

Flex Monitoring Team Briefing Paper No. 15

**STATE INITIATIVES FUNDED BY THE
MEDICARE RURAL HOSPITAL FLEXIBILITY
GRANT PROGRAM**

October 2007



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

This report was prepared by John Gale and Jennifer Lenardson of the Maine Rural Health Research Center at the University of Southern Maine; Walt Gregg and Michelle Casey of the University of Minnesota Rural Health Research Center; and Indira Richardson, Stephen Rutledge, and Rebecca Slifkin of the University of North Carolina Rural Health Research and Policy Analysis Center.

Questions regarding the report should be addressed to: John Gale 207-228-8246
jgale@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 Martin Luther King Jr. Boulevard, 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

ACKNOWLEDGEMENTS

The Flex Monitoring team extends its thanks to the Flex Coordinators and State Office of Rural Health personnel who participated in the interviews for this project. Their cooperation and support were invaluable. We also extend our thanks to Nancy Egbert, RN, MPH and Steve Hirsch of the Federal Office of Rural Health Policy for their ongoing support and assistance.

The Medicare Rural Hospital Flexibility Program

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

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

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

Table of Contents

EXECUTIVE SUMMARY	vi
INTRODUCTION.....	1
METHODOLOGY	2
FINDINGS	2
<i>SUPPORTING CAH QUALITY AND PERFORMANCE IMPROVEMENT</i>	<i>2</i>
<i>ENHANCING CAH FINANCIAL VIABILITY AND OPERATIONAL CAPACITY.....</i>	<i>6</i>
<i>BUILDING COMMUNITY HEALTH SYSTEM CAPACITY</i>	<i>8</i>
<i>SUSTAINING AND ENHANCING EMS AND EMERGENCY CARE SERVICES.....</i>	<i>9</i>
<i>IMPLEMENTING HEALTH INFORMATION TECHNOLOGY.....</i>	<i>12</i>
<i>SUPPORTING THE RURAL HEALTH WORKFORCE</i>	<i>13</i>
CONCLUSIONS	15
REFERENCES.....	17
APPENDIX A: List of Acronyms	18
APPENDIX B: State Flex Coordinator Protocol	19
APPENDIX C: List of State Level Respondents.....	20

EXECUTIVE SUMMARY

The Medicare Rural Hospital Flexibility Program (Flex Program) consists of two separate but complementary components: cost-based Medicare reimbursement for designated Critical Access Hospitals (CAHs) and a State Flex Grant Program administered by the Federal Office of Rural Health Policy (ORHP) to strengthen the rural health care infrastructure. Under the Flex Grant Program, the 45 participating states may apply for up to \$650,000 annually to:

- Plan and implement state rural health plans;
- Develop rural health networks;
- Support the conversion and designation of CAHs;
- Provide support and technical assistance to enhance the viability of these hospitals;
- Develop quality improvement initiatives; and
- Develop programs to support rural emergency medical services (EMS).¹

During the 2004-2005 grant cycle, Flex Grant requests averaged \$590,000 per state with an average award of \$498,000.

During the early years of the Flex Program, states largely focused on the conversion of vulnerable rural hospitals to CAHs. As conversion activity slowed, states dedicated a greater proportion of their Flex Grants to addressing the long standing needs of the 1,283 CAHs and their communities related to business operations, quality improvement, accessing capital to support facility renovations and upgrades, provider recruitment and retention, and emergency medical services.

The Priorities and Accomplishments of State Flex Programs

To understand the accomplishments of State Flex Programs, members of the Flex Monitoring Team asked Flex Coordinators to identify and discuss their states' three most successful initiatives in the past two years. Interviews were conducted during February 2007 with Flex Coordinators and State Office of Rural Health staff (SORH) in all 45 states. These initiatives fell into the six categories:

- Supporting CAH quality and performance improvement ;
- Enhancing CAH financial viability and operational capacity;
- Building community health system capacity;
- Sustaining and enhancing EMS and emergency care services;
- Implementing health information technology (HIT); and
- Supporting the rural health workforce.

Conclusions and Recommendations

State Flex Programs have shifted the focus of their activities away from CAH conversion to

¹ The legislative authority for the Flex Program is described in the Social Security Act, Title XVIII, Sections 1814 and 1820, available at http://www.ssa.gov/OP_Home/ssact/title18/1800.ht.

initiatives addressing hospitals' and communities' long standing needs. Our interviews revealed four themes:

- States have implemented a range of successful program activities addressing hospital quality and performance improvement, rural hospital viability, community-focused initiatives, EMS, HIT implementation, and workforce development, among others;
- States have used Flex funds to seed the development of many of these initiatives, with other sources of funds being tapped to augment those from the grant;
- Flex funds have been critical to the development of projects to support CAHs and rural health systems for which there were no other sources of funding; and
- Flex has engaged stakeholders from health care organizations and state agencies and created relationships that have value added beyond the Flex Program.

The diversity of state activity complicates efforts to document and communicate the outcomes and impact of the Flex Program. To date, states have relied more heavily on process measures of program success than on outcome measures (Gale, Loux, and Coburn, 2006).

The ability to measure Flex Program outcomes and impact is important at the state and federal levels. At the state level, it is a vital part of state evaluation activities to enhance the program's ability to successfully address the long term needs of CAHs and rural communities. For ORHP, it enables the Office to comply with its GPRA/PART reporting requirements, manage the grant program, and effectively target Flex Program resources. For both, it supports efforts to communicate program performance to legislators, policymakers, and oversight organizations.

ORHP has begun to move in this direction by requiring states to develop and report on outcome indicators for program activities. Our past work on developing Flex Program logic models, however, suggests that states may have some difficulties in developing these measures on their own (Gale, Loux, and Coburn, 2006). We recommend that ORHP provide tools, resources and technical assistance to support state efforts to develop appropriate outcome measures. We also recommend that ORHP, State Flex Programs, the Flex Monitoring Team, and the Technical Assistance and Services Center continue to share information on successful programs and their outcomes with State Flex Programs, policymakers, and other rural health stakeholders and to encourage the replication of these successful initiatives as appropriate.

The Flex Program has made important contributions to the support of rural hospitals and communities through the conversion of eligible hospitals to CAHs and development of initiatives to support and enhance the rural health care infrastructure. Although CAH conversion has been an important feature of the program, CAH designation and related Medicare cost-based reimbursement for CAHs are not sufficient by themselves to ensure the viability of these vulnerable facilities. The Flex Grant Program has provided states with resources to address the quality of services provided by CAHs, enhance their financial and operational viability, and expand access to hospital and EMS services. As the program moves forward, it is vital that it remains focused on meeting the core needs of CAHs and their communities. It is also important to develop tools and indicators to document and communicate the outcomes of these initiatives to support continued investment in the Flex Program.

INTRODUCTION

The Medicare Rural Hospital Flexibility Program (Flex Program) was created by the passage the Balanced Budget Act of 1997 (BBA 97) and consists of two separate but complementary components. The first created a class of hospitals known as Critical Access Hospitals (CAHs) that are certified to receive cost-based Medicare reimbursement and operate under their own specific set of Medicare Conditions of Participation. Cost-based reimbursement is intended to improve the financial performance of CAHs, thereby reducing hospital closures.

The second component created the State Flex Grant Program administered by the Federal Office of Rural Health Policy (ORHP) to strengthen the rural health care infrastructure. Under the Flex Grant Program, participating states may apply for up to \$650,000 annually to:

- Plan and implement state rural health plans;
- Develop rural health networks;
- Support the conversion and designation of CAHs;
- Provide support and technical assistance to enhance the viability of these hospitals;
- Develop quality improvement initiatives; and
- Develop programs to support rural emergency medical services (EMS).²

Forty-five states participate in the Flex Grant Program.³ During the 2004-2005 grant cycle, Flex Grant requests averaged approximately \$590,000 per state with an average award of \$498,000.

During the Program's early years, states largely focused on the conversion of vulnerable rural hospitals to CAHs. As conversion activity slowed, State Flex Programs dedicated a greater proportion of their grants to addressing hospitals' and communities' longstanding needs related to business operations, quality improvement, access to capital for renovations and upgrades, provider recruitment and retention, and EMS. With few additional hospitals eligible for conversion under restrictions imposed by the Medicare Modernization Act, Flex Grant resources can be more intensively targeted to help the 1,283 CAHs⁴ improve the health care systems in their rural communities and provide access to high quality care for Medicare beneficiaries.

As part of its ongoing efforts to understand the initiatives and activities of State Flex Programs, members of the Flex Monitoring Team undertook this project to explore those activities deemed most successful by State Flex Coordinators.

² The legislative authority for the Flex Program is described in the Social Security Act, Title XVIII, Sections 1814 and 1820, available at http://www.ssa.gov/OP_Home/ssact/title18/1800.ht.

³ Five states are not eligible to participate in the Flex Grant Program as they either have no hospitals eligible for CAH conversion (Delaware, New Jersey, and Rhode Island) or their hospitals that were eligible for conversion have declined to do so (Connecticut and Maryland).

⁴ As of August 6, 2007.

METHODOLOGY

Researchers from the Flex Monitoring Team interviewed key stakeholders from each of the 45 states receiving Flex Grant funding from the Office of Rural Health Policy using a semi-structured interview protocol (see Appendix B). During our interviews, we asked stakeholders to identify and describe the three most successful initiatives undertaken by their states within the past two years. Appendix C provides a list of all individuals interviewed for this project. The notes from these interviews were transcribed and shared among members of the project team.

Based on the guidance provided to grantees, ORHP's December 2003 Medicare Rural Hospital Flexibility Program Strategic Planning Outline, and the results of our interviews, the project team identified six categories of activities and initiatives described by the stakeholders:

- Supporting CAH quality and performance improvement;
- Enhancing CAH financial viability and operational capacity;
- Building community health system capacity;
- Sustaining and enhancing EMS and emergency care services;
- Implementing health information technology (HIT); and
- Supporting the rural health workforce.

After developing the basic categories, the project team reviewed all interview notes and individually assigned each initiative to one of the above six categories. Any differences in category assignment were reviewed by the team and discussed until consensus on the final assignment was reached. Many of the initiatives could be assigned to more than one of the six categories. In reaching a final decision on category assignment, the project team worked to identify the core purpose and goal of each activity.

This report does not provide an exhaustive list of all State Flex Program activities. Rather, it describes those activities identified as most successful by individual State Flex Coordinators and provides an understanding of the priorities and accomplishments of the 45 participating states. Neither did we attempt to evaluate the extent to which the identified initiatives were actually "successful". Rather, we allowed Flex Coordinators to make their own determination about which of their many activities they would describe as most successful.

In preparing this paper, we did not describe all three activities identified by each State Flex Coordinator. Instead, we featured one activity from each state to showcase the range and diversity of activities and initiatives undertaken with Flex Grant funding.

FINDINGS

SUPPORTING CAH QUALITY AND PERFORMANCE IMPROVEMENT

Initiatives focusing on quality and performance improvement (Q/PI) were among those most frequently identified as successful by State Flex Coordinators. These initiatives fell into the following four general areas:

- Supporting participation in state and national Q/PI initiatives;
- Patient safety programs;
- Benchmarking and performance improvement programs; and
- A variety of unique programs addressing individual state needs.

A number of states are using networks that include many, if not all, of their CAHs. Partnerships with Quality Improvement Organizations (QIOs) and state hospital associations have been identified as critical to the success of Q/PI activities. We describe examples of successful Q/PI improvement initiatives, as identified by State Flex Coordinators, below.

Facilitating Participation in State and National Quality Initiatives

Flex Coordinators described a range of initiatives to support participation in national Q/PI initiatives targeting specific conditions, regional Q/PI programs encompassing multiple states, and single-state Q/PI efforts. Flex Programs typically provided leadership, funding, and technical assistance to support these efforts. Typically, these initiatives involved key partners from state hospital associations, QIOs, and other appropriate organizations. The following programs from Massachusetts and New Hampshire provide examples of these types of initiatives.

Massachusetts funded the participation of CAHs in the Statewide Primary Stroke Services Initiative, a program designed to speed access to appropriate stroke treatment. Through participation in the program, CAHs received support to improve stroke services, obtain licensure as stroke service providers, and participate in an integrated system of stroke care. Partners included the Division of Health Care Quality, the state cardiovascular association, the American Heart/Stroke Association, the state EMS agency, the hospital association, and support hospitals such as Massachusetts General Hospital. Flex also supported CAH participation in the Coverdell Stroke Program, a national stroke quality improvement system, enabling them to access Coverdell’s QI resources and obtain \$15,000 in Coverdell funding for each participating CAH.

New Hampshire supported a statewide quality improvement network which provides all 13 CAHs with technical assistance and on-site services on credentialing, quality reviews, and survey preparation. Under a contract with a subsidiary of the hospital association, New Hampshire funds the salary of a QI specialist to provide these services. The QI specialist also runs a monthly “users group” for the state survey team and reviews issues identified in past surveys. The network collaborates with the Vermont Technical College to offer management training programs and with the QIO to identify future quality improvement initiatives.

Patient Safety

Flex Programs were involved with a variety of patient safety initiatives including efforts to reduce medication errors, prevent patient falls, implement patient safety tools, and provide support and technical assistance to CAHs developing patient safety programs. Many provided support for the acquisition of health information technology as well as technical assistance and training. Examples from Florida, Iowa, New Mexico, and West Virginia are described below.

Florida collaborated with its QIO and the University of Florida College of Pharmacy to help CAHs identify medication problems, analyze root causes, and implement plans of correction. Medication safety committees have been established in 10 CAHs (with an 11th to join shortly). The program sponsors semi-annual training meetings for the participants. The next phase will focus on the use of computerized dispensing technology to prevent medication errors.

Iowa and its QIO collaborated to improve patient safety through hands-on training of staff from 22 CAHs. To date, three sessions have been held on a patient safety tool developed by the Veteran's Administration. This program began with a QIO grant on patient safety and is being continued with Flex funding. Iowa plans to make the program available to all CAHs, Rural Health Clinics (RHCs), and rural physician offices.

New Mexico collaborated with its QIO and hospital association to undertake quality improvement, patient safety, and HIT initiatives including: development of a rural specific balanced scorecard; introduction of AHRQ patient safety strategies to CAHs; development of a stakeholders' network to chart improvements in patient safety; development of a CAH HIT readiness assessment; and establishment of an informal network of HIT officers to work on a medical records/best practices project. Based on pre/post intervention surveys, quality and patient safety have improved at participating hospitals.

West Virginia implemented a patient safety and falls prevention program that provided software and technology to record medical errors and "near misses". Participants received education and training as well as opportunities to share lessons learned. Partners included the QIO, Bureau of Public Health, hospital association, West Virginia Center for Rural Health Development, all 18 CAHs, Verizon, and Quantros, a software manufacturer. Flex funds were supplemented by a multi-year AHRQ grant and a contribution of laptops and T-1 lines by the Verizon Foundation. Reported outcomes include decreases in patient falls and medication errors.

Benchmarking and Performance Improvement

An important area of Flex activity has involved the development of programs to allow CAHs to benchmark their performance against other CAHs and to use that information to improve organizational performance. These initiatives have included benchmarking programs focused specifically on quality (Arkansas, Ohio, and Tennessee); financial performance (Washington); and overall organizational performance (Nevada). These efforts typically involve partnerships with QIOs, hospital associations, and other CAHs.

Arkansas and the hospital association developed a patient safety and medication management benchmarking program in which all 28 CAHs participate. It uses 11 measures drawn from Joint Commission on Accreditation of Healthcare Organizations (JCAHO) core measures and Q-net protocols, a web-based assessment tool to reduce patient injuries. Each CAH receives quarterly reports and an annual report benchmarking its quality process measures against all Arkansas hospitals and national hospital measures. Arkansas is identifying new baseline measures and implementing a website to provide information, best practices, and tools for improving care.

Ohio, the hospital association, and the QIO worked with nearly all CAHs to track JCAHO core measures. The QIO tracks the data and the hospital association provides technical assistance on JCAHO accreditation surveys. Each program partner participates in educating the CAHs on quality improvement issues. A project listserv has been established to share information and facilitate communication among the participants.

Tennessee collaborated with its QIO and hospital association to benchmark CAH performance against Center for Medicare and Medicaid Services (CMS) core measures for heart attack, congestive heart failure, and pneumonia. Although participants may select which areas to focus on, most have chosen pneumonia. All Tennessee CAHs participate in the program and the data allow for statewide and regional comparisons. Many CAHs use the Quality Works tool developed by the Missouri Hospital Association to extract, analyze, and report their data. The QIO provides CAHs with on-site training on this tool.

Nevada supported the development of Performance Data Check (PDC), a web-based dashboard application that monitors organizational performance on quality, financial, operational, and employee and patient satisfaction and allows comparison between CAHs. PDC supports the development and implementation of balanced scorecards and strategy maps. Partners include the QIO and the Nevada Rural Hospital Partners (NRHP), a statewide rural hospital network. PDC is available to any Nevada CAH, CAH-eligible hospital, or NRHP member.

Washington's financial benchmarking program was developed primarily by CAH financial officers and provides CAHs with incentives to target improvements and opportunities to learn from high performing CAHs by providing comparative financial data. Partners include the hospital association and Association of Washington Hospital Districts. Stakeholders report that participating outlier hospitals have improved their financial performance.

Initiatives Targeting State-Specific Quality and Performance Improvement Needs

The flexibility provided by the Flex Grant Program allows states to develop initiatives that target their unique Q/PI needs. For example, Colorado CAHs had difficulty conducting necessary peer reviews due to their small medical staffs and limited access to specialty physicians. Maine used Flex funds to respond to a need expressed by CAH Directors of Nursing to access information on quality and clinical information and to network with their peers from other CAHs.

Colorado's in-state peer review process involves approximately half of its CAHs. Flex funds cover postage and salaries and expenses of the staff coordinating the program. CAHs pay \$30 for in-state reviews and \$300 for out-of-state reviews (for cases requiring reviews by specialists not available locally or that require a second opinion). The SORH coordinates the review process and recruits physician reviewers from local hospitals. To participate, a CAH's physicians must agree to review charts for other facilities. A training kit is under development to standardize the review process. The program has reduced the cost of and turn-around time for in-state reviews.

Maine's CAH Directors of Nursing Forums provides opportunities to share best practices and improve quality through regular, day-long meetings of Directors of Nursing, quality managers, utilization review staff, and swing bed coordinators. Participants receive CAH-specific information on the use of swing beds, impact of hospital services on the Medicare cost report,

local, state, and national trends affecting rural hospitals and communities, and other issues. Through the Forums, participants share and develop peer networks among CAHs.

ENHANCING CAH FINANCIAL VIABILITY AND OPERATIONAL CAPACITY

Given the vulnerability of many CAHs, it is not surprising that initiatives designed to enhance the financial viability and operational capacity of CAHs are a significant area of Flex activity. Among these activities, the development of networks between CAHs and referral hospitals, other CAHs, and community-based providers was the most prevalent strategy. Other efforts focused on providing technical assistance to support improvements in general operations, infrastructure development, facility re-engineering and capital ventures.

Network Development

Network development has been a central part of the Flex Program since its implementation. State initiatives are working to move past the process oriented activities of developing the network and focus on the use of networks to support CAHs in the areas of performance improvement, development of regional service, and provision of support services designed to achieve economies of scale. The following provide examples of the types of network activities supported by the Flex Program.

The **Alaska** Small Hospital Performance Improvement Network (ASHPIN) is a statewide network focused on improving the clinical, operational, and financial performance of rural hospitals and is supported by Flex, Small Hospital Rural Improvement Grant Program (SHIP), and Network Planning and Development grants. Participants receive support in the areas of quality and performance improvement, business office operations, and health information technologies. Participants, which include Alaska's 10 CAHs and one rural hospital, report reduced worker compensation costs, increased reporting of QI indicators, enhanced QI capacity, increased understanding of Medicare cost reports and state Medicaid program requirements, and increased collaborative activity among CAHs. The hospital association is a partner in ASHPIN.

Illinois's statewide CAH network, a non-profit organization, offers services and programs to support CAHs. Flex provides limited ongoing support for the network which is supplemented by membership fees from each of the 50 members. Partners include the hospital association, Southern Illinois University School of Medicine, University of Illinois Rural Medicine Education program, and Western Illinois University. The network offers an external peer review program, financial indicators for chief financial officers, a group-purchasing arrangement, video conferencing to link members, HIT support, physician recruitment and insurance and health benefits programs.

Missouri's CAHNet was established to encourage collaborative relationships between CAHs and rural stakeholders, many of whom had not previously worked together. Participants include 23 of the state's 36 CAHs, the hospital association, the Missouri Rural Health Association, and the QIO. Funded primarily with Flex dollars, CAHNet is exploring collaborative projects in quality improvement, patient safety, medication compliance, fall prevention, and hospital

operations (cost reporting, billing, and debt/capital analysis). CAHNet recently offered a series of web-based financial presentations to CAH staff.

Nebraska supports networks consisting of one or more CAHs and a support hospital. These efforts have predominantly targeted quality improvement. One is setting up training and education programs using telehealth networks. Another is conducting employee and patient satisfaction surveys. A third is using AHRQ, Flex, and SHIP funds to develop an electronic health record. The networks are primarily supported by Flex funds supplemented by other funding including contributions from the participants and, in some cases, SHIP grants. The hospital association is a partner in this program.

New York has focused on developing working relationships between CAHs and larger support hospitals to foster the development of rural regional delivery systems to meet local needs. In addition to CAHs and their affiliate hospitals, these efforts have included existing rural health networks. The networks are supported with Flex funds (20% to 25%), limited SHIP funds, and state legislative appropriations. Flex funds have leveraged state and facility resources to develop three regional delivery systems. Participants report greater efficiencies through the standardization of systems and procedures and the sharing of staff.

Wyoming's CAH network includes 12 of the state's 14 CAHs and supports quality improvement and benchmarking among CAHs. The network functions as an affiliate of the hospital association which manages the network under a contract from the Flex Program. Network leaders are developing their own operational support to reduce the financial commitment from Flex. The network is hiring staff to support its activities and engage in strategic planning. Current efforts include participation in Montana's benchmarking initiative and distribution of software to assist emergency room physicians and staff in remaining current with the latest diagnostic techniques.

General Operations Support

Another significant area of Flex activity to enhance the viability of CAHs is in general operations support. These initiatives acknowledge the challenges faced by CAHs in staying up-to-date on business and operational issues given the rates of staff and board turnover in CAHs and the pace of change in the health care industry. States have adopted different approaches to providing general operational support including the development of contractual relationships with consulting firms and the development of internal capacity to provide technical assistance and support. Examples from Georgia and Kansas are described below.

Georgia offers education and training for CAH business office staff to improve facility performance. Thirty-two of its 35 CAHs have participated in the program. Program leaders have developed five benchmarks to monitor the performance of CAH business offices. Flex officials meet frequently with business office managers and staff to obtain input into priority areas and engage rural stakeholders in program planning and development. Participants include the hospital association's Rural Health Center and Research and Development Foundation, HomeTown Health (an association of 55 rural hospitals), Georgia Rural Health Association, QIO, two CAH administrators, an FQHC administrator, state EMS Office, Georgia Health Policy Center, and two rural health consultants.

Kansas provides CAH board education services, accessible to all CAH personnel, including group training sessions and online training modules. Developed by a consultant, the program uses a balanced scorecard approach. Participants complete a pre-assessment to establish their baseline needs and the consultant uses this information to facilitate training sessions. The consultant serves as a liaison between hospital management and their boards. To date, 42 CAHs have completed the training and the initiative was expanded to another 19 CAHs this year. The program is funded solely with Flex dollars and is a collaborative venture with the hospital association. A board education toolkit developed under this initiative has been distributed to all SORHs by the Technical Assistance and Services Center.

Infrastructure Development, Re-engineering, and Capital Ventures

Many CAHs face infrastructure issues based on the age and design of their physical plant. They frequently have extensive renovation needs to modernize their facilities and, in some cases, to meet state regulations. Flex has played an important role in helping CAHs to address these issues and/or to solicit needed capital. Examples from California and Montana are described below.

California funded an initiative to help CAHs meet a state seismic safety requirement deadline. Flex provided funding to assist six CAHs in developing a master facility plan. An architectural team was engaged to provide input into the development of the plan. The master plan provided each hospital with a baseline for retrofitting its facility to meet state seismic safety requirements. The plan has received approval from the State of California.

Montana has tapped existing resources to support CAHs through economic impact studies using IMPLAN economic modeling software. Flex worked with the Montana Department of Labor (MDOL) to conduct the analyses and paid for a hospital study for all 45 CAHs. Upon completion of the analysis, MDOL staff presented their findings to each hospital. As a result of this work, some communities have sought larger economic analyses for their communities as a whole. The results of these studies have been used to garner community support for a variety of hospital projects including those related to expansion and renovation.

BUILDING COMMUNITY HEALTH SYSTEM CAPACITY

An emerging area of Flex activities involves community-focused initiatives in direct response to the Flex Program's explicit expectations that CAHs engage with their communities to develop collaborative delivery systems with CAHs as the hub of those systems of care and undertake collaborative efforts to address unmet community health and health system needs. These initiatives fell into the following three categories: the development of collaborative relationships between CAHs, Federally Qualified Health Centers (FQHCs), RHCs, and other community-based safety net providers; the involvement of CAHs in health promotion, education, and screening activities in collaboration with other providers; and the development of community-based, decision-making models and tools to engage local stakeholders in the improvement of their health care systems.

Development of Collaborative Relationships between CAHs and Safety Net Providers

Hawaii has encouraged collaborative relationships between CAHs and FQHCs to reduce duplication of services, achieve economies of scale, enhance community capacity, expand services, and improve access to care. Supported by funds from Flex and the Primary Care Office, staff have worked with CAHs, FQHCs, and communities by facilitating joint meetings between the boards of CAHs and FQHCs to help identify the strategic and financial benefits of working together. A successful example includes the relocation of an FQHC to the campus of a CAH, where the FQHC physicians provide coverage on the inpatient units and the emergency room. In another example, the collaboration between a CAH and FQHC has allowed the FQHC to recruit additional physicians to expand clinic hours and coverage.

Health Promotion, Education, and Screening Initiatives

Alabama promoted healthier rural communities through local collaborations between CAHs and community agencies. The hospital association, Department of Health, and State Extension Service have been partners in this effort with support provided by Flex funds and in-kind contributions from the participants. In one community, a collaborative consisting of representatives from the CAH, an FQHC, the county extension office, a Sickle Cell Anemia Center, a diagnostic center, an optometrist, an osteoporosis screening program, schools, and churches developed education and screening programs for sickle cell anemia, eye care, osteoporosis, and other conditions.

Development of Community-Based Decision Making Models and Tools

Oregon's Community Health Improvement Partnerships (CHIP) initiative encourage development of partnerships between CAHs, local providers, and residents to identify community health needs and develop strategies to improve local health and health systems. Eight CHIP partnerships have been formed with two more under development. Flex funds are matched by contributions from the CAHs to support the salary of a local project coordinator who serves as the liaison between the SORH and the CHIP. Each CHIP has its own unique health agenda. Activities include efforts to lower emergency room usage, increase Medicaid access, and build new walking trails and a community center.

Wisconsin's Strong Rural Communities Initiative encourages collaboration between hospitals, public health providers, and businesses to develop disease prevention projects with support from Flex, Wisconsin Partnership for a Healthy Future, Rural Development Council, University of Wisconsin School of Medicine and Public Health, Medical College of Wisconsin, and Rural Wisconsin Health Cooperative. Two participating hospitals are CAHs; the third is a rural hospital with fewer than 50 beds. All sites are implementing workplace wellness programs.

SUSTAINING AND ENHANCING EMS AND EMERGENCY CARE SERVICES

The Flex authorizing legislation contained specific expectations that Flex Programs would develop initiatives to support and sustain rural EMS services. In response, states have implemented a range of activities focused on EMS and hospital emergency care. These initiatives

span topic areas that include personnel and leadership training and development; improved rural trauma and critical care capacity; EMS needs assessments; improved operational capacity of EMS providers; and development of an affordable self-funded liability product for EMS providers. Examples of these types of program initiatives are described below.

Personnel and Leadership Training and Development

Rural EMS units and hospital emergency rooms face a number of challenges to maintaining a competent workforce, many of which are related to issues of personnel and leadership training and development. Major challenges to obtaining necessary training to maintain certifications and enhance an individual's skill set include long travel distances to educational programs, tuition and travel costs, and an inability to provide coverage for a staff person attending educational programs. In response, states have developed programs targeting the needs of rural EMS units and emergency rooms, many of which are offered locally or can be accessed locally through various distance learning technologies. Examples of these programs are described below.

Kentucky partnered with the EMS Board of Medical Licensure and Eastern and Western Kentucky Universities to provide EMS training and continuing education programs. The goal is to increase the number of licensed EMS personnel and paramedics and to support their continuing education requirements. As a result of this initiative, EMS personnel transferring patients from CAHs no longer require the presence of a physician or nurse on long trips.

South Carolina offered young EMS professionals the opportunity to enhance their supervisory, management and writing skills through the development of an EMS leader Boot Camp. The program trains future EMS leaders in time management, conflict resolution, communication, and other topics. Flex also supported EMT and paramedic training scholarships. Partners include the Health Department EMS Office, EMS Association, EMS regional councils, Rural Health Association, and a few CAHs. The camp has increased the skills of future EMS leaders and these individuals are now viewing rural EMS as a career rather than a job.

Rural Trauma and Critical Care Capacity

The emergency departments in CAHs are a critical component of rural emergency and trauma systems of care. They are often the closest and most easily accessible facility in the event of a traumatic injury or illness. They are often called upon to treat and stabilize critical patients that present through the emergency department. In recognition of the vital role played by these facilities, states have undertaken various initiatives, examples of which follow, to upgrade the triage, trauma, and critical care capacity of CAHs.

Minnesota supported CAH participation in the Comprehensive Advanced Life Support (CALS) program designed to build and maintain the skills of rural emergency room staff. CALS trains medical personnel in a team approach to anticipate, recognize, and treat life-threatening emergencies and provides exposure to uncommon, but critical case scenarios. CALS also meets training requirements for state trauma system designation. Flex funds have underwritten CAH participation costs for 75% of the state's 80 CAHs.

North Carolina, in response to major flooding and mudslides in the western part of the state, developed a program to provide training on triage of trauma cases to small rural hospitals. With training developed by the American College of Surgeons and the SORH, this initiative aims to provide trauma training to all hospitals in the 17 counties included in the Western Regional Advisory Committee to improve staff confidence in handling trauma cases and improve assessment skills in determining which cases need to be transferred.

Supporting the Development of EMS Capacity

As in other areas of Flex activity, states have taken advantage of the flexibility provided by the Program to undertake initiatives to enhance community- and state-level EMS capacity. Examples of these initiatives, described in greater detail below, include needs assessment to provide specific information on community-level needs, programs to collect EMS run data to be used for planning and administrative purposes, and a unique program to develop a self-funded insurance capture to provide reasonably priced liability coverage to rural EMS units.

Idaho sponsored community-level EMS assessments to support efforts to improve EMS systems of care in CAH communities. A site visit team assessed local EMS system against 10 standards of care for rural EMS systems and developed a written report with suggested improvements. Teams typically included an emergency room doctor, CAH administrator, rural EMS administrator, EMS bureau program manager, and EMS bureau regional consultant. Housed in the Bureau of EMS, other program partners include CAHs, EMS providers, and community stakeholders. Communities receive \$11,000 from the Flex Program to address issues identified in the assessment report. Assessments have been completed in all 26 CAH communities.

Arizona worked with EMS units and CAHs to develop an on-line EMS/ambulance database based on National Highway Traffic Safety Administration recommendations for data collection. Ambulance personnel use hospital-based computers to input run data into a central database. The database serves as a central billing system, which has greatly improved the patient billing and collection experience. Analysis of the data is being used to document transport patterns and the reasons for ambulance runs. This information will be used to modify patterns and practices of EMS units serving CAHs. Staff training was provided to hospital emergency room staff and EMS personnel in two locations and drew 30-40 participants per session.

Maine, Minnesota, and Vermont collaborated to develop affordable self-funded liability coverage for EMS providers. This multi-year project identified losses for rural EMS services and analyzed the data to determine the viability of a self-funded insurance program. Counsel was retained to assist in overcoming legal and regulatory obstacles. The Vermont SORH, Vermont Bureau of EMS, and several major Vermont EMS providers initiated project development with contributions from a national consultant, Maine, and Minnesota. Flex Grant funds supported the exploratory work while several large EMS providers funded start-up costs. The product will be available shortly in the three participating states with plans to expand it to other states.

IMPLEMENTING HEALTH INFORMATION TECHNOLOGY

The growing national focus on HIT is reflected in an array of state Flex Program initiatives to improve quality, enhance patient safety, and expand access to services through telemedicine initiatives. Examples include HIT readiness assessments; development of collaborative HIT capacity; technology education for CAH staff; support for the acquisition and installation of HIT applications; and expansion of telemedicine technology to improve access to services and communication between CAHs and other providers.

Implementation of HIT Applications and Infrastructure Support

Individual CAHs often do not have the technical capacity, information infrastructure, and/or resources to evaluate, select, and implement HIT technology. Flex Programs are playing a vital role in supporting the needs of their CAHs related to information technology through efforts to upgrade information infrastructure and develop collaborative capacity to implement HIT applications, examples of which are provided below.

Louisiana supported development of an emergency department electronic medical record (EMR) installed in nine CAHs and several small rural hospitals. The Flex Program provided in-kind support for the preparation of an AHRQ grant to fund the development costs. The Flex Program later funded the participation of CAHs that were covered under the original grant application. CAHs provided cash and in-kind contributions to support their participation. Program partners included the QIO, Department of Health and Hospitals, Louisiana Rural Health Association, the hospital association, and Louisiana Rural Hospital Coalition. The hospital association provided the principal investigator and the project manager. The EMR feeds into Louisiana's QI network to establish benchmarks. Initial results indicate reduction in triage wait times, turnaround for submitted claims, and patient transfers.

Pennsylvania used Flex funds to seed development of two rural health networks. The Susquehanna Valley Rural Health Partnership (SVRHP) consists of three CAHs and a referral hospital and focuses on HIT diffusion including the development and implementation of pharmacy, radiology, and other clinical technology. Flex provided initial funding for start up costs. A Network Development Grant and funding from Blue Cross Blue Shield supported implementation of pharmacy technology. Flex also supported start-up of the Southern Alleghenies Regional Health Alliance (SARHA), which consists of one CAH, two small rural hospitals, a home nursing agency, a university-based technology center, and a large referral hospital. SARHA's goal is to form a Regional Health Information Organization and has received a Network Planning and Development Grant to support its efforts.

Utah provided grants to CAHs and rural hospitals to improve their information infrastructure. Four CAHs and one rural hospital received funding in 2006 to support their upgrades, which are expected to contribute to a more robust statewide health care information network. The Flex Program collaborated on this project with the hospital association, which serves as the lead agency. An expert panel was convened to review grant applications and make awards with the assistance of the Utah Health Information Network. Funding came from the Flex Grant dollars

(30%) and bioterrorism funds. The upgrades have enabled greater information sharing between the hospitals themselves and between the hospitals and the Department of Health.

Telemedicine Initiatives

Telemedicine technology is an important, if still underutilized, resource that can be used to expand access to health care and educational services. Examples of state initiatives that have provided resources to expand access to services for vulnerable populations (Indiana), enhance service capacity within CAHs (Mississippi), and offer access to public health education programs (Virginia) are described below.

Indiana funded a telemedicine project connecting a CAH, a jail, and a community health center (CHC) designed to improve access to mental health services and reduce costs related to patient transport. Prior to the project CAH patients and prisoners needing mental health services required costly and difficult to arrange transfers to the CHC. Project partners included the Lugar Center for Rural Health and state telehealth advisory consortium. The Lugar Center provided matching funds to implement the project. Flex funded the assessment phase. Project officials hope to demonstrate improved access and cost savings through the use of telemedicine technology to serve difficult to reach populations.

Mississippi developed a tele-emergency medicine service through the University of Mississippi Medical Center (UMMC) in seven CAHs and four rural hospitals. UMMC certifies nurse practitioners to work in emergency rooms (ER) and its specialists provide emergency medicine and trauma consultations using telemedicine technology. The program has assisted with recruitment and retention of ER personnel and upgraded emergency care at participating hospitals. Program partners include the hospitals, UMMC, and the hospital association. As part of this program, UMMC provides technical assistance on ER procedural and diagnostic coding to the CAHs. The CAHs report improved outcomes and increased census levels as their improved ER capacity allows them to accept patients that previously would have been transferred.

Virginia developed a Diabetes Education Program delivered at CAHs, rural hospitals, and RHCs through videoconferencing technology. Program partners include the University of Virginia Office of Telemedicine, and Virginia Center for Diabetes Professional Education. The program is offered to the public through the clinical sites and the response is reported to be very positive in rural areas. The initiative grew out of a larger effort funded by Flex and the Virginia Department of Health to develop a strategic plan for a statewide telehealth network. Experience with the Diabetes Education Program has sparked interest among CAHs to implement other telehealth applications including professional education and teleradiology.

SUPPORTING THE RURAL HEALTH WORKFORCE

Flex sponsored workforce development initiatives recognize the challenges faced by CAHs and rural communities in developing and maintaining an adequate health care workforce. These initiatives included recruitment and retention programs for physicians, nurses, allied health personnel, laboratory and radiology technicians, and business office staff; leadership development programs; rural placement opportunities for medical students and residents;

pipeline programs to encourage students to consider health care careers; and expansion of access to continuing education and certification programs.

Recruitment and Retention

Recruitment and retention of an adequate health care workforce remains a challenge for many CAHs. Flex Programs have developed a number of initiatives to address this need, three of which are described below.

Michigan's recruitment and retention program has funded five medical needs assessments and recruited 10 physicians, four physician assistants and two registered nurses. The program serves as a single point of contact for CAHs with staffing needs and offers a CAH internet provider sourcing program, a locum tenens program, a rural opportunity gateway, and recruitment and retention workshops. The program manager works with federal and state agencies and national and state professional networks and is a resource for questions on recruitment, retention, medical staff development plans, visa issues, salary ranges, contracts, and loan repayment programs. The Department of Community Health and Flex collaborated on the initiative. Flex provided funding for program implementation while ongoing support is provided by the Michigan Legislature.

North Dakota collaborated with local schools on a program to expose local students to health care careers. Four CAHs received Flex funds to support these efforts. One developed a curriculum for high school students to become EMTs, while another developed a summer camp program in which middle school students observed and interacted with hospital employees in various jobs. The project's steering committee includes the Center for Rural Health, state health department and primary care office, hospital association, QIO, schools, Career Technical Education Center, and CAHs. This is an ongoing initiative that will be expanded in subsequent years to include two additional CAHs and their communities.

Oklahoma funded a recruitment program that places students from Oklahoma State University College of Osteopathic Medicine (COM) in rural practice settings as part of their training. Representatives from COM and Flex visited 57 hospitals and communities to recruit rural training and rotation sites. Flex supported the outreach efforts and COM funded development and operation of the training sites. Seven rural training/rotation sites have been established in two CAHs and five rural hospitals. Additional sites will be developed in subsequent years.

Staff Education and Leadership Development

Staff at many CAHs have difficulty accessing educational programs to maintain and upgrade their certifications, licenses, and skill sets due to cost related to travel and the challenge of finding coverage for their time away from the hospital. Flex Programs have taken the lead in developing affordable, locally available educational and leadership programs to address these challenges, two examples of which are described below.

South Dakota initiated a Leadership Development Program to strengthen management skills and develop leadership capacity among CAH management teams. Ten CAHs participate each year. Participants conduct an assessment of their management team and develop a work plan for the

coming year. On-site training involves quarterly skills development training meetings. The final quarterly meeting is tailored to the specific needs of each CAH. Through a subcontract with the Harvard Business School, CAH staff may access a health care version of "Mentor Plus", a web portal that provides on-line access to case examples and learning tools.

Texas, in partnership with Texas Tech University Health Science Center, implemented a program providing local access to certification and licensure courses for a range of medical skills. Texas Tech developed the curriculum, produced compact discs for local use, and provided satellite programs for on-site reception. Through the program, 440 educational courses are available covering 21 health care disciplines. Last year, 63 CAHs participated in the program and 1,300 individuals completed courses. Local access to the educational resources reduces travel costs and coverage issues for participants.

CONCLUSIONS

Data from our interviews of State Flex Coordinators confirmed our earlier observation that states have shifted the focus of their activities away from CAH conversion. State efforts now target initiatives to address hospitals' and communities' longstanding needs related to business operations, quality improvement, accessing capital to support facility renovations and upgrades, recruitment and retention, EMS, and HIT. Our interviews revealed four general themes:

- States have implemented a range of successful program activities addressing hospital quality and performance improvement, rural hospital viability, community-focused initiatives, EMS, HIT implementation, and workforce development, among others;
- States have used Flex funds to seed the development of many of these initiatives, with other sources of funds being tapped to augment those from the grant;
- Flex funds have been critical to the development of projects to support CAHs and rural health systems for which there were no other sources of funding; and
- Flex has engaged stakeholders from health care organizations and state agencies and created relationships that have value added beyond the Flex Program.

States have focused significant effort on initiatives to enhance rural hospital quality and overall hospital viability. In the area of Q/PI, states focused on building CAH QI capacity through benchmarking and patient safety programs; peer review systems; staff training in quality improvement techniques; and participation in national, regional, and state public reporting programs. To support rural hospital viability, states developed networks between CAHs and referral hospitals, other CAHs, and community providers; provided technical assistance and training to CAH staff on operational, business office, capital, and coding issues; supported hospital re-engineering and construction; and provided targeted support to individual facilities.

States have also focused on initiatives to support community health systems development and to improve the delivery of emergency medical services. States have funded initiatives to enhance collaboration between CAHs and safety net providers to reduce duplication of services, achieve

economies of scale, and improve access to care; funded CAHs' involvement in health promotion, education, and screening activities; and developed community-based decision-making tools to engage stakeholders in the improvement of local health care systems. State EMS initiatives have expanded personnel training and leadership development; improved rural trauma and critical care capacity; supported EMS needs assessments; developed transfer and triage protocols; improved the management and billing capacity of EMS providers; and developed an affordable self-funded liability product for EMS providers.

Our interviews revealed that initiatives focused on HIT and workforce development are two emerging areas of Flex activity. States have supported the adoption of HIT by CAHs by funding telemedicine initiatives to expand access to services; assessing HIT readiness; developing collaborative HIT capacity; and implementing HIT applications such as electronic medical records and computerized pharmacy dispensing programs. Workforce initiatives have included leadership development programs; rural placement opportunities for medical students and residents; pipeline programs to encourage health care careers; continuing education and certification programs; and recruitment and retention programs for physicians, nurses, allied health personnel, laboratory and radiology technicians, and business office staff.

This study also confirmed the Flex Monitoring Team's previous observations regarding the diversity of activities implemented by the 45 participating states (Loux, et al, 2006; Lenardson and Gale, 2006; Spinarski and Gregg, 2004). This diversity complicates efforts to document and communicate the outcomes and impact of the Flex Program. In previous work, the Flex Monitoring Team observed that State Flex Programs tend to rely more heavily on process measures of program success (e.g., the number of hospitals converted or the number of participants attending a meeting) rather than on outcome measures (e.g., improvements in hospital quality or financial stability) (Gale, Loux, and Coburn, 2006).

The ability to measure Flex Program outcomes and impact is important at both the state and federal levels. At the state level, the ability to quantify program outcomes and impact is an important part of state evaluation activities to enhance the program's ability to successfully meet the long term needs of CAHs and rural communities as well as to document and communicate the value of the Flex Program to key state legislators and policymakers. For ORHP, the measurement of Flex Program outcomes and impact enable the Office to comply with its GPRA/PART reporting requirements, manage the grant program, target Flex Program resources effectively, and to communicate program performance to key federal legislators, policymakers, and oversight organizations.

In its Fiscal Year 2007 Program Guidance for State Flex Programs, ORHP has begun to move in this direction by requiring states to develop and report on outcome indicators for program activities (ORHP, 2007). Our past work on developing Flex Program logic models suggests that states may have some difficulties in developing these measures on their own (Gale, Loux, and Coburn, 2006). We recommend that ORHP provide tools, resources, and technical assistance to support state efforts to develop appropriate outcome and impact measures. We also recommend that ORHP, State Flex Programs, the Flex Monitoring Team, and the Technical Assistance and Services Center (TASC) continue to share information on successful programs and their

outcomes among State Flex Programs and with policymakers and other rural health stakeholders and to encourage the replication of these successful initiatives as appropriate.

The Flex Program has made important contributions to the support of rural hospitals and communities through the conversion of eligible hospitals to CAHs and development of initiatives to support and enhance the rural health care infrastructure. Although CAH conversion has been an important feature of the program, CAH designation and related Medicare cost-based reimbursement for CAHs are not sufficient by themselves to ensure the viability of these vulnerable facilities. The Flex Grant Program has provided states with resources to address the quality of services provided by CAHs, enhance their financial and operational viability, and expand access to hospital and EMS services. As the program moves forward, it is vital that it remains focused on meeting the diverse needs of these hospitals and their communities. It is also important to develop tools and indicators to document and communicate the outcomes of these initiatives to support continued investment in the Flex Program.

REFERENCES

Gale, J., Loux, S., and Coburn, A. (2006, April). *Creating Program Logic Models: A toolkit for State Flex Programs*. Portland, ME: Flex Monitoring Team; 2006.

<http://www.flexmonitoring.org/documents/PLMToolkit.pdf>.

Lenardson, J. and Gale, J. (2006, August). *Quality and performance improvement grant activities under the Flex Program*. (Briefing Paper No. 12). Portland, ME: Flex Monitoring Team; 2006.

http://www.flexmonitoring.org/documents/BriefingPaper12_QIactivities.pdf.

Loux, S., Gale, J., Yousefian, A., Coburn, A., and Gregg, W. (2006, March). *A review of State Flex Program plans*. (Briefing Paper No. 10). Portland, ME: Flex Monitoring Team; 2006.

http://www.flexmonitoring.org/documents/BriefingPaper10_StateFlexGrantReview.pdf.

Office of Rural Health Policy (ORHP). (2007, May 15). *Medicare Rural Hospital Flexibility Grant Program: Program Guidance: Fiscal Year 2007*. (HRSA-07-132, Catalog of Federal Domestic Assistance (CFDA) No. 93.241). Rockville, MD: ORHP.

Spinarski, R. and Gregg, W. (2004, May). *A synthesis of State Flex Program plans 2003-2004*. (Briefing Paper No. 1). Minneapolis, MN: Flex Monitoring Team.

<http://www.flexmonitoring.org/documents/BriefingPaper1.pdf>.

APPENDIX A: List of Acronyms

AHRQ	Agency for Healthcare Research and Quality
ASHPIN	Alaska Small Hospital Performance Improvement Network
CAH	Critical Access Hospital
CALS	Comprehensive Advanced Life Support Program
CHC	Community Health Center
CHIP	Community Health Improvement Partnerships
CMS	Centers for Medicare and Medicaid Services
COM	Oklahoma State University College of Osteopathic Medicine
DOL	Department of Labor
EMR	Electronic Medical Record
EMS	Emergency Medical Services
ER	Emergency Room
Flex Program	Medicare Rural Hospital Flexibility Program
FQHC	Federally Qualified Health Center
HIT	Health Information Technologies
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
MDOL	Montana Department of Labor
NRHP	Nevada Rural Hospital Partners
ORHP	Federal Office of Rural Health Policy
PDC	Performance Data Check
QI	Quality Improvement
QIOs	Quality Improvement Organizations
Q/PI	Quality and Performance Improvement
RHC	Rural Health Clinic
SARHA	Southern Alleghenies Regional Health Alliance
SHIP	Small Rural Hospital Improvement Grant Program
SORH	State Office of Rural Health
SVRHP	Susquehanna Valley Rural Health Partnership
TASC	Technical Assistance and Services Center
UMMC	University of Mississippi Medical Center

APPENDIX B: State Flex Coordinator Protocol

In your state, what were the three most successful initiatives funded by Federal Flex Grant dollars in the last two years?

- 1.**
- 2.**
- 3.**

Questions for each initiative:

1. What was the focus area of the initiative, e.g., quality improvement, network development, EMS, etc.?
2. What was the major purpose or goal of the initiative?
3. What organizations were involved in implementing the initiative and how were they involved? If CAHs were involved, how many were involved? What state-level organizations, if any, were involved?
4. Were other sources of funding, in addition to Flex dollars, used to implement this initiative? If yes, what were the other source(s) of funding – state, local, private foundation, or other federal funds? Approximately what proportion of the funding was Flex dollars?
5. What have been the most important outcomes of the activity? Has the state formally evaluated the success of the initiative?
6. Is this initiative ongoing? Does the state plan to implement additional activities related to this initiative?

APPENDIX C: List of State Level Respondents

Alabama	Jane Knight, Alabama Hospital Association
Alaska	Noel Rea, Alaska State Office of Rural Health
Arizona	Alison Hughes, Rural Health Office
Arkansas	Jacqueline Gorton and Bill Rodgers, Office of Rural Health and Primary Care
California	Michele Yopez, California State Office of Rural Health
Colorado	Shelley Smart, Colorado Rural Health Center
Florida	Robert Pannell, Florida Office of Rural Health
Georgia	Patricia Whaley, Office of Rural Health Services
Hawaii	Scott Daniels, State Office of Rural Health
Idaho	Mary Sheridan, State Office of Rural Health and Primary Care
Illinois	Pat Schou, Center for Rural Health
Indiana	Elizabeth Morgan, Indiana State Office of Rural Health
Iowa	Marvin Firch, State Office of Rural Health
Kansas	Gloria Vermie, Office of Local and Rural Health
Kentucky	Woody Dunn, Commonwealth Office of Rural Health
Louisiana	Dorie Tschudy, Maggie Shipman, and Sally Bremer, Bureau of Primary Care and Rural Health
Maine	Charles Dwyer, Maine Office of Rural Health and Primary Care
Massachusetts	Cathleen McElligott, Office of Rural Health
Michigan	John Barnas, Michigan Center for Rural Health
Minnesota	Mark Schoenbaum, Office of Rural Health and Primary Care
Mississippi	Rozelia Harris, Office of Rural Health Mendal Kemp, Mississippi Hospital Association
Missouri	Barry Backer, Office of Primary Care and Rural Health

Montana	Carol Bischoff, Office of Rural Health
Nebraska	Dave Palm, Office of Rural Health
Nevada	John Packham, State Office of Rural Health
New Hampshire	Alisa Butler and Stacie Smith, Bureau of Rural Health and Primary Care
New Mexico	Martin Peralta, Harvey Licht, and Kim Kinsey, Office of Rural Health/ Primary Care
New York	Gerry Fitzgibbins, Office of Rural Health
North Carolina	Serge Dihoff, Office of Research, Demonstrations, and Rural Health Development
North Dakota	Marlene Miller, Center for Rural Health
Ohio	Tina Turner-Myers, Rural Health Section
Oklahoma	Rod Hargrave, Office of Rural Health
Oregon	Kassie Clarke and Bob Duehmig, Office of Rural Health
Pennsylvania	Larry Baronner, Office of Rural Health
South Carolina	Graham Adams, Office of Rural Health
South Dakota	Sandra Durick, Office of Rural Health
Tennessee	Angie Allen, Patrick Lipford, Office of Rural Health Bill Jolley, Tennessee Hospital Association
Texas	Cindy Miller, Office of Rural Community Affairs
Utah	Don Beckwith, Office of Primary Care and Rural Health Jolene Whitney, Bureau of Emergency Medical Services
Vermont	Dennis Barton, Office of Rural Health and Primary Care
Virginia	Karen Reed, Office of Health Policy and Planning
Washington	Mike Lee, Office of Community and Rural Health
West Virginia	Shawn Balleydier, Division of Rural Health
Wisconsin	Peggy Sivesind and John Eich, Wisconsin Office of Rural Health
Wyoming	Lynne Weidel, Wyoming Office of Rural Health