

*Flex Monitoring Team Briefing Paper No. 12*

# **Quality and Performance Improvement Grant Activities Under the Flex Program**

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

The authors of this report are Jennifer Lenardson, M.H.S., Research Analyst, and John Gale, M.S., Research Associate, of the University of Southern Maine.

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Questions regarding the report should be addressed to: Jennifer Lenardson at 207-228-8399 or [jlenderson@usm.maine.edu](mailto:jlenderson@usm.maine.edu).

**Flex Monitoring Team**

<http://www.flexmonitoring.org>

**University of Minnesota**

Division of Health Services Research & Policy  
420 Delaware Street, SE, Mayo Mail Code 729  
Minneapolis, MN 55455-0392  
612.624.8618

**University of North Carolina at Chapel Hill**

Cecil B. Sheps Center for Health Services Research  
725 Airport Road, CB #7590  
Chapel Hill, NC 27599-7590  
919.966.5541

**University of Southern Maine**

Muskie School of Public Service  
PO Box 9300  
Portland, ME 04104-9300  
207.780.4435

### **The Medicare Rural Hospital Flexibility Program**

The Medicare Rural Hospital Flexibility Program (Flex Program), created by Congress in 1997, allows small hospitals to be licensed as Critical Access Hospitals (CAHs) and offers grants to States to help implement initiatives to strengthen the rural health care infrastructure.

To participate in the Flex Grant Program, States are required to develop a rural health care plan that provides for the creation of one or more rural health networks; promotes regionalization of rural health services in the State; and improves the quality of and access to hospital and other health services for rural residents of the State. Consistent with their rural health care plans, states may designate eligible rural hospitals as CAHs.

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

The legislative authority for the Flex Program and cost-based reimbursement for CAHs are described in the Social Security Act, Title XVIII, Sections 1814 and 1820, available at

[http://www.ssa.gov/OP\\_Home/ssact/title18/1800.htm](http://www.ssa.gov/OP_Home/ssact/title18/1800.htm)

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
METHODS.....	2
RESULTS .....	3
CONCLUSIONS.....	39
LIST OF ABBREVIATIONS .....	41

## EXECUTIVE SUMMARY

**Introduction:** Quality and performance improvement are fundamental components for provider participation in the Medicare program and this focus is well-represented under the Medicare Rural Health Flexibility Program (Flex Program). Grants to states under the Flex Program promote activities that support improvement in clinical quality and operational and financial performance. During the 2005 grant year, states proposed quality and performance improvement activities representing 30 percent of requested funding. This briefing paper provides an in-depth description of activities proposed by states during the 2005 grant year and provides Flex administrators and other stakeholders ideas to consider as they address their own state issues.

**Methods:** We reviewed the grant applications states submitted to the federal Office of Rural Health Policy for the Fiscal Year 2005 Flex Program funding for activity descriptions and organized these into several categories: improving clinical, operational, and financial performance; financial and organizational performance; promoting a culture of quality improvement; participating in national quality efforts; implementing health information technology (HIT) systems; and addressing patient safety and satisfaction issues.

**Results:** States proposed many activities recommended within the federal guidance, including widespread use of the balanced scorecard approach, participation in national quality improvement efforts, and development of relationships with state Quality Improvement Organizations and networks supporting quality and performance improvement efforts. State Flex Programs are furthering the ability of hospital administrators, quality managers, and others to participate in quality improvement activities and are undertaking activities to ensure the efficiency and financial stability of their business operations. States proposed needs assessments and planning activities to develop and finance future systems of existing HIT as well as pilot programs and upgraded systems to enhance links to other providers, improve availability of patient records, and improve patient safety.

**Conclusions:** State Flex Programs have demonstrated a commitment to quality and performance improvement, with proposals spanning a range of clinical, operational, and financial themes. State activities acknowledge the different quality measurement needs of rural hospitals through the development of benchmarks and transfer protocols specific to CAHs and other small, rural hospitals. Some state Programs proposed activities to build in-state knowledge and capacity and to assess current conditions, particularly in the areas of balanced scorecards, HIT, and patient safety. The Flex Program's grant-making capacity supports a wide range of local initiatives designed to improve the quality of patient care and hospital operations.

## INTRODUCTION

Quality and performance improvement are fundamental components of hospital participation in the Medicare program. Medicare providers must adhere to conditions of participation from the Centers for Medicare and Medicaid Services (CMS) that require a hospital-wide quality assessment, performance improvement, and patient safety program. CMS contracts with a national network of 53 Quality Improvement Organizations (QIOs, formerly Peer Review Organizations) to work with providers and beneficiaries to review and improve the quality of health care. Through educational programs, performance measurement, and by providing tools and best practices, these QIOs assist hospitals with projects to improve care for specific conditions, support decision-making and efficiency with health information technology, and promote an organizational culture that values quality improvement. CMS' Hospital Quality Initiative includes strategic alliances for the measurement and reporting of hospital quality and patient perspectives, pay-for-performance demonstrations, and payment and coverage policies that encourage quality data submission.<sup>1,2</sup>

Likewise, this emphasis on quality is carried throughout the Medicare Rural Hospital Flexibility Program (Flex Program). The Flex Program, created by Congress in 1997, allows small hospitals to be licensed as Critical Access Hospitals (CAHs) and offers grants to States to help implement initiatives to strengthen the rural health care infrastructure. The Flex Program's authorizing legislation requires CAHs to have an agreement in place with an appropriate entity for credentialing and quality assurance purposes and requires hospitals converting to CAHs to undergo a certification survey by state officials which focuses attention on quality issues. Since conversion, CAHs report the involvement of network hospitals, QIOs, and state hospital organizations in a variety of quality improvement activities and, with improved financial performance, hospitals are allowed more resources in pursuing quality improvement goals.<sup>3</sup> Federal grants under Flex also emphasize quality improvement, identifying quality as one of three required topics for funding. In addition, the Flex Program promotes the economic performance and viability of rural hospitals.<sup>4</sup> The range of activities named within the grant application guidance includes the development of protocols, disease management programs, and contracts with QIOs as possible quality improvement activities. The guidance includes a strong recommendation for the balanced scorecard and other performance improvement approaches, participation in national quality efforts, and the development of a formal working relationship with state QIOs.<sup>5</sup>

The 45 states eligible for participation in the Flex Program requested a total of \$7.7 million to support proposed quality and performance improvement activities for Fiscal Year 2005. Across all states, this amount represents 30 percent of proposed funding.<sup>1</sup> The table below shows the amount requested for quality and performance improvement activities for each state and this funding as a percent of the state's total request. This briefing paper provides an in-depth description of activities proposed by states and provides Flex administrators and other stakeholders ideas to consider as they address their own state issues.

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<sup>1</sup> Authors' analysis of the Fiscal Year 2005 Flex Program Grant Applications.

## Funding Requests for Quality and Performance Improvement (Q/PI) Activities, 2005

State	Funding Request for Q/PI Activities	Q/PI Funding as a Percent of Total Request	State	Funding Request for Q/PI Activities	Q/PI Funding as a Percent of Total Request
AK	\$110,435	20%	NC	\$73,760	13%
AL	161,558	23	ND	75,000	11
AR	122,500	23	NE	521,710	75
AZ	197,000	33	NH	60,000	9
CA	120,309	24	NM	39,191	14
CO	281,058	43	NV	234,389	39
FL	558,580	85	NY	110,000	24
GA	224,000	32	OH	118,388	20
HI	316,713	59	OK	20,000	3
IA	63,411	9	OR	181,188	26
ID	252,894	52	PA	112,500	31
IL	215,000	32	SC	79,000	15
IN	160,000	23	SD	158,000	23
KS	191,653	27	TN	158,700	23
KY	155,000	23	TX	35,000	5
LA	342,058	50	UT	173,000	39
MA	89,000	30	VA	153,104	43
ME	61,500	16	VT	173,850	55
MI	42,750	8	WA	268,721	41
MN	396,465	57	WI	145,570	21
MO	199,547	43	WV	59,681	9
MS	315,650	70	WY	70,123	15
MT	177,045	25	<b>TOTAL</b>	<b>7,774,901</b>	<b>30</b>

Source: Fiscal Year 2005 Flex Program Grant Applications.

## METHODS

This briefing paper examines quality improvement activities proposed by 45 states in their fiscal year 2005 Flex Program grant applications to the federal Office of Rural Health Policy. We reviewed these grant applications and organized the proposed activities into several categories: improving clinical, operational, and financial performance; financial and organizational performance; promoting a culture of quality improvement; participating in national quality efforts; implementing HIT systems; and addressing patient safety and satisfaction issues. We reviewed the literature to further understand the issues behind states' Flex projects.

Use of the grant applications as the source for our analysis is limited by the extent to which states described their quality improvement goals and activities. Some states provided significant detail as well as the content and history supporting their proposed activities, while others were far less inclusive. Where activities spanned two or more categories, we grouped them according to their primary objective.

It should be noted that while many states referred to innovative activities they had undertaken in previous years, we identify activities proposed in 2005-06 only. We included information on tasks from earlier grant years where it enhanced our understanding of current activities. Additionally, this paper contains information on proposed activities only because revised budgets documenting final awards were not available for all states.

## RESULTS

### Clinical, Operational, and Financial Improvement

Applying quality standards and measurement tools developed for use in large, urban hospitals to the differing organization, service use, and staffing mix of rural hospitals may be inappropriate.<sup>6,7</sup> State Flex Programs have proposed numerous activities that strive to improve clinical, operational, and financial performance, with many states creating quality standards and measurement tools specific to rural hospitals. Activities include comparing hospital quality data against that of other small, rural hospitals, initiating quality improvement through data collection, implementing chronic condition management programs, developing transfer protocols, improving business operations, and assessing and implementing the balanced scorecard approach to performance improvement.

#### *Comparison and Benchmarking*

Fifteen Flex Programs are comparing data across similarly sized hospitals on clinical, financial, and operational indicators. These activities share a common theme of developing benchmarks specific to rural communities, rural hospitals or CAHs. Individual activities include comparison of benchmarks across CAHs and other rural hospitals within the state and nationally and the development of new and revised measures. These benchmarks contain elements of both clinical quality improvement and financial performance improvement. Many states use web-based data collection techniques and there is consistent QIO participation within these activities. While some states are expanding their benchmarking efforts to more hospitals within their state, others – Kansas, Kentucky, Montana, and Virginia -- are forming partnerships across state lines. Following their initial CAH benchmarks, Washington will develop department-level benchmarks (e.g., for surgery) and rural health clinics.

- **Arkansas** – To address performance improvement, Arkansas' QIO will report on trends and benchmarks in ten pneumonia and heart failure measures that are comparable to condition measures in CMS' Hospital Quality Initiative. These measures will be compared across CAHs, other small hospitals in the state, and hospitals on a national level and presented at quarterly meetings. A dashboard tool will be developed with the assistance of a consultant who can assure it is similar to a balanced scorecard (BSC) approach, easing future conversion to a BSC program.



Initially, the dashboard tool will be used to perform benchmarking activities and to assist in the design of strategies to improve operations.

- **Hawaii** -- An initiative of the Hawaii Office of Rural Health in partnership with the Hawaii Performance Improvement Collaborative (a network of small rural hospitals), the Hawaii Rural Health Association, and the state Department of Health, the Hawaii Rural Community Outcomes Project supports existing efforts to improve the health of rural communities by developing a health measurement system to track and facilitate improvement. The Project includes: outcomes training so rural communities understand how activities may affect and improve health indicators; data development at the community level; development of Community Health Profiles to understand current health status and goals for the future; and development of Rural Community Health Agendas to identify local priorities and to develop an action agenda.
- **Illinois** – The Illinois Critical Access Hospital Network (ICAHN) – the administrator for Illinois' Flex Program -- will continue to develop and report on its Scoreboard of clinical, financial, and hospital-wide indicators unique to CAHs. The ICAHN Scoreboard allows members to compare their operations and outcomes against peers on a statewide basis. During this grant year, ICAHN will add more patient safety and satisfaction indicators and seek to improve physician performance on those indicators. Indicators will be measured for reliability and compared with other state programs. Over 35 ICAHN members are ready for electronic data submission, expected online as of January 2005.
- **Indiana** – The Indiana Flex Program continues to support the CAH Performance Improvement Network. Established in 2003, the Network developed seven financial, operational, and clinical indicators using an established data bank of the Indiana Hospital and Health Association. The Network will develop additional indicators during the 2005 grant year and increase the number of CAHs collecting data through the Hospital and Health Association data bank (five CAHs collect data through other vendors) for ease in reporting and comparison.
- **Iowa** – Iowa's Flex Program will continue to facilitate a CAH Benchmark Committee charged with developing a set of quality benchmarks specific to rural hospitals. The Committee of CAH administrators will review, revise, and expand on current quality benchmarks. CAH administrators and staff from supporting organizations are exploring inclusion with rural quality initiatives in other states. The Flex Program will partner with the Iowa Hospital Association and the state QIO to provide data analysis and meeting facilitation.
- **Kansas** – The Kansas Flex Program will continue to support its web-based quality benchmarking program, Quality Health Indicators (QHi). This multi-network initiative has focused on a process for developing and reaching consensus on appropriate quality measures relevant to small rural providers. An extensive online database created through this project provides data for benchmark development while the QIO and others will foster statewide consensus on each benchmark. Kansas will

work with a Quality Improvement Committee to develop a set of hospital measures for ambulatory care sensitive conditions to include in the indicator library of QHi.

Goals for the program during the 2005-06 grant year include: development of a consensus set of measures among participating CAHs; the addition of 12 CAHs to the 30 who already use the system; and promoting QHi participation among other Midwestern states. Using a multi-state approach will create a large enough database to allow hospitals to select only those indicators that have value to their organization.

- **Kentucky** – The Kentucky Rural Hospital Clinical Benchmarking Program allows rural hospitals and CAHs the opportunity to compare clinical data on a quarterly basis. The Benchmarking Program aims to improve quality of care; provide performance measurements of specific indicators; provide best practices information to hospitals; and reduce data entry and reporting errors. The Benchmarking Program provides rural hospital-specific quality data, allowing rural hospitals and CAHs to establish realistic quality improvement programs based on the best practices of their peers. Hospitals will report data electronically. All CAHs will participate, providing a platform to expand beyond the state.
- **Louisiana** – Louisiana’s CAH Quality Improvement Network will facilitate quality improvement initiatives that meet Medicare, state, and Flex requirements. The Network has developed specific performance improvement measures on CAH staffing, emergency department services, reimbursement and financial operations, patient care, health care services, and networking. During the current grant year, the Network will support the use of a web-based data system for monitoring and comparing financial and patient care data across Louisiana CAHs.
- **Montana** -- In January 2004, Montana’s Flex Program established a multi-state CAH benchmarking project with **Kansas, Michigan, and Nebraska** to gather and compare rural-relevant organizational performance measures. Montana coordinates multi-state conference calls, project design development, and serves as data host and the lead on report preparation. During the second quarter of 2005, additional states will be invited to participate with the goal of doubling CAH participation. Other enhancements for the year include peer grouping and cross-cutting data for comparative purposes as requested by participating CAHs and the possible inclusion of clinical metrics in addition to the existing financial and operational metrics.
- **Nebraska** -- The Nebraska Flex Program will contract with the state QIO to work with CAHs on reporting a new set of rural performance measures to the QIO data warehouse. Data submitted will be used to produce national, state, and hospital specific baseline rates.
- **Nevada** -- The Rural Hospital Benchmarking Project includes two major activities to develop quality benchmarks and measurement tools specific to CAH, CAH-eligible, and other rural hospitals.

- The Pioneer Health Network created a benchmarking tool and database known as Health Data Check (HDC) that is limited to facilities of less than 100 beds and includes many CAHs. Through their subcontract with Nevada Rural Hospital Partners, the Nevada Flex Program initiated the use of HDC by Nevada's rural and frontier hospitals. Plans for the 2005-06 grant year include expanding the use of HDC to all small, rural and frontier hospitals, sharing best practices among the facilities, and applying the benchmarking data to the individual facility's balanced scorecard.
- With funding from a Small Rural Hospital Improvement Program (SHIP) grant, Nevada's rural and frontier hospitals partnered with the Pioneer Health Network to create a rural quality indicator reporting tool. The tool will include the 23 measures from the National Voluntary Hospital Reporting Initiative and 30 measures unique to rural and frontier hospitals in Nevada. The tool was scheduled to be completed and implemented in 2004-05. During the 2005-06 grant year, data from these measures will be used to implement quality improvement initiatives and the benchmarking data will be applied to the individual facility's balanced scorecard.
- **Ohio** -- Ohio CAHs have expressed an interest in developing and participating in a CAH-exclusive benchmarking project. The Flex Program staff will research and develop a quality benchmarking project based on other published endeavors and collaboration with similar state programs. The resulting product will be a how-to-kit enabling CAHs to create meaningful quality benchmarks for rural communities. Results will be presented at the annual meeting of Ohio's CAHs.
- **Tennessee** -- The Tennessee Hospital Association has proposed a benchmarking tool to enable CAHs to examine hospitals' clinical and financial performance. This tool will include an analysis component designed to identify areas within a facility that have utilization habits and patient outcomes that are inconsistent with best practice hospitals.
- **Virginia** -- The Virginia Flex Program will continue its "Enguage" Project, collecting data for 12 measures of clinical quality and developing benchmarks specific to CAHs. The resulting database will identify areas needing improvement and promote collaboration with the state QIO to address these areas. This project will also compare benchmarks across CAHs in North Carolina, South Carolina and Virginia.
- **Washington** -- Continuing a jointly funded project with the Association of Washington Public Hospital Districts, the Washington Flex Program will support a Performance Improvement Benchmarking Project. The Project includes financial and operational profiling of selected CAH departments and rural health clinics to develop rural benchmarks by peer group. The project owes its success to an active advisory group composed of chief financial officers from rural hospitals.

### *Collection of Quality Data*

Ten Flex Programs are collecting clinical, operational, and financial data from CAHs and EMS providers for benchmarking and other quality initiatives, compliance with regulatory requirements, and Flex Program evaluation. Often these data are collected via subscription services paid for by the Flex Program and administered by the state Hospital Association.

- **Arizona** -- The Flex Program will continue to support online data reporting by Southern Region EMS to improve EMS billing, make data retrieval procedures more efficient, and use data to drive EMS service improvements. This effort will be expanded to another CAH region, with Flex supporting formation of online data reporting by the Western Region EMS. Flex will host a meeting of Southern and Western Arizona Regional EMS agencies and CAHs on this pilot project and future opportunities.
- **Idaho** – The Idaho Flex Program provides CAHs with licensures to Databank, a program run by the Colorado Hospital Association to collect, analyze and compare utilization and financial data. Currently, 12 CAHs participate and the Flex Program would like to increase that number. Databank provides reports by payor and level of service for inpatient utilization, peer group averages for procedures, outpatient visits, personnel data, financial data including uncollected charges, operating revenue and expenses, and profitability and other financial data. The Idaho Hospital Association is contractually responsible for maintaining and analyzing these data.
- **Kentucky** -- Kentucky CAHs are provided with a subscription to COMPdata, a patient level all-payer database used to collect state-required inpatient and outpatient data. The Kentucky Hospital Association will provide technical assistance and training on COMPdata.
- **Minnesota** -- The Minnesota Office of Rural Health and Primary Care will fund a Minnesota Hospital Association web-based online data collection system and reporting tools for CAH performance improvement efforts.
- **Nebraska** -- Nebraska will continue to support the Clinical Outcomes Measurement System (COMS), a web-based system that allows CAHs to compare expected and actual rates for mortality, readmissions, and length of stay. Clinical outcome indicators are collected for the top ten DRGs and are adjusted for severity of illness. COMS can identify areas where a hospital's outcomes are different from their peer group and this information can be used to focus quality improvement efforts. Currently, 33 of 60 CAHs participate in COMS. Grant funds will be used to offset a portion of the licensing fee for the software and provide technical assistance to CAHs on using the data.
- **Nevada** -- The Nevada Flex Program will develop a program evaluation database to monitor CAH financial and operational performance, clinical outcomes, and other program impacts in conjunction with the program's performance improvement, BSC,

and quality benchmarking initiatives. Preliminary data collection and dashboard reports were expected to be complete by January 2006. Anticipated outcomes include development of accurate data for program planning and hospital use.

- **North Carolina** -- Several North Carolina CAHs attempted to use existing commercial products to develop comparative quality data; however, these products lacked meaning for the CAHs. A committee of CAH administrators and financial officers studied the problem and recommended a product to manage data for all CAHs, implementing the CAH Performance Improvement Comparative Data Program. The goal is to establish a benchmark tool that permits comparative analysis between CAHs. All CAHs have committed to the Program, providing half of the needed funding. Data elements include use and incidents across inpatient, emergency, skilled nursing facility, and swing beds. The potential for a regional comparison exists since Florida, North Carolina, South Carolina, and Virginia will use the same product.
- **Tennessee** -- As a consultant to the Flex Program, the Tennessee Hospital Association (THA) has primary responsibility for performance improvement and quality assurance activities. THA's Health Information Network provides a cost-effective data and reporting system to CAHs to assist in meeting all their data and regulatory requirements. It was designed with a full understanding of the needs of CAHs and provides management information for Medicaid and Medicare. CAHs can use this data for benchmarking, clinical studies and performance improvement, market studies, physician recruitment, and access to complete statewide or industry-wide data. THA will also continue to provide access to CAHs for Quality Works, a web-based program that captures record-level data associated with common performance measures.
- **Texas** -- The Texas Office of Rural Community Affairs collaborated with the state QIO to create a multi-track, process-oriented quality assessment and performance improvement program, known as the Alliance of Rural and Community Hospitals (ARCH). Currently, 60 rural hospitals (23 CAHs) participate in this program to collect, report, and monitor data on an ongoing basis, access comparative peer and national performance data, test process changes on selected clinical indicators, conduct root cause analysis, and implement evidence-based interventions to improve patient care and safety. ARCH assists CAHs in meeting the CMS conditions of participation. The Office will continue to work closely with the QIO to increase CAH participation in ARCH and other quality initiatives, including the use of a BSC approach.
- **Utah** -- The Utah Flex Program will enhance web-based electronic data reporting to provide an analysis component for EMS performance improvement. Anticipated outcomes include improved coordination with local rural hospitals and the increased use of the data system and its analysis capabilities.

## *Management of Chronic Conditions*

Eleven state Flex Programs are focusing on care for patients with diabetes and other chronic conditions. Activities include a networking program for CAH diabetes coordinators, health education programming, a national Chronic Care Model, a tracking system to assess diabetes status, an inventory of chronic care best practices, and a statewide stroke initiative. Two Flex Programs -- Massachusetts and Wisconsin -- are representing and facilitating participation by rural hospitals in efforts involving multiple state agencies to improve systems of care for patients with diabetes.

- **Arizona** – The Arizona Flex Program will support a Diabetes Managers Network, an informal network of diabetes coordinators in CAHs. This network is composed of staff largely from tribal and Indian Health Service (IHS) hospitals, but is not limited to this group. The Flex staff will organize teleconferences to share models of care experience. The network was formed at the request of CAH diabetes coordinators.
- **California** – The California rural hospital safety net serves a large proportion of uninsured and older persons with chronic conditions. The Flex Program will conduct a pilot project in two CAH communities to test a chronic care management model, evaluate results, and replicate the model in other small, rural hospitals. The model will improve treatment and training of patients and improve hospital chronic care procedures. CAHs will implement clinical and behavioral intervention strategies for patients with chronic conditions.
- **Georgia** -- To assure CAHs and their communities are aware of and included in disease management programs, the Office of Rural Health Services will convene quarterly meetings among agencies involved in disease management programs, including the Department of Community Health, Georgia Medical Care Foundation, the Georgia Hospital Association, and the Area Health Education Center.
- **Illinois** – Western Illinois University will lead a state-wide task force including participation from the Western Illinois Area Health Education Center, the state Department of Public Health, and the state Hospital Association as well as representatives from CAHs to develop a community health education template for chronic diseases and conditions. Community educators will be trained in creating and conducting community education programs and this template will be piloted in three hospitals.
- **Indiana** – The Indiana Flex Program will survey CAHs on their chronic care service programs, resulting in an inventory of best practices and a model for program reimbursement. Mini-grants to CAHs will be offered to implement or enhance chronic care service programs, with CAHs required to contribute a ten percent match of cash or in-kind contribution to these grants.
- **Kansas** – The Kansas Flex Program will continue to expand its rural diabetes quality of care system. This program seeks to improve care for diabetes patients by

implementing a tracking system in rural physician practices and protocols for the prevention and treatment of diabetes in the primary care setting. Physicians submit data reports to the Kansas Department of Health and Environment (KDHE) for analysis of aggregate patient condition (i.e., changes in blood glucose, blood pressure, and cholesterol readings). This year the program will offer community education through endocrinologists and diabetes educators from network hospitals. KDHE staff will provide technical assistance to the physician practices through funding from the Centers for Disease Control. Flex will also sponsor a conference for participating physicians to share their experience with the tracking system and protocols for care.

- **Massachusetts** – Massachusetts’ data indicate that rural areas have some of the worst stroke death rates in the state. The Statewide Stroke Initiative aims to provide technical assistance and resources to assist hospitals, EMS providers, and other health care professionals in developing better stroke services for patients and achieving Primary Stroke Services, a voluntary state designation. The Massachusetts’ Flex Program will continue to coordinate the rural perspective on the Initiative to better provide appropriate local stroke services linked to other levels of specialty care and consultation. Activities this year include: monitoring implementation of Primary Stroke Services regulations at rural hospitals; assisting two rural hospitals with developing a telehealth network and to attain the Primary Stroke Service designation; training hospital and EMS providers in stroke services; and assisting rural hospitals with developing a stroke community education campaign targeting rural communities.
- **Massachusetts** – As part of its collaboration with the state Chronic Disease Program, the Massachusetts Flex Program will participate in the development of a Diabetes State Plan, providing a rural diabetes data report, a resource document on model rural programs and strategies for diabetes, prevention, screening, and management. Flex will also collaborate with the state QIO on a plan for improving rural diabetes care and breast cancer screening rates of rural Medicare beneficiaries to meet the 8<sup>th</sup> Statement of Work requirements.
- **Vermont** -- In conjunction with the state QIO, the Vermont Flex Program will support a third Chronic Care Collaborative. Teams from 25 participating hospitals will implement the six components of the Chronic Care Model developed by the Institute for Healthcare Improvement. The teams will report monthly via conference calls to discuss strategies and challenges with other teams. This year’s Collaborative will focus on diabetes and coronary artery disease and will introduce a web-based clinical registry designed for participants. An Outcomes Congress will be held at the end of the study period so that Collaborative members learn from the challenges faced by the teams and to celebrate their participation.
- **Virginia** – With Flex funding, CAH staff will be trained to implement a Diabetes Education Program designed specifically for CAHs. Certified diabetes educators from the University of Virginia will train CAH staff on the Program via teleconference in collaboration with the University’s Telemedicine Department.

- **Wisconsin** – The Wisconsin Collaborative Diabetes Quality Improvement Project is a statewide approach to designing community intervention and health communications for people with diabetes. CAHs have limited available staff to participate in this Project. To permit greater involvement, the Wisconsin Flex Coordinator will continue to participate on the Project’s advisory group. This allows CAHs to have a statewide presence while receiving important information on resources and best practices as they develop local strategies. Additionally, the Flex Program, with a diabetes health educator and a CAH diabetes sub-committee, will develop a Diabetes Care Quality Improvement model, based on the Wisconsin Diabetes Quality Improvement Project and the Agency for Healthcare Research and Quality (AHRQ) resource guide for Diabetes Care Quality Improvement. The Flex Program aims for this project to become a model for subsequent chronic disease quality improvement efforts.

### *Transfer Protocols*

Four states proposed developing transfer protocols for moving patients between CAHs and other health care providers. Activities include the appropriate transfer of CAH patients, the need for transfer agreements between hospitals, and the development and use of transfer protocols for cardiac and trauma patients. Given the call for transfer protocols in measuring rural hospital quality,<sup>7</sup> development of these protocols appears to be an area for potential growth within the Flex Program.

- **Arizona** -- During the 2004-05 grant year, Flex and SHIP supported four CAH studies of relationships between emergency room and inpatient admissions and transfer patterns. The study revealed a common pattern of transferring patients that could be cared for at the CAH. Participating hospitals will meet with a consultant to discuss the study results and the action steps to change the organizational culture producing this pattern of care. Additionally, the Flex Program will sponsor a meeting between CAHs and geographically-related EMS agencies to discuss the need for patient transfer agreements between CAHs and tertiary hospitals.
- **Kansas** – The Minneapolis Heart Institute led an effort to bring emergency room physicians and cardiologists together to develop standard transfer protocols for heart attack patients. Use of the protocol shortened the time patients spend in the community hospital before transfer and shortened patient length of stay in the tertiary facility. The Kansas QIO is interested in working with a hospital network to develop a similar protocol, potentially with guidance from the Minnesota consultant who helped implement the protocol above.
- **Pennsylvania** -- Rural transfer and triage protocols, developed through the Flex Program, were adopted in 2004. The State EMS Office distributed the protocols throughout the state. During the 2005 grant year, Pennsylvania will review use of these protocols among all EMS regions encompassing CAH service areas. Among these facilities not using the protocols, the Office of Rural Health and various EMS agencies will train or assist them to improve use rates. Additionally, the state will



integrate its QIO's clinical measures for rural and low volume hospitals related to pre-transfers.

- **Utah** -- The Utah Flex Program will establish a trauma committee in each CAH to provide a collegial forum to discuss quality issues, clinical practice and trauma care in the community. The team will consist of EMS representatives, law enforcement, and hospital clinical staff and administration. Pre-hospital, emergency care, and transfer guidelines for each facility will be established and implemented in communities to ensure continuity of care using established best practices. Standardized guidelines, forms, and protocols will facilitate improved outcomes for patients requiring transfer to a higher level of care.

## **Financial and Organizational Performance**

As part of the legislative intent to sustain access to high quality care for rural Medicare beneficiaries, Flex program goals include improving the financial performance of CAHs and EMS agencies.<sup>4</sup> States have proposed multiple activities to enhance their financial and organizational performance, falling broadly under improving business operations and narrowly under implementing the balanced scorecard approach.

### *Improving Business Operations*

Several state Flex Programs are undertaking activities to ensure the efficiency and financial stability of their business operations. These activities include assessments of existing business operations, supporting a business resource center, training sessions to improve billing and reimbursement operations, and networking opportunities for CAH administrators and financial staff. Two states are offering these activities outside of CAHs, reaching further into rural areas. For example, Colorado will support improved business operations for rural health clinics and other providers and Georgia will provide practice management consultation to rural primary care providers serving Medicaid recipients practicing in CAH communities. Interestingly, three states – Nevada, Oklahoma, and Texas – have targeted hospital board members and trustees with educational programs to improve their understanding of hospital operations and governance.

- **Alabama** – The Alabama Flex Program will contract for management assessments of business operations to be conducted in four hospitals. The goal is to improve performance in areas such as cash flow, bad debt collections, and proper coding procedures. These assessments will improve financial stability by working with the facilities in establishing performance benchmarks for each department and assist management in monitoring and promoting effective and efficient operations. The Delta Rural Hospital Performance Improvement Project (Delta Project) will be used as a model for this effort and the management assessment tools developed through the

Delta Project will be required use for the consultant.<sup>ii</sup> Later in the year, the Flex Program will hold a workshop to provide training and technical assistance to hospitals that operate swing bed programs.

- **California** -- As part of its program evaluation objective, the California Hospital Association and a consultant will revise and conduct an annual comprehensive evaluation of 18 CAHs business operations. This evaluation will include a five-year trend analysis of outcomes that includes financial impact of 2003 Medicare Modernization and Prescription Drug Act. CAHs will use the financial information for strategic planning of financial resources and to improve business and billing operations, develop staff training curriculum, change or expand hospital services, and inform or advocate for rural health issues with state and federal policy makers. The California Office of Rural Health will use the evaluation report to target Flex resources to areas of need and provide technical assistance and other resources to increase hospital financial viability and facilitate networking between financially successful CAHs and struggling CAHs.
- **Colorado** – To improve clinical care and operations and strengthen the rural health care infrastructure statewide, the Colorado Flex Program is expanding its Clinic Assistance Services for rural health clinics, provider-based entities, and private practices. Services include assistance with billing and reimbursement, cost reporting, managed care contracting, human resources, fundraising, community development, needs assessment, strategic planning, and compliance. Internal staff and outside contractors will work together to provide services as needed.
- **Florida** – The Florida Flex Program will continue efforts to assist Florida CAHs in improving their professional capabilities, performance and financial viability. An outside vendor will conduct a fourth annual workshop to update CAHs on changes in Medicare reimbursement requirements and on hospital performance improvement initiatives. The workshop objectives are to maximize CAH reimbursement and to provide information and technical assistance to CAHs on initiatives such as the BSC. CAHs will be encouraged to use Flex mini-grants and SHIP funds to implement performance improvement efforts.
- **Georgia** -- To support and sustain CAHs, the Georgia Flex Program will provide on-site technical assistance and training workshops to CAHs to improve business operations. Anticipated outcomes are improved billing, collection, and patient satisfaction. Additionally, the Office of Rural Health Services will contract with the Area Health Education Center (AHEC) to provide practice management consultation to rural primary care providers serving Medicaid recipients and practicing in

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<sup>ii</sup> The Delta Rural Hospital Performance Improvement Project (Delta Project) is funded through the Office of Rural Health Policy to maintain health care access in rural communities throughout the eight-state Mississippi Delta Region. Approximately 120 hospitals targeted for this project have 50 or fewer staffed beds. The Delta Project seeks to assist these hospitals improve financial, quality and operational performance during a three year contract. (Delta Project home page. Accessed 4/28/06. Available at: <http://deltarhpi.ruralhealth.hrsa.gov/index.shtml>).

communities served by CAHs. The Robert Wood Johnson Foundation's Southern Rural Access Program, the AHEC program, and the Office of Rural Health currently support this service. Experienced practice management consultants provide in-office assessments, consultation, and reports by invitation. At least 25 practices will receive on-site consultation and support. The service will be offered to the most vulnerable counties with CAHs first.

- **Idaho** -- The Idaho Hospital Association will provide a full-day business management training for CAHs in two regional locations. Topics will be selected based on CAH administrator input and may include effective use of swing beds, medically indigent care, or Cost Reports.
- **Mississippi** -- To improve the financial performance of hospitals, the Mississippi Flex Program will provide coding audits to eight CAHs and charge master revision and analysis to four CAHs.
- **Nevada** -- As requested by CAH and CAH-eligible facilities, the Nevada Flex Program will provide, coordinate, and facilitate board education and strategic planning among rural and frontier hospitals. The Flex Program will also support a two-day workshop on rural hospital trustees and board development in order to increase access to education and resources.
- **New Hampshire** -- The New Hampshire Flex Program will continue to support quarterly CAH financial staff meetings and monthly CAH administrators' meetings. The chief financial officers, controllers, and other key financial staff of CAHs meet to share common problems, concerns, and strategies for sound financial management. The CAH administrators meet for networking and training on such topics as performance improvement, rural EMS, the Institute of Medicine's (IOM) *Quality Through Collaboration*, and legislative updates.
- **Oklahoma** -- Many citizens who have asked to serve on hospital boards have little or no experience with the day-to-day operations of a health care facility. The Oklahoma Flex Program will develop a curriculum for a Hospital Board Training Center to provide a better and more cooperative experience in the small hospital setting. This course of study will lead to the creation of efficiencies in board meetings that will extend to the facility's operation. Flex staff and the Oklahoma Office of Rural Health will develop a proposal, outline programmatic goals, develop curriculum in collaboration with the Oklahoma State University and the Oklahoma Hospital Association.
- **Oregon** -- As part of supporting and sustaining existing CAHs, the Oregon Flex Program will conduct analyses of hospital billing records and Cost Reports for four hospitals, resulting in recommendations for improvements on reimbursement. Hospital financial officers and administrators will learn how to bill and complete Cost Reports for maximum allowable reimbursement.

- ***South Carolina*** -- The South Carolina Office of Rural Health will continue to support performance improvement efforts to optimize their financial and clinical operations in converted or eligible CAH facilities. To reduce the costs paid for performance improvement and balanced scorecard efforts to date and to develop in-state capacity, the State Office is working to build local expertise to assist hospitals with these efforts. Resources will also be used to assist converted and eligible CAHs to address certain business related functions. Specifically, assistance with determining the medical necessity of claims before submission to Medicare and other payors will be addressed.
- ***Texas*** – The CAH Board of Trustees Continuing Education Program encourages hospital trustees to obtain continuing education to assist them in the governance of a CAH, promoting leadership development. The Program provides reimbursement incentives for six hours or more of continuing education each year for a single trustee. To date, 49 trustees from 15 CAH communities have received training through this Program. In the coming months, the Texas Office of Rural Community Affairs will coordinate with the Texas Healthcare Trustees, the Texas Organization of Rural and Community Hospitals, the Texas Hospital Association, and the Texas Rural Health Association to make available as many as seven additional trustee educational and instructional conferences and workshops. The Program includes development of a comprehensive CAH-specific Board education resource guide on compact disc. The guide will contain information on program rules and regulations, legal and fiduciary roles and responsibilities of board members, principles and standards of governance, performance and productivity, and essential health care policies and concepts. A workshop is planned to instruct Board members on use of the guide.
- ***Vermont*** -- The Vermont Flex Program will repeat a workshop to CAH hospital financial staff to improve compliance with rules and regulations for patient services reimbursement and strategies to enhance collection of eligible revenues that will improve the financial sustainability of their hospitals. Another benefit of the workshop was the communication and problem solving that occurred between participants during and beyond the scheduled workshops.

### ***Balanced Scorecard***

Developed in the early 1990s and implemented across multiple industries, a balanced scorecard (BSC) is a framework for describing and translating organizational strategy across customer, internal process, learning and growth, and financial perspectives.<sup>8</sup> A BSC links financial performance to the execution of operational strategies. It operates over 3-5 years requiring the particular leadership and buy-in of administrators.<sup>9</sup> While seventeen state Flex Programs proposed BSC activities, most are taking a limited approach. The states are investigating BSC by examining hospitals already using it and by implementing it at a specified number of CAHs. This approach allows them to gather information about the BSC experience and prepare for future use. Several states are focused on building in-state knowledge of the BSC among the agencies likely to provide CAH technical assistance, including the Flex Program, the state Office of Rural Health, the state Hospital Association,

and the QIO. A few Flex Programs are implementing BSCs in conjunction with other programs assisting rural hospitals, including the Delta Project. Three states – Arizona, Massachusetts, and Wisconsin – are asking hospitals to provide a portion of the funds required to finance their participation in the BSC. Additionally, three states are expanding BSC use to hospital departments (Pennsylvania), to a CAH-affiliated nursing home (Minnesota), and to training programs that serve CAHs and other rural providers (West Virginia).

- **Arizona** -- The Arizona Flex Program continues to support the Rural Performance Management (RPM) Balanced Scorecard initiative. Six hospitals are currently using the BSC method for monitoring and evaluating hospital performance improvement initiatives (three of these hospitals are tribal facilities); two additional CAHs will begin to use the BSC. Flex has asked hospitals in their second year of the BSC to contribute 50 percent of the cost and this policy has been acceptable to the CAHs. Scorecards will be used to benchmark progress and executive staff and department managers will develop action plans and document performance improvements. A Performance Improvement Summit – open to CAHs in Arizona and other states -- will gather CAHs currently involved in RPM and other small, rural hospitals interested in the initiative to learn how participating hospitals are using scorecards to improve systems.
- **Colorado** – Colorado will continue to implement a BSC template and reporting process for all CAHs to participate. Expected outcomes include implementation of hospital-wide performance improvement initiatives based on BSC.
- **Hawaii** -- Hawaii's Flex Program will continue its BSC project. Each CAH has implemented a BSC and all meet quarterly to discuss the data and develop strategic performance and quality improvement initiatives.
- **Idaho** – Current BSC efforts include mini-grants, site visits, and presentations. As a result, three CAHs have completed and implemented scorecards. Idaho will continue with those efforts through site visits and technical assistance and a contractor hired to direct performance improvement.
- **Massachusetts** -- Massachusetts will implement a second BSC at a CAH. The anticipated outcome is measurable improvements in quality of care and promotion of the BSC to other hospitals. Hospitals will be asked to contribute \$5,000 toward a total \$20,000 cost to demonstrate their commitment to the approach.
- **Minnesota** -- Minnesota will develop a demonstration project implementing the BSC approach in a nursing home associated with a CAH.
- **Mississippi** -- Mississippi will implement a BSC in two CAHs. Two other CAHs are participating in the BSC program of the Delta Project. Additionally, the Office of Rural Health and Hospital Association staff are collaborating with the Mississippi Extension Service to build instate capacity to implement the BSC.

- Missouri** -- Missouri will continue to contract with the Technical Assistance and Services Center (TASC) to implement and maintain a BSC system in participating CAHs, while building capacity within the Office of Rural Health to carry the process to additional facilities in the state. Four additional CAHs will be targeted to receive direct technical assistance for implementation of the BSC model. In partnership with the Office of Rural Health, the Hospital Association, the state QIO, and participating CAHs, the TASC will assure the successful initiation of the program and build capacity to sustain the BSC system in Missouri CAHs. TASC is currently involved in implementing the BSC for a CAH as part of the Delta Project. The Office of Rural Health will expand on the successes of the Delta Project activities, while assuring a consistent program across all Missouri CAHs using one methodology for all. Anticipated outcomes include improved financial performance and internal business processes, improvement in CAH customer knowledge, and improvement in innovation, learning and growth. Another potential outcome is the development of scorecard expertise within the CAHs, the QIO, the Hospital Association, and the state Office of Rural Health. The state is considering potential cost sharing by CAHs for this activity.
- Montana** -- The Montana Flex Program will provide technical assistance to support CAHs in implementing the BSC system. Montana's funding in this area has previously served to expose facilities to the concept, distribute a book on BSCs, and provide strategic planning assistance to CAHs as requested. The Flex Director and a consultant will attend the Delta Project's BSC workshop in March 2005, which may serve as a model for a Flex BSC initiative. As part of this goal, Flex will offer strategic planning assistance to CAHs; BSC orientation session via teleconference system; and build in-state capacity through participation in a BSC "Train the Trainer" session offered through the Rural Health Resource Center. Flex has already applied for a Rural Health Network Development grant for this activity with the Federal Office of Rural Health Policy and the Program will pursue other grant opportunities to support implementation such as SHIP, and regional and national foundations.
- Nebraska** -- The Nebraska Flex Program will continue to support implementation of the BSC in CAHs. For the 14 CAHs that have developed a BSC, Flex will organize a workshop to share their experience led by national and state experts. Flex will also provide ongoing technical assistance as these CAHs refine their process. For another 15 CAHs, Flex will organize a workshop on beginning the BSC process and provide technical assistance to develop the BSC. This technical assistance involves three on-site meetings that include the development of the strategy map, selecting indicators to measure progress in each quadrant, and developing BSCs at the department level. Some Flex funding will support a central data repository of BSC data and the development of benchmarks. CAHs will have the option of submitting their confidential data to the central depository.
- Nevada** -- The Nevada Flex Program will disseminate the document "Nevada Balanced Scorecard Best Practices" to rural and frontier hospitals to increase access

- to best practices information. Nevada will also train its staff on BSC to improve their ability to provide technical assistance and consultation to Nevada facilities and staff.
- ***New Mexico*** -- The New Mexico State Office of Rural Health will support the state Hospital and Health Systems Association in efforts to introduce the BSC approach to CAHs and other small, rural hospitals. The Hospital Association has recognized the need to institute whole systems quality improvement in the operations of its member CAHs and small, rural hospitals. Towards this end, the Hospital Association will introduce the BSC approach in a series of trainings for CAHs and other hospitals.
  - ***Pennsylvania*** -- Pennsylvania continues to advance its BSC Performance Management Program, with all eight CAHs participating in this quality improvement system. The BSC data collection and reporting processes have been continually updated and are now available on-line. Strategy mapping sessions and action plans for improvement are complete in six of eight hospitals. In addition to the BSC at the hospital level, Pennsylvania will continue to assist CAHs to develop departmental level BSCs.
  - ***Tennessee*** -- The Tennessee Hospital Association -- under contract to the Flex Program to provide CAH designation, technical, and regulatory support -- will pilot BSCs in two CAHs. The primary goal of this initiative is to enhance performance improvement activities by aligning hospital specific strategy with performance measurement.
  - ***Vermont*** -- During the 2004-05 grant year, the Vermont Office of Rural Health used the results of the New England Performance Improvement Readiness Assessment to support implementation of the BSC methodology in two CAHs. Two more CAHs are expected to implement the BSC in the current year. The Flex Program will also support BSC networking opportunities such as quarterly meetings, performance benchmarking and department manager knowledge transfer.
  - ***West Virginia*** -- The West Virginia Division of Rural Health in collaboration with the Flex Program, the Center for Rural Health Development and Appalachian Health Solutions, Inc., will conduct a two-day seminar on the BSC approach, targeting existing and potential CAHs, federally qualified health centers, and rural providers. Additionally, the Center for Rural Health Development and Appalachian Health Solutions, Inc. will work with the Flex Program to establish a forum for CAHs to cost-effectively identify and implement quality improvement strategies.
  - ***Wisconsin*** -- The Wisconsin Flex Program has hired a consultant to provide consultation to four CAHs to implement a BSC. To date, two hospitals were selected to participate in a pilot. BSC information will be presented to the CAHs by teleconference and at CAH Coalition meetings. Interested hospitals will be asked to participate in a BSC readiness assessment. Participants will receive a road map describing critical elements necessary for participation. Half of the \$40,000 consulting cost for each hospital will be covered by the Flex Program, with the

hospital responsible for the balance. The pilot includes 20 days of senior level consulting guiding each organization through a detailed baseline assessment; strategy confirmation and mapping; data, technology, and information audit; measure selection; high-level scorecard development; training and communication; implementation and coaching for three months; and access to an automated evaluation three months beyond the end of the project. Additionally, the consultant will provide on-going coaching and technical assistance for the two CAHs that had been pilot sites for the BSC.

## **Creating a Quality Improvement Culture**

Flex Programs are furthering the ability of hospital administrators, quality managers, and others to participate in quality improvement activities by supporting collaboration and networking, technical assistance, and developing quality skills and knowledge through educational programming.

### *Collaboration and Networking*

Twenty state Flex Programs are supporting collaborative workgroups, committees, or networks dedicated to quality improvement activities. These collaborative arrangements often provide guidance and oversight on quality improvement activities, adapt quality standards to rural hospitals, implement quality activities at individual CAHs, improve CAH compliance with quality regulations, provide training and resources to hospital quality managers, and promote coordinated initiatives across various agencies. CAH administrators, financial officers, and quality staff are often participants as well as representatives from state QIOs, hospital associations, and the Flex Program. The collaborative process has also resulted in sharing of best practices and developing consensus around performance measures. These arrangements appear to be moving toward independence as stand-alone organizations, with a few states in the process of hiring an executive director, developing a business plan, and naming responsibilities.

- **Alabama** – The Alabama Flex Program will establish a Rural Hospital Performance Improvement Committee to provide guidance and oversight for quality and performance improvement activities. Committee participation is voluntary for the state’s small, rural hospitals. The Committee will work with the state’s QIO or a similar organization to establish performance standards for Alabama’s small, rural hospitals.
- **Arizona** – The Arizona Flex Program will continue to support the Rural Quality Managers Network, formed to improve the skills of quality managers. The Network includes CAH quality managers, directors of nursing, SHIP representatives and others from rural Arizona hospitals. During the prior grant year, the group met twice by teleconference. At the first meeting they discussed Heart Partners, the Medicare Disease Management Demonstration project for congestive heart failure patients. A second meeting focused on CMS’ 8<sup>th</sup> Statement of Work with emphasis on creating a culture of quality.



- ***Hawaii*** – The Hawaii Performance Improvement Collaborative (HPIC) was formed by six CAHs during the 2003-04 grant year. The HPIC mission is to provide support and resources to Hawaii CAHs with the goal of fostering healthy, rural island communities. A HPIC director will be hired to develop and implement a five-year strategic plan to achieve a preferred community health model and explore creative networking arrangements that consider the state’s unique geographic and political environment.
- ***Idaho*** -- A Performance Improvement Advisory Committee meets quarterly to develop relevant, well-defined, data-driven performance indicators for CAHs. The Committee is chaired by the new CAH director of performance improvement at the Idaho Hospital Association (IHA), which is supported by the Flex Program. Committee suggestions are taken to a full CAH committee meeting for final decision-making. This process has created an effective method for developing widely supported measures. Data is collected through a website that allows CAHs to easily track their performance.
- ***Kansas*** – The Kansas Flex Program funded the development of three separate network-based EMS Quality Improvement panels. These panels developed standardized regional data collection processes that facilitated multi-agency quality reviews between EMS agencies on a routine basis. The Flex Program would like to bring these networks together to explore a consensus set of measures that could be adopted as benchmark measures by the three networks. Flex would then seek broader participation from other networks in the state. The Bureau of EMS contends that a drawback to rural EMS quality improvement systems is the lack of involvement by rural hospitals; therefore, this activity will involve CAHs.
- ***Maine, Massachusetts, New Hampshire, and Vermont*** – With the participation of the four state Flex Programs, hospital associations and small, rural hospitals, the New England Performance Improvement Network will continue to provide leadership, networking opportunities, education and resources for hospitals focusing on development and enhancement of performance improvement programs. Activities for the current grant year including a Network website furnishing hospitals with best practices, benchmarking tools, and links to related contacts. The Network will also host a conference for rural hospitals to focus on quality improvement best practices and specific models, tools, and skills. The states view this Network as cost-effective, ongoing beyond the grant year, innovative, and elevating Flex Programs from development to continual maintenance.
- ***Massachusetts*** -- Massachusetts launched a Rural Hospital Performance Improvement Network during the 2004 grant year. The Network used findings from a hospital readiness assessment to identify priority performance improvement projects and it will facilitate implementation of these projects and further promote statewide networking and knowledge transfer.

- **Michigan** – The Michigan CAH Quality Network (MICAH) is a joint effort of the Flex Program, the state QIO, and CAH administrators, quality improvement staff, and medical directors. The MICAH Executive Committee meets monthly via teleconference. The group has expanded from 22 to 30 hospitals and will continue its quality activities at the CAH and network level. The Flex Program provides organizational support and strategic planning to MICAH so that it will become an independent, sustainable organization. MICAH will work to develop a public reporting format for clinical outcomes across Michigan CAHs.
- **Montana** -- The Montana Flex Program will maintain and expand activities of the Montana Rural Healthcare Performance Improvement Network (PIN). The PIN's core goal is to assist CAHs in achieving compliance with the Medicare conditions of participation. PIN activities for 2005-06 will continue to support this purpose while also focusing on other areas of interest to CAHs. These areas include increased CAH participation in peer review studies, new quality improvement coordinator training and networking opportunities, collaboration with CMS' 8<sup>th</sup> Statement of Work, and assistance with medical staff credentialing.
- **Nebraska** -- The Nebraska Flex Program continues to support the CAH Quality Improvement Steering Committee (QISC), created to provide guidance and oversight on all quality improvement activities. The Committee meets four times each year and has developed an Orientation Manual for new quality improvement coordinators, created a new award for quality improvement efforts, helped plan a major workshop, and worked on the multi-state Benchmarking Project.
- **Nevada** -- The Nevada Flex Program will continue to coordinate and financially support the Nevada Flex Quality Improvement Network and its quarterly meetings, which serve to design and implement Flex-supported quality improvement activities. Flex will also support Nevada's participation in the Tribal IHS CAH Performance Improvement Network developed among the Arizona and Nevada Flex Programs. This Network seeks to improve access to quality improvement information and resources by hospital administration and staff and improve third party reimbursement.
- **Oklahoma** -- A coalition of ten hospitals in an isolated section of Oklahoma have formed the Northwestern Telemedicine Alliance. The Alliance has proven to be an innovative networking mechanism, with member hospitals working together in ways never envisioned. Benefits from purchasing and information sharing have strengthened the fiscal structure of all involved facilities. Administrators and staff are sharing problems and developing common sense solutions to enhance facility performance.
- **Ohio** -- The Ohio Flex Advisory Board's Quality Improvement Work Group consists of CAH quality, clinical and executive staff of ten CAHs, as well as the Ohio Hospital Association, the state QIO, and Flex staff. The initial Work Group agenda included barriers and strengths of providing quality services, a Readiness

Remeasurement Assessment, rapid cycle processes, and planning for a statewide benchmarking project.

- **Oregon** – The Oregon Flex Program will continue to support the CAH Quality Improvement Network, recruiting additional members and keeping members’ up-to-date on current issues. Rural health clinics and their needs will be included in discussions. Quality information will be collected and traced for at least one-half of participating hospitals. The state QIO will provide 200 hours of consultation to assist in developing the Network, facilitate decisions on quality indicators to be reported, determine methods of data collection, and develop reporting mechanisms.
- **South Dakota** -- The CAH Performance Improvement Network Blueprint serves as the strategic plan for performance improvement programming for the South Dakota Flex Program. The Network’s Steering Committee reviews the Blueprint annually, updating it with new activities. Currently, the Blueprint includes leadership development and quality of care as its two priority goals.
- **Utah** -- The Utah Flex Program established a formal Quality Improvement Network during the 2004 grant year to assist rural hospitals implement or improve quality improvement programs by introducing and encouraging principles of the BSC approach. Rural hospital nursing directors have participated in quarterly networking meetings for the past few years and this year the Network will expand to include quality managers. The state QIO will collaborate with the Network leadership to provide an agenda of networking opportunities, problem solving, discussions, and training in both clinical and quality improvement topics with an emphasis on hospital-wide quality improvement programs.
- **Washington** -- Washington’s Flex Program will continue its Rural Healthcare Quality Network, to build statewide infrastructure for coordinating quality improvement efforts. The Network was initially formed in 2003 to meet Medicare conditions of participation requirements for credentialing, peer review and quality improvement oversight. In the past year, the Network has grown to 35 rural hospitals. Flex funds will be used to develop the Network’s infrastructure during this grant year, including hiring an executive director, finalizing an administrative plan, conducting on-site peer review and credentialing, and developing a business plan. Quality initiatives with the state QIO will be coordinated through the Network rather than the State Office of Community and Rural Health to build rural leadership and assure continuity and sustainability.

#### *Technical Assistance Supporting Quality Improvement*

Five states proposed providing technical assistance for monitoring and implementing quality improvement programs. This assistance includes assessment of existing quality activities, developing new tools, and facilitating credentialing through training, consultation, and provision of resources.

- **Colorado** -- With continued funding, the Colorado CAH Resource Center will combine technical assistance services with an assortment of tools and resources to assist CAHs in improving financial performance, quality and access to services at the community level. Small rural hospitals have demonstrated a need for tools and resources specific to CAH status and to rural hospitals in general. The Colorado State Office of Rural Health will link to existing resources such as the Technical Assistance and Services Center, the Rural Assistance Center, and the Rural Policy Research Institute and will create new tools and documents as needed.
- **New Hampshire** – Based on input from the 13 CAHs in New Hampshire, the state’s Flex Program will hire a rural hospital quality of care expert to assist CAHs with survey preparation, quality assurance credentialing, evidence-based practice, and performance improvement outcomes. Survey preparation consulting and quality assurance / credentialing oversight will be offered to any CAH requesting it. Assistance with evidence-based practice and performance improvement would be available on a first-come, first served basis depending on survey schedules, other program priorities, and staff scheduling.
- **New Mexico** -- Recent changes in CMS funding for QIOs reduced the support available for projects at rural hospitals. In response, the New Mexico Flex Program will support the state’s QIO in establishing a Quality Improvement Network for CAHs and small, rural hospitals. In the current project year, the QIO was provided Flex funding to assess current quality improvement activities at CAHs. In the next project year, the Flex Program will build on these assessments and contract with the QIO to develop a Network to provide ongoing training and consultation on quality improvement efforts at CAHs and other small rural hospitals. Assistance provided by the QIO will include in-person training sessions, WebEx based training on key issues, telephone support and follow-up site visits. The overall goal of this initiative is to improve the operational quality of hospitals eligible for CAH designation.
- **New York** -- A Performance Improvement Program will be developed for CAHs to assist them in measuring both clinical and financial outcomes. Through a request for application, a consultant will be chosen to develop a performance improvement tool for CAHs. The Program will focus on interpreting and using data and developing and implementing care protocols consistent with current clinical practice guidelines and best practices. Program roll-out will depend on the timing of a national performance improvement program under development so that the Flex Program’s efforts will not be duplicative. Anticipated outcomes include improvements in quality and resource use, and in the value hospitals offer to their community. This Program was considered in previous years but was not implemented because there was not a large enough group of experienced CAHs that would benefit and from which to gather benchmarking data.

The New York Office of Rural Health will also provide mini-grants accompanied by technical assistance to CAHs seeking to enhance quality at their facilities and within their networks. Projects will likely include clinical and management staff training,

patient satisfaction surveys for inpatient, outpatient and emergency services, and development of protocols.

- **Wyoming** -- The Wyoming Flex Program will provide education and technical assistance to CAHs for quality improvement. Flex will hire a consultant to evaluate quality assurance activities in the six current CAH facilities. The evaluation will examine current status, goals, and an action plan for quality improvement. CAH facilities not meeting CAH quality assurance standards will be provided technical assistance to strengthen their programs. Additionally, the Wyoming Flex Program will train CAH staff in common areas identified as deficient or in need of strengthening. Education and technical assistance in methods such as benchmarking and the balanced scorecard approach will be made available.

#### *Development of Quality Improvement Skills and Knowledge*

Fourteen state Flex Programs are providing educational programming to enhance quality improvement skills and knowledge of CAH executives, quality improvement managers, directors of nursing, and board members and hospital trustees. Activities include workshops, meetings, and other trainings on quality and performance improvement, mentoring for new quality improvement coordinators, comprehensive programming to develop skills of junior leaders, and assistance to rural health clinics and CAH-eligible hospitals in meeting quality assurance requirements.

- **Hawaii** -- The Hawaii Flex Program will develop and present practical educational experiences and technical assistance to CAH staff and management to enable meaningful networking and improvement activities to take place.
- **Kansas** – A 2002 assessment of Kansas’ CAHs found many facilities interested in educational support for quality improvement systems development and enhancement. Many hospitals lack personnel qualified in quality improvement methods. The Flex Program will contract with a former CAH administrator and consultant to offer CAH quality improvement educational programs as well as consultation support.
- **Louisiana** – The Louisiana Flex Program will provide timely and relevant educational workshops for CAH staff members and Flex Program staff on topics such as reimbursement, third party contracting, and performance improvement.
- **Maine** -- Based on the interests of CAH administrators, the Maine Flex Program will convene one or two forums for the executive and financial officers of CAHs. Topics will include CAH networking in Maine, benchmarking across the country, state and federal updates, and educating newer CAHs on swing beds and acute care usage. Maine will also convene CAH directors of nursing and other nursing staff, at their request, to design and execute biannual forums, with content developed by a steering committee of nurses.

- **Missouri** -- The Missouri Office of Rural Health will hold a second annual Rural Health and Primary Care Quality Improvement Summit, focusing on the challenges confronting CAHs and rural health care delivery and updates on activities from the first summit. Through presentations and discussion panels from federal, state, and local colleagues, attendees will be informed of new and existing policies, best practices and collective solutions for building and maintaining quality systems of care. Attendees will be advised that a rural health plan advisory group will be formed and interested parties will be identified for inclusion. The group will draft a comprehensive state rural health plan.
- **Mississippi** -- The Mississippi Flex Program will sponsor four quarterly meetings of CAH administrators to discuss common areas of concern and exchange experiences. The Flex Program has found these meetings to be a good mechanism to secure administrator input for the Flex grant application and offers a way to address common problems and concerns in a timely manner.
- **Nebraska** -- The Nebraska Flex Program will continue a formal mentoring program established for new quality improvement coordinators. The mentor will review the Quality Improvement Orientation Manual with the new coordinator and act as a resource person during their first year on the job.
- **Nevada** -- The Nevada Flex Program will provide periodic topical training and workshops to quality improvement managers, rural hospitals, and EMS providers, including the annual “Improving the Quality of Care in Nevada’s Rural and Frontier Hospitals” in conjunction with SHIP-supported technical assistance and workshops.
- **New York** -- The New York Office of Rural Health will co-sponsor the Annual Rural Hospital Policy Institute with the Health Care Association of New York State for small, rural hospitals. The agenda will likely include speakers with expertise in clinical and financial performance improvement and regulatory issues. As with the 2005 Institute, one day will be specifically devoted to CAHs.
- **North Dakota** -- The Quality Improvement Work Group – consisting of the Flex Steering Committee and the state’s QIO – will plan a workshop to focus on understanding of quality improvement principles among executives, senior managers, and board members. To be effective and long-term, the importance of quality for improving personal and community health must be an accepted mind-set promoted by CAH leadership. The workshop will address quality improvement concepts and recommendations from the IOM’s report *Quality Through Collaboration*.
- **South Carolina** -- Workshops and on-site quality assessment and performance improvement (QAPI) will be tailored to the needs of rural providers and will focus on assisting rural health clinics with meeting QAPI requirements and assisting CAH-eligible hospitals with refining their focus on quality. This assistance will include appointment scheduling, recruitment and retention, referral tracking and improving billing, coding and collections.

- ***South Dakota*** – A Leadership Development Program in 14 CAHs includes leadership profiles for each member of a facility’s leadership team. Customized training is provided on site at each facility for the leadership team three times per year. Every staff member completes a performance improvement readiness survey which provides the foundation for performance improvement activities. Based on an assessment of each hospital’s board of directors, board members participate in training customized to meet their hospital’s unique needs. Board training was provided on-site at each facility.
- ***Wisconsin*** – To develop future leaders within CAHs and other rural hospitals, the Wisconsin Flex Program will begin a junior leadership program. This program includes a two-day retreat for CAH junior leaders to develop leadership and management skills, network with their peers, and develop mentoring relationships with senior leaders in the CAH coalition. Following the retreat, these junior leaders will meet via teleconference to continue to build upon lessons learned. Administrators from partner organizations will be invited to present information, tips for success and specific details regarding competencies necessary for successful leadership in rural health. Through these processes, a peer-to-peer network will be established and continued via follow-up teleconferences and discussion-based listservs. The next step will be the development of a customized certificate-training program that will lead to effective hospital leadership and performance improvement. Faculty from the University of Wisconsin’s College of Business will train rural hospital junior leaders in leadership and management skills resulting in certification as Rural Health Leaders.

## National Quality Improvement Efforts

Several state activities propose to increase CAH involvement in national quality improvement efforts. These activities include: encouraging voluntary participation of CAHs in CMS' Hospital Quality Initiative and programs of the Institute for Healthcare Improvement; incorporating CMS' priorities for state QIOs into Flex programming; and assisting CAHs with obtaining and maintaining accreditation from the Joint Commission on Accreditation of Healthcare Organizations.

### *Participation in Voluntary Programs*

Three state Flex Programs are participating in or encouraging CAH reporting of quality measures under CMS' Hospital Quality Initiative.<sup>iii</sup> As hospitals not subject to the prospective payment system, CAH participation is voluntary. Even without an incentive to participate, 41 percent of CAHs submit data for one or more measures. This high level of participation indicates that CAHs see value in this national effort to collect and report on quality of care.<sup>10</sup> Among these three states, assessment of each hospital's adherence to the quality measures will drive development of individualized quality improvement plans. Additionally, one other Flex Program cites its involvement with programs developed by the Institute for Healthcare Improvement.<sup>iv</sup>

- **Arkansas** – The Arkansas Office of Rural Health and Primary Care will address concurrent chart review to help improve the scores of the ten core measures of the CMS' Hospital Quality Initiative. Hospitals will select measures to address and design an improvement plan. The Arkansas QIO will also identify the top protocol needs of CAHs and present benchmark protocols to CAHs.
- **Nebraska** -- The Nebraska Flex Program and the state QIO will continue to monitor the 40 CAHs participating in the voluntary CMS Hospital Quality Indicator Project. The QIO will track the ten performance measures for acute myocardial infarction, heart failure, and pneumonia. Anticipated outcomes include hospitals meeting the quality standards and declines in mortality.

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<sup>iii</sup> As part of its Hospital Quality Initiative and in conjunction with a public-private collaborative, CMS has developed hospital quality measures compiled for consumers through a new website, known as Hospital Compare. These measures focus on four conditions: heart attack, heart failure, pneumonia, and surgical infection prevention. Hospitals reimbursed through the prospective payment system (PPS) are compelled to submit quality data on ten (of 20) core measures or face a 0.4 percentage point reduction in their payment updates for FY2005, 2006, and 2007 (CMS, 2005). The ultimate goal of Hospital Compare is for these measures to be reported by all hospitals and accepted by all purchasers, oversight and accrediting entities, payers and providers. CAHs, reimbursed on a cost-basis, are not required to report these measures; however, 41 percent of CAHs participate in Hospital Compare, submitting data for one or more measures. Absent the financial incentive to participate, this high level of participation indicates that CAHs see value in a national effort to collect and report on quality of care.<sup>10</sup>

<sup>iv</sup> The Institute for Healthcare Improvement (IHI) is a non-for-profit organization leading the improvement of health care throughout the world. IHI provides a reliable source of energy, knowledge, and support for a never-ending campaign to improve health care worldwide. The Institute helps accelerate change in health care by cultivating promising concepts for improving patient care and turning those ideas into action.



- **North Carolina** -- The North Carolina Office of Rural Health seeks to enroll all CAHs in CMS' Hospital Quality Indicator Project. As of early 2005, four of 19 CAHs had enrolled compared to all of North Carolina's non-critical access hospitals. In a direct link to the Quality Indicator Project, a team will develop and implement a clinical quality improvement plan for CAHs. The initial focus of the plan will be clinical care guidelines for pneumonia and congestive heart failure patients. A majority of inpatients are admitted at CAHs under these diagnoses. The guidelines and indicator measures will be developed in coordination with the state QIO and the CAHs. An annual report on quality trends and CAH comparisons will be developed.
- **South Carolina** -- With the state QIO, the South Carolina Office of Rural Health will continue to develop a disease management collaborative and assist converted and eligible CAHs and RHCs with CMS' requirements for quality assessment and performance improvement. Based on the Institute for Health Improvement's Breakthrough Series, the collaborative creates a joint effort between multiple organizations to focus on diabetes, asthma, and heart disease. The collaborative entails working with a pilot group of 25 practices to address quality issues around disease states and the implementation of electronic medical records systems.

#### *QIOs and the 8<sup>th</sup> Statement of Work*

CMS contracts with QIOs to assist hospitals, home health agencies, nursing homes, and physician offices to improve the process, outcomes and efficiency of care for the Medicare population. CMS priorities for the QIO Program between August 2005 and July 2008 are known as the 8<sup>th</sup> Statement of Work (SOW). These priorities include improving care for hospitalized patients with acute myocardial infarction (AMI), heart failure, and pneumonia and to improve surgical care. QIOs have also been given priorities for rural and CAHs, including an increased number of CAHs collecting and reporting data and improving care for patients with AMI, heart failure, and pneumonia; providing training and technical assistance in collecting and reporting quality data; and assessing and improving patient safety culture. Additionally QIOs assist health care providers through educational programs, consultation with individual providers, organizing and participating in community collaborations, measuring performance, and providing evidence-based tools for process redesign and organizational culture change.<sup>1</sup> Though the QIO Program has been criticized for weakly promoting work with rural providers,<sup>11,12</sup> eight state Flex Programs are collaborating with their QIOs to incorporate the 8<sup>th</sup> SOW into their quality improvement activities. For example, Idaho will incorporate the 8<sup>th</sup> SOW requirements across 14 CAHs in its quality improvement collaborative. New York and Pennsylvania are implementing performance criteria for rural, low volume hospitals, as stated in the 8<sup>th</sup> SOW. Tennessee and Virginia will work on technology adoption and organizational safety.

- **Colorado** – The Colorado Flex Program will continue to administer statewide collaborative projects for management of patients with pneumonia and congestive heart failure. These collaboratives have improved patient care and have introduced CAHs to the CMS Hospital Quality Initiative and voluntary reporting process. Colorado will implement a third collaborative for either acute myocardial infarction or surgical wound infection. This activity will result in data abstracted and analyzed

for 18 months; improved assessment and treatment outcomes and prevention of targeted disease processes; and dissemination of pertinent clinical tools and intervention strategies to CAHs. Bi-monthly teleconferences will be held to track progress, address challenges, and share information with an Outcomes Congress meeting held at projects' conclusion.

- **Idaho** -- The state Office of Rural Health, the state QIO, and the Idaho Hospital Association completed a CAH Quality Improvement Collaborative project in October 2004. Fourteen CAHs participated in the 10-month project and documented significant improvement in selected performance measures. CAHs have asked the project partners for additional opportunities to learn and improve using collaborative methods. Efforts for 2005-06 will incorporate the 8th SOW requirements and focus on increasing senior leader support, improving clinical quality, and assessing and improving patient safety culture. Information technology systems, such as bar coding and telehealth, will be incorporated into this activity. Mini-grants will be available to help off-set participation costs.
- **Minnesota** -- Minnesota will incorporate the new CMS-sponsored rural quality measures developed by the QIO and the University of Minnesota Rural Health Research Center into Flex quality improvement activities.
- **Nebraska** -- The Nebraska Flex Program will continue its physician mentoring program, which provides a small stipend to encourage other physicians to closely follow the QIO's quality standards for acute coronary syndrome, atrial fibrillation, heart failure, stroke, pneumonia, surgical site infection, C-section, and diabetes.
- **New York** -- The New York Office of Rural Health (ORH) will work with the state's QIO in implementing the 8<sup>th</sup> SOW with CAHs. The SOW states that the number of rural, low volume hospitals reporting performance measures will increase and that 10 percent of those hospitals will successfully complete one of two improvement projects. The ORH will work with the QIO identify clinical areas for CAHs to measure and to develop and conduct training sessions for CAHs, and to provide TA to CAHs in collecting data on the measures developed.
- **Pennsylvania** -- Pennsylvania's Office of Rural Health and its CAHs will assist the state QIO in implementing performance criteria for rural, low volume hospitals as stated in the 8<sup>th</sup> SOW. All CAHs will report data and clinical measures will be replicated in the BSC.
- **Tennessee** -- To increase the focus of QIO work towards the needs of rural hospitals, the QIOs will work with selected rural, low volume hospitals. QIOs will assist these hospitals in reporting performance data on a set of modified hospital quality measures that better reflect the care given by these facilities. In addition, QIOs will work with a subgroup of these hospitals to improve clinical measures, increase information technology adoption, or improve organizational safety culture.

- **Virginia** -- The Virginia Office of Health Policy and Planning will collaborate with the state QIO on the 8<sup>th</sup> SOW, including development of special CAH indicators to improve telehealth and organizational safety. The QIO will provide technical assistance and infrastructure for quality improvement activities and training sessions for CAH staff.

### *Hospital Accreditation*

While the majority of U.S. hospitals are accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), rural and smaller hospitals are less likely to be accredited than urban and larger hospitals.<sup>13</sup> Accreditation by national organizations such as JCAHO has generally been criticized for orientation toward urban hospitals and high costs.<sup>14</sup> Rural hospitals have also viewed JCAHO accreditation as duplicative of surveys conducted by other agencies or organizations.<sup>17</sup> Indeed, only 23 percent (300<sup>v</sup> of 1,286 CAHs<sup>vi</sup>) have been accredited by JCAHO, even though JCAHO began a special program for accrediting CAHs in 2001, which includes customized standards, a special survey process, and a flat survey fee. Four state Flex Programs are assisting CAHs in meeting national quality standards and seeking to increase the number of CAHs with national accreditation. Two states are providing for subscription services to an internet-based employee course on health and safety issues required by JCAHO and Occupational Safety and Health Administration (OSHA).

- **Alabama** – The Alabama Flex Program will sponsor mini-grants to support rural hospital participation in the JCAHO’s Continuous Survey Readiness (CSR) Program or a similar program offered by the Alabama QIO. During the previous grant year, 24 hospitals received support to participate in either the CSR or other program and an additional 12 will receive support during the current grant year.
- **Idaho** -- As specified in the state plan, CAHs must have an agreement in place with respect to credentialing and quality assurance. The Idaho Hospital Association (IHA) is designated by the state Department of Health and Welfare as a qualified entity with which a CAH may maintain agreements. IHA provides quality oversight through an in-depth, standardized, review of quality assurance processes, documentation, data collection, and credentialing agreements to assure compliance with state requirements. This ongoing activity provides each CAH with a status report and recommendations. Quality assurance processes are reviewed annually and credentialing reviews are conducted biennially. Additionally, for nine of the 26 CAHs, the Flex Program will provide a two-day mock survey based on state or JCAHO standards. The mock survey will identify deficiencies, make recommendations for improvement, and is an in-depth tool for improving quality.

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<sup>v</sup> The Quality Check online directory identified 300 JCAHO accredited CAHs on August 7, 2006.  
<http://www.qualitycheck.org/consumer/searchQCR.aspx>

<sup>vi</sup> The Flex Monitoring Team identified 1,286 CAHs as of June 27, 2006. Accessed August 7, 2006.  
<http://www.flexmonitoring.org/cahlist>

- ***Kentucky*** – A Flex Program partner, the Kentucky Hospital Association (KHA) provides CAHs with staff expertise to prepare for JCAHO and American Osteopathic Association (AOA) accreditation by assisting with the accreditation process, policy and procedures reviews, and providing scholarships and travel reimbursements for hospital staff. This effort aims to improve quality of care, support the accreditation process, improve survey results, and increase the number of accredited CAHs. Additionally, the KHA provides CAHs with funding to subscribe to CareLearning.com, an internet based compliance course for employee training on health and safety issues required by JCAHO and OSHA.
- ***Mississippi*** -- The Mississippi Flex Program will continue to support five CAHs participating in the JCAHO's Continuous Survey Readiness Program. This activity aims for hospitals to pass their recertification surveys with no conditions out of compliance.
- ***Missouri*** -- The Missouri Flex Program will continue to provide CAHs with a subscription to CareLearning.com, an internet based compliance course for employee training on health and safety issues required by JCAHO and OSHA. The first series included 13 modules addressing health and safety and were provided for 7,500 CAH employees. Upcoming courses include leadership development and clinical skills and decision making. Employees from as many as 30 CAH facilities will meet mandatory annual training and education licensing standards.

## Health Information

Six state Flex Programs are conducting needs assessments of existing HIT systems or conducting planning activities to develop and finance future systems, while another six states are implementing pilot or upgraded systems, to enhance links to other providers, improve availability of patient records, and improve patient safety.

- ***Arizona*** -- In preparation for a new federal electronic health record (EHR) initiative, a consultant to the Arizona Flex Program will conduct a readiness survey / needs assessment for EHRs among CAHs. The survey will collect information on hospital technology infrastructure across systems, hardware, software, personnel training, and related costs. Each CAH will be surveyed, with results compiled and recommendations returned to the hospital. Reports will be used by hospital administration and clinicians for goal setting and financial planning to implement an electronic health record system. This activity is tied to CMS' 8<sup>th</sup> Statement of Work and is supported by the state QIO.
- ***California*** -- The Federal HIT Initiative seeks to establish universal clinical vocabulary and messaging standards to improve healthcare technologies and patient safety, reduce error rates, lower administrative costs, and strengthen public health and disaster preparedness. California has not developed strategies to implement this initiative and baseline data on CAH ability to implement the HIT initiative is not

available. The California Office of Rural Health will collaborate with the state QIO to develop an implementation workplan for CAHs. Additionally the Office of Rural Health will conduct an assessment to measure CAH capacity for converting existing patient records to an electronic version.

- **Hawaii** -- The Hawaii Office of Rural Health has partnered with a telehealth and technology company to develop an open source community health records system. The state Office hopes to develop a community health records system that will improve quality and assist with health management. This pilot system will link one CAH and two other partners with shared patient records and aims to be replicable in other rural communities.
- **Illinois** – A survey of CAHs conducted during the 2004 grant year indicated an increasing need for HIT upgrades and access to new hospital technology. The Illinois Flex Program will provide HIT technical assistance to CAHs and other rural providers on video conferencing, hardware infrastructure, and evaluation of computerized documentation. Currently, 34 CAHs have telehealth capabilities and access to broad band technology. The Flex Program plans to expand HIT equipment to all 43 CAHs through mini-grants and begin to include other small rural hospitals and local CAH community partners (i.e., health departments, clinics, schools) in telehealth programs. ICAHN will provide access to a HIT expert for the purpose of assessment and trouble-shooting.
- **Iowa** – The Iowa Flex Program will partner with the University of Iowa to evaluate technology capacities and subsequent effects on quality. Future strategies will be developed to incorporate technology into the quality equation. Flex will also facilitate a meeting of key technology stakeholders to identify strategies to lessen technology deficiencies within CAHs. Flex will partner with the stakeholders to initiate recommendations.
- **Louisiana** – The Louisiana Rural Health Information Technology Partnership has developed an electronic medical record (EMR) system to install in the emergency departments of ten CAHs. EMRs are intended to improve patient safety and quality of care and to develop an effective mechanism for ensuring accurate and timely information among providers and stronger local referral patterns. The Partnership includes ten CAHs, the state Hospital Association, a rural health clinic, the state rural health association, the Louisiana Rural Hospital Coalition, and the Flex Program. The benefits of an EMR system include avoidance of errors due to illegibility, improved access to clinical information from the emergency department encounter, improved coordination of communication between physicians and nurses, ability to extract data for quality improvement and other reporting activities, investment in technology to upgrade systems in rural areas, and improved coordination and collaboration in local communities. The state received a grant from AHRQ to support the EMR in ten CAHs; the Flex Program will support the installation of four additional EMRs.

- **Massachusetts** – The Massachusetts Flex Program will expand the use of HIT including long distance learning, telemedicine, electronic medical records, and computerized physician order entry systems (CPOE). Flex will assess the availability of HIT at small rural hospitals and develop a coordinated improvement strategy; collaborate with the state’s E-Health Initiative to provide resources for the development of EMR and CPOE systems; encourage use of SHIP funds for HIT and telehealth; and promote and assist hospitals in applying for federal funds to support HIT and assist with implementation of projects. Massachusetts continues earlier efforts to assist hospitals with telemedicine efforts, but this year it will focus on technologies related to systems improvement. The Flex Program has begun talking with the state QIO about the requirement for a HIT project with rural hospitals under their 8<sup>th</sup> Statement of Work. Massachusetts’s E-Health Initiative seeks to create a statewide health information network to improve quality, safety, and affordability of health care by implementing a unified EMR and CPOE system at the majority of Massachusetts hospitals over the next five years. Among six finalists, two rural hospitals are in the running for selection of three pilot sites. The Flex Program will meet with the leadership of this initiative to ensure the inclusion and engagement of rural hospitals.
- **Minnesota** -- The Minnesota Office of Rural Health and Primary Care will collaborate with the state QIO to expand use of HIT tools and training to more rural hospitals and clinics to accelerate the adoption of computerized physician order entry systems, electronic health records, Doctors' Office Quality Information Technology<sup>vii</sup> and other tools in hospitals and clinics.
- **Mississippi** -- To improve the quality of rural emergency room care, the Mississippi Flex Program will provide 11 acute care certification scholarships for nurse practitioners to enhance care and telemedicine capability in the emergency room. These scholarships will improve emergency room outcomes due to increased nursing skills and ensure physician consultations within 10 minutes through telemedicine. Five graduates of the first class are working in CAHs.
- **Oregon** – With funding from the Flex Program, the Oregon Community Health Information Network – a collaborative of Oregon safety net providers and the state formed to develop and operate a management services organization -- will be provided seed money to develop and implement a demonstration project featuring an electronic medical records system shared between Coastal Family Health Center (a federally qualified health center) and Columbia Memorial Hospital’s Emergency Department (a CAH). This is the first step in a larger plan to interface additional hospital departments, the local public health department, and other community providers. Anticipated outcomes include reduction in duplication of tests and procedures, quality of clinical services improve, and costs of services decrease.

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<sup>vii</sup> Funded by CMS, the Doctors' Office Quality Information Technology study will develop an approach to promoting adoption and use of information technologies in the physician office and reporting of information to QIOs.

- **Utah** -- During the 2003-04 grant year, the Utah Flex Program combined resources with the Bureau of Emergency Services to develop an information systems inventory assessment tool for CAH and other rural hospitals. The tool assesses the information infrastructure of each hospital, including current or planned hardware, clinical software, network support, security protocols and other areas. The survey results will be used to develop a clinical information network linking the hospitals, the Utah Department of Health, and local health departments. The network will help the hospitals prepare an effective bioterrorism response and support patient safety and outcomes through electronic physician order entry, electronic medical records, integrated longitudinal data repositories, decision support and other needed informatics. Six hospitals participated in a pilot assessment and a statewide assessment will inventory all hospitals during the 2005-06 grant year. Once the statewide inventory is complete, partners including the state Department of Health, hospital association, medical association and health information network will begin network administration activities. Examples of activities include bringing laboratory and pharmacy systems up to agreed upon standards, inter-hospital communication, and Utah Department of Health reporting.
- **Virginia** -- With the Virginia College of Osteopathic Medicine, the Virginia Flex Program will establish an electronic library providing access to medical literature on-line in an effort to improve patient outcomes and increase practitioner satisfaction with up-to-date information. The equipment for the electronic libraries has been installed at four CAH facilities, with three remaining CAHs needing equipment.

### **Patient Safety and Satisfaction**

States proposed a number of patient safety and satisfaction activities including assessing and implementing patient safety programs, forming a network of CAH physicians providing peer review for each other, implementing systems to reduce medication errors.

#### *Patient Safety*

Eight states proposed to use their Flex funds to implement patient safety initiatives, most often in collaboration with their hospital association or their QIO. One state – Vermont – proposed statewide participation in patient safety priorities developed by the Institute for Healthcare Improvement. While some states were assessing current hospital climate and initiatives related to patient safety, others were implementing reporting systems for adverse events and medication errors, upgrading their HIT systems to improve safety, standardizing safety policies and procedures, and implement national patient safety initiatives.

- **Minnesota** – Under a continuing contract with the Flex Program, the Minnesota Hospital Association and the University of Minnesota will implement quality and

patient safety practices recommended by The Leapfrog Group<sup>viii</sup> and other patient safety efforts. The Flex Program and the Minnesota Hospital Association will also work with rural hospitals to improve safety and performance by developing common definitions, a web-based benchmarking system, and continued implementation of the Minnesota Adverse Events reporting system.

- **Nebraska** – Under contract to the Flex Program, the Nebraska QIO will work with CAHs to assess the hospitals’ safety climate using an appropriate assessment tool. Based on these results, the QIO will assist CAHs in changing their safety climate.
- **Nevada** -- The Nevada Flex Program and the state QIO will use trend incident reporting to assess quality of care and patient safety in individual CAH and CAH-eligible facilities. Anticipated outcomes include an increased competency among quality improvement managers to monitor and track quality of care and patient safety in individual facilities.
- **Oregon** – The Oregon Flex Program will promote CAH enrollment in the Institute for Healthcare Improvement’s 100,000 Lives Campaign<sup>15</sup>, a campaign enlisting hospitals across the country to implement changes in care that have been proven to prevent avoidable deaths. With Flex funding, the state QIO will provide technical assistance for participation. The Campaign promotes hospitals’ use of six proven changes: 1) deploy rapid response teams at the first sign of patient decline; 2) deliver reliable, evidence-based care for acute myocardial infarction; 3) prevent adverse drug events; 4) prevent central line infections; 5) prevent surgical site infections; and 6) prevent ventilator-associated pneumonia.
- **Tennessee** – As a contractual partner to the Flex Program, the Tennessee Hospital Association (THA) will work with participating CAHs to test the feasibility, cost, and impact of implementing 18 patient safety interventions. This project will create a sustainable infrastructure in all rural Tennessee hospitals for implementing critical safety improvements and moving toward a universal culture of safety. This project will establish, demonstrate, and evaluate a process and methodology for assessing the status of hospital patient safety programs and provide technical assistance resources to assist hospitals in organizational and clinical changes to prevent errors and improve safety. Priorities will be based on interventions identified by Coburn et al.<sup>7</sup> Specific outcomes include an assessment of patient safety readiness and capacity; web-based technical assistance materials for replicating the patient safety interventions; and an evaluation of implementation processes and short-term impact among participating hospitals. Through this project, THA will work with QIO staff to develop hospital and multi-hospital collaboratives, offer consultation and training to the collaboratives on implementation strategies, and assist in the development of project deliverables

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<sup>viii</sup> The Leapfrog Group consists of large employers who have agreed to purchase health care based on providers’ successful adoption of proven quality and safety practices. While it is unclear from the grant application, Minnesota may refer here to Leapfrog’s Safe Practices Leap, comprised of 27 practices endorsed by the National Quality Forum.



through the 8<sup>th</sup> Statement of Work. To leverage and reinforce Flex funding, Blue Cross / Blue Shield of Tennessee is providing \$500,000 to help support this project.

- **Vermont** -- The Vermont Flex Program will support a coordinated statewide hospital initiative that provides measurable improvements in quality and patient safety through partnership with the Institute for Healthcare Improvement (IHI). This objective will generate measurable improvements in quality and patient safety from participation in priority areas identified by IHI and increased capacity and readiness to engage in future improvement efforts. Each hospital will determine their own best strategy for participating in the IHI programs, setting specific improvement aims identified by the group and creating an action team. Flex funds will help subsidize part of the cost to four rural hospitals participating at the most intensive level with IHI. This activity builds upon work begun last year through the IHI's IMPACT program that all nine CAHs participated in.<sup>ix</sup>
- **Virginia** – The Virginia Flex Program will continue to upgrade seven CAH health information technology programs to improve patient safety and staff efficiency. These upgrades will use technology to track clinical information, patient education programs, and improve documentation of activities. Software to review drug regimens may be upgraded and additional software on patient education and diet may be added. Additionally, the Virginia College of Osteopathic Medicine will implement a continuing medical education program using the broadband capabilities of the CAHs.
- **Washington** -- In partnership with the Washington State Hospital Association, the Washington Flex Program has implemented a patient safety and medication error reporting project. The project aims at standardizing hospital risk management and patient safety policies and procedures across all Washington hospitals. The project is consistent with the larger goal to assure malpractice insurance coverage for rural hospitals in Washington State.

### *Peer Review Process*

Providing peer review services in rural areas can be hampered by the limited number of physicians available to offer review, isolation, and concern about criticizing colleagues. Among the six state grant applications that include a peer review activity there is significant consistency. These states have organized or will organize a network of CAH physicians to provide peer review services for each other, all of whom cited confidential exchange of records in their descriptions. Some activities were also noted for providing these services at low or no cost. Georgia uses a screening tool to identify specific cases requiring peer review, while other states leave identification of cases requiring external peer review to individual hospital discretion.

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<sup>ix</sup> Institute for Healthcare Improvement's IMPACT is a membership program composed of organizations working together and with the Institute to implement best practices and explore innovative solutions to improve care. <http://www.ihl.org/IHI/Programs/IMPACTNetwork/IMPACTNetwork.htm?TabId=1>

- **Colorado** -- The Colorado Flex Program will continue to support a peer review network among CAHs. This network allows an initiating hospital to request a case review for quality and appropriateness of diagnosis and treatment from a network physician within 30 days. CAHs send medical records requiring external review to the peer review network, with de-identified records sent to another CAH for confidential, objective review by a medical staff member. Records requiring second opinion reviews or reviews that require a specialist are sent to QIOs in Kansas and Montana. This activity addresses rural communities need for assistance with objective, retrospective reviews of medical cases with a strong emphasis on confidentiality. Ten hospitals are participating.
- **Georgia** – Because few physicians are on CAH staff, CAHs have difficulty conducting peer-review. The data from the Med Eval Module (MEM) provides an objective screening tool for determining potential peer-review, credentialing, or privileging issues. With Flex Program funding, a Georgia Hospital Association (GHA) medical advisor will work with local CAH peer review committees to review data, identify issues and, when necessary, evaluate individual cases that are blinded to protect the identity of a given physician. Using the MEM data, GHA will identify “best practice” physicians for shared learning leading to good outcomes.
- **Idaho** – During the previous grant year, the Idaho Flex Program initiated a peer review network providing CAHs with a confidential, cost-effective quality improvement resource. CAHs may request on-site in-services to best suit their needs. This year the Flex Program aims to increase the number of peer review agreements in place as well as conduct a user evaluation and implement changes as needed.
- **Illinois** -- The administrator for Illinois’ Flex and SHIP activities, the Illinois Critical Access Hospital Network (ICAHN), will expand its external peer review network. The peer review process assists member hospitals with improving quality of care provided by medical staff, monitoring performance of medical staff, and identifying areas for improvement. The panel of physician reviewers is selected from physicians at member hospitals based on their years of experience in rural medicine, a letter of recommendation from their hospital administrator, and verification of credentials. Panel members must sign a memorandum of agreement outlining confidentiality and indemnification responsibilities and complete an education program prior to conducting case reviews.
- **Michigan** – Peer review in rural areas can be complicated by limited numbers of medical staff, isolation, and unwillingness to critique a colleague. Using the CAH medical staff in the aggregate could allow for low or no cost peer review. During the 2005 grant year, work will begin to establish a Michigan CAH Peer Review Group with participation sought from the hospital association, medical society, osteopathic association, an upper and lower peninsula CAH, the QIO, the Michigan CAH Quality Network, a CAH network hospital, and an osteopathic medical school.

- **North Dakota** -- The North Dakota Healthcare Association will continue to develop, with the state QIO, a CAH Peer Review Program. Through a statewide CAH physician network, physicians from outside each CAH's service area provide a blinded review process. This project has grown from initial participation by six rural hospitals to 24 CAHs.

### *Medication Errors*

Four state Flex Programs include activities to reduce medication errors. These activities primarily involve investment in systems to prevent errors through staff training, development of protocols and guidelines, and use of health information technology to monitor and dispense medications. Florida, in particular, has identified multiple safety strategies, including promotion of a patient-safety organizational culture, implementation of systems to assure accurate dispensing, and pursuit of further funding to supply CAHs with automated dispensing equipment.

- **Alabama** – The Alabama Flex Program will sponsor mini-grants for staff training in patient safety and medication errors for 20 hospitals. Financial assistance with staff training was identified as a continuing need because of staff turnover and the high cost of training.
- **Arizona** -- The Arizona Flex Program will support a pilot project to increase patient safety by reducing medication errors along the continuum of care. Risk assessments for medication errors will be conducted for each participating CAH. This initiative will include development of Medication Reconciliation Action Plans (i.e., protocols) by participating hospitals and a QIO training to improve understanding and use of these Action Plans. This activity is tied to CMS' 8<sup>th</sup> Statement of Work and is supported by the state QIO.
- **Florida** – The Florida Flex Program will contract with Florida's QIO to implement year three of a quality improvement program for CAHs in cooperation with the University of Florida School of Pharmacy. Year three will continue efforts to reduce medication errors in CAHs through development of a blameless culture of patient safety. The program will increase the number of CAHs with medication safety programs and reduce the number of prescribing, administration, and dispensing errors. As part of this effort, the Flex Program will work with CAHs to increase the number and percent of CAH inpatients receiving pneumococcal vaccinations, a Medicare quality performance measure. The Flex Program will continue as a consultant for the AHRQ information technology grant program and assist in pursuing funding to provide automated dispensing equipment for Florida's CAHs. The Flex Program also proposed funding that would allow five CAHs to acquire stand alone pharmacy information systems to provide CAHs the ability to effectively manage the accurate dispensing and control of medications.
- **Mississippi** -- The Mississippi Flex Program will purchase pharmacy management software system for four CAHs to reduce medication errors.

## *Patient Satisfaction*

Five states are assessing patient satisfaction with care provided at CAHs, primarily to inform their performance improvement efforts. Nebraska's survey questions will be largely consistent with CMS' standardized survey of patient perspectives of hospital care, known as Hospital CAHPS. CMS intends this information to assist consumers and their physicians in making informed selections of hospital care and to increase the public accountability of hospitals. Information from Hospital CAHPS will be publicly reported on *Hospital Compare* in 2007.

- **Arizona** – During previous grant years, CAH emergency room nurses requested site visits to analyze existing procedures and recommend improvements to improve patient satisfaction as well as staff efficiencies. With six CAHs visited in 2004-05, University Medical Center emergency room staff will use Flex funding to conduct site visits to an additional five CAH emergency rooms to observe and recommend process improvements during 2005-06.
- **Arkansas** -- A patient satisfaction survey will be designed to gather data for performance improvement to be used across CAHs as part of Arkansas' effort to promote CAH sustainability. This project will be done within the Office of Rural Health and Primary Care, without additional cost to the Flex Program.
- **Nebraska** -- Nebraska will continue to conduct patient satisfaction surveys in CAHs. A total of four surveys were scheduled to be conducted during 2005, with separate surveys for inpatient, outpatient, and emergency room care. Data will be assembled into a usable report for the CAHs. Most of the survey questions are consistent with the surveys currently being pilot tested by CMS. These surveys will enable CAHs to compare their progress in patient satisfaction with previous years, with other CAHs in the state and nationally. These surveys are also an important element of the BSC.
- **Nevada** -- The Nevada Flex Program will undertake patient satisfaction and employee satisfaction surveys in facilities participating in the performance improvement initiative in an effort to improve hospital and rural health care decision making.
- **Virginia** -- The next stage of evaluation for Virginia's Flex Program will include development of a community survey, to determine satisfaction with services of CAH facilities. This survey will be used by all CAH facilities to collect community satisfaction data on their services.

## **CONCLUSIONS**

State Flex Programs have demonstrated a commitment to quality and performance improvement, proposing activities that range across several categories: improving clinical, operational, and financial performance; financial and organizational performance; promoting

a culture of quality improvement; participation in national quality efforts; implementing HIT systems; and addressing patient safety and satisfaction issues. Some activities acknowledge the different quality measurement needs of rural hospitals, including the development and use of benchmarks and transfer protocols specific to CAHs and other rural hospitals.

States have included in their grant applications many activities recommended within the federal guidance. The guidance strongly recommends using a balanced scorecard approach and participation in a national quality improvement activity. Additionally, the guidance notes that applications in future years may require development of quality improvement networks and a formal working relationship with a QIO.<sup>5</sup> While many Flex Programs propose BSC activities, most states limit its use to a specific number of CAHs or simply have proposed to learn about the process. Several states participate in national efforts, including those of CMS, the Institute for Healthcare Improvement, and the Joint Commission on Accreditation of Healthcare Organizations. Like BSCs, networking activities are well represented among states' quality improvement activities. These networks help CAHs implement and refine their quality improvement efforts, adapt quality standards to rural hospitals, provide training and resources to hospital quality managers, and promote coordinated initiatives. In addition to working with CAHs on CMS QIO priority areas, QIOs are also providing training and technical assistance to CAHs on benchmarking, chronic care management, networking, the BSC, health information technology, and various patient safety efforts.

Flex Programs are furthering the ability of hospital administrators, quality managers, and others to participate in quality improvement activities by supporting collaboration and networking, technical assistance, and developing quality skills and knowledge through educational programming. Several state Flex Programs are undertaking activities to ensure the efficiency and financial stability of their business operations and are providing hospital board members and trustees with educational programs to improve their understanding of hospital operations and governance.

State Flex Programs proposing HIT activities are equally divided between needs assessment and planning for future systems and implementing pilot or upgraded systems. While some states were in the beginning stages of assessing existing patient safety initiatives, others were helping hospitals implement reporting and review systems for adverse events and medication errors, upgrade their HIT systems to improve safety, standardize safety policies and procedures, and implement national patient safety initiatives.

The Institute of Medicine calls for the creation of a Health Care Quality Innovation Fund to support innovation in redesigning local systems of care to achieve its six aims for improving health care quality and to produce improvements in care for priority conditions.<sup>16</sup> Though the Flex Program's grants to states include quality improvement among other activities, Flex provides a small scale version of this fund, supporting a wide range of local initiatives to improve the quality of patient care and hospital operations.

## **LIST OF ABBREVIATIONS AND ACRONYMS**

AHEC - Area Health Education Center

AHRQ - Agency for Healthcare Research and Quality

AMI - acute myocardial infarction

AOA - American Osteopathic Association

ARCH - Alliance of Rural and Community Hospitals

BSC - balanced scorecard

CAH - Critical Access Hospital

CAHPS - Consumer Assessment of Healthcare Providers and Systems

CMS - Centers for Medicare and Medicaid Services

CPOE - computerized physician order entry systems

CSR - Continuous Survey Readiness

Delta Project - Delta Rural Hospital Performance Improvement Project

EHR - electronic health record

EMR - electronic medical record

EMS - Emergency Medical services

Flex Program - Medicare Rural Health Flexibility Program

GHA - Georgia Hospital Association

HPIC - Hawaii Performance Improvement Collaborative

HIT - Health Information Technology

ICAHN - Illinois Critical Access Hospital Network

IHA - Idaho Hospital Association

IHI - Institute for Healthcare Improvement

IHS – Indian Health Service

IOM - Institute of Medicine

JCAHO - Joint Commission on Accreditation for Healthcare Organizations

KDHE - Kansas Department of Health and Environment

KHA - Kentucky Hospital Association

MICAH - Michigan CAH Quality Network

MEM - Med Eval Module

ORH - Office of Rural Health

OSHA - Occupational Safety and Health Administration

PIN - Montana Rural Healthcare Performance Improvement Network

PPS - prospective payment system

QAPI - quality assessment and performance improvement

QIO - Quality Improvement Organization

QISC - Quality Improvement Steering Committee

RPM - Rural Performance Management

SHIP - Small Rural Hospital Improvement Program

SOW - Statement of Work

TASC - Technical Assistance and Services Center

THA - Tennessee Hospital Association

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