS of 4.642 in 1997 and 4.556 in 2002.

Twenty-two CAHs had at least one annual ALOS that was greater than four between 1997 and 2002. Of those, two had an annual ALOS that was greater than four in a year after they converted to CAH status. Given the changing demographics in Iowa, in particular rural Iowa, and the characteristics of hospitals considering conversion to CAH status (larger, longer lengths of stay), annual ALOS should be monitored.

Chart 5 - Average Annual Length of Stay



The types of services provided in CAHs have also changed since hospitals converted to CAH status. Although CAHs are offering more outpatient specialty care services, 13 CAHs obtained Flex Program grant funding to identify hospital services that are not profitable as CAHs and to determine if the services would be eliminated. Most hospitals reported maintaining services if another service provider in the community could not be identified. Services that were reported as eliminated included: obstetrics, home healthcare, an adolescent psychiatric facility, Meals-On-Wheels, and food services for local nursing homes.

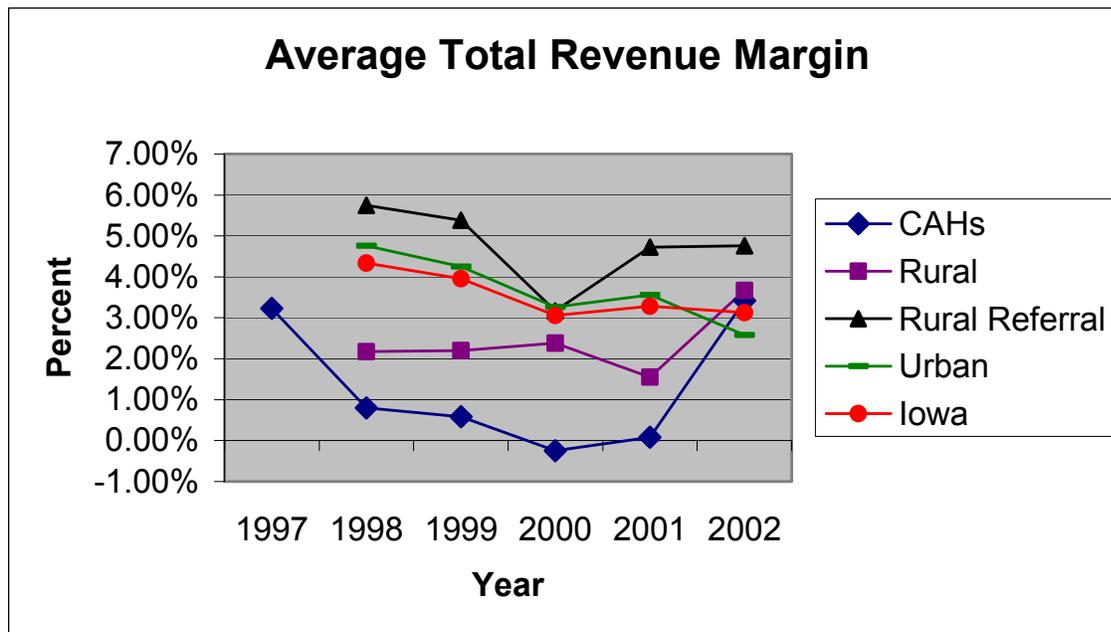
H. FINANCIAL STATUS

A primary goal of the Flex Program is to maintain access to health care in rural areas. This is only possible when rural hospitals are financially viable. Eighty-nine percent of CAH administrators

reported that improving the financial viability of the hospital was the primary reason they converted to CAH status. Every CAH completed at least one financial feasibility study (FFS) prior to converting to CAH status. FFSs indicated that 36 hospitals would enhance their inpatient revenue, 44 would enhance their outpatient revenue, 11 would experience decreases in inpatient revenue, and one would see a decrease in its outpatient revenue if they converted to CAH status. No hospital converted if its FFS indicated a net loss due to conversion. Therefore, it is not surprising that CAHs' financial status has improved since hospitals converted to CAH status.

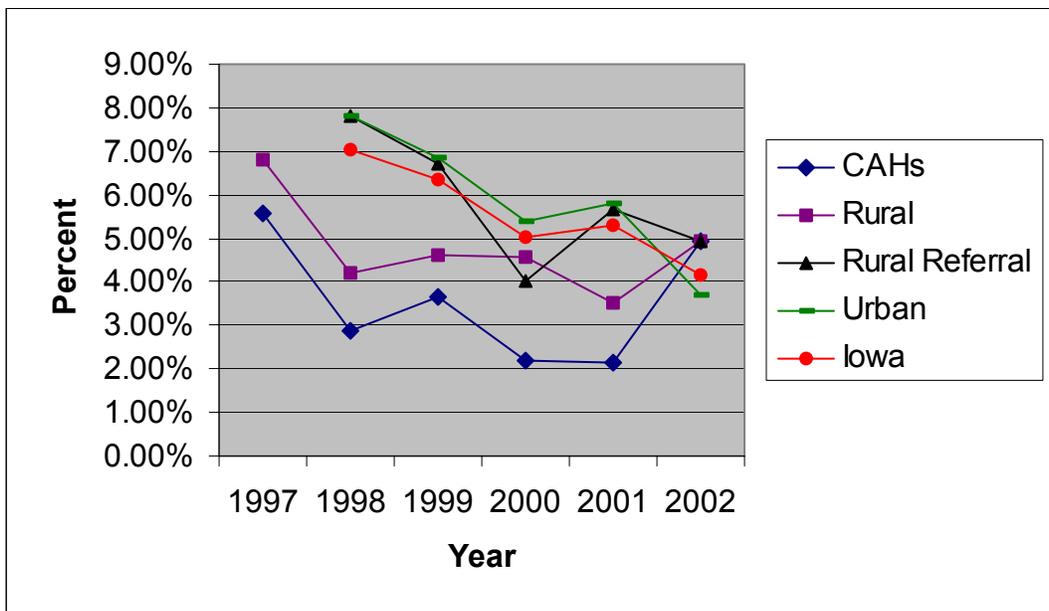
There are several indicators used to measure hospital performance. One such indicator is a hospital's operating revenue margin. High operating revenue margins and increasing trends reflect favorable financial indicators. Of the 11 CAHs that converted to CAH status before January 1, 2001, their average operating revenue margin was -6.01% in 2000 compared 7.2% in 2002, at least one year after converting to CAH status. None of these 11 hospitals experienced an operating revenue margin below 3.5% in 2002. Chart 6 displays a similar trend for all CAHs in Iowa and corresponds with data that was reported as part of the CAHs' financial feasibility studies. The gradual improvements seen in 2001 can be directly associated with hospitals that converted to CAH status in 1999 and 2000. Marked improvements are seen in 2002, one - two years after some hospitals had converted. Since 45 hospitals converted to CAH status after January 1, 2001, upcoming 2003 data will better reflect the financial impact of CAH conversion on Iowa's CAHs.

Chart 6 - Hospitals Operating Revenue Margin



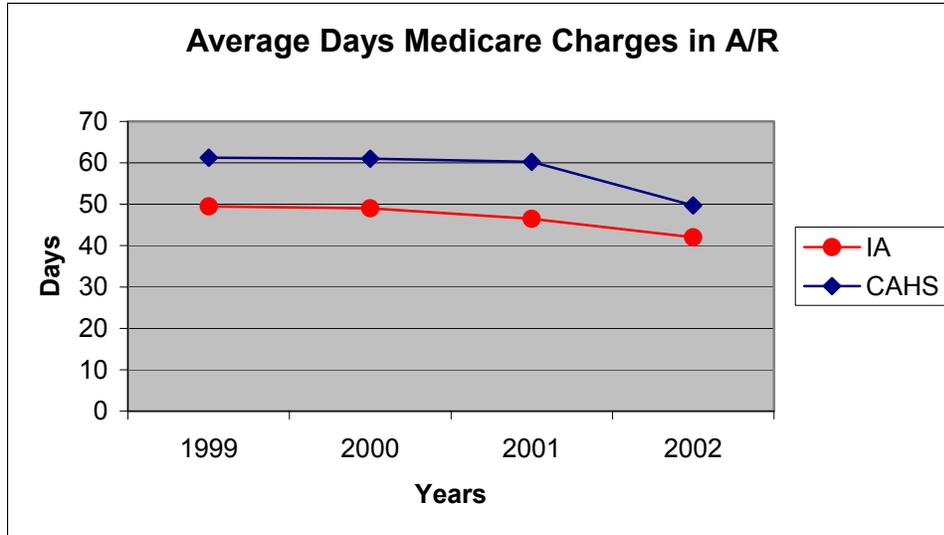
Hospitals' total revenue margin (which includes revenue from investment income, contributions, and other non-operating income, such as the sale of surplus equipment) is another financial indicator. This ratio evaluates the overall profitability of the hospital using both operating surplus (loss) and non-operating surplus (loss). Using this ratio, the same 11 hospitals that converted to CAH status prior to January 1, 2001 had an average total margin of -4.87% in 2000 and 9.31% in 2002. Chart 7 shows similar trends to that of chart 6, however, total revenue margins for CAHs never fell below two percent and urban and rural referral hospitals realized similar losses with little recovery. Once again, the changes seen here can be directly attributed to the Flex Program and cost-based reimbursement.

Chart 7 - Hospitals Total Revenue Margin



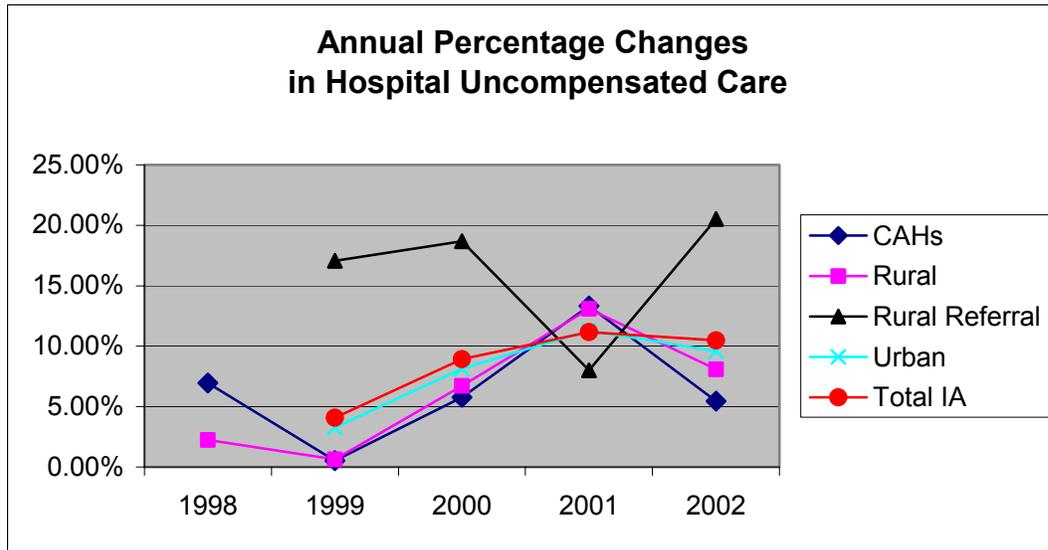
Days in accounts receivable is also used as a financial indicator. This indicates how quickly services are billed and paid and the overall cash flow of the hospital. On average, Iowa's hospitals have experienced a decrease in the number of days Medicare charges were in accounts receivable. CAHs experienced a peak in the fourth quarter of 2000 but as noted in chart 8 they have realized steady declines since that time. Iowa's CAHs, networks, and the Flex Program overall have worked extensively on addressing billing and coding issues over the past two years, so the significant decreases may be attributed to this work. Changes in this trend should continue to be monitored.

Chart 8 - Average Days Medicare Charges in A/R



Although not a financial indicator in and of itself, changes in uncompensated care are frequently included as part of the hospital reimbursement discussion. Uncompensated care is not controlled by hospital behavior as hospitals are required to provide care regardless of payment. Therefore, it is a financial aspect that most affects hospitals during societal changes due to economic forces and whether employers are offering health care insurance. Typically, uncompensated care is viewed as an urban hospital issue; however, all of Iowa's hospitals, including CAHs, have experienced an increase in uncompensated care over the past five years. It is not surprising that increases in rural hospitals' uncompensated care is similar to that of CAHs as they operate in the same economic environments. In 1999, hospitals statewide realized the smallest increase in uncompensated care. These trends are indicated in Chart 9.

Chart 9 - Annual Percentage Changes In Hospital Uncompensated Care



CAH physical plant needs and construction and remodeling plans are another financial component to consider. Although not directly addressed on the CAH Administrator survey, many CAHs noted that they have recently made or are making plans to update, remodel, or build new hospitals and 82% reported that they have a current or future initiative addressing physical plant issues. Modernizing the hospital’s facilities and equipment was one of the top three reasons for converting to CAH status for 57% of CAHs. In addition, Flex Program grants have funded seven equipment and physical plant update related projects in Iowa CAHs.

I. POST-CONVERSION ISSUES AND CONCERNS

For Flex Program planning purposes, CAHs were asked to identify and rank their concerns related to staffing, provision of services, finances, administration, external relationships, and other issues or concerns. In addition, they were asked whether they have a current or planned initiative to address the concern.

Staffing

As stated earlier, thirty-four percent of CAH administrators report that their second greatest reason for converting to CAH status was to improve their ability to attract and retain key health care professionals. Since converting to CAH status 20% of CAHs report it as their primary concern and 69% report it as one of their top three concerns. Although recruiting and retaining physicians is rated as their primary staffing concern, more hospitals are concerned about recruiting and retaining nurses (51%). CAHs reported being least concerned about recruiting and retaining nurse practitioners and physician assistants as 44% of CAHs are “not concerned.”

Services

About half of the CAHs are concerned about hospital utilization while the others have little or no concern. As noted earlier, many CAHs are in the process of investigating the expansion of services or are in the process of expanding services so it is not surprising that 21% ranked this as one of their top three concerns. This is also consistent with information related to physical plant updates as 55% indicated that they are very concerned about physical plant updates and 82% report that they have current or future physical plant update initiatives.

Quality improvement (42%) and patient safety (51%) are also concerns of CAHs and 29% report them as their three primary concerns. Although these issues are rated high amongst CAH concerns, CAHs also report that much of this stems from their interest to address quality issues and to have the tools to engage in the quality improvement process. The financial costs, staff, and technical skills needed to do the work are also a part of the equation.

Finances

Although CAHs financial status has improved since converting to CAH status, 60% reported that they are “very concerned” about financial performance and it remains their greatest concern; 47% ranked it as one of their three greatest concerns. In addition, 78% reported having current or future plans to address the issue. Most of CAHs financial concern relates to Medicare reimbursement, however, 55% reported that they are also concerned about Medicaid rates.

Administration

Most CAHs (93%) are working on hospital strategic planning and several (at least five) are recruiting hospital administrators. Very few hospitals report much concern about their network relationships.

External Relations

Forty percent of CAHs' report being very concerned about their reputation in their community and most CAHs (77%) have plans in place or will be addressing this issue. CAHs report having little or no concerns about their relations with state agencies and their relations with regional health care providers.

Other Concerns

Other concerns expressed by CAH administrators included:

- Possibility that CAH status is only a temporary fix to a long-term issue,
- Overall increase in the number of CAHs nationally which may cause CAH status to be eliminated or downsized,
- Stress of working in health care,
- Need for legislative education on the Flex Program

J. SUMMARY OF CAH FINDINGS

- 56 hospitals converted to CAH status, the majority in 2001. They found the application process to be either somewhat difficult or not difficult and they were satisfied with the necessary provider application process that was developed by the state Flex Program and other Flex Program stakeholders.
- CAHs obtained and were satisfied with the CAH conversion assistance they received from key state Flex Program stakeholders. The Iowa Hospital Association was reported as supporting the largest number of hospitals while CAHs were most satisfied with the assistance provided by other CAHs.
- CAHs agree that the assistance provided by Flex Program staff was useful during the necessary provider application process and that Flex Program staff provided knowledge and expertise regarding CAH policies, survey readiness, and conversion issues.
- Most CAHs either do not use the Flex Program website or they do not find it useful.
- CAHs' financial status has improved since hospitals converted to CAH status. Evidence of this can be seen in the first 11 hospitals that converted to CAH status (all prior to January 1, 2001) that had an average total margin of -4.87% in 2000 and 9.31% in 2002 as reported by CAHs.

- CAHs are not involved in statewide CAH/Flex Program planning efforts but are interested in participating in this process.
- The annual ALOS in CAHs declined from 1997 – 2001 and increased slightly in 2002. In addition, CAHs are limiting their average ALOS to less than four days; however, evidence suggests this may not be the case for all hospitals and it may become an issue as larger hospitals, with higher ALOSs, convert to CAH status.
- While demand for and the supply of outpatient services in CAHs increases, demand for inpatient care decreases and inpatient care supply remains constant. The mix of services in some CAHs has changed since hospitals converted to CAHs status as some are eliminating and others are adding services. For those adding services the focus is on outpatient specialty care. For those CAHs eliminating services, the services tended to those related to food services (e.g. Meals on Wheels) and home health care; however, no community was identified where the service was eliminated completely (another community business was able to provide the service, e.g. nursing home or restaurant).

SECTION 6: CAH ELIGIBLE HOSPITAL

CAH eligible hospital administrators were surveyed as part of the evaluation process. Eight of the CAH eligible (33) hospitals have attained necessary provider status and nine are seriously considering applying for necessary provider status. In addition, many CAH eligible hospitals have already obtained technical and financial assistance through the Flex Program and/or will need or request assistance in the future.

Eighty-nine percent of CAH eligible survey respondents stated they have considered conversion to CAH status. The most common reasons for having not converted include: number of beds and utilization (100%), distinct part units (26%), and physician opposition (11%). When asked why they are considering conversion to CAH status, 100% report to improve the financial viability of the hospital, 67% report to improve the quality of care, and 50% report to modernize the hospital's facilities and equipment. Sixty-seven percent rank financial viability as their number one reason.

Seventy-two percent of CAH eligible hospitals have planned or are planning to complete a community needs assessment and 57% plan on including community representatives in the CAH conversion process. The most common ways that the community will be involved are through the representation on the hospital's board of directors (44%) or by presenting information about CAHs and the decision to convert in local media outlets (33%).

On average CAH Eligible hospitals utilize support from 3 Flex Program stakeholders for conversion exploration and the application process. The Iowa Hospital Association is used most frequently (83%) along with hospitals' accounting firms (66%), Iowa Department of Inspection and Appeals (50%) and Flex Program staff (39%). Similar to CAHs, CAH eligible hospitals have been most satisfied (88%) with the assistance they have obtained from peer/CAH hospitals. They have also been very satisfied (86%) with the assistance provided by Flex Program staff.

As noted earlier, CAH eligible hospitals have obtained Flex Program funding to assist them in their CAH conversion process. Seventeen percent report having obtained funding, all to complete financial feasibility studies. Given the small number of grants that have funded these activities, it is not surprising that 75% of respondents reported that Flex Program funding has not met their needs.

Ninety-four percent of CAH eligible hospitals reported that they are not involved in statewide CAH/Flex Program planning. Fifty-percent are actively collaborating with local organizations on EMS activities. As reported by CAHs, CAH eligible hospitals are collaborating with EMS providers on training in bio-terrorism and disaster preparedness.

When CAH eligible hospitals were asked to identify and rank their concerns related to staffing, provision of services, finances, administration, external relationships, and other issues or concerns, their responses were similar to those of CAHs. For example:

- 67% are very concerned (39%) or concerned (28%) about recruiting and retaining physicians and 33% rank this as one of their top three greatest concerns.
- 73% are very concerned (56%) or concerned (17%) about expanding/enhancing services.

- 84% are very concerned (67%) or concerned (17%) about their hospital's financial performance and more specifically about Medicare reimbursement (94%) and Medicaid reimbursement (89%).
- 78% have physical plant update initiatives in place or planned.

SECTION 7: CASE STUDIES

“There are a lot of heroes here every day.” *Anonymous*

Three community case studies were conducted as part of the Iowa Flex Program evaluation to allow an in-depth look into Iowa CAHs, the state Flex Program and how it is being implemented at the local level, as well as to identify and discuss issues and future program planning needs. To accomplish this, the following evaluation steps were taken:

- Key informant interviews of hospital leadership and key administrative staff;
- Surveys of CAH physicians, nurse practitioners, and physician assistants;
- Surveys of community health providers that are not affiliated with the CAH;
- Analysis of census and health status data; and
- Community focus groups.

A. THE COMMUNITIES

Case Study One: Baum Harmon Mercy Hospital, Primghar, Iowa

“The only Primghar in the world” – that’s the community slogan for **Primghar**, located in northwestern Iowa, about 40 miles from the Minnesota border and about 50 miles from the South Dakota border. Primghar has a population of 891, 98% are white, many of whom are of German, Dutch, Irish, and Norwegian descent. The community sits in the middle of rich farming country and is the county seat of O’Brien County. There are 437 housing units in Primghar, of which 168 are households with one or more person age 65 and older (38%). According to the 2000 census, 34 people reside in nursing homes. In 2000, 10.5% of the housing units in town were vacant, much higher than the statewide average housing vacancy rate. The average housing value was \$39,800 and per capita income in 2000 was \$17,791, 9.5% lower than the state average.

Population changes for O’Brien County, Baum Harmon Mercy Hospital’s primary service area, are displayed in Chart 10 and Chart 11. County population fell –2.2% between 1990 and 2000, compared with 5.4% growth across Iowa during the same time period. The county mortality rates are slightly higher than the statewide average. Nursing home utilization is about twice as high in O’Brien County as in the rest of the state.

Chart 10 - O'Brien County Population Trends by Age

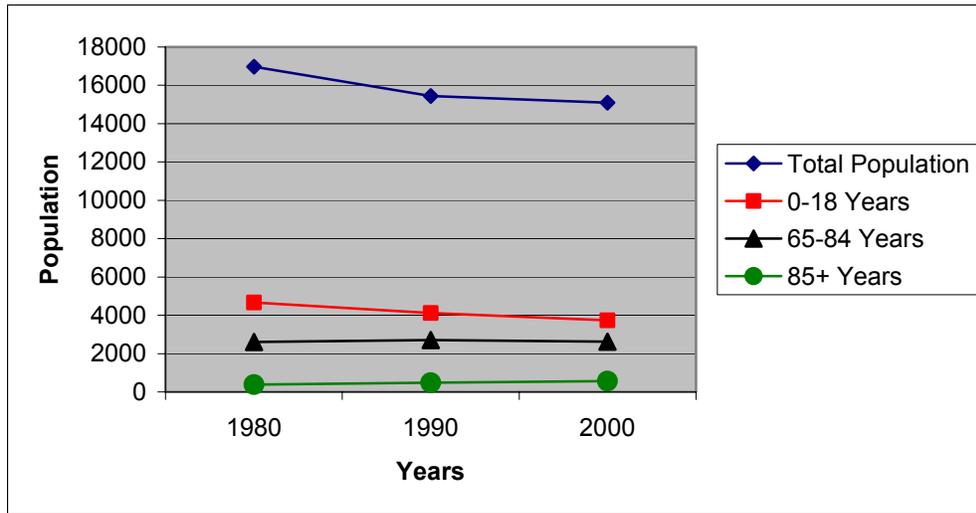
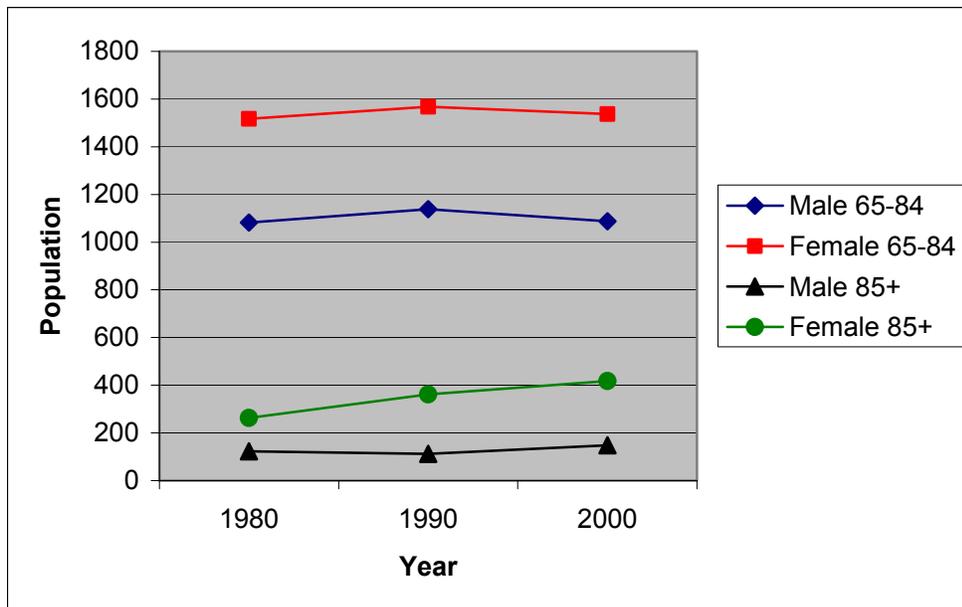


Chart 11 - O'Brien County Senior Population by Age and Sex



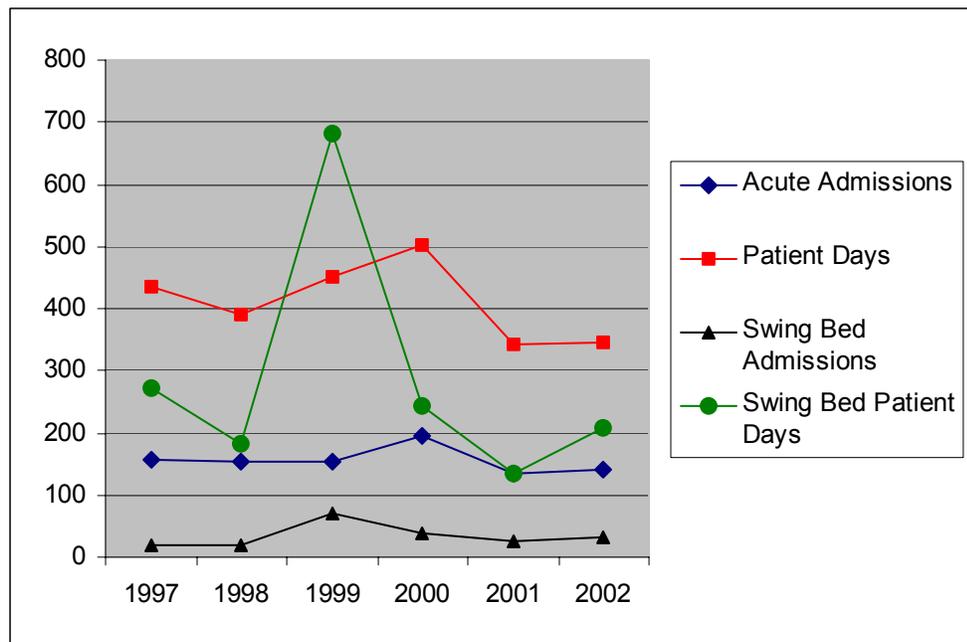
Primghar’s largest employment sectors are education, health care, social services as well as manufacturing, some retail trade, and some transportation-related employment. Many local residents are engaged in farming, some independent trucking, as well as working for the health care system. The town boasts a variety of businesses around their town square, and has a lovely inn for visitors to the community. Primghar has several health services available locally, including: pharmacy, chiropractic, nursing home, dental care, and Baum Harmon Mercy Hospital and its attached clinic. The town is building a new EMS/Fire Station, which will be completed as a result of

the contributions of individuals and organizations in the community. The involvement of the community in this effort has made the EMS / Fire Station a source of great civic pride.

Baum Harmon Mercy Hospital, the first CAH (11/1/99 conversion date) and one of the smallest hospitals in Iowa, serves a population residing in its 20-mile radius service area that includes all of O'Brien County and portions of Clay, Cherokee, Osceola, and Sioux Counties. The closest hospital (19 miles) is located in Sheldon, Iowa. Baum Harmon Mercy has a staff of 60, including two physicians, two nurse practitioners, and one physician assistant. The hospital is owned by Mercy Health Network and is part of Trinity Health. Although the hospital does not have hospital-based EMS, several hospital staff members are volunteers on the squad.

Baum Harmon Mercy Hospital has added and eliminated services since converting to CAH status. Services added include: nutrition programs, Psychiatric services (geriatric and emergency), health fairs, fitness center, support groups, women's health volunteer services department, teen outreach services, sports medicine and a sleep center and they have eliminated ultrasound services. They have also eliminated Meals on Wheels and home health care services but engaged in a joint venture with the local long-term care provider to assure the services are available locally. Unique to Baum Harmon Mercy Hospital is that they own and operate a children's day care center for staff and community members.

Chart 12 - Baum Harmon Mercy Hospital Changes in Utilization



The presence of the hospital was a key factor in some local decision-making, such as locating the new jail nearby so that inmates would have access to medical care through the hospital and clinic. The hospital provides a secure area for prisoners in need of hospitalization.

Since converting to CAH status Baum Harmon Mercy Hospital has realized an increase in outpatient services, a decrease in acute admissions, a slight decrease in its average annual length of stay (2.6 to 2.5), a slight increase in personnel, and an improved financial status. The data are shown in Chart 12, Chart 19, Chart 20, and Chart 21. Rotating specialists and diagnostic testing is available, and a visiting speech pathologist is also available. Residents being treated for cancer can receive their chemotherapy regimens locally, and rehabilitation is available following orthopedic surgeries.

Baum Harmon Mercy Hospital has obtained four Flex Program grants totaling \$38,350. The grants have been used to conduct a financial feasibility study and charge master review, engage in EMS planning, and establish a collaborative with another CAH to assess management development needs and implement a management development program. “Flex grants have allowed us to do special projects that have improved our performance.”

Too little data is available to determine the impact of CAH conversion and the Flex Program on the health status of the communities that Baum Harmon Mercy Hospital serves; however, data from 1997 – 2001 indicated the following:

- Obesity rates in O’Brien County and the hospital service area are increasing,
- STD rates have fluctuated and there has been one reported case of HIV/AIDS in the service area,
- Hospitalization due to diabetes is increasing,
- Immunization rates have fluctuated slightly but averaged 87.2%,
- Uninsurance rates have decreased, and
- Percent of those who smoke has decreased.

Case Study Two: Davis County Hospital, Bloomfield, Iowa

Bloomfield, located in the rolling countryside of south central Iowa’s Davis County, about 20 miles from the Missouri border, had a population of 2,601 in 2000. Over 98% of residents are white predominantly from German, Irish, and English ancestry (Iowa’s overall population is 93.9% white). The area has a large Amish community that according to local residents has grown significantly in the past five years (many report that over half of the county population is Amish). There are also an increasing number of residents of Hispanic heritage, drawn by local employment opportunities in meat processing and other area industries. There are 1228 housing units in Bloomfield, of which 428 (35%) are households with one or more person age 65 and older while 22% have one or more persons that are 75 years and older. The percentage of population age 65 and older (26.5%) is much higher than the statewide average (14.9%). According to the 2000 census, 136 people reside in nursing homes. In 2000, 8.6% of housing units in town were vacant. The median housing value was \$53,300 and per capita income in 2000 was \$17,962, 8.7% lower than the state average.

Population changes for Davis County, Davis County Hospital’s primary service area, are displayed in Chart 13 and Chart 14. The population in Davis County grew 2.8% between 1990 and 2000, compared with an increase of 5.4% for Iowa as a whole. The county mortality rates are slightly higher than the statewide average. Nursing home utilization is lower for both males and females as compared to the rest of the state.

Chart 13 - Davis County Population Trends by Age

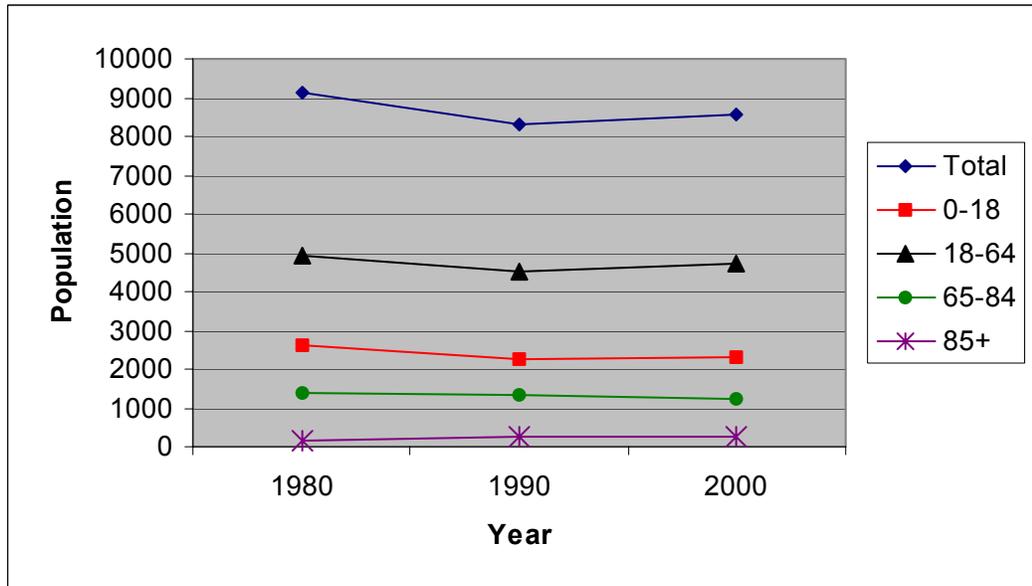
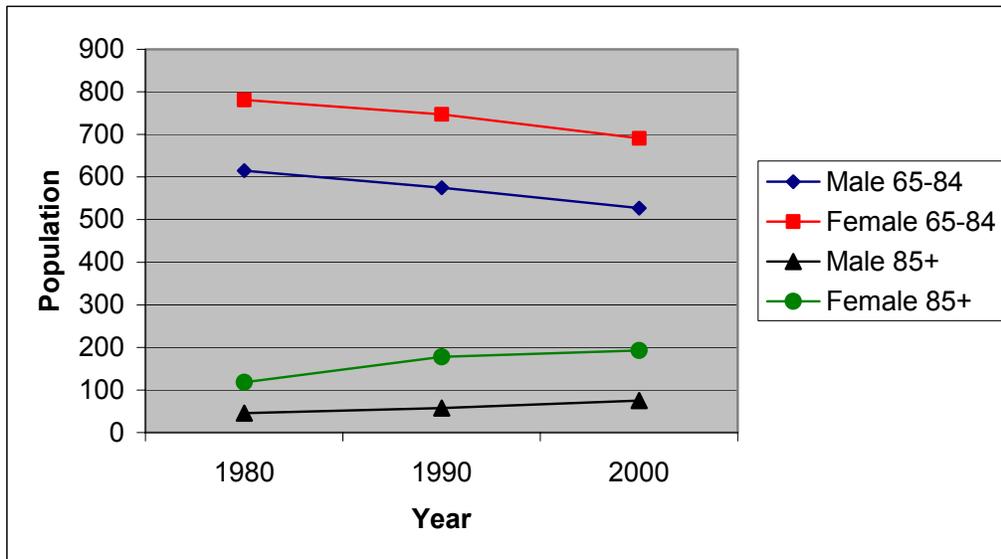


Chart 14 - Davis County Senior Population by Age and Sex



The community’s largest employment sectors are education, health care, social services and manufacturing. Two large employers in the region include a farm implement/tractor manufacturer and a large meat processing plant, both subsidiaries of large international corporations. In town, there is also a manufacturing/welding company, a foundry, and a plastics company.

Bloomfield has many attractive community amenities, including: a historic bed and breakfast that was the site of an 1860's residence, a country club, a furniture store, antique stores, and a selection of restaurants (including some ethnic dining, such as a popular Latino restaurant). Given its large Amish population, there are also many handwork, furniture, buggy repair, blacksmith and other shops that are located in residences and elsewhere around Bloomfield. Bloomfield also has several health services available locally, including: pharmacy, chiropractic, nursing homes, dental care, and Davis County Hospital and its clinic.

Davis County Hospital, the 26th hospital to convert to CAH status (10/1/2001) is located in Bloomfield, Iowa. Davis County Hospital serves all of Davis County as well as small populations in Van Buren County and Schuyler and Scotland Counties (Missouri). It has an attached long-term care facility, clinic, a contract to provide public health services (including home health care) in an off-site facility, and hitching posts in case you are arriving by horse and buggy. The hospital was renovated from 1999 to 2001 and there are plans to finish the newly built medical office building near the hospital.

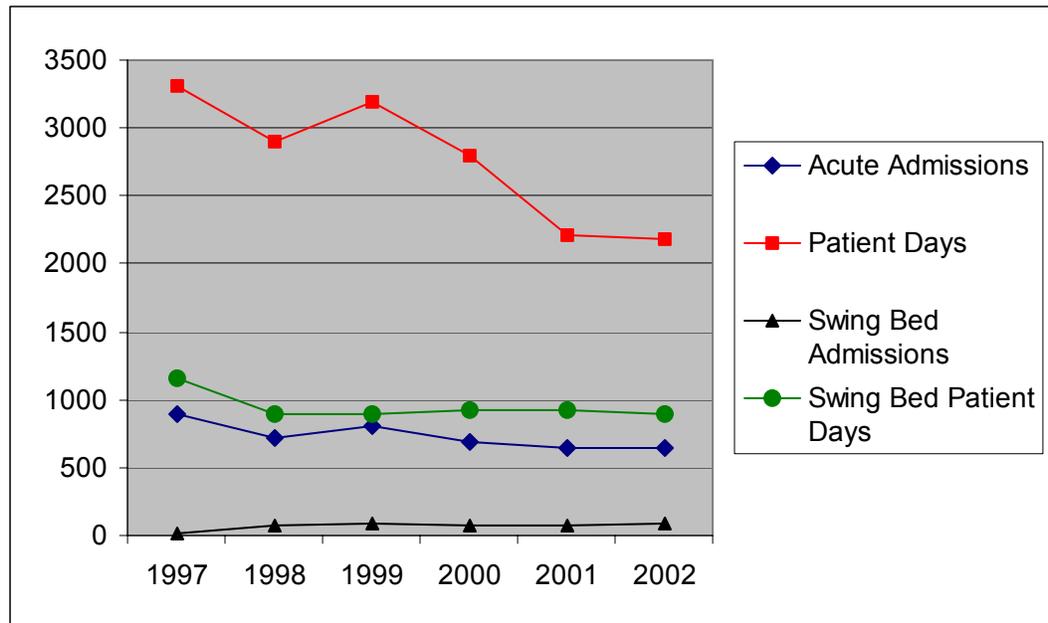
Davis County Hospital has a staff of 153, including three physicians and three nurse practitioners. The hospital is County owned and managed by Mercy Hospital, Des Moines. Although not owned by the Mercy Health Network and Trinity Health, it is an affiliate and all of the management staff are employees of Mercy Hospital. Davis County Hospital offers many health care services, including obstetrics, surgery, several outpatient specialty clinics (oncology, urology, and orthopedics), and a large EMS squad. The closest hospital, located in Ottumwa, Iowa, is 20.4 miles away.

Davis County's large Amish population presents unique rural health concerns and opportunities. The Amish community is reportedly very supportive of the hospital (both financially and publicly) yet issues exist regarding preventative care (prenatal in particular) and follow-up care.

Davis County Hospital's EMS squad of 18 (one manager, nine paramedics, and eight EMTs) is managed by a Critical Care Paramedic and includes one EMS crew that works in the hospital and two crews that are on-call. They have experienced low turnover and an average retention rate of 8.8 years. It is reported that the squad has responded to 17 field cardiac arrests this year (reviving 11 of them) and that they have averaged two calls per month related to farm amputations. Davis County Hospital recently established agreements with a flight medic group in northern Missouri.

Since converting to CAH status, Davis County Hospital has experienced a slight decrease in outpatient services volume, a slight decrease in acute admissions, a slight decrease in its average annual length of stay (3.4 to 3.3), a slight decrease in personnel, and an improved financial status. Each of these are reflected in Chart 15, Chart 19, Chart 20, and Chart 21. The services provided at Davis County Hospital have only changed slightly since its pre-conversion activities, including eliminating its intensive care unit. The hospital has obtained one grant (\$5,000) through Iowa's Flex Program in order to conduct a financial feasibility study.

Chart 15 - Davis County Hospital Changes in Utilization



Too little data is available to determine the impact of CAH conversion and the Flex Program on the health status of the communities that Davis County Hospital serves; however, data available from 1997 – 2001 indicated the following:

- Obesity rates in Davis County and the hospital service area are increasing,
- STD rates have fluctuated and there have been no reported cases of HIV/AIDS in Davis County,
- Hospitalization due to diabetes is increasing,
- Immunization rates have fluctuated considerably with a low of 50% in 1999 and a high of 88% in 1998 (78% in 2001),
- Uninsurance rates have decreased, and
- Percent of those who smoke has been decreasing since 1998.

Case Study Three: Mitchell County Regional Health Center, Osage, Iowa

“Kids can ride their bike to the pool, go uptown, its safe.”

Osage, located in north central Iowa, about 30 miles from the Minnesota border, has a population of 3,451 of which 99.2% are white, predominantly of German, Norwegian, Irish, and English ancestry. The area is home to Amish and Mennonite communities. The population of Mitchell County decreased by .5% between 1990 and 2000, compared with 5.4% growth for the state of Iowa during the same period. There are 1624 housing units in Osage, of which 651 (40%) are households with one or more people age 65 and older. According to the 2000 census, 95 people reside in nursing homes. In 2000, 5.9% of the housing units in town were vacant lower than the statewide average while the average housing value was \$69,300. Per capita income in 2000 was \$17,791, 11.7% lower than the state average.

Population changes for Mitchell County, Mitchell County Regional Health Center’s primary service area, are displayed in Chart 16 and Chart 17. County population decreased .05% from 1990 – 2000, compared with a 5.4% increase in the Iowa during the same period. The median age in Osage is 43.3, much higher than Iowa’s median age of 36.6. Mitchell County generally has higher mortality rates than the statewide average; however, mortality rates for those 65 and older are slightly lower and skilled nursing facilities are utilized at rates two to three times higher than in the rest of the state. Mitchell County also has lower diabetes hospitalization rates than the state as a whole.

Chart 16 - Mitchell County Population Trends by Age

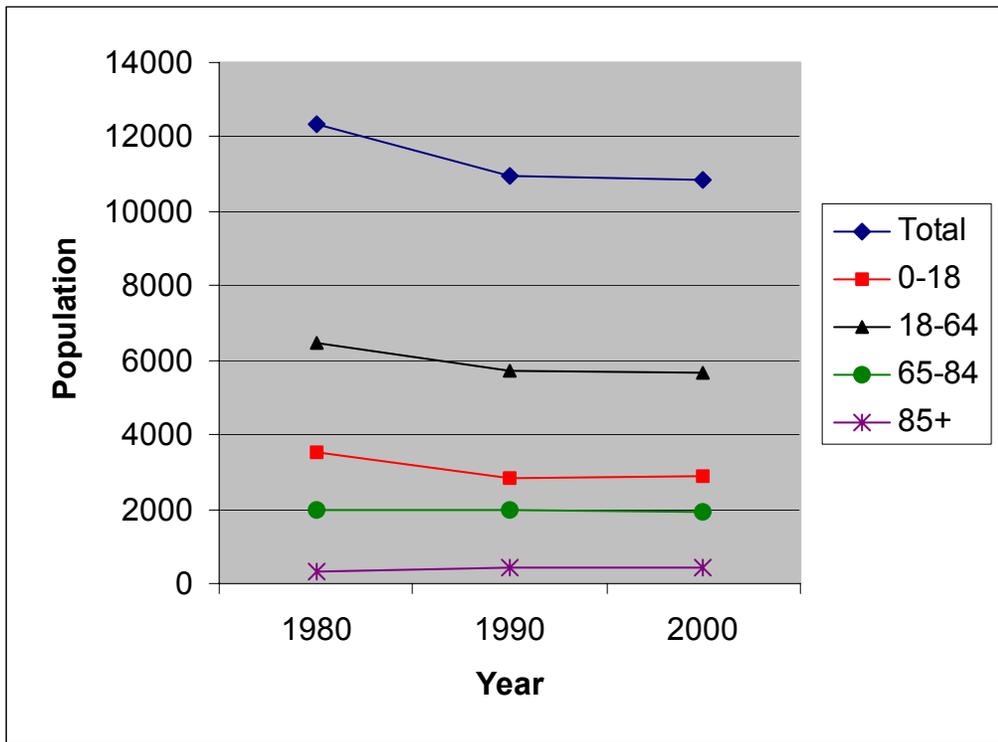
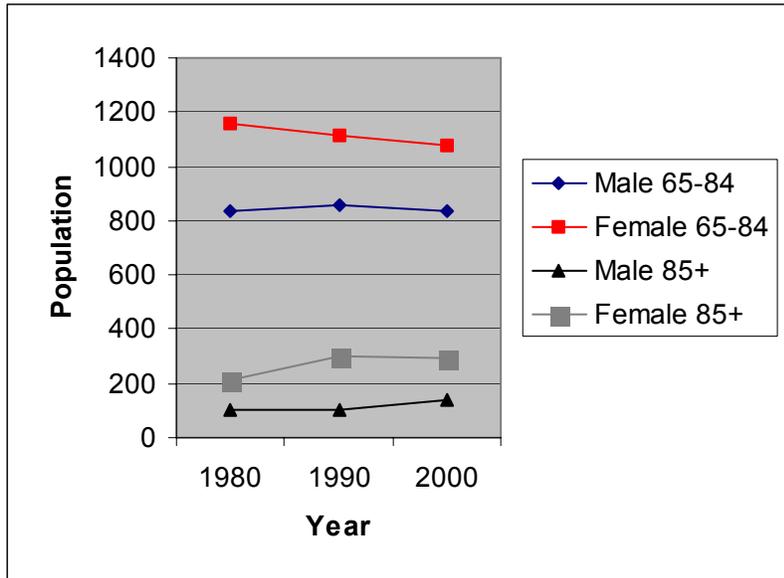


Chart 17 - Mitchell County Senior Population by Age and Sex



The community's largest employment sectors are manufacturing, including a large clothing accessory manufacturer - primarily socks, a large printing company that is part of a large international corporation, a manufacturer of windows used primarily for noise abatement around airports, and a grain drying company; education, health care, social services; and retail trade. The community has a quick service restaurant, and some cafes, but dining options are limited. For this reason, local residents often dine at the hospital cafeteria. The hospital is the second largest employer in town.

Mitchell County Regional Health Center, the 22nd hospital to convert to CAH status (7/1/2001), serves a population residing in its 50 mile radius service area that includes all of Mitchell county and portions of Cerro Gordo, Butler, Chickasaw, Howard, Worth, and Mower (Minnesota) Counties. Mitchell County Regional Health Center is 21.16 miles from Charles City, the location of the nearest hospital.

Mitchell County Regional Health Center has a staff of 106 FTEs, including three physicians and four physician assistants. The hospital has recently been renovated and houses pharmacy and optometry businesses. The hospital is owned by the county and managed by Mercy Hospital, Mason City, Iowa and is an affiliate of the Mercy Health Network and Trinity Health. Although the hospital is owned by the county, all of the hospital's management staff, some nurses, the pharmacist, radiology technicians and a few others are employees of Mercy Hospital.

Emergency medical services are based in the Mitchell County Regional Health Center. They make approximately 700 runs per year, many of which are nursing home transports or cardiac related. Half of the volunteer EMS squad members (27 total) are employees of the hospital. The EMS director, a paramedic, also assists with patient care in the hospital. The EMS has strong relations with Charles City and Mason City, where all hospitals provide backup as needed, as well as other county EMS in St. Ansgar and Riceville. The county recently instituted a tax levy for EMS.

Since converting to CAH status Mitchell County Regional Health Center has realized an increase in outpatient services, an increase in acute admissions, a slight decrease in its average annual length of stay (2.6 to 2.5), an increase in personnel, and an improved financial status. These changes are depicted in Chart 18, Chart 19, Chart 20, and Chart 21. Rotating specialists and diagnostic testing, a visiting speech pathologist, diabetes education, cardiac rehabilitation, and other services are available. Residents being treated for cancer can receive their chemotherapy regimens locally, and rehabilitation is available following orthopedic surgeries. Since converting to CAH status, Mitchell County Regional Health Center has added oncology and obstetric services and a sleep lab joint venture through the Mercy Health System and added physical rehabilitation outpatient services in the hospital.

Mitchell County Regional Health Center has obtained two Flex Program Grants totaling \$5,800 to conduct a quality improvement assessment and to support staffs' attendance at a quality improvement conference. They were also included as part of a network grant obtained through the Mercy Health System. The network grant was used to standardize training and materials within the nine network CAHs as well as to establish diabetes support groups at the local level. Mitchell County Regional Health Center established a support group that has 19 members.

The Mennonite and Amish communities in Osage present unique challenges and opportunities for Mitchell County Regional Health Center. Similar to Bloomfield, Mitchell County Regional Health Center is supported by both the Mennonites and Amish; however, barriers exist in addressing preventative and follow-up care needs, in particular those related to prenatal and wound care.

Too little data is available to determine the impact of CAH conversion and the Flex Program on the health status of the communities that Mitchell County Regional Health Center serves; however, data from 1997 – 2001 indicated the following:

- Obesity rates in Mitchell County and its service area are increasing,
- STD rates have fluctuated and there have been two reported cases of HIV/AIDS in the service area over the past five years,
- Hospitalization due to diabetes is increasing in Mitchell County and its service area (44% increase from 2000 to 2001),
- Immunization rates in Mitchell County are higher than the state average (91% as compared to 88%) and have varied from 96% in 2000 to 91% in 2001,
- Uninsurance rates in Mitchell County, some of the lowest in the state (6.4 % compared to the state average of 8.1%) have decreased, and
- Percent of those who smoke has decreased.

Chart 18 - Mitchell County Regional Health Center Changes in Utilization

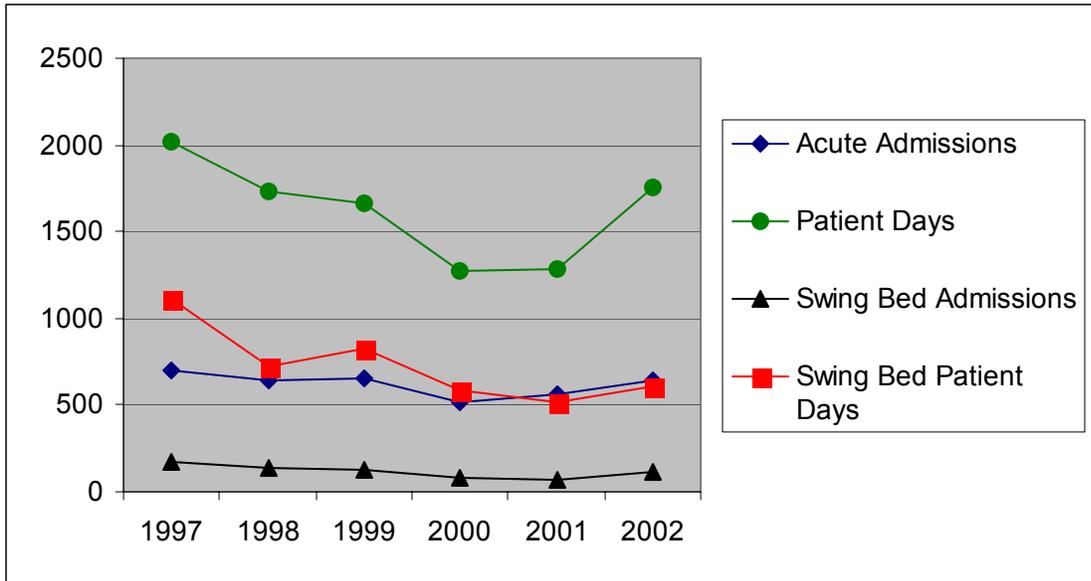


Chart 19 - Changes in Hospital Personnel

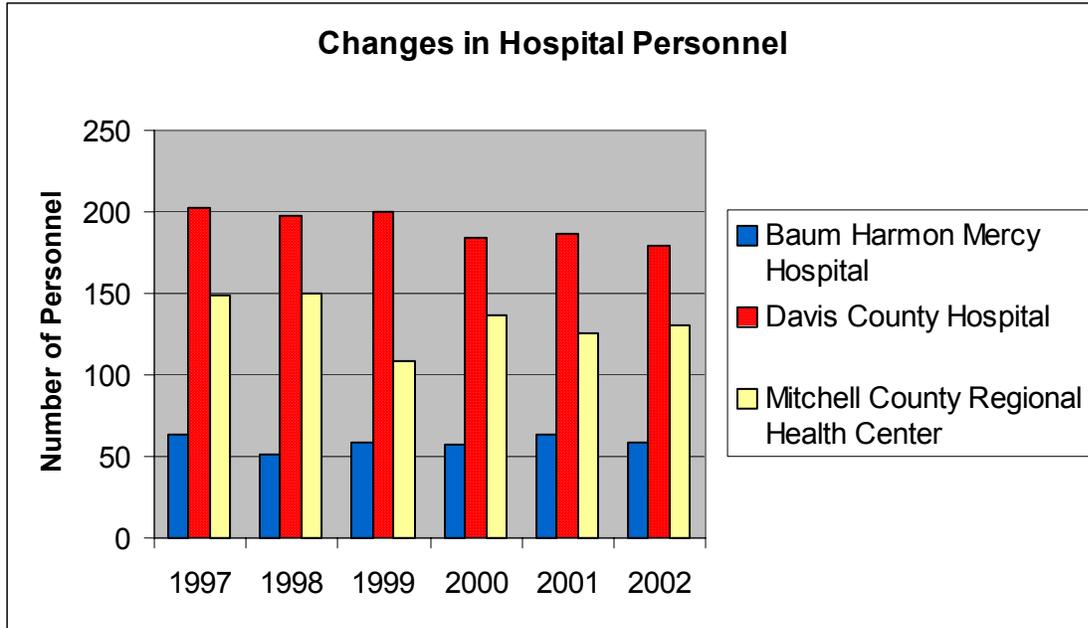


Chart 20 - Changes in Total Outpatient Visits

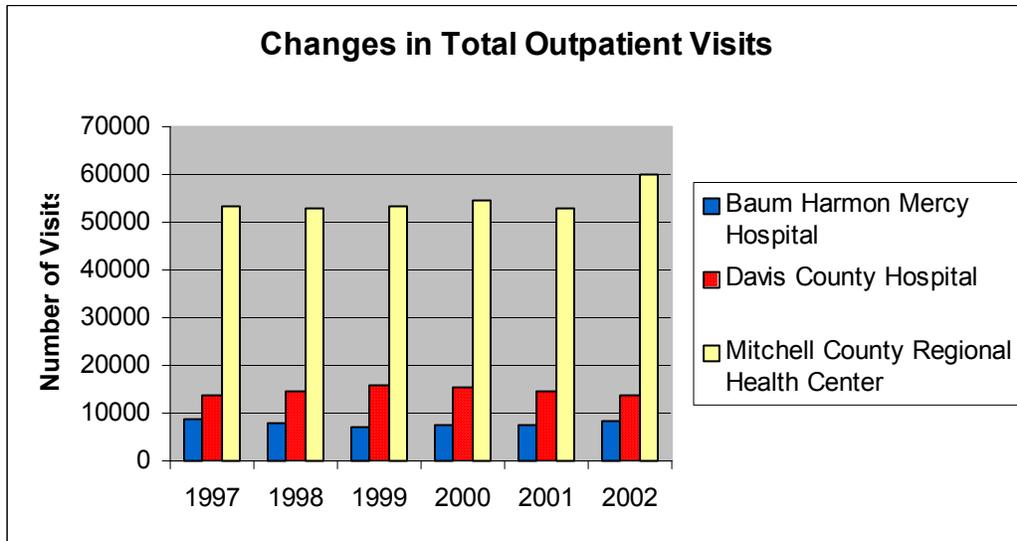
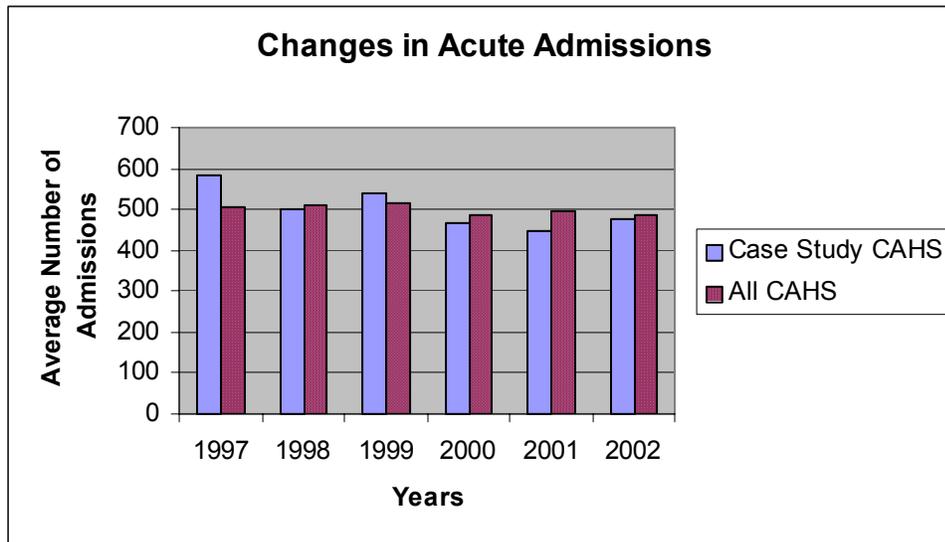


Chart 21 - Changes in Acute Admissions



B. CASE STUDY FINDINGS

Case study findings considered county level data and input from four types of Flex Program/CAH Stakeholders: 1) Community Members; 2) Community Health Care Providers; 3) CAH Health Care Providers - physicians, physician assistants and nurse practitioners; and 4) CAH Leadership.

Since all of the case study communities are part of the same health care network and system, there was little variability in the networking activities that were occurring within their formal networks. In fact, a network of CAHs with designated staff exists to provide coordinated support amongst all network members.

Community Members - Three themes emerged from the community member discussions: health care access, the economic impact of the health care sector, and the unique nature of rural health. “Our facilities (health care) and clinics have saved many people’s lives because of proximity and the care provided.” “If we didn’t have a hospital, we wouldn’t be able to attract employees.” “What’s realistic in Des Moines is not necessarily realistic (here).”

Information and experiences shared by community members were fairly consistent across the three focus groups:

- No community member had ever heard of the Flex Program, while over half knew their hospital was a CAH.
- Of the CAH designation criteria, number of beds and the 96-hour length of stay limit were the two most commonly known; however, no one knew the length of stay limit had changed to an annual average length of stay and that the bed count had changed.

- For those that were aware of the 96-hour length of stay limit, one person noted that “folks believe they will be transferred if they cannot be treated in four days”, while another said, “it puts a crimp in physician decision making.”
- Several community members commented that although the hospitals make announcements regarding hospital changes in the local newspaper, there is little or no opportunity for the community to get engaged in the communities’ health planning process.
- In one community there was some discussion about initial concerns regarding networking with the CAH’s tertiary hospital; however, everyone agreed that the relationship has had a positive impact on the CAH. In particular, they noted that the network has resulted in improved retention rates of hospital staff.
- The majority of community members obtain primary and acute health care services in the case study CAHs and their affiliated clinics. Factors affecting their decision on where to receive care included: place of employment, spousal employment (particularly if the spouse worked in a health care facility), past experiences/physicians, and place of obstetric care.

A common belief of community members was, “people get care where they deliver babies.” CAH staff echoed this and some stated that prenatal care and follow-up care are opportunities that may need more strategic attention. Only one CAH community did not provide obstetric care.

One community talked extensively about the hospice care available in their community. They acknowledged this to be a key local health care service given their community’s aging population.

Community members discussed the role of hospital administrators and medical staff. Communities indicating they have an “excellent” hospital administrator and/or medical staff that are engaged in community life appeared more supportive of their local hospital. There were considerable differences of opinion related to foreign born physicians as some were very supportive and thought that foreign born physicians are “the cream of the crop” and have been “the best physicians”, while others had less favorable opinions that were reflected in ideas such as a “revolving door”, and “only temporary until they can move to the big city”. Many community members talked about past physicians that had poor bed-side/patient manners and were thought of as providing poor quality of care. Although everyone knew this was an issue, the hospitals’ inability to attract replacement physicians made it a difficult time for the communities as a whole.

When asked about rural health care’s greatest weaknesses, all communities identified finances (the ability for health care providers to remain financially viable) and their dependence on a limited number of physicians, surgeons in particular.

All community members were very supportive and proud of their local EMS. Common themes related to fast response times, “the whole county is quick to respond, unbelievably quick,” and the commitment of volunteers. Many expressed concerns about changing the staffing and training rules regulating EMS. Community members believe these changes will increase costs, decrease volunteerism (recruitment and retention), and decrease quality (response times). “The state is moving to make all [EMS] squads paramedic squads, two per county, mortality rates will go way up because squads will not be seven to ten miles a part.” Commenting on Emergency Medical Technician (EMT) training requirements one person stated, “don’t keep raising the bar on EMTs, it

just makes people quit.” Community members stated that when they have severe shortages in EMS personnel they have to rely on surrounding communities to provide EMS.

Most community members measured quality by personal attention, health care provider style and retention, “accurate” diagnosis, referrals to specialists, emergency room wait times and whether or not they “got better”. Although the majority of community members believe their hospital provides high quality care, there were slight differences of opinion. Employers and others talked about the value of convenient access to rehabilitation services. This related to the costs and benefits to employers and patients and the long-term benefits of obtaining the appropriate type and amount of rehabilitation services because of proximity of care (faster and more full recovery from injury).

When asked about their communities’ greatest health concerns, all communities identified: aging population, obesity, and cancer as their primary concerns. Other issues included farm safety, methamphetamines, diabetes, lack of affordable senior housing with services, health care costs, uninsured and underinsured, minimal or no access to mental health services, decreasing access to dental health services, and teenage drinking. These concerns were consistent with the CAH service area health status indicators that were discussed earlier in this section of the report.

Community members talked about some of the programs they have implemented, for example a Chaplain of the Week program that sends a chaplain from one of the local churches to visit hospital patients during the week. This chaplain then reports information back to the individual’s parish. The annual cancer walk was reported as being the largest community event in each of the case study communities. Some of the funds are used to support free or reduced cost mammograms as well as other cancer detection/prevention programs.

In one group of community members talked about community development had how it is hindered by lack of housing stock as well as a shortage of qualified, dependable workers. Several residents noted that employers experience difficulty in finding people to fill available or newly opened positions. They noted that they have a strong school system (large universities conduct physics and math projects here), and would like to focus more attention on educating local high school students about the employment opportunities available locally.

Finally, each case study community has a golf course, in fact of the 19 communities visited as part of the Iowa Flex Program evaluation only one did not have a golf course. Community members report that having a golf course is “good for business and retention of hospital staff.”

Community Health Care Providers - Of the 49 community health providers that were surveyed in the three case study communities, 22 responded. Chiropractors, dentists, and pharmacists were the most common respondents. Characteristics of the respondents were consistent with those practicing in the CAHs as their average age was 47.5, all attended institutions of higher education that are located in predominantly rural states, and they have worked an average of 15.1 years in the case study communities.

When asked about their involvement in conversion to CAH status and the impact of conversion, they reported the following:

- None were involved in the decision to convert to CAH status and 89% stated that there is no formal local health system planning process.
- Fifty-seven percent were aware that their hospital had converted to CAH status.
- Fifty-six percent reported that the community as a whole was not involved in the decision to convert to CAH status.
- Sixty-four percent stated they have a practice related relationship with the CAH.
- Thirty-six percent stated they have a strong relationship with the CAH, while 14% stated they have a weak or very weak relationship.
- Over half (52%) of the providers refer patients to the CAH and 11% stated their referral patterns have changed since the hospital converted to CAH status.
- No respondent had obtained Flex Program grant funding.
- Fifty-four percent stated that converting to CAH status was excellent (9%) and good (45%).

When asked to identify the lead health care entity in their communities, the majority (55%) stated their local CAH or its attached clinic. Some identified the Mercy Health System, while others stated public health and CAH satellite clinics. A few health care providers expressed anger regarding the involvement of health systems in the decision making of their local hospital while others expressed strong support for urban hospitals (Mayo Health System in particular), hence their preference to refer patients to these hospitals.

Community health care providers were also asked about health care issues and trends that they are most concerned. Issues reported include:

- Issue: Physician/surgeon turnover. Several providers noted that physician turnover affects their referral patterns, the quality of health care provided, and CAH utilization rates.
- Issue: Lack of affordable housing with services for seniors.
- Issue: Obesity.
- Issue: Increasing cost of health care and health insurance rates.
- Issue: Aging population.

CAH Health Care Providers (Physicians, Physician Assistants, and Nurse Practitioners) - Of the eighteen health care providers practicing in the three case study communities, six physicians, six physician assistants, and four nurse practitioners responded to health care provider surveys as part of the case studies. All of the practitioners work primarily in the case study communities and all were practicing at the time their hospital converted to CAH status.

Physician responses were consistent across all of the CAHs, including physician demographics, with only slight variances. For example, all but two of the CAH physicians were educated in Iowa, their average age is 44 (all but one are in their 40s), all are males, all but one (28 miles) live within five miles of the hospital and all practice family medicine. They have worked an average of 10.6 years for the CAH communities, primarily in the attached clinic. When asked about their involvement in conversion to CAH status and the impact of conversion, they reported the following:

- Referral patterns have not changed.

- Quality of care has not changed.
- They have experienced an increase in paperwork.
- Fifty percent “strongly supported” CAH conversion and 50% “supported” it.
- All but one physician was involved in the conversion to CAH status.
- Sixty-seven percent reported that the community was involved in the CAH conversion process; however, two of the communities had physicians stating the community was not involved.
- None have been involved in state Flex Program planning and none have attended any CAH related conferences or workshops.
- CAH conversion has had the greatest impact on the hospitals’ financial status and the recruitment and retention of health care professionals.

Physicians were asked to identify health care issues and trends that they are most concerned with and provide suggested solutions if possible. Issues and solutions reported include:

- Issue: Additional reimbursement for rural health care providers to assure access and the recruitment and retention of key health care providers. Solution: Reform Medicare.
- Issue: Routine medical transportation of the elderly. Solution: A non-ambulance transportation alternative.
- Issue: Malpractice crisis. Solution: Tort reform.
- Issue: Shortage of rural health care providers. Solutions: A state or regional health care provider pool that allows rural health care workers relief from their jobs, other employment incentives, and decrease the financial incentives of working in urban areas.
- Issue: Number of CAHs. Solution: Reserve CAH status for hospitals that are critical to access and meet the needs of underserved communities.

Physician Assistant (PA) and Nurse Practitioner (NP) responses were similar across case study communities with more variation as compared to the physicians. The average age of PAs and NPs is 48.7, all but one are female, most live in communities different from where they practice (ranging from .1 miles to 50 miles distance to the CAH), all have primary specialties in family medicine except one (women’s health), and all but two attended NP and PA programs outside of Iowa. Forty percent of surveyed PAs and NPs attended programs at North Dakota State University and all attended schools in predominantly rural states (IA, NE, ND, and KS). PAs and NPs have worked an average of 8.2 years in their case study communities, primarily working in the attached clinic.

When asked about their involvement in conversion to CAH status and the impact of conversion, PAs and NPs reported the following:

- Referral patterns have not changed.
- Practice patterns have only changed for one provider who reports being more attentive to length of stay issues including better preparation for discharging patients.
- Quality of care has reportedly remained the same for all practitioners but one who reports quality has improved.
- All, but one report that conversion has not had an impact on recruitment of staff.

- Fifty percent strongly support CAH conversion and were involved in the CAH conversion process.
- None have been involved in state Flex Program planning activities and none have attended a state Flex Program workshop or conference.

When asked about the negative aspects related to converting to CAH status, PAs and NPs reported being overloaded with paperwork and new meetings as well as a sense that they have to push people out of acute care and discharge them before they are ready. When asked about the positive aspects all reported financial gains for the hospital and one reported recruitment and retention of staff.

PAs and NPs were also asked about health care issues and trends that they are most concerned as well as some suggested solutions. Issues and solutions reported include:

- Issue: Ability to retain key practitioners (physicians and surgeons)
- Issue: High cost of medications. Solution: National cost controls.
- Issue: Long waits for specialty care. Solution: Encourage and promote rural specialists.
- Issue: Aging population with greater health care needs and greater demands. Solution: Create a rural specialty provider designed to meet the needs of this special population.
- Issue: Uninsured and underinsured.
- Issue: Community methamphetamine problem. Solution: Coordinated efforts between local, state, and national stakeholders.

CAH Leadership

“We need specialized training. There are 190 days when a helicopter cannot fly.”

“Don’t just shoot for the minimum and call it competent.”

“Since we wear more hats, we see more of the total healthcare process.”

“Jack of all trades, master of none.”

“We talk quality of care and we provide quality care.”

CAHs have a variety of staff that are in leadership roles. Those most common to all CAHs include: a Hospital Administrator or CEO, a Chief Financial Officer (CFO), a Director of Nursing (DON), and a quality improvement coordinator (QIC) as well as marketing and public relations staff, nursing home directors, and EMS directors. The case studies included interviews from a combination of CAH leadership positions.

CAH leadership staff was mostly from rural areas in Iowa, several from surrounding towns. CEOs have worked an average of 3.5 years, CFOs 7.9 years, DONs 4.2 years, QICs 10.3 years, and EMS directors 9.3 years in the CAHs. DONs and QICs were the most likely to be promoted within the organization. Four of the staff members interviewed were not involved in the CAH conversion process. Many of the interviewed staff members are employees of Mercy Health System and Trinity Health. All of the CAHs have a formal strategic planning process in place. No staff members have been involved in the planning and development of Iowa’s Flex Program. Some have assisted other CAHs with their conversion process.

There was overwhelming consensus amongst all of the CAHs that conversion to CAH status has improved the financial status of each hospital. CAH leadership noted that conversion to CAH

status allowed the hospital to increase the number of staff and staff wages. The increases were attributed to cost-based reimbursement and the CAHs' formal network agreements. Increases in staff wages and the number of staff reportedly have improved morale, job satisfaction, and retention rates. One CEO noted that, "employees are so much more secure in their future," while another stated, "CAH has allowed us to fully staff so we don't have to rely on expensive staffing pools." Leadership staff also spoke favorably about the peer review requirements and changes that they made to policies and procedures. All saw these changes as steps towards improving quality of care.

CAH leadership staff report that the Flex Program staff are "very supportive, accessible, and responsive" to the needs of CAHs. All case study communities saw value in having Flex Program staff in the state Department of Public Health, "they can serve as the voice of many small facilities"; however, there was a sense that additional staff are not needed to run the program and any additional funding obtained should go directly to Flex Program communities. CAH staff spoke highly of the Flex Program activities related to quality improvement and benchmarking in Iowa and are eager to be more engaged in this work. Although all survey staff members were satisfied with the implementation of Iowa's Flex Program most of them expressed an interest in engaging in the state Flex Program planning process. Some stated that Flex Program staff should make visits to CAHs in the state and/or appreciated the visits that were recently made.

Staff members were asked to talk about their participation in the CAH Peer User Group Meetings and the outcomes that have been achieved. Some were confused as to the entity responsible for the meetings (Iowa Hospital Association, Flex Program, and/or Department of Inspection and Appeals). Many noted the value of the Iowa Department of Inspection and Appeals' reports during and after the conversion process as well as the opportunity to network with other small rural hospitals. All of the CAHs send staff to the CAH Peer User Group meetings based on the topic of discussion. Several noted that travel times do not always justify the three-hour meeting in Des Moines. When asked about using teleconferencing or other technology to facilitate some of the meetings, all agreed that this would be a good option. They identified additional ways to make the user group meetings more accessible such as having larger or coordinated meetings with other CAH state stakeholders (such as the Iowa Hospital Association) or having smaller regional group meetings. Many staff noted that they are over-booked with meetings, "I could spend all of my time at meetings and conferences if I didn't have real work to do" so finding effective ways, to efficiently use their time, was important.

CAH staff leadership was asked to discuss the years prior to conversion. CAH staff talked about some of the hospital services that had been eliminated, primarily those related to prevention and patient education as well as the downsizing of staff. Financial issues were also discussed: "We had to decide which checks would get paid each week", "We couldn't even make payroll the pay period before Christmas," and "I don't know if we would have closed, but it was a possibility."

The recruitment and retention of staff was identified as the most difficult aspect of operating a small rural hospital. Small hospitals have found it extremely difficult to compete with large urban centers that are reimbursed at higher rates and hence can afford to pay their staff more and provide greater benefit packages. In addition, turnover of staff and/or the lack of a physician or surgeon means that patients will go elsewhere for their healthcare. As noted in the community focus group section, patients see a direct correlation between staff turnover and quality of care. One community that is

actively recruiting a new physician noted that, “if this new guy does not work out, we are in a world of hurt.” Another example of this dependent relationship pertains to surgeons. For example, when the hospital loses its surgeon it can no longer provide obstetric care (risk of necessary c-sections are too high), which typically results in patients obtaining obstetric care and subsequently continuing health care, elsewhere. Finally, some staff talked about a sense of “being held hostage” to physician demands and not having a pool of physicians “who can put pressure on poor performers to improve standards”. Although all CAHs are currently very satisfied with their physician teams, they identified times in the past when they either had to keep a poor physician or accommodate inappropriate physician demands because of their inability to efficiently and effectively recruit new staff.

Although there are pros and cons to working in rural health facilities, all leadership staff agreed that they preferred working in smaller communities where they know patients, families, and the community as a whole and where they can have a greater impact on each patient. “Either you really like small towns or they drive you crazy.” Staff also acknowledged that although they find it stressful to have such a large array of job responsibilities, “variety makes the job much more interesting”. When asked about the downside of working in rural health, several acknowledged the challenges related to multiple responsibilities, the inability to focus on certain responsibilities, and privacy issues - “There is very little true privacy.” Also since some on the leadership team are both health care providers and management, patient needs always come first which strains their administrative responsibilities.

All of the CAH staff spoke highly of their network relationship with Mercy Health System and Trinity Health. Mercy was acknowledged as providing “leadership that is concerned about employees” as well as extensive training for new staff. The Mercy Health System has established a network within networks of its CAHs and their staff. These networks facilitate work between each of the CAHs’ leadership staff and other key staff (CEOs, CFOs, DON, QI, billing and others). For example, CEOs in each CAH within a region of the state meet quarterly (or monthly depending on the position) to discuss issues, share ideas and network. Two of the CAH CEOs held positions in the Mercy Health System prior to working in the CAH. They reported that their familiarity with network staff (knowing who to call) and understanding network operations has helped the CAHs better meet internal needs as well as build network relations. Other benefits of the network relationship: access to facility management experts, training, technology, QI activities, sharing of best practices, and recruitment and retention support.

When staff were asked how they define quality of care, responses included: one-on-one care; “the right treatment, at the right time, by the right person”; patient-centered care, and following standards of care. All of the CAH staff thought their hospital provides high quality care and all were working on QI projects. All of the CAHs reported collecting patient satisfaction data that indicates patients are highly satisfied with the care they have received.

CAH leadership staff was asked to identify their communities’ greatest health concerns. They reported an aging population, frail elderly, diabetes, cancer, obesity, heart disease, lack of disease prevention/health promotion services/education and little or no senior housing with services. Lack of mental health services was a shared concern amongst several staff members, in particular limited or no access to care and a fragmented system. As noted earlier, recruitment and retention of physicians and surgeons is a concern as well as recruitment and retention of pharmacists.

When asked about areas that Flex Program grant funding should/could be targeted, most agreed that this should remain flexible; however, they saw opportunities related to improving the information technology infrastructure (IT), standardizing data collection and reporting, community health prevention projects, facility master planning, and billing and coding as areas where they would likely apply grant funding.

Staff also identified some projects that they will be working on in the coming months, including: establishing the Planetree model in one hospital (<http://www.planetree.org/>), addressing physical plant needs, hiring a surgeon, finishing a clinic project, master facility planning, continuing with disease prevention projects (e.g. diabetes), and investigating IT opportunities (in particular those related to CAH finances and pharmacy). The Planetree project, a large hospital project that will redesign the care provided in the hospital, will use the Planetree model to implement an approach that is “holistic and encourages healing in all dimensions - mental, emotional, spiritual and social, as well as physical. It seeks to maximize health care outcomes by integrating complementary medical therapies such as mind/body medicine and therapeutic massage with conventional medical therapies. Access to arts and nature are also incorporated into the healing environment”. This will be a multi-year project involving all hospital staff. All of the CAHs in the Mercy Health System continue to participate in a mock survey process. Mock surveys occur every 1.5 years and are completed by peer hospitals. The intent of the mock survey is to identify survey and licensing issues ahead of time and to build relations amongst network hospitals.

Staff discussed grant funding that they have received through the Flex Program. All staff agreed that they would rather compete for smaller, less competitive grants as compared to larger more competitive grants. They also noted that a less rigorous application and reporting process would be appreciated. They stated that smaller CAHs would have more difficulty competing with the new larger CAHs for grants because, unlike larger rural hospitals, the small CAHs do not have grant-writing experts that work full-time. All of the CAHs noted that although the grants are sometime small, they are able to accomplish a lot with a little bit of funding.

SECTION 8: NETWORKS

Health networks are typically defined as horizontal or vertical, formal or informal, and system or community-based. System and horizontal networks (both formal and informal) dominate the health care landscape in Iowa.

Iowa's Flex Program has supported hospital and EMS networks in the state. There was no discussion of other health care related networking occurring in the state. Hospital networks in Iowa have a history that precedes the Flex Program; however, the creation of CAHs formalized many of these relationships. In some instances, CAH conversion played a part in ownership or management contracts with network partners. A mapping of CAH network relationships is included as part of the Appendix.

Table 11 Network Types

Horizontal Network	Relationship between the same classifications of health care providers (e.g. a network of hospitals or a network of nursing homes).
Vertical Network	Relationship between varieties of classifications of health care providers (e.g. hospitals, nursing homes, clinics, and home health).
Formal Network	A formal written agreement that includes a start and end date and typically includes an exchange of resources between the network members.
Informal Network	An informal spoken or understood agreement between participating members.
System	A hierarchical network of members that includes a lead/coordinating entity with subsidiary type members that may be owned, managed, and/or affiliated.
Community-based	Locally owned, operated, and/or managed.

Rural hospitals in Iowa could be considered networks in and of themselves as many have taken on the role of community health provider. This is seen in the many rural hospitals that provide hospital, clinic, mental health, EMS, dental health, home health, public health, long-term care, optometry, pharmacy, hospice, adult daycare, and/or physical fitness services to the communities they serve. In addition, some own daycares for children, foundations, and even thrift stores to name a few. Only when a hospital "networks" with an entity that it does not own does it become a typical formal network.

Iowa hospitals report that one of the greatest outcomes from converting to CAH status is the enhanced and increased networking between CAHs and tertiary hospitals and amongst CAHs as a group of providers. Networks are reportedly supporting CAHs with the following:

- Performance improvement,

- Quality improvement,
- Legal issues/counsel,
- Financial support for physical plant updates,
- Risk management,
- Rules and regulations,
- Benchmarking,
- Best practices,
- Recruitment and retention of staff (primarily physicians, nurse practitioners, physician assistants, and executive leadership),
- Credentialing and peer Review,
- Referral and transfer,
- EMS,
- Information technology, and
- Management development and staff training.

Other examples of formal hospital networking activities that are occurring include those that involve telemedicine, group purchasing, mobile diagnostics, anesthesia, therapy services, medical waste services, leasing, and consulting services. A description of each is included in the Appendix. Finally, there are also examples of informal networks that are in place. For example, the CAHs that are working together to develop joint training programs, conducting mock surveys, or developing benchmarking and other quality improvement projects.

Network liaison staff members were also asked about the impact of CAH designation and the Flex Program. Examples of comments that reflect network experiences, included:

- “There was no standardization, everyone had their own forms, policies, and procedures. We are now getting to a point where standards are being developed.”
- “I’ve heard of CAHs but I had never heard of the Flex Program until the evaluation.”
- “The Flex Program has forced us to raise the bar in terms of expectations.”
- “We’re trying to give them (CAHs) as much guidance and support as possible to allow them to function as well as they can independently.”
- “Employee satisfaction scores are up and physician satisfaction scores are up. We know this is because of the Flex Program and CAH status.”
- “We need to be aware of what we present and what they can actually use and accomplish successfully.”

CAHs are also engaged in other networking and collaborative activities. For example, many CAHs have established joint purchasing agreements. In addition, 67% percent of CAHs report that they are collaborating with local organizations on EMS activities. Training, emergency

preparedness and bio-terrorism preparedness, protocol development, and purchasing equipment are some ways that EMS and CAHs are collaborating.

SECTION 9: EMERGENCY MEDICAL SERVICES (EMS)

EMS Flex Program activities in Iowa have included a combination of technical support to EMS, planning and research, conferences, and grants. Information related to planning and research, conferences, and grants is included here. No evaluation activities were conducted related to the technical services that have been provided to EMS.

A. PLANNING AND RESEARCH

EMS planning and research has been completed over the past five years. Much of this work was reported in the EMS Status Report, 2002, developed by the Iowa Department of Health, Bureau of EMS, however, on-going monitoring also occurs through data collected by the Bureau of EMS from EMS providers.

The EMS Status Report provides insight into Iowa's EMS System, challenges facing the EMS system, and concepts/recommendations to improve the system. It was presented at an Iowa EMS Conference that was supported by the Flex Program. Some of the ideas and issues reported in the document were also identified as part of the Flex Program evaluation process.

Informal EMS planning has also occurred between EMS Bureau staff and Flex Program staff. Much of the planning pertains to the use of funding associated with the Flex Program, presentations at the CAH Peer User Groups, and other issues/program plans as they arise. In addition, EMS Bureau staff members were included in initial Flex Program planning meetings. Regional EMS Bureau staff, although partially funded through the Flex Program, do not provide formal or regular updates related to field activities to Flex Program staff.

As part of the EMS Grants Survey, EMS personnel were surveyed about ambulance staffing, operations, and issues and concerns. When asked about covering shifts, 89% stated they have difficulty covering shifts. Of those with difficulty covering shifts, 83% indicated day shifts as the most difficult to cover, 25% weekends, and 19% holidays. Staff members were also asked whether they are trying to add staff to their squad; 82% stated, "yes".

EMS reported that issues and concerns focus heavily on staff recruitment and retention, survey data showing 77% being very concerned (44%) or concerned (33%) about their ability to recruit ambulance personnel and 67% being very concerned (39%) or concerned (28%) about retaining ambulance personnel. This level of concern is consistent with EMS provider data that is maintained by the Bureau of EMS that reports a loss of 618 EMS personnel (5%) statewide from January 2003 through May 2004.

EMS also expressed strong concerns related to staff training. Survey data showed 67% being either very concerned (39%) or concerned (28%) about staff training. Training costs are reportedly \$750 - \$800 per person and training requirements are increasing, thus putting a greater burden on volunteers. Finally, when asked about EMS needs and concerns, many had comments related to restructuring the state's EMS system and reimbursement.

B. EMS CONFERENCE

An annual state EMS Leadership Conference has been in place since 2002. The Iowa Hospital Association organized the first conference. Subsequent conferences have been organized by the Iowa Department of Public Health, Bureau of EMS provides much of the expertise to support the conference as well as the contracted conference planner. The first conference was fully supported using Flex Program funding (\$26,610) while subsequent conferences have had less Flex Program funding support (\$5,000).

The conference has averaged 258 participants per conference over the past three years. Conference participants have evaluated the conference each year and report overwhelmingly that the conference is either excellent (54%) or good (43%). When EMS directors were asked about the value of the conference most of them agreed that the conference is beneficial and they support its continuation; however, some stated that the conference has shifted away from its original leadership focus and more towards activities that are a “priority within the Department [Iowa Department of Public Health, Bureau of EMS]”. EMS talked about other EMS conferences that occur around Iowa. The most commonly mentioned was the Tri-State EMS conference in Sioux City, Iowa that is a training-focused conference. It attracts approximately 1,000 EMS staff. Discussions indicated that there is a need for all of the EMS conference planners to coordinate to assure that the needs of EMS providers are being met in Iowa.

C. GRANTS

Flex Program grant funding targeted to EMS has been administered through the Iowa Department of Health, Bureau of EMS for the past three years. In 2001, the Department of Economic Development administered grants. In all years, Flex Program funding was combined with other state funding to support the coordination of EMS services in counties and to support training and equipment costs. Flex Program grants to local EMS averaged \$3,810 in 2003 and were 17.5% of the EMS grant funding and \$3,333 in 2004 and were 15.6% of EMS grant funding. Grant funding amounts by year are shown in Chart 22.

EMS grant funding is made available in a two-part, multi-year, request for proposal (RFP) process. Part A supports training and equipment (\$10,000 maximum) and part B supports EMS infrastructure related activities (\$20,000 maximum). RFP guidelines state that grant-funding priorities are as follows:

Part A: training and equipment

Priority for funding **training** initiatives will be given to those that enhance the recruitment and retention of EMS providers and level of care available within the county. Support for the volunteer basis of the EMS system must be included.

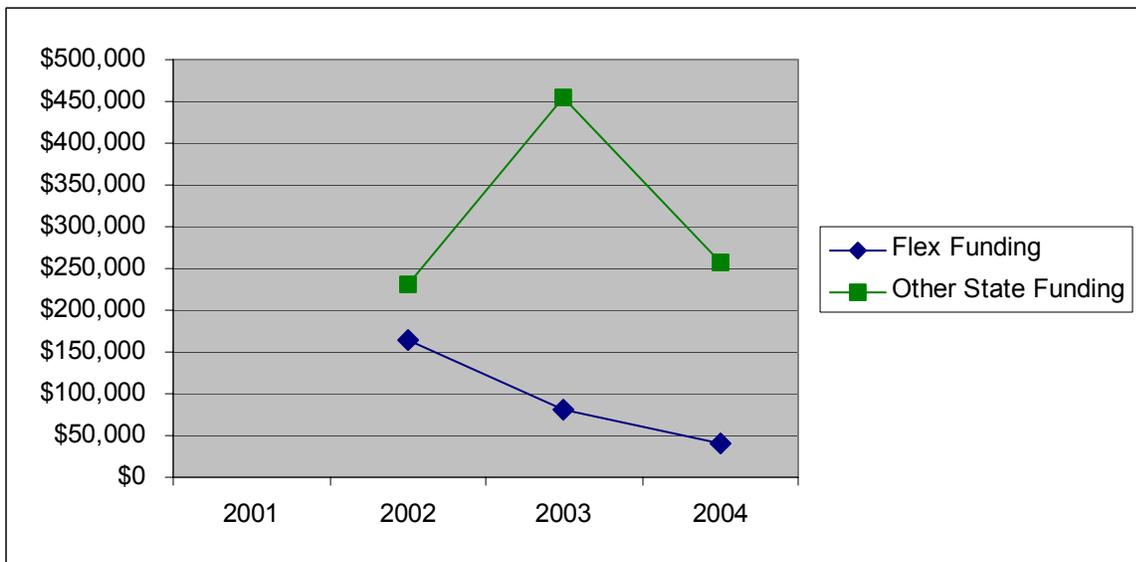
Priority for matching funds for **equipment** will be given to essential items as identified through physician-directed medical protocols and to enable bringing all levels up to a uniform minimum standard of care within the county-wide EMS system.

Part B: infrastructure support

Priority for funding of **infrastructure support** will be given to rural and underdeveloped counties (without coordinated resources or a consistent standard of care) that wish to gain efficiencies of scale and improve the quality of care through coordinated efforts of any or all the following focus areas.

- Uniform Medical Direction and Protocols
- Countywide EMS management coordination
- Streamlined data collection and reporting
- Centralized billing
- Illness and injury prevention activities

Chart 22 - EMS Grant Funding Amounts by Year



Although the Bureau of EMS collects some data related to the grants they have administered, most of the data reflects grant activities and not grant outcomes. Therefore, grantees from all grant years were surveyed about EMS grant outcomes and other areas as part of the Flex Program evaluation.

EMS grant recipients surveyed indicated that they get the majority of EMS grant information from Bureau of EMS regional coordinators as well as key state staff (all part of the Bureau of EMS). No grantee was familiar with the Flex Program. Some grantees could not remember the funding they received and how it was spent and needed reminders regarding the activities for which they obtained grant funding. Three of the grant applicants hired outside contractors to complete their grant applications because they were not “professional grant writers” and, “it was so complicated, I didn’t know where to start”.

Since Flex Program funding is only a small percentage of the grants made to EMS, there was no way to differentiate and account for the spending; therefore, outcomes related to the entire grant are reported here. Examples of grant outcomes are identified in Table 12.

Table 12 - Sample of EMS Grant Outcomes

Activity	County	Funding	Outcome
Created a joint billing and operations system as well as a shared medical director	Dallas	\$ 25,000	Created operational efficiencies (e.g. decreased billing staff) and eliminated costs associated with maintaining separate computer systems.
Trained nine EMTs, sent 23 staff to training conference, and purchased computers for each ambulance service in the county	O'Brien	\$ 26,819	Recruitment rate has increased, reduced need for local training, and ambulance services are better able to share data and information.
Coordinate county ambulance services and develop relationships and communications systems	Palo Alto	\$ 25,339	Relationships have improved, reduced paperwork, and developed a plan to provide training to staff electronically.
Continued county EMS needs assessment and maintained county coordinator position	Pocahontas	\$ 36,301	Established unified protocols for all county ambulance services (instead of 3), established one medical director, and established one unified run report for all of the ambulance services thus removing data collection and reporting burdens on all of the ambulance service.
Conducted county EMS needs assessment	Pottawatomie	\$ 7,500	Developed a better understanding of the EMS services and the population they serve in the county

- Several communities obtained funding to complete EMS community needs assessments. For most of the communities, they were unable to report any outcomes from this work other than having a community needs assessment document.
- The purchase of equipment was another use of grant funding (computers, AEDs, pediatric equipment). EMS reported that the equipment allows them to be more prepared on an EMS run and allows them to respond to reporting requirements more easily.
- Hiring county EMS coordinators was another use of grant funding. Many reported they believed this improved retention of staff because it removed reporting requirement and management duties that previously had been performed by volunteers. They also noted that without grant funding the position would likely be eliminated.

SECTION 10: STATE STAKEHOLDERS

Eleven state Flex Program stakeholders were interviewed about the development, implementation, strengths, weaknesses, and future of Iowa's Flex Program. Most of Iowa's Flex Program stakeholders have been involved in the program since its inception, including playing a role in the development of the state's necessary provider criteria.

All state level stakeholders agree that:

- Iowa's Flex Program stakeholders include: CAHs; Iowa Department of Health's Flex Program, Office of Rural Health and Primary Care, and Bureau of EMS; Iowa Hospital Association; local EMS; Iowa Foundation for Health Care (state Quality Improvement Organization); Iowa Department of Inspection and Appeals;
- Designating 56 CAHs in Iowa is a major success;
- CAHs have been able to stabilize financially and update facilities and equipment;
- Iowa Department of Health, and more specifically Flex Program staff, have done a good job at managing Iowa's Flex Program;
- Iowa's Flex Program website should be improved;
- Iowa is meeting the goals and objectives of the program, and
- Grants to CAHs have resulted in positive outcomes.

Most state level stakeholders agree that:

- A formal Flex Program planning process that includes Flex Program stakeholders is needed to change and advance Iowa's Flex Program;
- Iowa's Flex Program is more restrictive than other states;
- Iowa's Flex Program should include opportunities to share best practices;
- Flex Program staff and Iowa Hospital Association staff should communicate and coordinate more on CAH related activities;
- CAH Peer User Group meetings have met CAH and CAH eligible needs and they have been a key factor in developing relations between CAHs;
- CAH Peer User Group meetings should change to better meet the current and future needs of CAHs;
- Areas that need future Flex Program funding support include: improving network relations, supporting network development, CAH PI and QI;
- Hospitals should be actively involved in community health assessment and planning;
- The Iowa Foundation for Health Care should be a more active Flex Program partner;
- Formal surveys of CAHs should be conducted on a regular basis in order to maintain a better understanding of their needs, issues, concerns, and experiences related to the Flex Program; and
- The state EMS Leadership Conference has lost its focus on leadership.

Some state level stakeholders state that:

- Iowa should have applied for more federal Flex Program funding when the program was first made available,
- They would like to stay abreast of national Flex Program goals and objectives, and
- EMS related funding could be used more effectively.

SECTION 11: SUMMARY OF FINDINGS

The Iowa Flex Program evaluation resulted in many findings, identified throughout the document. A summary of findings is included here:

Rural Health Planning/Flex Program Implementation

- Iowa's Flex Program has had a positive impact on rural health in Iowa.
- Flex Program stakeholders are satisfied with the development and implementation of Iowa's Flex Program.
- A few key Flex Program stakeholders in Iowa are not familiar with the Flex Program.
- Flex Program stakeholders would like to be engaged in a formal state Flex Program planning process.
- Fifty-six hospitals converted to CAH status.
- No Iowa hospital is 35 miles or greater from the next nearest hospital. Most Iowa hospitals are approximately 20 miles from the next nearest hospital.
- The CAH designation process resulted in 44 Iowa hospitals reducing 654 state licensed and Medicare certified beds.
- One hospital has closed since the CAH model became available to Iowa's small rural hospitals.
- The majority of Iowa's Flex Program funding has supported CAH related activities through grants, workshops, conferences, meetings, technical assistance, and information sharing.
- For the past five years, approximately 45% of Iowa's Flex Program funding has supported local level activities through grants.
- The Flex Program has funded 36 grants totaling \$242,384 to support hospitals in converting to CAH status. The average grant to each hospital to completed financial feasibility studies, network agreements, and make changes to policies and procedures was \$6,733, significantly lower than what has been reported in other states. All of these grant recipients converted to CAH status.
- Iowa has funded an additional six grants totaling \$32,800 for CAH eligible hospitals that have not converted to CAH status; however, most of these hospitals are expected to convert to CAH by the time the necessary provider option sunsets in 2006.
- Flex Program EMS grants awarded to hospitals were typically not completed and thus not funded.
- Flex Program grantees prefer smaller grants with less competition as compared to larger, more competitive grants.
- Since 2003, Flex Program staff have made significant improvements in the administration of grants and contracts. In particular, outcomes data is being collected and grantees and contractors are being held to contract requirements.

- Flex Program stakeholders are interested in finding new efficient and effective ways to communicate and share information.
- Flex Program stakeholders are interested in sharing best practices.
- Iowa's Flex Program website is not meeting the needs of stakeholders.
- Flex Program outcomes information is could be shared more with stakeholders and other states.
- Iowa's CAHs, networks, and the Flex Program have worked extensively on CAH billing and coding issues during the past two years. Based on financial indicators, this appears to be having a positive effect on CAHs.
- Limited research into the effects of the Flex Program on improving communities' health status indicates that the Flex Program has been in place for too short a period of time with little data available to determine if the Flex Program has improved health status.

CAHs

- The primary reasons Iowa hospitals converted to CAH status were to improve the financial viability of the hospital, improve their ability to attract and retain key health care professionals, and modernize the hospitals' facilities and equipment.
- The financial status of CAHs has either stabilized or improved.
- Conversion to CAH status has allowed CAHs to increase the number of staff and staff wages. These increases are attributed to cost-based reimbursement and the CAHs formal network agreements.
- Staff morale, job satisfaction, and retention rates have improved since hospitals converted to CAH status.
- Iowa's rural hospitals are most concerned about financial issues, recruiting and retaining nursing staff and physicians, and physical plant updates. Thirty-seven CAHs have initiatives in place or plan to put them in place to address these issues.
- Communities recognize changes to their local hospital that are a result of CAH designation.
- Referral and practice patterns of CAH health care practitioners have not changed.
- Seventy-six percent of current CAH administrators managed their CAH conversion process.
- CAH Administrators have worked an average of 9.3 years in their hospital.
- Development of disease prevention and patient education programs are high priority for CAHs.
- CAH staff would like national Flex Program information, including best practices from other states.
- Communities would like an opportunity to engage in the local health care planning process.
- Demand for inpatient acute care in rural Iowa is decreasing while supply is remaining the same or possibly increasing.
- Prior to hospitals converting to CAH status, there were 55 Joint Commission Accredited Hospital Organization hospitals (JCAHO) in the state of Iowa. Today, there are 38 JCAHO hospitals.

- Iowa had one hospital with no deficiencies during its initial licensing and certification survey. There have been no deficiency free hospitals since that time. A total of 223 survey deficiencies have occurred in Iowa CAHs, or an average of 3.8 per hospital.

Network Development

- Network relationships between CAHs and acute care hospitals have evolved and have resulted in activities that address peer review, credentialing, referrals and transfers, recruitment and retention of staff, QI and PI, as well as others.
- One of the greatest outcomes from converting to CAH status is enhanced and increased networking between CAHs and tertiary hospitals.
- Approximately 30 CAHs in Iowa are owned or managed.
- Network development is focused on horizontal networks of hospitals.
- Although CAH network relations are predominantly maintained for the purposes of health care provider credentialing and peer review several networks have expanded to include joint purchasing, integrated information services, integrated service delivery systems (tele-medicine), and integrated training and leadership development.

EMS

- EMS grants are resulting in Flex Program related outcomes at the local level.
- Flex Grant funding has supported \$285,150 in EMS provider grants, including 14 of 28 grants that supported EMS programs based in CAHs.
- Flex Program funding associated with each grant award is a small percentage (sometimes as low as 3.6%) of the EMS grants being funded.
- There are significant differences in administrative oversight occurring in relation to CAH related Flex grants and EMS grants.
- EMS grant outcomes are minimally reported as part of the EMS grant administration process.
- EMS stakeholders are not aware of the Iowa Flex Program.
- No formal reporting occurs between Flex Program staff and Bureau of EMS regional staff.
- Stakeholders find the EMS conference to be beneficial, however, conference content should be better coordinated with other state EMS conferences and should re-focus on developing local EMS leadership.
- Communities are concerned about regulatory changes being made to EMS staffing and training requirements. They believe these changes are contributing to recruitment and retention issues and will ultimately decrease quality of care.

SECTION 12: RECOMMENDATIONS

The following recommendations are based on evidence, observation, and analysis from Flex Program Evaluation activities. Recommendations are intended to assist Iowa in its future program planning effort.

- 1) Iowa should re-engage in a formal Flex Program planning process.
 - a. Flex Program stakeholders, including representatives of CAHs, local EMS, and networks should be invited to participate.
 - b. Annual Flex Program priorities and plans, including the state Flex Program application for federal funding should be discussed.
 - c. Planning activities that could be addressed, include: state Flex Program conference, Website, 2005 federal Flex Program grant application and program plans; CAH Peer User Group Meetings, workforce, and EMS goals and objectives.
 - d. Given the large number of CAHs, networks, and EMS providers, formal regional planning activities should also be considered.
 - e. To assure participation by Flex Program staff, a meeting facilitator should also be considered.

- 2) Iowa's Flex Program should host a state Flex Program conference.
 - a. A structure similar to the national conference hosted by the Technical Assistance Services Center (TASC) could be used.
 - b. Participation of state, regional (networks) and local (EMS, CAHs, community representatives) Flex Program stakeholders should be encouraged.
 - c. A focus should be on sharing best practices from Iowa as well as those from other states.
 - d. Tracks should be available to best meet the information needs of hospitals and EMS.
 - e. Opportunities for networking and special interest discussions (CAH, EMS, networks) should be a part of the conference.
 - f. Consider including: a national or multi-state panel presentation by those leading quality improvement projects, a session of panelists to present state-level quality improvement projects, a session on charge master reviews that includes CAH administrators as well as financial experts, a session on master facility planning, a session on tele-pharmacy, a session on EMS training models, and a keynote on management best practices.

- 3) Iowa's Flex Program should address communication and awareness issues.
 - a. An Iowa Flex Program Annual Report should be developed (TASC has samples from other states).
 - b. The Flex Program Website should be updated to include information pertinent to Iowa's Flex Program, including grants made, program outcomes, events of interest, resources.
 - c. Flex grant awards should be announced to all stakeholders through a variety of venues (e-mail, mail, announcements at workshops).
 - d. Flex grant and contract outcomes should be reported to stakeholders.

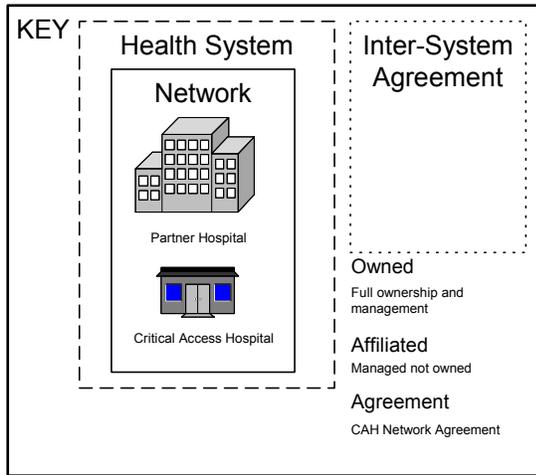
- e. All documents created on behalf of the Flex Program should include a condensed version that is no longer than five pages.
 - f. An irregular publication of Flex Program activities and outcomes may be warranted to better meet the needs of Flex Program stakeholders, including EMS.
- 4) Iowa's Flex Program should respond to key CAH technical assistance needs.
- a. Communication templates should be developed for CAHs so they can easily report national Flex Program changes to the communities they serve.
 - b. Flex Program staff, Department of Inspection and Appeals staff, representatives of CAHs, and networks should work together to develop a survey and certification readiness tool that is based on frequent deficiencies and survey readiness issues.
 - c. Regular site visits to CAHs are encouraged.
 - d. Develop a more dynamic and useful website.
- 5) Iowa's Flex Program should continue to provide grants to CAHs and CAH eligible hospitals.
- a. Grant funding should continue to be based on a funding model that allows for minimal competition between grant applicants.
 - b. The grant-tracking database should be one tool used to determine grant awards.
 - c. CAHs that have received no grant funding should be contacted to assure they are aware of the grant program.
 - d. Grant application requirements should include a grants summary page that requires applicant organizations to report all data included as part of the grant tracking database. This will expedite the data collection process and decrease grant administration costs.
 - e. Grantees should submit hard copy and electronic grant applications.
 - f. A conference call of eligible grant applicants should be hosted to answer grant application questions.
 - g. Commonly asked grant application questions should be included as part of the Flex Program Website.
- 6) Iowa's Flex Program should continue to support CAH Peer User Group Meetings but should make changes to make them more efficient and effective.
- a. A group of CAH representatives from around the state (CEOs, DONs, QICs, CFOs) should convene via teleconference to discuss possible changes to the CAH Peer User Group meetings.
 - b. Considerations should be made for CAH travel times, meeting duration, and topics.
 - c. Teleconferencing should be considered as one option to decrease travel times for meeting participants.
 - d. CAHs should continue to be viewed as the primary resource for meeting topics.
 - e. Meetings should focus on best practices and networking of members.
 - f. Meetings could be structured where every other meeting is hosted via tele-conference.
 - g. The number of meetings per year should be based on the number of CAH workshops and conferences held and annual Flex Program information sharing/communication needs.
- 7) The Iowa Foundation for Medical Care (IFMC), the state Quality Improvement Organization, should be re-engaged in the Iowa Flex Program.

- a. IFMC should be invited to attend national Flex Program meetings.
 - b. Quality improvement plans for CAHs should be coordinated with projects being conducted by the QIO.
 - c. Consideration should be made for developing a CAH QI project with a network hospital and the QIO as the lead Flex Program stakeholders.
- 8) Iowa's Flex Program should continue to monitor and evaluate program outcomes.
- a. A conference/workshop/meeting evaluation tool should be developed and implemented for use at all Iowa Flex Program activities (including those that are contracted to conference planners). This will allow for improved data collection, analysis, and reporting.
 - b. Regular (every 2 years) surveys of CAH administrators should be conducted to assure the Flex Program is being developed with input from most CAHs and to monitor CAH issues and concerns.
 - c. The grant-tracking database should be maintained to assure that Flex Program staff can provide timely and accurate grant information as needed as well as to use the data for making future grants, and to decrease on-going evaluation expenses.
 - d. Future Flex Program grant applications for federal funding should include the development of measures and outcomes for each program activity. This will assure the program is meeting expectations and will promote program changes.
 - e. Findings from the national Monitoring Team's report on the financial status of Iowa's CAHs should be summarized and reported to Iowa's CAHs.
 - f. CAHs with limited networking agreements should be interviewed to assure their networking needs are being met.
- 9) Iowa's Flex Program should request the maximum grant award per year to fund its Flex Program.
- a. Iowa's Flex Program and its CAHs have made tremendous strides in the past few years. This work needs to be fully reported in Iowa's grant applications.
 - b. Iowa's Flex Program continues to provide a cost-effective Flex Program to stakeholders, however, it is greatly limited by the funding it receives.
 - c. Iowa stakeholders should be included in the development of the application for federal funding.

SECTION 13: APPENDIX

Network Diagram

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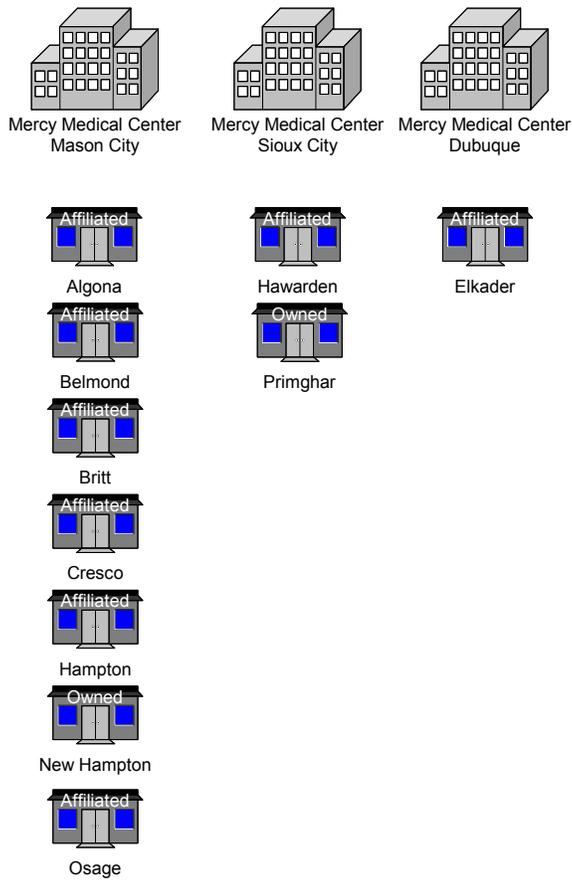


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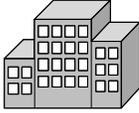


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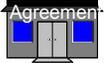
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Sioux Valley Health System

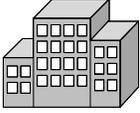


Sioux Valley Hospital and
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Sioux Falls, SD



Rock Rapids

Alegent Health



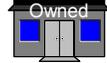
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Omaha, NE



Coming



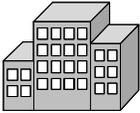
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Council Bluffs



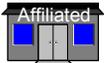
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Avera Health System

Avera McKennan Health System



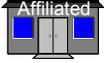
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Sioux Falls, SD



Sioux Center



Rock Valley



Sibley



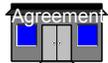
Estherville

Iowa Health System

Trinity Health



Trinity Regional
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Fort Dodge



Clarion



Humboldt



Pocahontas

Allen Health



Allen Memorial
Waterloo



Grundy Center

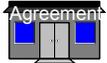


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St. Lukes



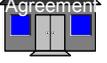
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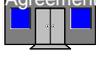
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Iowa Methodist
Des Moines



Guthrie Center



Osceola



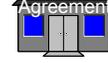
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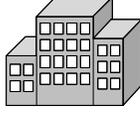
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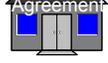
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Perry



The Finley Hospital
Dubuque



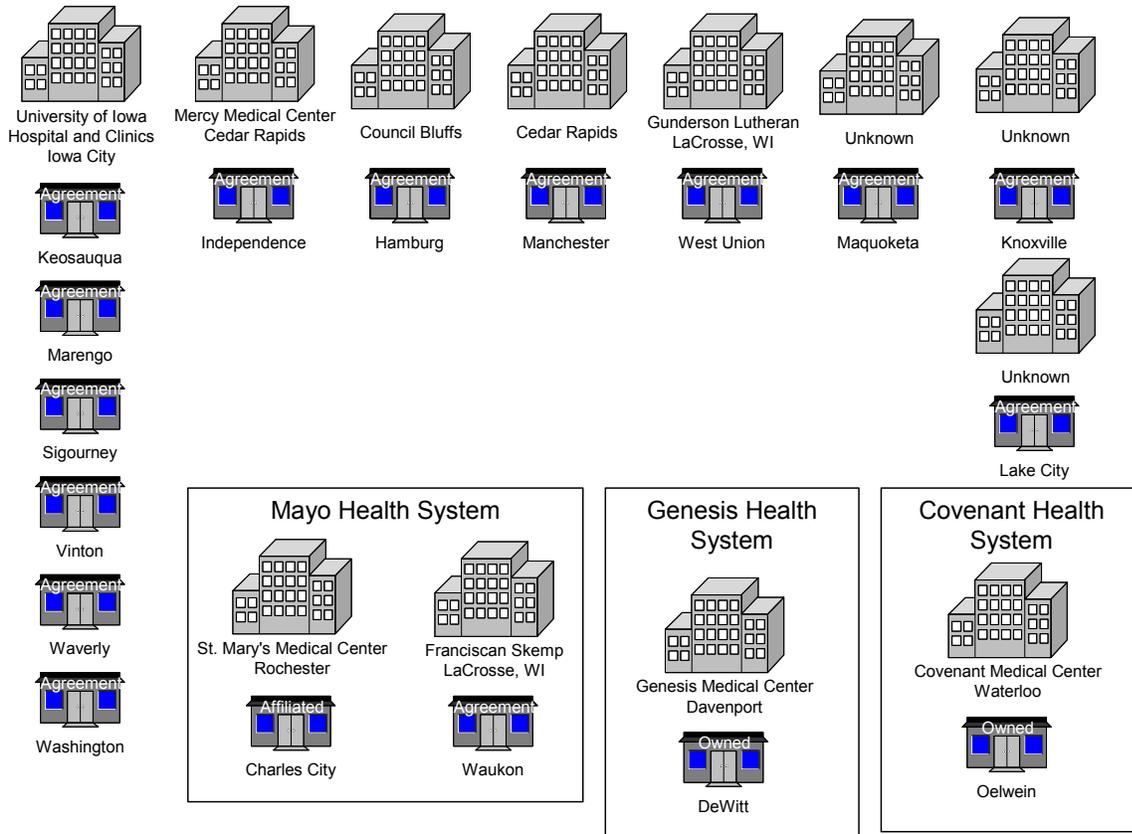
Guttenberg



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Ida Grove



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Employment: Employed civilian population 16 and over.

Income: Median income

Education: 25 years and over

Education: 1980 = 25 and over completing 4 years of college.