U.S. Department of Health & Human Services

HRSA
Health Resources & Services Administration

PROMOTING RURAL HEALTH

THE NETWORK SOURCEBOOK
Volume 1

RURAL HEALTH DEMONSTRATION PROJECTS
1997-2000

May 2001

Health Resources and Services
 Administration
5600 Fishers Lane, Room 9A-55
Rockville, MD 20857
(301) 443-0835

2000 CONTENTS

2000 CONTENTS

The Federal Office of Rural Health Policy (ORHP), Health Resources and Services Administration, is proud to present *The Network Sourcebook—Volume 1: Rural Health Demonstration Projects, 1997-2000.*

Since 1991 ORHP has demonstrated national leadership in supporting the development and testing of innovative health care delivery models that hold tremendous promise for rural communities across the Nation. *The Network Sourcebook* continues this tradition by summarizing the experiences of the 27 grantees funded in September 1997. The descriptions included in this volume underscore that rural communities can use modern technology and innovations to address age-old health care challenges that have persisted in rural areas for generations.

This volume highlights the projects' successes as well as shortcomings. It describes how technology can be used to increase efficiency, improve patient care, and maximize limited rural health dollars. It summarizes the lessons these 27 grantee networks learned during the 3-year period. Most importantly, it sheds new light on the enormous value of collaboration—not only for the organizations that work together to achieve mutually important goals, but also for the people these organizations are charged to serve, and for the community as a whole.

The individual program descriptions that follow are based on project reports developed by the grantees. I believe that *The Network Sourcebook* can serve as a valuable resource for every rural community in every State. For rural leaders and future grant applicants, these anecdotes may serve as catalysts for new approaches to organizing, financing, and delivering rural health care services. For health policymakers, these stories are a reminder that our job in rural America is far from over and that rural communities need our ongoing support.

For more information about the projects described in this volume, please feel free to contact the projects directly. Each project description includes contact information for your convenience. For more information about the Rural Health Network Development Grant Program, please call 301-443-0835, or visit our Web site at www.ruralhealth.hrsa.gov.

Sincerely,

Marcia K. Brand, Ph.D.
Director
Office of Rural Health Policy
Health Resources and Services Administration

In 1997 the Office of Rural Health Policy (ORHP), Health Resources and Services Administration, awarded 27 Network Development Grants to projects scattered from New Hampshire to Oregon and South Carolina to Arizona. While the scope of each grant project varied significantly, the 27 programs shared at least 1 common goal—to increase access to health care for rural residents who otherwise may not have had a reliable source for basic primary health care services.

In most cases, the grantees took different paths and implemented different approaches to achieving this goal. Several projects focused on increasing the technological capacity of network members to share information through the Internet and member intranets. Others focused on expanding existing networks to include specialty health care providers and organizations. Some programs placed strong emphasis on strengthening the economic viability and independence of rural health care agencies and providers by banding together and leveraging their purchasing and negotiating power through economies of scale. And in a few instances, grantees used their funding to prepare local providers and organizations to operate effectively in a managed care environment, only to find that managed care never arrived, or that it came and went without much notice.

The good news is that, regardless of the approach each grantee took to addressing local health care challenges, the vast majority of these programs continues to fill a crucial and compelling need in the community. Many have documented improved financial efficiency and patient care by implementing management information systems, while others have found that rural organizations have significantly more bargaining power when they come to the negotiation table as a united group rather than competitors.

These models hold tremendous promise for the delivery of health care in rural areas. In fact, every rural community in every State can benefit from the experiences of these projects and the lessons they learned. Rural health planners also may gain new insight on how to organize, finance, and deliver high-quality health care to rural residents in a smarter and more efficient way.

Each project description contained in this volume includes the name of an individual who was intimately involved with the implementation of the project. The reader is encouraged to contact the identified individual for more detailed information about the project. For more information about the Rural Health Network Development Grant Program or other rural-specific initiatives funded by ORHP, contact Ms. Jessamy Taylor at (301) 443-0835 or visit our Web site www.ruralhealth.hrsa.gov.

AHA	American Heart Association
SCHIP	State Children's Health Insurance Program
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
IHS	Indian Health Service
MCH	Maternal and Child Health
WIC	Women, Infants, and Children

Network Grants Awarded in 1997

Grand Coulee

Wanatchee
WA

MT

OR
Grants Pass

ID

ND
Hettinger

Moose Lake
MN

Marquette

WI
Sauk City

Gaylord
MI

Morrisville
VT
ME

Littleton
NH
Claremont
MA

WY

SD

IA

IL

IN

OH

NY
Warsaw
Wellsboro
PA

RI
CT

NJ

DE
MD

Nevada City
NV

UT

Carbondale
Fairplay
CO

NE
Scottsbluff

Crete

Manhattan
KS

Kirksville

MO

KY

Petersburg
WV

VA

DC

CA

Prescott
AZ

Sells

NM

OK

AR

TN

NC

SC
Bamberg

MS
Kosciusko

AL

GA

Pacific
Ocean

TX

LA

FL

Atlantic
Ocean

Gulf of
Mexico

AK

0   600 Miles

HI

0   200 Miles

0   100   200 Miles

Target Service Area

Yavapai County, Arizona covers 8,123 square miles and is roughly the size of the State of Massachusetts. The estimated county population is 155,900. Most county residents live in the population hubs of Prescott and Cottonwood, which are 60 miles apart and separated by a mountain. The remainder of the county's citizens live in small, sparsely populated communities scattered throughout the county.

Yavapai County consists of seven primary care areas, four of which are designated as state medically underserved areas. Those who live in these outlying rural areas must travel 30 to 80 minutes in order to receive health care services. There are neither public nor affordable private transportation systems connecting the rural communities to the population centers, or connecting the two population centers to each other.

The network targeted three primary service areas. The Mayer-Humboldt service area is a health professions shortage area and an Arizona medically underserved area. There is only one medical provider in the area and no grocery stores or pharmacies. Residents must travel 20 to 35 miles to services located in Prescott. The Camp Verde service area is approximately 20 miles from the closest health care services in the town of Cottonwood. Nearly half of all residents in the Camp Verde area have income that is less than 200 percent of the Federal Poverty Level. The Chino Valley service area has two medical providers in the community, and the local health facility, built in 1996, has been underutilized. Most residents travel 15 to 30 miles to obtain services in the Prescott area.

At the time of the grant award, the Prescott Free Clinic and the Verde Valley Wellness Clinic (in Cottonwood) were the only entities providing primary health care for uninsured residents in Yavapai County. Residents living in outlying rural areas had limited access to these services. The Prescott Free Clinic was providing approximately 1,700 units of services to about 600 people each year, largely because the clinic offered limited service hours and providers served on a voluntary basis. There was a 3-week wait for an appointment. As a result, treatment for non-chronic medical conditions was not feasible, causing many residents to rely on local emergency rooms for both emergency and nonemergency health care. A survey of local providers revealed that only 1 in 10 of the

ARIZONA
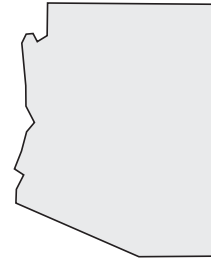
YAVAPAI COUNTY NETWORK DEVELOPMENT PROJECT
PRESCOTT, AZ

CONTACT:

YAVAPAI COUNTY HEALTH DEPARTMENT
930 DIVISION STREET
PRESCOTT, AZ 86301-3868

conservatively estimated 37,416 uninsured persons in the county were receiving health care services. Only 1 of the county's 64 primary care physicians offered a sliding fee schedule for uninsured and underinsured patients. Twenty respondents were not currently accepting Medicaid patients.

Network Objectives

The overall purpose of the Yavapai County Network Development Project was to increase access to care and improve the availability of services in the three targeted service areas. Three strategies were implemented to achieve this goal. First, the network increased the availability of direct health care services by establishing primary care clinics in each service area through a mobile clinic that would provide primary health care to uninsured individuals. Second, the network established primary care planning committees to develop strategies to improve the county's primary care system and to improve how services were provided, the level of collaboration among providers, and the use of community resources. And third, the network assisted the local Healthy Communities organization to ensure there would be a long-term mechanism for evaluating and addressing community health and well-being.

Network Innovations and Results

As a result of the Network Development Grant, there are now fully functioning primary care planning committees in Yavapai County—one in West Yavapai (including Prescott and surrounding communities) and one in Verde Valley (including Cottonwood and surrounding communities). Each committee includes members who represent citizens, physicians, mental health providers, hospitals, public health, and other social service providers. The West Yavapai planning committee developed a plan to establish a full-service community health center in Prescott, with satellite clinics in Chino Valley, Mayer-Humboldt, and Prescott Valley. The Arizona Department of Health Services has provided funding for the effort, and community advisory committees have been established in Chino Valley and Mayer.

Since the Verde Valley Wellness Clinic already had state funding to provide health care to the uninsured and offered full-time services, the Verde Valley planning committee focused less on system development and more on system improvement. As a result, the Verde Valley planning committee is providing input on existing gaps and barriers to care, which has resulted in the establishment of an outlying clinic in Camp Verde, one of the original target communities.

The network also conducted a series of needs assessments focusing on the target communities and their primary care needs, capitalizing on the leadership of the primary care planning committees. In West Yavapai County, the needs

assessment includes four components: 1) evaluation of current data, 2) key informant surveys, 3) a community-wide survey, and 4) focus group discussions. In Verde Valley, the needs assessment was based on six focus groups (three in English and three in Spanish) completed in February 2000. The focus groups identified four major barriers to the delivery of primary care services—cost, language, transportation, and the lack of information.

Throughout the planning process, primary health care services have been provided. Using the Health Department's mobile clinic, weekly clinics were established in Cordes Lakes (a community in the Mayer-Humboldt area) in December 1997 and in Humboldt in late 1998. Using the town's underutilized health facility, primary care services were implemented in Chino Valley in January 2000. These clinics are considered satellite sites for the full-service Community Health Center. The continuation of services in these communities is included in the implementation and funding plans of the West Yavapai Primary Care Planning Committee. Primary care services are also now available in the Camp Verde service area. These services are coordinated by the Verde Valley Wellness Center and funded by State Tobacco Tax funds.

The network also played an important role in developing the county's Healthy Communities organization. Though the organization does not have staff or dedicated funding, the organization's accomplishments include a county-wide weekly electronic newsletter, the development of a community health assessment tool, and supporting local nonprofit organizations through technical assistance.

Lessons Learned

One of the most important lessons learned by the project was the importance of establishing—and frequently reevaluating—the shared vision of the program. Different organizations involved in the network may have different interpretations of what the mission means and how it should be implemented. Frequently reexamining the mission as a group throughout the course of the project affords network members an opportunity to clarify the project's mission and ensure that all organizations and individuals are working toward the same goal. It is also important that the management structure of the network be written, approved by all network members, and periodically reviewed, and that the management structure include community representatives.

After the Grant

The Yavapai County Health Department will continue to support and staff the two primary care planning committees. Thanks to funding from the state of Arizona, the community health center is scheduled to open in early 2001. The

primary care services provided in Chino Valley and the Mayer-Humboldt area have been incorporated in the community health center plan and will be funded via State Tobacco Tax funding. Likewise, the services implemented in Camp Verde will continue through Tobacco Tax funding awarded to the Verde Valley Wellness Center, and the Healthy Communities organization can now be sustained without direct staff support funded through the grant.

Target Service Area

The Tohono O'odham Department of Human Services (TODHS) provides health care services to approximately 23,000 registered members of the Tohono O'odham Nation. The geographic area spans some 2.8 million acres with more than 70 widely scattered villages and towns. The Department's main clinics are located in Sells and Tucson, and prior to the network grant, all medical records were housed at the main clinics. While satellite clinics have been established in several major villages and towns, the distance between clinics and dissimilarities in health care delivery systems created inefficiency in the operation and management of the TODHS.

Network Objectives

The purpose of the network was to ensure that members of the Tohono O'odham Nation received high quality care and to establish a centralized database that provided an easy and efficient means to share documents and patient information among TODHS clinics, the Tohono O'odham Nation, and Indian Health Service (IHS) programs.

Network Innovations and Results

All medical record information was automated and entered into an integrated database, allowing for the sharing of medical records and data in real time, as well as improved quality of service to members of the Tohono O'odham Nation. Network members accessed the database through a variety of means. Some members were connected to the TODHS computer network through a fractional T1 communication line via the IHS-wide area network. Others accessed the database via the Internet, telephone dial-up, or a wireless connection. Regardless of how they connected to the database, all network members were able to communicate with one another and access patient records or financial information regarding services delivered at any of the clinical sites. Network members also had access to electronic mail.

The medical database also allowed the network to establish a third-party billing system. By the end of the grant cycle, the network was billing third-party payers more than $1.5 million each

ARIZONA
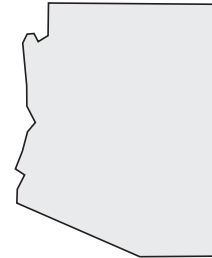
TOHONO O'ODHAM NATION DEPARTMENT OF HUMAN SERVICES
SELLS, AZ

CONTACT:

TOHONO O'ODHAM NATION DEPARTMENT OF HUMAN SERVICES
P.O. BOX 815
SELLS, AZ 85634

year, with a projected revenue of more than $2 million annually in the next few years. This revenue will enable the network to sustain itself.

The TODHS Internet server and Web site (www.todhs.com) allowed clinicians, caseworkers, and management to access patient or network information and reports through the Internet. The Web site also provided Nation members and staff with a means to access information on department services, a calendar of events, health information, and a directory of network services.

Lessons Learned

The network experienced significant difficulty recruiting staff to serve in an extremely rural area. Most applicants were not willing to travel 65 to 150 miles for a limited salary. Other communities hoping to establish a similar network should be prepared to offer potential staff a competitive salary and excellent benefits at the time the program is implemented. This may be a significant challenge for tribal organizations, which are typically underresourced and lack the modern equipment needed to run a business that must survive in a technology-driven health care environment.

In addition to recruiting staff, other challenges can inhibit network implementation. Internal accounting, grant, and contract procedures can easily delay project implementation and shorten the amount of time during which grant funds may be expended. Likewise, it is critically important that network providers are truly able to execute the network plan as soon as funding is received.

After the Grant

Thanks to the network's third-party billing capacity, the project has already achieved its goal of being self-sustaining. TODHS is currently considering ways to expand its more than 40 health and human services programs—one of which is to apply for a Federal Office of Rural Health Policy Outreach Grant. TODHS executives recently approved the formation of an Information and Technology Systems department that consists of technical computer staff. TODHS staff have received training on how to use their computers and all computer applications.

Meanwhile, the Tohono O'odham Nation is one of the few Indian Tribes in the United States to have an integrated, managed health care plan and a computerized automated medical system.

Target Service Area

The Redwood Coast Medical Service Network was established to serve several communities located along the isolated coastal areas of northern Sonoma and southern Mendocino counties in northern California. This 70-mile stretch of coast includes the communities of Fort Ross, Timber Cove, Salt Point, Stewart's Point, The Sea Ranch, Gualala, Anchor Bay, Point Arena, Manchester, Irish Beach, and Elk. Residents are also scattered in the inland communities of Cazadero and Annapolis. All of these communities are 60 to 105 miles southwest of Ukiah, the Mendocino County seat, and 70 to 115 miles northwest of Santa Rosa, the Sonoma County seat. Many essential health care services are only available in Ukiah and Santa Rosa—and only accessible by dangerous, winding roads for those who have reliable transportation. The target service area is a designated primary care health professional shortage area, and Mendocino County is a designated medically underserved area.

Given the limited availability and accessibility of primary health care services, many residents relied upon emergency rooms as their primary source of health care. This problem was magnified by several local factors including low population density, difficult geographic terrain, poor transportation infrastructure, high unemployment, low income, limited health care coverage, inefficient communication systems for emergency medical services, lack of a uniform data system to identify community needs, lack of social and mental health services, and lack of coordination with area hospitals.

Network Objectives

The primary purpose of the Redwood Coast Medical Services Network was to address the need for improved access to urgent and emergency medical care services as critical components of the primary care continuum available to residents living in the service area. Original network partners included Redwood Coast Medical Services, a nonprofit, Federally qualified health center; Coast Life Support District, the local emergency medical services agency; and Mendocino Coast District Hospital, a local rural hospital. In the second year of the project, Santa Rosa Memorial Hospital, a large urban trauma center, joined the network.

CALIFORNIA

REDWOOD COAST MEDICAL SERVICE NETWORK
GUALALA, CA

CONTACT:

THOMAS BERTOLLI
BOX 1100
GUALALA, CA 95445
(707) 884-4005

The network partners focused their efforts on building an emergency medical services infrastructure. To achieve this goal, the network established a formal organizational structure for the network; expanded the formal participation of other service providers, Healthy Community partners, and local residents in the planning and implementation of network activities; established outcome measures for the network and enhanced its capacity to track outcome data; developed the capability to operate in a managed care environment; and worked to reduce cultural and linguistic barriers to essential health care services.

Network Innovations and Results

The network achieved all of its original objectives. The Services Development Committee, which includes representatives from each network member, serves as the formal management committee for the network. One of the initial responsibilities of the committee was to develop joint in-service programs for both Redwood Coast Medical Services and the Coast Life Support District. Many of these programs were implemented in the third year of the grant, including telemedicine training, advanced cardiac life support, and pediatric advanced life support classes. The Committee also oversees the network's Continuous Quality Improvement Program and is establishing network policies and procedures for the telemedicine program.

Another objective for the network was the integration of pertinent patient information, which enables the network to accurately assess clients' afterhours urgent care needs. As a result of an internal "reengineering" process, significant progress has also been made in improving the quality of patients' visits and increasing overall patient satisfaction.

In Year 3 of the grant, the project saw increased participation in the Community Health Services of Mendocino County network. This network of six community health centers implemented an enterprise-based practice management/patient information system for all six centers. In November 1999, other local ambulance agencies joined the network, and since then, the project has been working to expand its model of integrating emergency and community health center services. The network also secured funding for the local Action Network which consists of representatives from the five local school districts, ESCAPES (a local domestic abuse prevention group), the Violence Prevention Initiative, and several other small agencies. The Action Network is committed to assessing local health issues and developing health improvement strategies that are responsive to community needs.

The project took several steps to promote community involvement in the network. During the grant period, the Healthy Community Council sponsored three community health fairs to educate residents about resources in the

community and to provide health screenings and immunizations. More than 600 people participated in the fairs. The Council also played a key role in developing a dental program for the network.

The project sponsored a weekly radio show, "Pulse of the Community." Program topics have focused on appropriate use of the 911 system, diabetes education, home health services, and hospice care. In addition, the network opened an integrated service office to increase access to mental health services, drug and alcohol counseling, community health education, and social services. A bilingual eligibility worker also assists residents with MediCal enrollment.

Another important accomplishment was the project's telehealth and telemedicine program. While the initial focus of the program was to provide access to emergency room specialists, the equipment was primarily used for increasing access to other specialized services, including audiology, orthopedics, cardiology, and gastroenterology. Low-income and uninsured patients in particular seemed to benefit most from these services.

During each year of the program, the network has published and distributed to the community a report on the afterhours urgent care service program. A cumulative summary indicates that 72 percent of the users were local residents. The vast majority of users were treated locally, with only 6.5 percent needing followup care at a hospital.

The number of Hispanic and non-English-speaking patients receiving health care services through the network increased from 7 percent in 1996 to 15 percent in 1999. The addition of bilingual receptionists, eligibility workers, and providers played a major role in increasing access to health care for this population. In January 2000, the Mendocino County Department of Public Health began providing Women with Infant Children (WIC) services at the network resource center, which made it significantly easier for low income and Hispanic residents who were unable to travel 15 miles for such services. In addition, videoconferencing made it possible for network partners to offer patient education services remotely. For example, a diabetes educator at the hospital was able to provide health education to patients living 2 hours away.

Lessons Learned

Recruiting experienced staff to serve in isolated rural areas is virtually impossible. As a result, many will rural communities will find it necessary to hire people with no experience and train them, which can be a long, arduous, and costly process. Lack of transportation also is a major challenge. While the Action Network provided a large number of volunteer drivers for the network, the number of available drivers is not sufficient for the number of people needing transportation to health care services.

Implementing the telemedicine program also proved to be a major challenge. Because of some failed managed care experiences in Santa Rosa, many specialist providers moved out of the area. As a result, there is currently a two- to three-month waiting list for certain specialties. In addition, few third-party payers reimburse for telemedicine services.

To address these and other challenges, open and honest communication among network partners is critical. Honest communication breeds trust, and trust between partners is essential if the network is to survive.

After the Grant

All network partners have agreed to continue their participation in the network beyond the grant period. The project continues to sponsor the weekly radio program. The network also is considering expanding the telehealth/telemedicine program to include dermatology and psychiatry. In the coming years, the network will focus its efforts on expanding the network—both vertically and horizontally—to include other health care providers and to include additional community health centers and providers in network activities. The network also plans to shift its focus from urgent and emergent care to primary and preventive care. The network's participation in the national diabetes collaborative is a good first step toward achieving this goal for the future.

Target Service Area

The Northern Sierra Rural Health Network (NSRHN) service area covered 27,122 square miles, consisting of eight rural counties in the northeastern corner of California. More than 163,000 people live in the region, which is characterized by small, isolated towns and villages separated by hundreds of miles of two-lane highways. The Sierra Nevada and Trinity Alps mountain ranges cover most of the region, giving the area a rugged, frontier feeling.

The health care system in the region consists primarily of rural hospitals and primary care clinics that independently provide care to patients, regardless of their ability to pay for services. Prior to the network development grant, these hospitals and clinics typically referred patients to specialty providers located hundreds of miles away—often in another State.

Network Objectives

The NSRHN was created to promote the health and well-being of northeastern California residents, regardless of their ability to pay, by increasing access to care, better coordinating services, and improving the quality of care. The main challenges that the project sought to address included concerns about the impact of managed care on fragile rural health care delivery systems; lack of access to locally available specialty care; the outmigration of primary care patients to urban areas; fragmented health care delivery systems; and the lack of access to advanced technology. To overcome these barriers, the network planned to:

- expand its membership to reflect a broader range of private providers and community representatives

- develop an organizational and management infrastructure that would enable local providers to participate effectively in managed care and recapture local health care dollars

- enroll residents in managed care plans that would enable local providers to treat those residents

CALIFORNIA

NORTHERN SIERRA RURAL HEALTH NETWORK
NEVADA CITY, CA

CONTACT:

700 ZION STREET, SUITE E
NEVADA CITY, CA 95959

- establish formal agreements with regional care partners to improve access to specialty and tertiary services for underserved patients

- develop an Intranet system that would enable network members to exchange patient information and better coordinate services among providers and managed care plans in a cost-effective way

- develop a regional care management system that would enable providers to manage risk by providing clinically appropriate, cost-effective care

- strengthen provider linkages with existing community wellness projects so that health promotion and disease prevention programs could be better integrated into the delivery of health care services

- identify and implement strategies to monitor health status

- develop free and low cost health promotion services to reduce the incidence of preventable morbidity

Network Innovations and Results

The NSRHN regards the development of a regional telemedicine system as its most significant accomplishment. The system links 21 rural hospitals and clinics with specialty centers throughout California and is being used to conduct specialty health care consults, continuing medical education courses, and network meetings. While many local physicians remain unfamiliar with this new service delivery method and have been difficult to engage, the network is exploring a new opportunity to collaborate with the regional emergency medical services provider so they can use the system for EMT and paramedic training. It is also working with county mental health directors so they can provide mental health services via telemedicine technology. The network recently received funding to manage a regional disease management project that will train regional providers on how to use data to develop population-based health interventions.

Another major accomplishment was strengthening the network itself. Prior to receiving the network development grant, the network had 14 members and operated in 4 counties. Currently, the network consists of 46 organizations and individuals, and serves 8 counties. The network's membership includes 100 percent of the primary care clinics, 70 percent of the hospitals, and 75 percent of the public health departments in the region. It also includes four private physician groups and five other health care providers. The network now operates a Web site (www.nsrhn.org) that provides an overview of the area and describes the

network's activities. As a result of this expansion, the network's annual budget increased from $133,000 to $660,000, and it has been able to maintain its core staffing infrastructure.

The network developed a managed care business plan and established a structure that enabled providers to contract with the network to share risk and negotiate managed care contracts. To date, 12 providers have signed Participating Provider Agreements with the NSRHN. However, by 1999, most managed care plans had pulled out of the region, so the network shifted its strategy to address other health care priorities.

Lessons Learned

The network learned four critical lessons throughout the course of the project. First, it is critical for a large network to start with concise goals and a clear mission—and to be prepared to change strategies midcourse. For example, the NSRHN originally intended to increase access to primary care by increasing the capacity of local providers to work in managed care systems. Instead, the goal was accomplished through telemedicine technology and expanding the network's membership. Second, strong and flexible partnerships enable organizations to obtain access to resources that otherwise would not be available to them independently. Separately, small organizations have no power. Together, they are able to leverage their resources through economies of scale. Third, local networks must make an effort to remain visible to policymakers and funders that may be hundreds of miles away. Rural networks in other communities may want to consider being actively involved in regional and statewide activities to ensure that the needs of rural areas and rural providers are not forgotten. And fourth, other rural communities should recognize that many of the challenges facing providers and patients are systems and require solutions that are far beyond the ability of local organizations to address. For example, as the number of uninsured residents continues to pose a serious challenge to the rural safety net, rural providers have limited ability to reduce the ranks of the uninsured.

After the Grant

The NSRHN will continue to rely on grant funding to develop projects and to provide for the network's core operating support. Over the next few years, the network will focus much of its energy and resources on expanding utilization of the regional telemedicine system, managing a regional MIS project, enhancing regional mental health services, and maintaining the regional infrastructure so it can be used as a tool to attract investment from public and private funders.

Target Service Area

The Roaring Fork Valley Community Health Plan (RFVCHP) targeted four rural Colorado counties. The local economy is recreation-based, so most residents, including a large and growing Hispanic population, work in service industry jobs at relatively low pay. The dramatic decline in the number of insurers in the area led to an uninsured and underinsured population that exacted a high indigent cost to community hospitals and often resulted in uncollectible charges to medical providers.

The local health care system also had its share of problems. While 120 physicians had practices in the area, the three local hospitals and two independent physicians association competed with one another for local service dollars and were not in the habit of communicating with one another, coordinating their activities, or sharing resources, which led to significant gaps in medical care. A large percentage of local medical dollars were being lost to the Denver metropolitan area, where many residents went for health care. This put a severe financial strain on local hospitals and provider groups.

Network Objectives

The RFVCHP was formed as a nonprofit, cooperative, community-owned health plan that incorporated a unique governance structure. The 12-member board included 6 members from the medical community and 6 members from local businesses and the community. The project established five developmental goals for the network: 1) offer quality health care, insurance, and health education to all community members at an affordable cost; 2) cooperatively represent all local stakeholders—including employers, providers, and consumers—to ensure local ownership and control of the system; 3) design their own plan, resource allocations, and a preferred network of providers and specialists; 4) keep as many health care dollars in the community as possible; and 5) maintain responsibility for health and prevention programming at the community level.

Given the extremely limited insurance options in the region, the network's first order of business was to develop a community health plan that offered medical products and services at

COLORADO

ROARING FORK VALLEY COMMUNITY HEALTH PLAN
CABONDALE, CO

CONTACT:

WILLIAM HANISCH
c/o ASPEN VALLEY HOSPITAL
315 OAKRUN ROAD
CABONDALE, CO 81623-2802
970-963-8044

competitive prices and to conduct health care management and utilization review within the network to ensure the quality and availability of services.

Network Innovations and Results

The unique governance structure for the network provided an effective means to ensure that the medical community, local business, consumers, and other constituencies felt a sense of ownership of the project. This structure also provided a community forum for achieving consensus on community health priorities and discussion of future directions for the network.

This structure enabled the network to outline a clear agenda for the project. That agenda resulted in several important accomplishments. For example, the network:

- negotiated tertiary contracts, based on the referral patterns of local medical providers, to ensure a cost-effective process for all out-of-valley referrals that included ongoing case management

- implemented a series of office technology upgrades so that network members could access clinical protocols and integrate medical management systems and patient information in a more efficient and cost-effective manner

- established a funding structure that would help the network remain self-sustaining and pursue new opportunities for development and growth

The network also experienced its share of challenges. Given the fact that many of the network partners had a long history of competition, it was difficult to cultivate trust among the partners. The fee negotiation process in particular took much longer than originally anticipated. At the end of the process, it was necessary to reestablish trust among the network members.

The region's large supply of doctors also presented a serious challenge for the network. Some employers questioned the network's medical management procedures, clinical practices, and the subsequent costs, and whether these practices and costs were reasonable and medically appropriate. To address this concern, the network reassessed its clinical protocols and enhanced its communication with the provider community to achieve consistency and safeguard quality. While progress was certainly made, additional efforts are needed to address the concerns of employers and to increase collaboration with the area's large number of physicians.

Lessons Learned

Some of the most important lessons learned by the RFVCHP include the following:

- In taking on such an important and ambitious endeavor, it is critical that similar networks create an implementation plan that delineates scheduled time frames and clearly identifies which members are responsible for which tasks.

- Representatives of member organizations who participate in network meetings need to communicate the network's progress to other staff within their organization and ensure that they and other staff follow through on assigned tasks.

- Other networks may want to establish an executive committee that is given the responsibility and authority to make key network decisions and provide timely approvals.

- Many medical professionals view change, especially changes in administrative and organizational procedures, as a "hassle." Frequent and open communication is perhaps the best way to keep providers informed of the changes that are being considered and to afford them an opportunity to participate in discussions and share their concerns.

- The network implementation plan should clearly identify a process for regularly reviewing network activities and executing improvement efforts.

- Most importantly, individuals and organizations involved in the network need to be patient. Progress is rarely a rapid and obstacle-free process. It is critical that network members take the time to recognize and celebrate the project's accomplishments.

After the Grant

The network is currently implementing a strategic planning process to update, refocus, and prioritize future efforts. Some of the key opportunities identified thus far include developing a range of full insured insurance products for small employer groups that are consistent with the goals and objectives of the network and using information technology to enhance administrative efficiency and improve patient outcomes.

Target Service Area

Park County, Colorado is a large, sparsely populated county in the central mountainous region of Colorado. It spans 2,200 square miles and is home to 14,290 residents. Park County is also one of the fastest growing counties in the State, growing 8 percent each year compared to the 2.6 percent State average. In spite of this rapid growth, mountain passes separate the county into three separate geographic areas, making it impractical for residents to seek health care services in another part of the county, especially during winter.

Prior to the network development grant, there were only two primary care clinics in the county, both of which were located in Fairplay (on the western edge of the county) and were staffed by nurse practitioners. One physician works part-time at one of the clinics. The Bailey community, located on the eastern edge of the county had three-fourths of the county's population but no health care facilities. While each geographic area in the county had emergency services, public health services were extremely limited. And while there were two dentists in the county and several mental health workers, the county offered no hospitals, nursing homes, home health care agencies, or assisted living facilities.

In Fall 1998, the network conducted a countywide market analysis that encompassed current and future health service needs, health insurance status, the relationship between an individual's health insurance and where he or she seeks health care, and residents' perception of available health care services. The analysis revealed that only 19 percent of Fairplay area residents used local health care services, while the remainder typically traveled 24 to 80 miles for services. In Bailey, where no health care services were available, residents had to travel 15 to 45 miles for care. However, the analysis also showed that, if a high-quality clinic was established in the community, 60 percent indicated they would use it, and 22 percent indicated that they would consider it. In addition, 87 percent of Park County residents said they had individual and/or family insurance coverage, a fact that convinced the network not to pursue a community insurance plan.

COLORADO

HEALTH CARE NETWORK OF PARK COUNTY, COLORADO
FAIRPLAY, CO

CONTACT:

ROCKY MOUNTAIN RURAL HEALTH, INC.
P.O. BOX 1600
824 CASTELLO AVENUE
FAIRPLAY, CO 80440

Network Objectives

The network, which consisted of 10 members, was designed to achieve 4 overarching objectives: 1) to better coordinate health are services; 2) to increase access to health care; 3) to reduce the cost of health care in Park County and border communities in contiguous counties; and 4) to improve the quality of health care services. When health resources are as limited as they were in Park County, it is vital that all organizations work together to share information, avoid duplication, and make the most of the resources that are available. In addition, several factors increase the vulnerability of rural providers, such as the high cost of administrative expenses, the impact of urban providers seeking to attract rural patients, the high percentage of uninsured and underinsured residents, and slow reimbursements that inhibit cash flow.

Network Innovations and Results

Six projects were launched during the grant cycle. First, since there were no health care services available in the Bailey community, the network established a school-based health center in Bailey, which was a collaborative effort of the network, the school district, Rocky Mountain Youth (an urban provider of pediatric services), and a local physician group that contracted with Rocky Mountain Youth to provide services at significantly reduced fees. In two years, the center succeeded in enrolling 25 percent of the student population. Some 250 children were served in 321 acute care encounters, and 31 children received 220 units of mental health services. A full-time health paraprofessional, located at the high school and middle school, provided health screenings to 382 students, provided 2,750 units of first aid, reviewed student immunization records, and dispensed medications.

A tremendous amount of staff and volunteer time and financial resources has been dedicated to establishing a family health center in Bailey. The network hopes to create a high-quality, nonprofit health center that will serve all community residents regardless of their ability to pay. A consultant has been hired to develop a financially viable business plan for establishing a center that accepts most insurance carriers, offers a variety of services, and provides space for ancillary health services. A site for the center has been identified, and building plans are underway.

The network also used grant funds to strengthen the Silverheels Health Center in Fairplay. The center had operated on a shoestring budget for so long that it didn't have the modern equipment necessary to provide adequate care. Grant funds were used to purchase an x-ray machine, other medical equipment, and technology that allowed the center to communicate with the main office in

Colorado Springs. The network also provided an additional day of physician time so the clinic could serve more patients. In 1998, the clinic served 2,389 more patients than in 1997.

Other programs implemented by the network included a volunteer transportation service; a comprehensive health education curriculum for elementary, middle, and high school students; a "Parents as Teachers" program in the Fairplay area, which is built on the philosophy that parents are their children's best teachers; a grant resource center that contains information on appropriate funders, how to write grants, and basic data on Park County health concerns; and enhanced mental health services in local schools.

Lessons Learned

Other communities that are hoping to establish a similar network are hopeful they will find that there are many organizations and individuals willing to participate in such an effort. Whenever possible, new networks should capitalize on existing community resources and avoid reinventing the wheel. It also may be necessary to pay for expert assistance when it is needed.

Community support can be a powerful tool, so other networks should make an effort to involve local community leaders in their project. However, progress takes time, so it is important to celebrate accomplishments as they occur and to try new ideas—even if it means experiencing a taste of failure from time to time.

Another important lesson is the value of data. Many organizations and individuals do not immediately understand the need to collect and track data. As a result, additional efforts may be needed to educate network members on how data often translates into a better understanding of community needs and enables networks and organizations to justify funding requests.

After the Grant

Network members are committed to sustaining the network, and projects started under the Network Development grant will continue.   The Board of Directors of Rocky Mountain Rural Health met with a consultant to plan future funding streams for network activities.

Target Service Area

The Community Health Council was established to serve a rural, seven-county area in Kansas characterized by farms, ranch lands, lakes, and rolling hills. Spanning 5,022 square miles, the target service area is roughly equal to the size of Connecticut. The major difference, however, is that the region is home to only 150,000 residents. The counties have a unique population and economic profile. For example, Kansas State University and the state's highly valued agricultural extension service are located in Riley County. About 82 percent of the county's population is White, young, and well-educated, yet nearly 25 percent live at or below the poverty level, which ranks the county 99th of 105 Kansas counties in per capita income. Pottawatomie County's 1 percent annual growth is higher than surrounding communities. Geary County is the region's most ethnically diverse county, with 23 percent of its residents being African American and more than 10 percent being Hispanic, Asian, or American Indian. Clay, Marshall, Wabaunsee, and Washington counties are sparsely populated, with 98 percent of their residents being White and having slightly higher income levels. Since 1990, this four-county area has lost nearly 10 percent of its population, and nearly 25 percent of the area's residents are aged 65 and older.

Network Objectives

In 1991, a group of citizens in Riley County formed the Community Health Council to better understand and respond to the health needs of the community. The council includes private and public health professionals, hospital representatives, business leaders, employers, representatives of local government, the public school district, Kansas State University, and other members of the community. The council's vision was to create a consumer-focused, integrated, seamless continuum of care that increased access to care and improved the overall health of the community. Other long-term goals included increasing cooperation among providers; promoting an open communication network among providers, funding entities, and users of services that offered a more efficient means to assess community health needs, engage in community planning, and enhance the effectiveness of service delivery; and linking information systems among providers to facilitate referrals and improve the quality of care.

KANSAS

COMMUNITY HEALTH COUNCIL
MANHATTAN, KS

CONTACT:

GAIL M. URBAN, MBA
EXECUTIVE DIRECTOR
COMMUNITY HEALTH COUNCIL
1133 COLLEGE AVENUE, SUITE 100
MANHATTAN, KS 66502
785-539-1610

In its network development grant application, the council outlined five elements in its network plan: 1) continuing the council as a leader in developing a consumer-focused, integrated health system; 2) gathering information about local health care to guide decisionmaking, to identify local needs and priorities, and to provide a baseline for comparing future health care data; 3) increasing efficiency, communication, and integration by using emerging technologies; 4) enhancing community collaboration and cooperation; and 5) assuming responsibility for providing quality health care to all members of the community, including those who are uninsured, underinsured, or need assistance.

Network Innovations and Results

The council's accomplishments could be categorized in four major areas: 1) increasing access to health care, 2) measuring health status, 3) making better use of technology, 4) and enhancing provider support and workforce development.

In October 2000, small companies with 2 to 50 employees in Riley County and the surrounding area began participating in a health insurance purchasing cooperative that would improve employee access to health insurance and stabilize insurance costs while increasing their benefit options. Employees who work 30 hours per week and are not covered by another health plan may select one of two Health Choice options. At least 75 percent of eligible employees must participate, and businesses must contribute at least 50 percent of the insurance premium for the lower cost option for single individuals. The annual access fee ($150) is waived for companies that belong to the Manhattan Area Chamber of Commerce. Health Choice is insured by a major, national insurance carrier licensed in Kansas.

Using funding from the network development grant, the council partnered with the local health department in updating a 1994 community needs assessment. Primary data were collected via a telephone survey of 500 households. Secondary data were obtained from state vital statistics, patient origin and destination studies, and utilization data from local providers. Results of the updated needs assessment were outlined for community and health care leaders in a community health forum. As a result of the forum, the council elected to focus on three primary issues of concern—tobacco use, physical activity, and health-related communication. The council assumed leadership for addressing the health communication issue by participating in a regional health Web site. Kansas State University provided a Community Service Summer 2000 Team to address tobacco use and physical activity by developing intervention plans and identifying and publicizing relevant community resources.

To capitalize on the advantages of new technology, the council became involved in a regional health Web site project. A collection of local Web sites linked at **www.kshealth.org** serve as a regional health care search engine for local health care resources, events, and news. The project also established an Intranet accessible only by members and council staff that would enable local health professionals to access and exchange information.

Finally, beginning in Fall 2000, the Manhattan Area Technical College, a member of the council, began offering courses in medical terminology and medical office reception skills. As the program grows, additional courses in medical billing, coding, and transcription will be offered. Courses are offered in the evenings and provide students with 30 contact hours per course.

Lessons Learned

The network established a set of fundamental principles crucial to the well-being of the council and the community it serves. These principles may be useful to other communities that are developing local health care networks. First, strengthening the health of the community must always remain the network's top priority. Second, all recommendations and changes in focus should be based on achieving the maximum benefit for the community served. Third, all recommendations should consider the most effective ways to manage costs and encourage increased revenues and new funding opportunities. And fourth, volunteer leadership and support, supplemented by a small nucleus of paid staff, is essential to meeting the network's goals and objectives. When grant opportunities occur, temporary staff should be contracted for the duration of the grant.

After the Grant

The Council is struggling with the challenge of securing the financial resources necessary to sustain itself and maintain a high-quality staff. Although the network will remain intact, continued development of the council will be slower and more difficult to achieve with a volunteer staff.

Target Service Area

Founded in 1998, the Northern Michigan Integrated Delivery System (NMIDS) targeted a 10-county, rural area where the driving economic force is the resort industry. The region offers numerous golf courses and ski resorts and is surrounded by the Great Lakes (Lake Michigan to the west, Lake Superior to the north, and Lake Huron to the east).

A community health assessment estimated that the area population in 1999 was more than 204,000. A large number of residents are snowbirds who vacation in their summer homes and cabins on the numerous lakes in the area while heading south during the winter months. Recent population growth in the region is largely attributed to young families and retirees who moved to the area from southern portions of the State, and that trend is expected to continue.

In terms of health care in the region, hospitals provide a "center of gravity" for all health care providers, while physicians and clinical staff deliver the vital services. Neither can exist without the other, so integration of services seemed a logical solution to addressing community health needs.

Network Objectives

The NMIDS is a regionwide network of four hospitals and one independent physician association that share the common mission of integrating service delivery systems, maintaining the highest level of health care quality possible, reducing costs, and making services accessible to all Northern Michigan communities.

Specifically, the network identified nine primary project goals: 1) to improve the health status of communities in the service area by developing more wellness programs; 2) to provide a seamless continuum of care across area providers; 3) to combine resources and patient volumes to support programs and services that individual members could not provide, or continue to provide, cost-effectively; 4) to contract with multiple payers to provide more health care coverage choices; 5) to improve care processes and outcomes by sharing patient information and clinical data; 6) to provide a good clinical mix of services; 7) to create a more cost-effective delivery system with better service levels, improved quality, better access, and greater geographic coverage than could have been accomplished individually; 8) to expand the network to

MICHIGAN
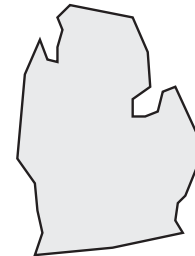
NORTHERN MICHIGAN INTEGRATED DELIVERY SYSTEM
GAYLORD, MI

CONTACT:

RUHINA F. TAHIR
EXECUTIVE DIRECTOR
NORTHERN MICHIGAN INTEGRATED DELIVERY SYSTEM
145 WEST MAIN STREET, SUITE 204
GAYLORD, MI 49735
517-705-7550

include schools, businesses, and other segment of the community—not just health care providers; and 9) to educate various groups about the unique challenges facing rural providers in northern Michigan.

Network Innovations and Results

Most network activities and accomplishments were the results of the efforts of five Work Action Committees, which focused on group purchasing, managed care contracting, physician credentialing, information systems, and quality/ utilization review. Each committee includes representatives from member organizations who offer expertise in these respective areas, and committees were encouraged to work together to achieve common goals. For example, the Group Purchasing Committee signed a contract with one of the nation's largest group purchasing organizations, which enabled members to achieve significant cost savings by consolidating the purchase of medical and surgical equipment, pharmaceuticals, food services, and other products. The Physician Credentialing Committee established a standardized credentialing process that was adopted by all network members. Physicians who want to obtain privileges at any network member hospital need only submit a single application and the necessary paperwork to one site.

The Managed Care Contracting Committee shared highly sensitive cost and reimbursement information (while honoring antitrust rules) so that providers could develop relationships with numerous payers and health plans, offer employers more health coverage choices, and reduce health care costs. The Quality/Utilization Review Committee took steps to help member hospitals increase quality of care, patient satisfaction, case management, and information sharing so they could benchmark their quality initiatives with other leading national health systems. Similarly, the Information Systems Committee initiated the process of electronically linking patient information so that clients could be seen in more than one facility without having to re-register over and over again.

Lessons Learned

At the end of the second year of the grant, half of the network board members expressed concern that the project was too costly and that the network was not achieving its goals. Some members indicated they were ready to drop out of the network. To address these concerns, the network held a strategic retreat during which these issues were discussed. Several major changes resulted.

To accomplish common goals in a true partnership is no easy task. It is common for fierce competition and fear of acquisition to impede progress in such relationships. However, the network was able to agree upon a common vision for

health care delivery in the region and to keep the health needs of residents foremost in mind. The fact that physicians and administrators worked together to achieve common objectives underscores the level of collaboration that occurred within the network.

After the Grant

Future efforts will focus on two key objectives—first, to continue celebrating the network's successes so that members are reminded that it makes good financial and strategic sense to continue to work collaboratively as a network, and second, to find ways to sustain the network by generating new revenue. For example, the physician credentialing process established by the network saves each hospital approximately $30,000 per year. Similarly, the contract signed with a national group purchasing organization should provide additional savings to hospitals and physicians by consolidating their purchasing procedures. These advantages provide at least some incentive for members to continue participating in the network. Additional revenue will be generated by collecting access fees from health plans and other independent physician associations for providing physician health plan credentialing services. Likewise, access fees are now part of the network's payor agreement and will be charged to health plans, managed care companies, or third party administrators who contract with the network.

Other efforts include implementing information systems that allow members to communicate with one another and share access to medical records; seeking additional contracts with major health plans to offer a broader range of choices to businesses and consumers; consolidating and tracking physician claims; and expanding the consolidating purchasing program to include area nursing homes, home health agencies, and other service providers.

Target Service Area

Michigan's Upper Peninsula is comprised of 15 rural counties scattered across 16,600 square miles. This isolated section of the northern Midwest is home to approximately 314,000 people, many of whom have traditionally lacked access to primary care and other health services. Some of the biggest barriers to health care include the distance between communities, an unstable regional economy, a harsh winter climate, and the inability to recruit and retain health care providers. At the time of the network development grant award, the Upper Peninsula lacked an efficient and uniform system of health care delivery, particularly in the area of specialty health care. The health care system was severely fragmented, limiting the ability of providers to offer patients effective and efficient health care.

Network Objectives

The grant was designed to create a network administrative team to oversee the daily operations of the Upper Peninsula Health Care Network (UPHCN) and to assist in the development of the newly created Upper Peninsula Integrated Health Network (UPIHN) through the coordination, implementation, and expansion of network services. The UPIHN would involve the integration of the UPHCN; Great Lakes Behavioral Health (GLBH), a consortium of mental health and substance abuse providers; and the Upper Peninsula Health Plan (UPHP), a limited liability company created to develop and maintain a managed care product. Together, all three partners in this vertically integrated network served the primary care and mental health needs of area residents.

The overarching goals of the project were to better coordinate the delivery of health care services and to reduce the cost of health care in the Upper Peninsula. These goals would be achieved by reconfiguring the relationship between UPHCN and GLBH; developing and expanding data networking services; increasing the efficiency and effectiveness of GLBH; providing regionwide coordination and communication among the participating video conferencing sites; offering a continuum of care through the UPHP, expanding group purchasing efforts; and examining the possibility of integrating voice, video, and data systems.

MICHIGAN
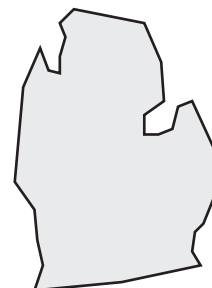
UPPER PENINSULA HEALTH CARE NETWORK, INC.
MARQUETTE, MI

CONTACT:

GERARD A. MESSANA
EXECUTIVE DIRECTOR
UPPER PENINSULA HEALTH CARE NETWORK, INC.
710 CHIPPEWA SQUARE, SUITE 206
MARQUETTE, MI 49855

33

Network Innovations and Results

The network's most significant accomplishment was the development of the network administrative team. Specific policies were implemented to strengthen the team's decision-making process. The team also established a formal budget, which enabled the team to control its expenses and identify potential sources of revenue.

The Information Systems Workgroup expanded the data network to include more users and applications. The main system is connected to the Blue Cross/ Blue Shield of Michigan HEART System and the Michigan Immunization Childhood Registry, making these tools accessible to all providers linked to the data network.

Another important accomplishment was realized when UPHCN filed for and was awarded a state Certificate of Need for mobile magnetic resonance imaging (MRI) services, which expanded the number of hospitals in the Upper Peninsula offering MRIs from 7 to 12. In addition, hospitals currently providing the service will save more than $600,000.

In terms of integrating services, perhaps the most noteworthy accomplishment of the network was the integration of behavioral health and primary care services. This reconfigured relationship has given the UPHCN Board of Trustees new opportunities to identify common needs and to collaborate in the delivery of services.

Lessons Learned

Other networks should seriously consider building an information system infrastructure early in the network's development. This was the first initiative implemented by the network after its formation, and it opened the door to a range of new opportunities. The Marquette General Health System, the regional referral center, assumed responsibility for supporting and maintaining the system. Today, there are more than 40 applications and services available to the more than 400 users connected to the system. Similarly, the telehealth network established by the project, an extensive video conferencing network made up of 25 Upper Peninsula sites, was used extensively for educational and administrative purposes. It also is being increasingly used for telemedicine, which allows for patient-to-physician and physician-to-physician consults.

Another important lesson was the importance of having leadership that can build consensus among the network members. UPHCN didn't have an executive director during the first two years of its existence. Prior to recruiting an executive director, the elected board president and other corporate offices handled all administrative expenses, so not much emphasis was placed on

cultivating the network or long-range planning. Other networks should consider filling a position of this nature, even if only on a part-time basis, early in the project's development so that someone can assume responsibility for coordinating activities and future planning.

After the Grant

The network is being sustained through the UPHCN group purchasing program and member dues. A consultant has been employed to assist in long-range planning and setting future goals. The network also is beginning the process of developing an employee health insurance program and a common credentialing program.

Target Service Area

The health care trends in Northeastern Minnesota mirror those occurring in other rural areas in the United States. An increasing number of people are seeking services, and local programs are being challenged to increase quality of care, to improve health outcomes, to develop accurate measures for success, and to do more with fewer financial resources. In rural northeastern Minnesota—where 23 hospitals, 66 clinics, 11 county public health agencies, 2 Indian Health Service programs, and 43 long-term care facilities are scattered across 20,316 square miles—health care systems are often understaffed, undercapitalized, and inefficient, with limited information capacity and inadequate technical and business expertise. With the advent of managed care in the region, local health care systems are assuming more accountability for increasing quality and reducing costs.

At the time of the grant award, there was an increasing understanding that telecommunications and information technology are important components of the solution to these challenges. Technology can make it significantly easier and more efficient to collect, retrieve, and analyze information, to track expenditures and patient outcomes, and to communicate with other systems. And while telecommunication linkages offer potential for provider and student distance learning, teleconferencing, and telemedicine, such technologies are extremely expensive and must be judiciously planned and financed.

Network Objectives

The Community Health Information Collaborative (CHIC) was created to achieve four key goals: 1) to plan and develop a regional health information infrastructure; 2) to expand opportunities for electronic linkages for rural health care providers and students; 3) to increase the use of existing information technology through education and shared technical support; and 4) to develop a regional Intranet to facilitate data sharing and online access to information resources.

MINNESOTA
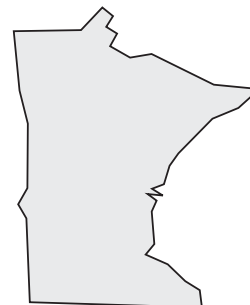
COMMUNITY HEALTH INFORMATION COLLABORATIVE
MOOSE LAKE, MN

CONTACT:

CHERYL STEPHENS
ASSOCIATE DIRECTOR
NORTHERN LAKES HEALTH CONSORTIUM
MERCY HOSPITAL AND HEALTHCARE CENTER
710 KENWOOD AVENUE
MOOSE LAKE, MN 55767

Network Innovations and Results

The network's most important accomplishment was the formation of CHIC in March 1999. The collaborative is composed of a diverse group of members who were committed to setting aside their competitive instincts so they could work together toward common goals. While the process of establishing trust between members took a considerable amount of time and energy, the results were well worth it.

Online medical information databases, MDConsult and Ovid, have been made available to two-thirds of the region's providers, and negotiations are underway to open access for the remaining one-third. The CHIC Board contracted with a local physician to provide training to network member providers and support staff on how to use computer technology in their day-to-day tasks, how to use Intranet-based medical databases, and teleconferencing solutions.

The network also launched the HealthKey Security Project at the Minnesota Health Data Institute. This pilot program will demonstrate how to develop and manage a Public Key Infrastructure for health care in Minnesota. One of the network's technology partners donated their time to help design and test the components of this new technology. The cornerstone of the project is a set of online, Internet-based servers that will offer users "keys" to a range of network information and services, such as digitally signing documents, which will offer the same protection under law as paper documents that carry a handwritten signature and open the door to a paperless health care environment in Minnesota. Another benefit will be the ability to encrypt documents so they can be securely and confidentially transmitted via the Internet.

The network also established a MedNet Connection, which gives CHIC members access to a telecommunications network that provides an efficient, reliable, and secure means for exchanging administrative, clinical, and analytical health care information statewide. Through MedNet, network members will be linked to the Mayo Clinic in southeastern Minnesota, the Twin Cities network, and the newly formed telecommunications network in northwestern Minnesota. Ultimately, MedNet will offer a statewide health care provider network with voice, video, and data transfer capabilities.

It should be noted that not all network members were comfortable with the idea of using computer technology or could not find affordable connections. Additional funding will be needed to help some rural providers and organizations connect to and use these technologies.

Lessons Learned

When organizations are accustomed to competing with one another rather than working together to accomplish mutual goals, establishing trust can be a difficult challenge. Trust cannot be forced on individuals, nor can it be given a defined completion date on a timeline. It is important to address this concern early on in the network development process and allow sufficient time for network members to trust one another.

Diversity of membership also can be a tremendous asset to such a project. In this case, the membership consisted of large health care systems, small rural hospitals, independent private practice clinics, public health agencies, Indian Health Service programs, and telecommunications companies. This diversity provided a source of energy and enthusiasm in project activities and problem solving.

After the Grant

The CHIC Board of Directors have agreed that membership dues will be necessary to sustain network activities. However, it will be critical to spread these fees equitably across the membership so that smaller, more rural sites do not find the fees cost-prohibitive.

Future goals for the project include: 1) implementing a sustainable, regional wide-bandwidth information network; 2) improving childhood immunization rates in the region; 3) reducing patient outmigration by enhancing the health care services available to residents; 4) increasing the accessibility and cost-effectiveness of services to citizens living in frontier areas of northeast Minnesota; and 5) making health care information more accessible to health care providers serving remote communities.

Target Service Area

The Minnesota Rural Health Cooperative (MRHC) was designed to establish a consortium of health care providers in rural west central and southwestern Minnesota, which spans 15,400 square miles. The total population of the 10-county area was estimated to be approximately 156,000 with 19 percent of the area's population consisting of people aged 65 years and older, and nearly 13 percent consisting of people living below the poverty level. Eight of the 10 counties were designated medically underserved areas.

Four major factors brought about the creation of the consortium in 1994. First, it was widely believed that managed care was destined to penetrate the market area to the same degree it had in the Minneapolis/St. Paul metropolitan area. Second, smaller clinics and hospitals in the area were having difficulty with health insurance carriers. Most were not being offered contracts, and those that were being offered contracts were unable to negotiate reasonable rates. Third, the demographics of the region were rapidly changing, increasing the number of patients who had low-reimbursing health care coverage. And fourth, the area was having trouble recruiting and retaining health care providers. Consortium members were concerned that patients in remote rural areas, many of whom were poor and elderly, would not be able to access local providers and would have to drive as far as 75 miles just to receive basic health care.

Network Objectives

To address these four overarching challenges, MRHC was created to achieve eight objectives: 1) to maintain local health care access for all area patients; 2) to sustain the economic viability of member organizations; 3) to develop a network of secondary services available to all residents, regardless of their insurance plan or lack thereof; 4) to launch cooperative quality improvement efforts; 5) to develop a business and education support system for consortium members; 6) to create cost-effective, cooperative communication tools; 7) to save costs by group purchasing via economies of scale; and 8) to establish accessible mental health services.

MINNESOTA
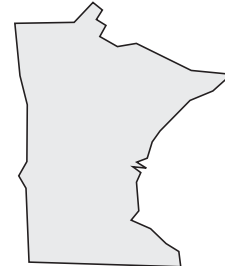
MINNESOTA RURAL HEALTH COOPERATIVE
WILMAR, MN

CONTACT:

SHARON ERICSON
BOX 104
WILMAR, MN 56201
320-231-3849

MRHC's membership included all of the region's hospitals, most of which were located in small towns. The hospitals offered a range of services, including acute and outpatient services, long-term care, and supportive health services in their communities. The consortium membership also included approximately 40 percent of the physicians in 13 counties. Physician members consisted of all the physicians in the area with the exception of one large clinic system that also employs the majority of the area's specialist providers. In all, the consortium included 50 family practice physicians, 28 nonfamily practice physicians, and 21 midlevel providers. Because of a quirk in Minnesota health care law, public health organizations were not permitted to be members of the consortium.

Network Innovations and Results

The network achieved several important accomplishments during the grant cycle. For example, the network manages all contracting for the member organizations—as one group. MRHC currently holds nine contracts. Some are risk-based contracts. Others are non-risk-based contracts. Most of these contracts would not have been available to the smaller organizations in the network, and the Co-op was able to negotiate far better reimbursement rates than members would have been able to negotiate on their own. The network also secures credentialing for all Co-op members, promotes the sharing of expertise between and among members, and implements a range of quality improvement, education, referral management/tracking, and joint purchasing programs.

Since one of the network members, a hospital/clinic/nursing home entity, had already completed its compliance program, it allowed other members to use its model as a guideline and provided them with a template they could adapt for their own facility's use. The project also created a Service Bureau for processing patient satisfaction surveys and a Cooperative Information Network Intranet that enabled members to inexpensively distribute information to members across a large geographic area. Eventually, the Intranet-based network—which functions as a virtual library that contains many documents, contracts, and manuals—will be replaced by an Internet-based communication system.

The most significant challenge encountered by the program was determining how to cover its operating expenses. After considering a range of options, the network decided that collecting dues from the member organizations would be the MRHC's primary source of funding. There was some concern that forcing members to either provide financial support or lose their membership could result in many organizations dropping out of the network. Often, organizations easily recognize their expenses without realizing the cost-savings or increased potential for income. However, the network ultimately decided that using a dues-based

structure would make the network more accountable to its members and that strong emphasis would be placed on demonstrating cost benefit to network members.

Lessons Learned

Network development takes a great deal of time. Other communities working to develop a health care network can increase their chances of success by taking a few simple, yet time-consuming, steps. Since physicians may often have powerful impact on a project—either positively or negatively—and since they are the real decision-makers regarding health care delivered in clinical, hospital, and public health organization settings, it is critical that they be actively involved in the network development process. It is also important to support frontline staff. By making their jobs easier, they will be more likely to work with the network rather than against it.

It is also important to keep network members actively engaged in the project. If one member organization does not attend meetings, the coordinating agency should visit its facility on a regular basis. Members need to be frequently reminded of the benefits that are available to them, as well as the cost-savings and services they receive from the network.

After the Grant

The network will continue to operate using a dues-based financing structure, and all of the network services established during the grant will be maintained or expanded in the coming years. Future efforts will include developing new educational programs that focus on changes in health care laws and researching the viability of expanding the Service Bureau to offer centralized referrals, billing services, medical transcription, and possibly an employed network of specialized health care providers (e.g., pharmacists, nurse anesthetists, and nonfamily practice specialty physicians).

Target Service Area

The network service area consists of 12 Mississippi counties that are among the most impoverished in the United States. The health status of the population is generally poor, with a severe lack of health care providers. When the network was formed in 1996, it consisted of entirely small, acute care hospitals. It was a horizontal network in the purest sense.

At the time of the grant award in 1997, Mississippi Medicaid was developing a pilot program as a preliminary move toward transitioning Medicaid to a managed care approach throughout the state. Medicaid was a major payor source for all of the hospitals involved in the network. Similarly, Medicare was developing a managed care approach through the creation of Provider Service Networks. While managed care was virtually nonexistent among the network hospitals, Medicare and Medicaid covered the vast majority of patients seen at network hospitals.

Network Objectives

The original purposes of the Delta Rural Health Network of Mississippi were to vertically integrate the network, to develop a management information system to prepare for managed care; and to establish pilot programs to fully integrate providers at the local hospital level and to develop an insurance product for the working poor. However, during the course of the 3-year grant cycle, the grant was modified to include the development of a Community Training Center (CTC) and to provide education and training services. Equipment was purchased for the development of the CTC, which is an American Heart Association-approved service to provide basic life support and advanced cardiac life support services.

Network Innovations and Results

To date, the Delta Rural Health Network has developed three local area networks in Humphreys, Attala, and Yazoo counties. These networks are community-based collaborations consisting of multiple provider types and other interested parties. For example, the Humphreys County Health Network (HCHN) involved 18 actively participating organizations, including hospitals, the health department, the mental health center, five primary health care clinics, three home health agencies, an optometrist, Family and

MISSISSIPPI

DELTA RURAL HEALTH NETWORK OF MISSISSIPPI, INC.
KOSCIUSKO, MS

CONTACT:

BEN BLOOM
P.O. BOX 1307
KOSCIUSKO, MS
800-587-0880

Children Services, the county extension service, the Area Agency on Aging, Head Start, and public and private school systems. All local physicians also participated in the HCHN. The network, which is guided by a three-member executive committee, identified four primary goals for the project: 1) to improve the health status of Humphreys County citizens; 2) to increase access to and coordination of local primary health services in the county; 3) to provide a more integrated health care system through increased communication and cooperation among local primary health care and social services providers; and 4) to monitor the health status of the population by the regular collection and analysis of county health care data. In 1998, the county network developed a Provider Referral Form, which was adopted for optional use in 1998, and implemented a 6th grade Hepatitis B vaccination program. In 1999, a *Health Care Provider Resource Manual* was developed and distributed to local health care providers, teachers, social service workers, and government offices. Shortly thereafter, the network developed Prenatal Packets that are now being distributed to all pregnant county residents. Currently, the network is focusing on outreach strategies to increase enrollment in the Children's Health Insurance Program (CHIP) and is the key member of the core planning team for the Kellogg Foundation Mid-South Delta Initiative Planning Grant that focuses on encouraging Humphreys County youth to enter health professions training.

Another major goal was to vertically integrate the network. This was accomplished by extending the services of the network's management services organization, Delta Health Solutions, to various hospitals and physician groups that were not members of the Delta Rural Health Network. To get physicians involved in the network, Delta Health Solutions offered physicians a range of training and collections services, group purchasing, recruitment, and Medicaid eligibility services.

The CTC enables the network to provide basic life support and advanced cardiac life support services to network participants. This allows staff at the network hospitals and other nonhospital participants to receive these services at the local level in a timely and cost-effective manner.

To help the network and its members operate effectively in a managed care environment, which was having a profound effect on the State's Medicare and Medicaid recipients, the network entered into an agreement with the Managed Care Services Group, a firm specializing in data collection and management. Data were transported to and from network hospitals and the Managed Care Services Group through the Internet. However, in 1999, the network ended its relationship with the Managed Care Services Group because the state terminated its pilot Medicare and Medicaid managed care programs, and the "threat" of managed care in the region was no longer evident.

Lessons Learned

Grant funding does not last forever. The Delta Rural Health Network recognized this, and from the beginning of the project, the network has been proactive in creating sustainable revenue sources. The network's two primary sources of revenue are membership dues and administrative fees generated through the management services organization's products and services. Other networks would do well to begin developing their sustainability plans as soon as funding is provided.

After the Grant

All of the network and management services established via network development grant funding will continue. In fact, these programs serve as a catalyst for the development of new projects and services. In the coming years, the network will focus on expanding its membership, increasing the services offered by Delta Health Solutions, pursuing new grant opportunities, exploring new telemedicine technologies, developing a hospital management service, establishing a charitable foundation, and increasing and enhancing the project-supported local health networks.

Target Service Area

The Northeastern Missouri Rural Health Network targeted an 11-county, 5,926 square mile region in rural northeastern Missouri where health care resources were severely limited and poverty was rampant. The vast majority of area residents, numbered at approximately 103,600, are White, with absolutely no urban center in close proximity. The population density is 17.5 persons per square mile, and more than half of the area's residents live in designated health professional shortage and/or medically underserved areas. The region's aging population accounts for 18.4 percent of the total population compared to 13.9 percent of the overall State population. The predominant source of income is agriculture.

Based on a review of existing local data, the most urgent needs in the area included emergency medical services; health promotion, health protection, and preventive services; and substance abuse prevention and counseling services. But because of the region's rural nature, great distances separate residents, many of whom lack health insurance, from the services they need. The few health care services and resources that are available in the region are typically fragmented, with many providers, agencies, and residents being completely unaware of the health care and social services offered in their communities.

Network Objectives

The Northeastern Missouri Rural Health Network identified two overarching goals for the project: 1) to establish and sustain an active network committed to coordinating and improving the quality of basic health care services for all rural residents in northeastern Missouri, especially the medically underserved, and 2) to enhance clinical education experiences for local medical and health professions students in the region by molding this vertically integrated health network system into a model rural teaching network. To achieve these goals, the project outlined six key objectives: 1) achieve full operational status of the network [Goal 1]; 2) develop and implement a comprehensive community health plan to address urgent health care needs [Goal 1]; 3) establish an interactive telecommunications system linking network member agencies, other health care and social service agencies, and consumers throughout the region [Goal 1]; 4)

MISSOURI
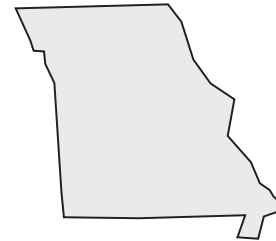
NORTHEASTERN MISSOURI RURAL HEALTH NETWORK
KIRKSVILLE, MO

CONTACT:

GAYLAH SUBLETTE
KIRKSVILLE COLLEGE OF OSTEOPATHIC MEDICINE
800 WEST JEFFERSON STREET
KIRKSVILLE, MO 63501

conduct a feasibility study for the development of a community health management information system for use by network members and other health care providers [Goal 1]; 5) plan and develop five additional clinical rotations in designated network agency settings to help third- and fourth-year medical students acquire experience in serving rural and underserved areas [Goal 2]; and 6) conduct nine educational presentations for medical and health professions students that focus on rural delivery systems and vertically integrated health care networks.

Network Innovations and Results

Four agencies were responsible for the initial start-up of the network—a large rural health system, a network of community health centers, an osteopathic medical school, and a nonprofit hospice outreach program. In 1999, three rural hospitals and four county health departments joined the network. In 2000, two more county health departments, four county ambulance districts, an Area Health Education Center network, and a 42-member Independent Practice Association became active members.

The network achieved nine major accomplishments. First, the network participated in the Northeast Missouri Healthy Communities Partnership needs assessment and an indepth market assessment. As a result of its participation, the network was able to prioritize a number of short- and long-term projects. Second, when the needs assessment revealed that many women in the area were receiving late or no prenatal care and that the region had an alarmingly high infant mortality rate, the network established the Prenatal Task Force to form linkages among area providers and to develop prenatal outreach clinics through county health departments. Seven counties participate in the task force. Third, in July 1999, the network led the planning and development of a 42-member independent practice association. The network also assisted in managed care contractual negotiations which focused on building a better relationship among area providers. Fourth, the network Board of Directors voted to assist three rural hospitals involved in the network with their application to achieve Critical Access Hospital designation to ensure that residents would continue to have access to vital health care services as long as possible. Fifth, the network capitalized on the expertise of its members by sponsoring a series of continuing education courses never before offered in the area, including advanced cardiac life support computer training, pediatric advanced life support, an emergency nurse pediatric course, a trauma nurse core course, and advanced cardiac life support. Sixth, the network collaborated with the Missouri Area Health Education Centers to identify and develop clinical training opportunities in rural and underserved areas. Clinical rotation sites include two area hospitals, one Federally Qualified

Community Health Center, two rural health clinics, and 15 private practice clinics. Seventh, the network joined the local ElderLynk consortium funded by the Office of Rural Health Policy Rural Health Outreach Grant Program that will focus on providing mental health services to elderly residents. Eighth, the network became a collaborative partner in establishing the Missouri Rural Community Access Program, which is seeking funding from the Health Resources and Services Administration to create a comprehensive safety net for uninsured and underinsured residents. The network played a major role in forging strong collaborative relationships among the region's health care providers and consumers. And ninth, the network was involved in a request for funding for the Missouri Rural Community Center of Excellence in Women's Health which would focus on addressing the health of area women from a lifespan perspective.

Lessons Learned

The network learned that good timing means everything. The time must be right for successful networking to occur—not only for the network members but also within the context of the local environment. Flexibility is also a must. Members and network leaders must be able to adapt quickly to change. Strategic plans may need to reevaluated from time to time so that project priorities are consistent with local needs and that resources are appropriately allocated.

The network also learned that trust is a powerful force that can either impede or promote progress. As trust between members develops and progress is achieved, networks will find that these accomplishments provide a tremendous source of momentum.

After the Grant

The network will continue to evaluate its direction and action plan on an ongoing basis. The network also has secured funding through a combination of partner contributions, membership fees, and revenue from community projects.

Target Service Area

The Rural Comprehensive Care Network was established to provide health care services to the residents of 15 rural counties in southeast Nebraska. These rural counties, which span 8,449 miles, are predominantly supported by agriculture. The population of counties in the service area range from 4,661 to 30,272 persons. According to 1997 U.S. Census estimates, there are approximately 186,642 residents—or 11.3 percent of Nebraska's total population—living in the target service area, 18.1 percent of whom are aged 65 and older and who are generally high users of health care services. About 11.4 percent of the population has an income below 100 percent of the Federal Poverty Level, and 37.8 percent have incomes between 100 and 199 percent of the poverty level. Nonelderly families and individuals with incomes less than 200 percent of poverty are the most likely to be uninsured. The number of Medicaid clients in southeast Nebraska increased by 26.3 percent between 1991 and 1994.

Communication and cooperation between area health care providers is fragmented. While there has generally been good communication related to patient services, fear of competition, mistrust, lack of resources, and time commitments have hindered the development of cooperative efforts between providers in neighboring counties. And with the advent of managed care in rural areas, area service providers and agencies recognized that they needed experience with a commercial managed care insurance product and a Medicaid insurance product so they could offer something similar for local Medicare beneficiaries.

Network Objectives

The Rural Comprehensive Care Network is a nonprofit organization whose original members included the South East Rural Physician Alliance, the Blue River Valley Health Care Network, and Community Access to Coordinated Healthcare. While these three organizations had worked together on health care delivery issues in the past, they formally established the network in October 1997 when they received the Network Development Grant.

The network identified six major goals: 1) to develop a formal organizational agreement between the three original members, to expand the Southeast Rural Integrated Health

NEBRASKA
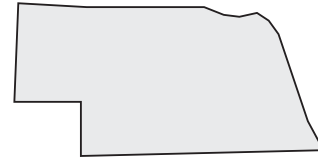
BUTLER COUNTY RURAL COMPREHENSIVE CARE NETWORK
CRETE, NE

CONTACT:

JOLENE TENHULZEN HUNEKE
EXECUTIVE DIRECTOR
BUTLER COUNTY HEALTH CARE CENTER
1331 LINDEN, SUITE 2
CRETE, NE 68333
402-826-3737

Organization to all rural counties in southeast Nebraska, and to integrate other area health care providers into the organization; 2) to offer a range of managed care products, including frameworks for rural managed care for Medicare beneficiaries; 3) to market the network to area providers, to recruit new members, and to develop a marketing plan for the commercial product; 4) to participate in local and regional health planning and development; 5) to improve communication and coordination of activities; and 6) to provide a range of educational and skill enhancement opportunities for network members.

Network Innovations and Results

For approximately 18 months, the network collaborated with the Nebraska Department of Health and Human Services on developing a pilot rural managed care project. A consultant assisted the network in developing a quality assurance and utilization management plan, a credentialing plan, a medical record and facility assessment plan, medical records documentation standards, facility assessment standards, and preventive guidelines for children, adolescents, and adults. A statewide rural group of networks conducted an actuarial study and benefit design for a Medicare Provider Sponsored Organization, but it was decided that the financial break-even point was too high a risk to continue pursuing the idea.

The network analyzed inpatient and outpatient hospital data to learn more about the outmigration of rural patients to urban settings. The analysis revealed that about 57 percent of revenues were being lost due to a 60 percent outmigration of patients, especially among those aged 18 to 65 years. The biggest revenue losses were occurring in general surgery, neurology, and obstetrics—most of which were available in the service area. A January 2000 telephone survey of residents showed that many area residents simply were not aware that many of these health care services were available in their own communities. To help keep revenues in the service area, the network conducted workshops for public relations staff from area hospitals and clinics to develop plans on how to slow patient outmigration.

Other accomplishments include developing a provider directory that lists all of the hospitals and physicians that are members of the network. The directory is available to clinics and hospitals to use as part of their marketing efforts. In August 2000, the network Web site—which includes Web pages for network physicians, clinics, and hospitals—made its debut.

Lessons Learned

Other networks should keep in mind that the health care arena is in a state of constant change. At the time that the Rural Comprehensive Care Network was established, managed care was beginning to enter the local health care market. Since then, however, managed care penetration has stalled. As a result, the network shifted its focus from preparing for managed care to reducing outmigration and working more closely with area businesses and industries on enhancing primary care and occupational safety and health services. The lesson here is that other communities need to be flexible and adaptable as the health care environment changes.

Another important lesson is that there is a natural conflict between certain groups of providers, as well as providers and administrators. In spite of this conflict, it is essential that they work together to address common concerns. While there is, and probably always will be, some degree of mistrust, the network can help promote communication as a means to establish trust.

After the Grant

The Rural Comprehensive Care Network will focus on four major areas. First, the network is developing a strategic plan to recapture 25 percent of the market share lost to outmigration. Second, the network is placing stronger emphasis on marketing its products and services through the Internet, newsletters, provider directories, and local news articles. Third, the network hopes to strengthen its efforts by expanding the membership of the network and by collaborating with other networks throughout the State. And fourth, the network is continuing to investigate the feasibility of pursuing managed care contracts.

Target Service Area

NEBRASKA

The Nebraska Panhandle is an 11-county region in western Nebraska that covers just under 15,000 square miles and is home to about 100,000 people. At the time that Western Plaines Community Health Services (WPCHS) was formed, there were nine acute care hospitals in the region, one of which was a rural referral center. Currently, there are five acute care hospitals and three critical access hospitals. Hospital personnel were alarmed by the large outmigration of patients from the region to area urban hospitals. However, physicians—most of whom were family practitioners—were not concerned about outmigration because they remained very busy and did not perceive a threat to their patient base.

Network Objectives

WPCHS was established to address a range of perceived problems with health care delivery in rural Nebraska, including provider recruitment and retention, organized service delivery, and patient outmigration. In addition, most providers and hospitals believed that managed care would play a major role in the future delivery of health care services in Nebraska, and they wanted to be in a position to influence plan design and medical management.

The vision of the WPCHS was to create a more organized health care delivery system controlled primarily by the region's health care providers and consumers. The project identified three major goals for the project: 1) to expand the network in both vertical and horizontal directions; 2) to develop a Medicaid managed care program; and 3) to collect and evaluate regional health information to track the impact of managed care on the health status of area residents.

Network Innovations and Results

The network achieved several accomplishments that reflected significant progress toward meeting its original goals. For example, the network:

- developed and implemented a managed care plan for western Nebraska through a partnership with a major national health care carrier;
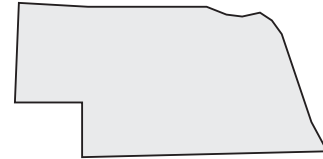
WESTERN PLAINES COMMUNITY HEALTH SERVICES
SCOTTSBLUFF, NE

CONTACT:

STEVE HETZEL
EXECUTIVE DIRECTOR
WESTERN PLAINES COMMUNITY HEALTH SERVICES
302 WEST 27TH STREET
SCOTTSBLUFF, NE 69361
308-635-2260

- obtained a letter of agreement from the State of Nebraska to develop a Medicaid managed care program;

- expanded the network vertically through including mental health providers on the Board of Directors and establishing contracts with other providers, such as tertiary care hospitals and rehabilitation centers;

- expanded the network horizontally by increasing the number of network physician members by about 40 percent and executing network-to-network agreements with several other provider networks;

- cooperatively evaluated Medicare managed care options with other rural Nebraska networks

- demonstrated that rural provider groups, acting in concert, could have substantial influence when contracting with larger urban providers; and

- initiated a data collection process for the network's health information system.

As progress occurred, the network also encountered several challenges. For example, the small market size of the service area more or less dictated that the network partner with an established insurance company so that it could offer a strong and viable product to area businesses and consumers. However, the company selected offered limited insight into rural health care issues, which resulted in several difficulties in implementing a medical management program that was suitable for both the marketplace and the insurance company's policies and procedures. For example, the insurance company did not understand how having no excess of providers in the area limited the network's ability to use traditional incentives to modify provider behavior. Also, it did not recognize the difficulty in getting single-hospital communities to reduce prices and implement other policies to compete for patients.

At the time that the grant application was submitted, the State of Nebraska had expressed a strong interest in establishing contractual relationships with provider networks for Medicaid managed care plans. However, once the 1998 gubernatorial election was over, the State had no interest whatsoever in pursuing this kind of arrangement. Similarly, when the Balanced Budget Act of 1997 was passed, Nebraska's rural health providers were enthusiastic about the opportunity to develop a cooperative approach to Medicare managed care. This, however, proved financially unfeasible. There was not enough money to offer additional benefits at a competitive premium, which eliminated the possibility of attracting

Medicare beneficiaries to the plan. In addition, the marketing costs believed to be necessary to attract Medicare beneficiaries to the plan (estimated at $400 to $1200 per beneficiary) were too high, eliminating the possibility for profit, even under unrealistically high market penetration predictions. Since managed care penetration did not occur to a significant degree, the network changed its focus from collecting managed care data to evaluating regional health care access patterns.

Lessons Learned

The network's experience yielded important lessons relevant to other rural networks. Before entering into an agreement with an insurance company, rural networks should assess their situation carefully, evaluate their partner's policies, and determine the amount of control they have over price, marketing, network composition, medical management, claims, and plan design. Another important lesson is to ensure that future survival of the network is not too dependent on agencies whose goals may dramatically change as a result of the next election.

After the Grant

Even after grant funding ends, the network will remain intact and will continue to offer member credentialing, member management, contract evaluation, and disease management programs. The managed care plan initially implemented is essentially defunct, since the insurance partner unilaterally raised premiums as much as 45 percent.

The network will continue to pursue relationships with other rural networks and will continue surveillance of future opportunities in Medicare managed care. When or if that becomes more attractive, efforts will be undertaken to establish a rural-based plan covering an area larger than the Nebraska Panhandle.

Target Service Area

Sullivan County, New Hampshire is located near the west central border of the State, separated from Vermont by the Connecticut River. Bordered by four other counties, Sullivan County stretches across 30 miles from north to south and 20 miles east to west. It is comprised of 15 towns, with a total county population of 38, 592 (based on 1990 U.S. Census data). Sullivan County ranks second in the State in the percent of individuals below 100 percent of poverty, which includes approximately 13 percent of the county's children. Nearly 64 percent of residents are at or below 200 percent of poverty. In 1990, the median family income in the county was $33,306, and the per capita income was $12,935.

Preliminary data from a household survey revealed that 19 percent of respondents with individuals living in the home aged less than 65 years had no private health insurance. Standard community health indicators showed that Sullivan County ranked poorly in birth rates for teenagers, the initiation of prenatal care, mortality rates for cervical cancer, and suicide rates among middle-aged adults.

Network Objectives

The purpose of Valley Regional Healthcare, Inc., was to create a healthier community and to reduce demand for health care by working in partnership with consumers to improve their health status and assist in increasing access to health care, decreasing health risks, and managing their health care expenditures. The network also sought to share best-practice information and standardized treatment packages, to develop the capacity to track patients at various points of service delivery, and to provide baseline data to measure the network's impact on the quality of care. Specific goals of the project were to develop an integrated community health database system accessible to network members, to establish an information system that links all health and behavioral health providers, and to implement an integrated behavioral health care management model to provide comprehensive, coordinated care to Sullivan County residents and the surrounding communities.

NEW HAMPSHIRE

VALLEY REGIONAL HEALTHCARE, INC.
CLAREMONT, NH

CONTACT:

JOYCE A. LEMIRE
VICE PRESIDENT FOR COMMUNITY AFFAIRS
243 ELM STREET
CLAREMONT, NH 03743-2099
603-542-3400

Network Innovations and Results

At the beginning of the grant period, network participants did not possess any of the information management systems technology required to function effectively in a network environment. However, during the grant cycle, an information management system was researched, developed, and implemented. The system offers the capacity to connect to remote sites and a wide range of providers who refer clients for health and behavioral health services. This approach enables providers to offer comprehensive care in a more efficient manner and exchange information with others across the network. Providers developed the capability to connect their information systems using multidirectional wireless antenna or Internet technologies, which avoided approximately $40,000 in direct hard wiring connection costs between individual sites. In addition, recruiting in-house staff to build the information network proved to be a less costly approach to outsourcing these functions, saving approximately $60,000 per year. The Valley Regional Web site, which was developed in collaboration with the Community Partnership Initiative, allows members of the community to view local news, health information, and recent developments at the Valley Regional Hospital (the grantee organization) and other network sites. The Web site also is linked to the Internet sites of local school districts and the Chamber of Commerce.

The network also developed a clinical database for health care providers. Diagnostic information is housed in a clinical repository, with behavioral health data stored separately. Regardless of which provider accesses the information and where he or she is located, data is accessed the same way. Behavioral health, primary care, and consulting clinicians enter data into a single system, and all information is available for immediate retrieval. This approach allows records to be maintained in a central location, which avoids delays in retrieving each client's medical history. All data and applications are protected by a firewall, which represents a major step forward in addressing the proposed data security requirements of the Health Insurance Portability and Accountability Act.

In terms of increasing access to and quality of care, Valley Regional Healthcare achieved several important accomplishments. Clinicians may access behavioral health information 24 hours a day, 7 days a week, which helps avoid delays in diagnosis and treatment planning. Other databases available to network members include a maternal and child health services database, which tracks expectant mothers from prenatal care through delivery and into postbirth visits; a surgical services database, which tracks individuals from the time they enter the surgical suite until they are discharged; a Partners in Health database, which produces tracking, utilization, and financial reports, and mailing lists for different types of patients; an emergency department log, which shows utilization by time

of day, day of week, length of visit, acuity, age, diagnosis, and insurance; a medical imaging database to track the current location of radiology studies and reduce the loss of medical imaging information; and a mammography database, which allows speedy retrieval of patients' medical records. In addition, the Department of Psychiatry at the Dartmouth Medical School, West Central Services, and Valley Regional Hospital joined forces to establish an outpatient clinic to focus on the needs of seniors. A geriatric psychiatrist staffs the clinic and receives referrals directly from network primary care providers.

Lessons Learned

Due to the complexity of the health care regulatory environment, what seemed to be a straightforward exchange of clinical information required 6 months of investigation, corporate approvals, and legal consultation. The initial investment in information technology solutions is costly. Most networks will find that it takes at least 6 months to recoup the initial investment. In addition, staff require extensive training in how to use the system appropriately and effectively.

After the Grant

Future plans for expanding the scope of the network and the services it offers include increasing the number of providers involved in the network; implementing hand-held voice recognition devices that allow transmission of progress notes over the Internet to the provider's office; making clinical information, coverage schedules, and clinical and financial data available on the Internet; and developing online continuing medical education programs.

Target Service Area

The North Country Health Consortium's service area was comprised of 33 New Hampshire towns, many of which are located in the White Mountain National Forest. The area is the most rural portion of New Hampshire, with a population density of 21 residents per square mile. Major population centers are more than 100 miles away. Of the 33 towns in the service area, 26 have populations under 2,000 people. Many communities retain close cultural ties to French Canadian ancestry and are characterized by a strong culture of self-reliance and isolation.

Northern New Hampshire is also characterized by lower household incomes, higher rates of uninsurance, and poorer health status in comparison to the rest of the State. The entire service area is designated as a Medically Underserved Population because of the lack of health care providers, long travel distances, high rates of poverty, and a large elderly population. The entire service area is also designated as a Mental Health Professional Shortage Area, with approximately half of the communities being designated as Dental Health Professional Shortage Areas. Unlike other parts of the State, the service area has experienced little population growth.

Network Objectives

The North Country Health Consortium (NCHC) was founded on the premise that many of the inherent challenges facing rural communities are best addressed through a collaborative, regional approach to health care planning and service delivery. Through regional collaboration, communities can support each other's local efforts, achieve economies of scale, become more likely to sustain services, and more effectively target resources to areas with the highest need. Initiatives were clearly needed to improve the infrastructure for supporting area health professionals, such as increasing access to modern means of telecommunication and continuing education services, improving the coordination of services for vulnerable populations, and increasing access to available and affordable care for the uninsured and underserved.

To address these concerns, NCHC member organizations implemented a range of activities to build a regional health care delivery system that provided a vehicle for collaborative planning, implementation, and evaluation of community-based disease

NEW HAMPSHIRE

NORTH COUNTRY HEALTH CONSORTIUM
LITTLETON, NH

CONTACT:

JONATHON STEWART
GENERAL MANAGER
NORTH COUNTRY RURAL HEALTH
CONSORTIUM, INC.
116 MOUNT EUSTIS ROAD
LITTLETON, NH 03561

prevention and health promotion activities; improved screening, referral, and coordination of patient care between agencies for residents with multiple or chronic service needs; increased capacity for community health status assessment and improved patient outcomes through state-of-the-art technologies for interagency data sharing and case management; offered training, continuing education, and management services for health professionals to encourage sustainability of the health care infrastructure; and developed coordinated responses to health care financing challenges that were sensitive to the stability of rural communities and economies.

Network Innovations and Results

As a result of the Network Development Grant, there are now 10 Northern New Hampshire health and human service organizations involved in the network, and consortium staff has grown from one staff person in 1998 to seven staff members in 2000. Consortium members include hospitals, community health centers, home health service agencies, mental health and developmental service agencies, social service providers, and substance abuse treatment agencies.

Together, the consortium members engaged in a variety of initiatives to improve the quality, coordination, and accessibility of services in the region. These initiatives can be organized into four categories—information technology, care coordination, management services, and community health services.

In the area of information technology, the network connected the local area networks of the four member organizations. Initial services included servers for e-mail and Intranet site hosting. Internet connectivity was soon added through a local Internet Service Provider. Additional servers were installed to supply newsgroup and calendar services. The North Country Health Information Network is now the largest secure Intranet north of Concord, New Hampshire. The network features are consistent with the anticipated regulations of the Health Insurance Portability and Accountability Act governing electronic security of patient information. In addition, the network hosts Web pages that offer both secure and public access to the NCHIN page (www.nchin.org), a resource directory, and links to several Internet-based health information resources, such as MDConsult.

To improve patient care coordination, the network assisted members in implementing systems to collect and share common intake, eligibility determination, care plan, and referral data. In addition, the consortium purchased proprietary software to support screening, referral, and case management functions. As a result, individuals will have access to comprehensive and uniform information on service options at multiple points in the service system. Likewise, service referrals or requests for information are immediately facilitated

and tracked through a secure Intranet, and caregivers from diverse agencies have the capacity, with client consent, to interactively collaborate on a shared care plan. Each member is required to adhere to a minimum set of policies government appropriate Internet/Intranet use, information security, and confidentiality.

The Consortium also provided member organizations with a range of management services. These included community health status and needs assessment, strategic planning and market research, program development and grant writing, practice management assistance, and professional continuing education.

Finally, the Consortium undertook several community health improvement efforts and was the area of greatest growth and collaborative success. These included founding the Northern New Hampshire Area Health Education Center; implementing Project North Country, a youth substance abuse prevention program; launching a clinical depression initiative; marketing and promoting the Children's Health Insurance Program; conducting public and professional diabetes education; and exploring the development of a community health plan, which will continue to be a top priority in the coming months.

Lessons Learned

The attention spent on the organization's structure and incorporation early in the network development process, while time-consuming, instilled a sense of permanence and legitimacy that established the network as a viable business enterprise. It increased awareness and visibility of the Consortium within and outside of the service area, which has created new business opportunities and enhanced prospects for sustainability. The practice of using lawyers and consultants for specific tasks played a major role in accomplishing the Consortium work plan and pushed the decisionmaking process in a way that wouldn't have been possible if the work had been done by committee.

Another important lesson was the challenge associated with balancing the needs of individual members with the long-term needs of all network members. However, by continually emphasizing the project mission and the needs of communities, the network found common ground among the members, which laid the foundation for collaborative success.

After the Grant

Network members are committed to sustaining system improvement and network development activities so that they can continue to improve the health status of New Hampshire's most underserved communities. Since its inception,

Consortium revenues have more than tripled, and project activities have been significantly diversified. The consortium currently manages four different grant-funded programs. The project is partially supported through access fees, including revenue generated through Internet services provided to selected nonmember organizations. Management services are also provided on a fee-for-service basis.

Project priorities include sustaining the NCHIN and expanding its applications to include distance learning and telemedicine; implementation of care coordination systems; health professional education; community education, outreach, and health risk assessment services; and implementation of alternative health insurance services.

Target Service Area

The service area of the Lake Plaines Community Care Network (LPCCN) was a rural, three-county area located in upper New York State between the metropolitan areas of Buffalo and Rochester. It includes approximately 144,000 residents and has a population density of less than 100 people per square mile. The median age of the population is 35 years, and the median household income is just under $34,000 per year.

LPCCN evolved in response to community sentiment that local health care services were being eroded and increasingly controlled by corporate health care forces that shared no stake in the well-being of the community. In particular, local physicians and hospitals felt that outside market forces, none of whom were held accountable to the community, were stripping away their control over maintaining a high standard of quality care. Commercial health care plans divided the Lake Plaines area into two secondary market areas, forcing subscribers to rely either on Buffalo- or Rochester-based specialists and tertiary care, eliminating patient choice and diluting the community's purchasing power. Rural employers and governments were paying excessive premiums because their health care costs were grouped with urban communities with higher rates. Rural purchasers of care were paying more than what their local providers charged. An unnecessary portion of the local health care dollar was leaving the community, and there was no affordable alternative health plan for the uninsured or small businesses. There was insufficient managed care coverage for the Medicaid population, and there was a lack of primary care and preventive health care services in many portions of the service area. Meanwhile, the area was experiencing high death rates and a high prevalence of chronic diseases such as coronary heart disease. Yet, there was no vehicle for the community to examine the local health care environment and to implement appropriate community-based solutions.

Network Objectives

The primary purpose of the LPCCN was to develop a rural, multicounty health care plan that meshed private practice, public health, mental health, social services, local government, employers, hospitals, and community leadership into a system of local health management. The network's long-term goals were to

NEW YORK
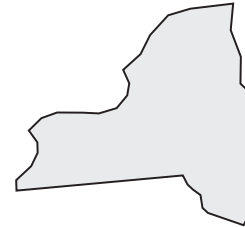
LAKE PLAINES COMMUNITY CARE NETWORK
WARSAW, NY

CONTACT:

LUCILLE K. SHEEDY
CHIEF EXECUTIVE OFFICER
WYOMING COUNTY COMMUNITY
HEALTH SYSTEM
400 NORTH MAIN STREET
WARSAW, NY 14569
716-786-8940, EXT. 4401

promote community-based accountability, to create a seamless continuum of services, to improve community health, and to ensure effective stewardship of limited health resources. The network's five original objectives were 1) to develop the organizational structure of the network; 2) to implement a health care plan to improve quality, value, and performance for providers, employers, and consumers under managed care; 3) to recruit and retain qualified health professionals as needed within the network area; 4) to explore and develop electronic data sharing, network information management, and telemedicine services; and 5) to develop innovative finance and service strategies to ensure the long-term economic viability of the network. In the second year of the grant cycle, the network also identified developing community care management as a key network objective.

Network Innovations and Results

LPCCN's most important achievement was the successful rollout of the Lake Plaines Community Care Plan, a Preferred Provider Organization (PPO) that included all area hospitals and 147 area physicians with privileges at one or more of the member hospitals. In July 2000, the Lake Plaines Community Care Plan secured its first customer, the Genesee County Government, which covered approximately 950 contracts in its self-funded plan and approximately 2,250 individuals. Providers who participate in the plan accepted a uniform fee schedule and pledged themselves to provide referrals within the network, when appropriate; to participate in local medical direction and utilization management functions as determined by local PPO members; and to respond to performance feedback obtained by the locally organized PPO Medical Direction Committee. As the plan was being developed, the LPCCN changed its product development process to a phased approach, allowing immediate implementation of elements not requiring an insurance partner or New York State Insurance Department approval. Phase One, now well underway, focused on developing the PPO, including PPO panel development and administration; establishing a uniform fee schedule; expediting panel credentialing; facilitating network referral processes; localizing medical direction and oversight; implementing local utilization management activities; marketing and promoting the plan; and centralizing market analysis and planning. Phase Two, which is under construction, is designed to enhance the plan offering with health and wellness programming; screenings, information, and referrals in response to health risk assessment or individual wellness profiles; direct interface and coordination with local medical, public health, mental health, and substance abuse providers; and locally administered medical management, including case management and monitoring,

preadmission screening, and intensive case management. Phase Three will focus on developing risk-sharing arrangements and cultivating relationships with insurance partners.

Another major activity in the early stages of the grant cycle was a community health risk assessment of adult residents in the three-county area. The data it generated allowed the network to estimate the actual number of people in the community who are at risk for chronic disease, to identify subgroups of people with combinations of health problems and risk factors, and to focus attention on reducing health risk behaviors and targeting individuals with high or multiple risks. Based on the findings of the community health risk assessment, the network conducted a 6-month pilot study to improve health through lifestyle and behavior change. Fifty employee volunteers of each hospital and county government were offered initial assessment, individual counseling to select personal health risk reduction goals, onsite classes or referrals for assistance, motivational support, project-end assessment, and the possibility of winning a prize for individual accomplishment. Of 195 initial participants, 80 percent finished the study. The network hopes to implement a full-scale model as part of its insurance product offering.

In the area of health professional recruitment and retention, the network played a key role in developing and implementing the Western New York Rural Area Health Education Center. Established in August 1999, the center has systematically surveyed the area's health professional development needs and continued the in-network placement of medical students in community-based primary care practices, originally begun by LPCCN. The center has also expanded interdisciplinary and other experiences for students, with strong emphasis on rural practice, and fostered linkages between network members and area schools to offer rural practice training for a variety of health professions.

Lessons Learned

Rural networks must offer a win-win situation for all stakeholders. Their mission should focus on reducing common threats and promoting common benefits. Trust and open communication are essential components of the collaborative process, and it is critical that network leaders establish a reputation for being trustworthy and neutral. Networks in other rural areas should plan on incremental, sequential growth and development rather than trying to create a project with all of the "bells and whistles" from the start.

Rural self-insured employers can teach other network stakeholders "The Golden Rule"—that rural employers who pay their own health care expenses have the freedom to work with community partners to maintain local control of health care. Urban-based commercial insurance carriers cannot control local health care in rural areas unless rural employers give them such control.

After the Grant

The network approved a new, 5-year business plan designed to link the PPO to several different insurance offerings and products. The goal is to cover at least 11,000 community residents and to offer them high-quality, reasonably priced, and locally governed health care coverage.

Target Service Area

The Northland Healthcare Alliance was established as a nonprofit organization dedicated to serving 30 counties in the western two-thirds of North Dakota. With one exception, all counties are rural, and with a population density of less than six persons per square mile, most counties meet the definition for frontier areas. All but nine counties are designated Health Professional Shortage Areas for Primary Care, and all but six counties are Mental Health Professional Shortage Areas.

The service area is home to approximately 244,300 people, many of whom are geographically dispersed and economically fragile. In half of the counties in the service area, at least 25 percent of their residents are aged 65 years or older. The majority of health services in the state are located in four communities—only two of which are in the service area. In 1994, per capita health care costs were one of the highest in the nation, while Medicare reimbursements remained very low. There is also a lack of diversity of health insurance carriers as one carrier covers more than 85 percent of the commercial business in the State.

Network Objectives

The Northland Healthcare Alliance was designed to achieve three goals: 1) to develop a regional network that would coordinate health resources and consultants, establish joint information management systems, and share risk through critical mass; 2) to initiate a community development approach to health planning through community planning teams and consumer input; and 3) to establish a new model of health care delivery based on provider cooperation and collaboration, especially in the area of Medicare and Medicaid managed care.

Network Innovations and Results

At the time of the grant award, network members were concerned that significant managed care penetration in the area was imminent. Consequently, the Alliance devoted much of its attention to developing a Medicare Provider Sponsored Organization (PSO) to help rural providers participate effectively in a managed Medicare environment. The Alliance developed a work plan, established a governance structure, and laid the groundwork for implementing the Medicare PSO. However, as

NORTH DAKOTA
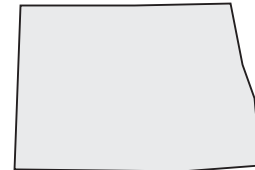
NORTHLAND HEALTHCARE ALLIANCE
HETTINGER, ND

CONTACT:

SHARON ERICSON
WEST RIVER REGIONAL MEDICAL CENTER
1000 HIGHWAY 12
HETTINGER, ND 58639-7530
701-250-0709
WWW.WRHS.COM

time passed, it became increasingly evident that local market forces were changing, and managed care approaches to service delivery failed to penetrate the area as expected.

Lessons Learned

When a State has only one commercial carrier, it is difficult to find market-based reasons for providers to collaborate. In fact, such a market environment sets up providers as competitors. In such cases, networks must focus much of their energy on keeping members at the table and promoting ongoing dialogue.

Even though managed care did not materialize as expected, the network still learned some important lessons about preparing for and operating in a managed care environment. For example, it is very difficult to develop managed care alternatives that do not include primary, secondary, and tertiary services. In addition, many individuals want to "fend off" managed care, while at the same time wanting to embrace its cost-containment benefits without suffering reductions in reimbursements. Networks and their members need to decide early on whether the network will be market-driven or if maintaining the survival of the rural health care safety net will be the top priority. It is very difficult to follow both paths.

Rural networks are based on the premise that, in order to survive, they must boost their potential to achieve better cost-efficiency, to improve operations and quality, to preserve local control, and to develop an organizational infrastructure. However, these goals often must be accomplished with too few staff and insufficient consulting support from individuals who may not fully understand the local health care market. It is critical that network members share a common vision for what steps should be taken to achieve these goals based on a shared understanding of the local health care market.

After the Grant

The Northland Healthcare Alliance developed a sufficient level of shared services to continue after the grant. Since Medicare PSO is no longer feasible, the Alliance is concentrating on three initiatives to provide ongoing support to members, regardless of what develops next in health care. First, through a Rural Health Outreach Grant from the Federal Office of Rural Health Policy that was received by one of the network members, the Alliance is working with the North Dakota Peer Review Organization on a series of quality improvement projects focusing on diabetes care, prevention services, adult and childhood asthma, and other disease management activities. Eight clinics are involved in the project, and two others are considering participation. Second, the Alliance was awarded another outreach grant through a network member to expand a rural behavioral

health model to increase outpatient services and reduce inpatient utilization. The Alliance will work through the Rural Mental Health Consortium to train clinical nurse specialists to provide medications management and outpatient therapy in five additional communities. Third, the Alliance is collaborating with other organizations in the region on rural safety net issues to address the health care needs of an increasing number of uninsured and underinsured residents.

The Alliance also continues to look for affordable ways to connect members through an Internet-based Intranet and to expand use of a telemedicine network to support information exchange. In addition, current work with members on Critical Access Hospital relationships and population health improvement efforts will make shared clinical data or disease registries especially important.

Target Service Area

The Pathways to Care Network (PCN) is located in rural Josephine County in Southern Oregon, about half way between Portland and San Francisco. Much of the county's 1,625 square miles consist of steep hills and rugged mountains through which flow the Rogue River and its major tributaries, the Illinois and Applegate Rivers. Josephine County has a population of 73,000. Cave Junction is the service area for 15,000 to 17,000 rural residents in the Illinois Valley. Grants Pass is the largest city in the county, with 20,255 residents. Residents of Josephine County are among the poorest in the State, with more than 25 percent of the county's children living in poverty. Four areas of the county are Federally designated Medically Underserved Areas and Health Professional Shortage Areas for primary health care, dental care, and mental health. Nearly 13,000 county residents receive managed health care coverage through the Oregon Health Plan. Other low income residents are covered through the Children's Health Insurance Program, which has been integrated into the Oregon Health Plan, or through the State's Family Health Insurance Assistance Program, which provides subsidies for the purchase of private health insurance to a limited number of families.

The senior population makes up 20 percent of the county's population. If current population trends persist, it is anticipated that, within the next 25 years, the senior population will be the most rapidly growing age group in the county. The community is becoming more of a haven for retirement, in part because of the region's low tax base. The influx of those aged 65 years and older increases the need for health and elder support services; however, seniors on fixed incomes are generally less likely to vote for increased taxes to support needed services.

A community health telephone survey conducted by the PCN showed that the vast majority of the county's population identify as White or Caucasian. The largest racial/ethnic minority group in the area is Hispanics, who represent just under 7 percent of the county's population. Together, African Americans, American Indians, and Asian Americans make up 2 percent of the population. It should be noted that 4.5 percent of respondents chose not to identify their racial background. The county is culturally diverse, as there is also a strong presence among

OREGON
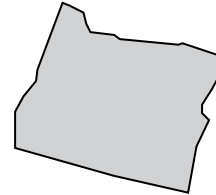
PATHWAYS TO CARE NETWORK
GRANTS PASS, OR

CONTACT:

SHARON MORRIS
COORDINATOR
PATHWAYS TO CARE NETWORK
820 NE SEVENTH STREET
GRANTS PASS, OR 97526
541-471-4106, EXT. 29

survivalists, gay and lesbian communes, a strong Right-to-Life movement, environmental groups, as well as protimber and prodevelopment groups. There is also a strong antitax, antigovernment group in the county.

Network Objectives

The PCN was established in September 1997 by the major health care providers in Josephine County and supported through a Rural Health Network Development Grant awarded to one of its members, Siskiyou Community Health Center. The network's mission was to create an accessible, cost-effective, and accountable health care delivery system by developing and strengthening public and private partnerships. Specific network objectives included creating a formal, nonprofit organizational structure; improving communication among providers, health plans, and consumers; developing an integrated information system to support continuity of care; launching managed care education programs; increasing primary care capacity for low income residents; integrating mental health and substance abuse counseling within primary care settings; building a new medical facility for a rural community clinic and exploring the feasibility of special short-term, inpatient services within the medical complex; expanding a skilled nursing facility as a subacute center; extending quality improvement efforts of individual institutions to the broader community by looking at health outcomes and utilizing community benchmarks; and developing a public health improvement plan to address future challenges.

Network Innovations and Results

The PCN was incorporated in the State of Oregon, developed its organizational structure with board-approved bylaws, and received 501(c)(3) status. The network's 15-member board represents a broad spectrum of health and human service entities, including community health and dental clinics, public health, mental health, emergency services, the local and regional hospital, local health plans, substance abuse treatment programs, the local physicians' Independent Practice Association, nursing and rehabilitation services, the faith community's Parish Nurse Program, a hospice program, Teen Theater, and an alternative medicine expert. The network's New and Enhanced Pathways Committee was responsible for a range of achievements, including redistributing services throughout the area; expanding primary health care services for low income residents; recruiting and strategically placing health care providers throughout the community; increasing access to health care services at local schools, colleges, and other community locations; conducting health outreach; and disseminating health information.

The network's Technology Committee played an important role in creating a county-wide integrated information system. The integrated management information system linked two community clinic sites, and an electronic medical records system linked area primary care providers to the hospital emergency room and diagnostic laboratories. The PCN is currently developing its own Web site (www.pathways2care.net) to give the community more information about the network and its partners.

The network also took steps to promote community participation and input in network activities. For example, the network organized meetings with health professionals and representatives of the Hispanic and American Indian communities to discuss the unique health care needs of these ethnic groups. In addition to expanding community participation, the network sought to expand its partnership with other community groups not originally involved in the network.

The network conducted a community health needs assessment, which revealed that 18 percent of respondents found it "difficult" or "very difficult" to find medical care when they needed it and that 28 percent of those surveyed went outside of the county to receive services. Another major finding was that more than 25 percent of respondents paid out-of-pocket for their medical care, many of whom may qualify for the Oregon Health Plan. The network's Turning Point Committee also developed a Public Health Improvement Questionnaire for citizens, businesses, faith communities, and others who participated in public meetings. The multiple-choice questionnaire asked four critical questions: 1) What are the most important public health issues of the future? 2) What is most important in keeping you healthy? 3) What is most important in keeping your community healthy? 4) Who should be most responsible for keeping your community healthy? The results of the needs assessment and the questionnaire provided the basis for the network's public health system improvement plan.

Lessons Learned

The network yielded several important lessons of relevance to other rural networks. For example, tools such as the Lewin Group's Partnership Assessment can provide invaluable information about the network, its strengths and its weaknesses. Such tools can help networks identify specific areas for improvement.

At the end of the second year of the grant cycle, the network identified three key principles that contributed to the network's success: 1) the professionalism of individuals members, 2) the strength and foresight of represented agencies, and 3) the courage to make difficult decisions. The network believes that these principles can help guide other networks toward similar success.

After the Grant

The PCN is developing a plan for partially sustaining the network through membership dues from the board's individual and organization members. Meanwhile, the network will continue to focus on completing implementation of the electronic medical records pilot project; education and outreach efforts for consumers and providers; supporting the Health Care Coalition of Southern Oregon, which is working to improve services to uninsured and low income residents through strong safety net clinics; and integrating services for primary care and behavioral health counseling.

Target Service Area

Tioga County is located in north central Pennsylvania and is an extremely rural, ethnically homogenous region with approximately 41,000 residents and minimal population fluctuation. The county consists of 1,143 square miles in the Allegheny Plateau, which is characterized by flat-topped hills and steep valleys. The county is composed of 29 townships and 10 boroughs, all of which are designated Health Professional Shortage Areas and Medically Underserved Areas for physical, mental, and dental health services.

Light manufacturing accounts for 37 percent of the local economy. Agriculture and tourism are the next leading sources of economic revenue. The lack of significant industrial employment opportunities has contributed to a local unemployment rate that remains higher than the State average. Very limited public transportation is available for the county's circuitous road system, which is often treacherous during the winter months.

In terms of the local health care environment, the number of people on medical assistance has remained fairly steady at approximately 5,600 people, and the number of children living in poverty remains consistently higher than the state average. A 1994 Tioga County Partnership for Community Health survey revealed that a large portion of the population has limited or no health insurance and no regular source of care. Tobacco use, substance abuse, and lack of physical activity are higher than State and national averages, and rates of domestic violence and mental health problems also are high.

Network Objectives

Another Step Forward was a 3-year initiative established in 1997 to refine the service network of the Tioga County Partnership for Community Health, an integrated network of three community agencies created in 1994. Another Step Forward's goal was to improve health outcomes for rural residents in the county and surrounding communities by developing a countywide health plan that would demonstrate ways for unrelated service providers to work together to meet health and social service needs. Currently, 10 workgroups and their subgroups labor to improve the overall health and quality of life of the county's individuals and communities. The 10 workgroups focus on a range of issues,

PENNSYLVANIA
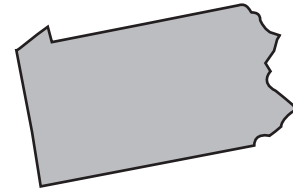
ANOTHER STEP FORWARD
WELLSBORO, PA

CONTACT:

TAMARA W. EBERLY, R.N., PH.D.
INTERIM COORDINATOR
TIOGA COUNTY PARTNERSHIP FOR
COMMUNITY HEALTH
P.O. BOX 812
WELLSBORO, PA 16901

including communication issues, community and family awareness, drug and alcohol issues, elderly services, employment opportunities for people with disabilities, healthy families issues, immunization, mental health, and adolescent health. Two additional workgroups—the Measurement and Outcomes Workgroup and the Ideal Health and Human Services Planning Committee— assist the Partnership and each workgroup in documenting outcomes and overseeing integration of workgroup efforts into a countywide health plan. As the Partnership has grown, workgroup representation has substantially increased, and collaboration among workgroup members often occurs outside of the workgroup setting.

Network Innovations and Results

Through Another Step Forward, the Partnership launched a broad range of programs and initiatives that included multiple agency involvement and did not duplicate existing services. Many of these programs also played a major role in safeguarding the future sustainability of the network. For example, the North Central Pennsylvania Area Health Education Center, in cooperation with the Partnership's Healthy Families Workgroup and Laurel Health System, obtained a Pennsylvania Department of Health "Living Well with Diabetes" grant, which supports educational programs at community sites for adults and children at risk for Type 2 diabetes. Fit for Life—a collaborative program with the Pennsylvania Department of Health, the Children's Awareness Foundation, and local school districts and recreation programs—focuses on increasing physical activity and promoting better nutritional habits.

To address the county's dismal immunization rate, clinics were set up at various sites accessible by children in need of immunizations. Volunteer nurses administered vaccines provided free of charge by the state, and area health care providers received training on current immunization issues. As a result of these initiatives, the area's childhood immunization rate rose to 88 percent.

Other major accomplishments include linking elderly residents to community health and education services; providing tobacco, alcohol use, and drug abuse prevention programs in local schools; implementing a "Peer Helpers" program in junior and senior high schools to promote mental health support; conducting a "Communities That Care" youth assessment survey in two local school districts to identify risk factors the contributed to youth disconnectedness, substance abuse, child abuse, and domestic violence; obtaining funds to support a 3-year "Communities That Care" initiative in Tioga County to reduce child abuse, reduce drunk driving arrests, and reduce elementary school disciplinary problems; launching a "Leadership Tioga County" program to teach leadership skills to youth; enrolling area children in the Children's Health Insurance

Program; producing a dental education video for children; pilot testing Tioga CareNet, a preferred provider network serving uninsured and underinsured residents; providing employment, advocacy, and community involvement opportunities for people with disabilities; creating an environmental task force; establishing 20 Internet Communications Stations in libraries, community and youth centers, and other locations; developing a health priority matrix modeled after Healthy People goals and objectives; and instituting an AmeriCorps VISTA program to offer residents volunteer opportunities in the community.

Lessons Learned

Establishing a governance structure is no easy task. If possible, the structure should be set early in the development of a partnership and should provide for a limited number of people who are directly involved in operational decisions. However, members must be willing to reassess the effectiveness of their decisions over time and to adjust the governance structure accordingly.

Whether or not to incorporate as a 501(c)(3) nonprofit organization also should be discussed and decided upon early in the development of a partnership. Likewise, partnerships should enlist the financial support of the community early in the project. If operating funds can be obtained through pledges from community businesses and organizations, the partnership may be freed from the need to constantly seek funds from outside the community. If this isn't possible, then a well-developed fundraising approach is essential.

After the Grant

A series of retreats and discussion groups will be held to review progress, map future initiatives, review the Partnership structure, and discuss sustainability issues. The results of the Tioga County Health Survey 2000 will be used to review priorities, further delineate health status indicator baselines, and establish target levels for 2005, when the next survey is conducted.

Target Service Area

Bamberg County, located in the southeast corner of South Carolina, is a rural economically depressed county with a population of 16,902, 62 percent of whom are African American and 38 percent of whom are Caucasian. Bamberg County has a population density of 33.5 people per square mile. In 1990, 92 percent of the county was considered rural.

Bamberg County shares demographic similarities with other persistently poverty-ridden counties in the rural southeastern United States and has lagged behind the rest of the State and the nation in economic development. According to 1990 U.S. Census data, Bamberg County had the ninth highest poverty level in the nation. The median family income was $21,378, and the median household income was $17,496, both of which are about $9,000 lower than statewide median incomes. In 1994, 28.2 percent of county residents lived on incomes below the poverty level, and the poverty rate among female-headed households in the county (54.5 percent) was significantly higher than in South Carolina overall (36.0 percent). More than 26 percent of the county's elderly residents also live below the poverty level. In 1990, 21.6 percent of county households and 32.8 percent of minority households did not have a car, while 19.1 percent of all households did not have a telephone.

The county is classified as a Health Professional Shortage Area and a Medically Underserved Area. A recent county survey found that as much as 65 to 70 percent of the health services provided to residents are received outside the county.

Network Objectives

The Bamberg County Community Services Network (BCCSN) is a vertically integrated network composed of county health and human service providers. At the time that the ORHP Network Development Grant was awarded, the purpose of the network was to link area service providers through a community health information system that would enable them to more effectively and efficiently meet community needs. The network also was designed to improve the quality of life of Bamberg County residents through collaborative partnerships among citizens and service providers. The long-term goals of the network are to increase access to care; to improve communication and

SOUTH CAROLINA
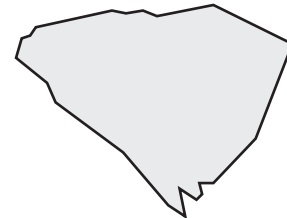
BAMBERG COUNTY COMMUNITY SERVICES NETWORK
BAMBERG, SC

CONTACT:

LAURA HOFFMAN
P.O. DRAWER 528
BAMBERG, SC 29003
803-245-5144

coordination of care; to reduce the growth rate of local health care costs; to reduce county morbidity and mortality rates; and establish partnerships between and among community providers that will improve service delivery.

Network Innovations and Results

The network's Case Management Program was instituted to demonstrate the value of the linking providers through the community health information system. The Case Management Program allows the BCCSN to provide a full continuum of health and related social services and coordinate care between the primary care practitioner and other service providers by tracking the patient's movement across the system and by assisting physicians managing the patient's care. The system also enables providers and case managers to communicate electronically regarding patient needs. Another component of the Case Management Program is patient education, which helps patients become more involved in their care, increases their understanding of their health care needs, and encourages them to take responsibility for their health by changing health-negative habits and behaviors. For example, the network sponsored monthly educational meetings coordinated by the case manager and the network Steering Committee. An average of 20 to 25 patients attended the workshop every month. Guest speakers educated participants on topics ranging from foot care for diabetics to medication management. One of the participants' favorites, however, is the cooking class for diabetics.

The Case Management Program also assisted patients in locating local resources, such as medication samples, funding for a physician's visit, eye examinations, or medical supplies. The project created a Patient Assistance Outreach Fund supported by local churches, businesses, industries, and individuals. The fund currently provides medications and medical supplies to underserved individuals participating in the Case Management Program, as well as transportation to and from the physician's office.

The implementation of the information system that links area providers was one of the network's most significant accomplishments. Almost all local health and human service providers are now linked electronically and can communicate more readily and efficiently.

The BCCSN achieved great success in bringing local health and human service agencies together to work toward common goals in a true spirit of collaboration. The members are committed to improving and sustaining the information systems that link them all together. They are also committed to the Case Management Program. In fact, the network is seeking out opportunities to expand the network to providers outside of Bamberg County.

Lessons Learned

One of the most important lessons learned through the project was that it takes a minimum of 1 or 2 years for organizations and individuals to begin to trust each other and work toward common goals. Unfortunately, many partnerships focus on product development activities before member organizations have established the mutual trust they need to work together effectively. Another key lesson is the importance of training in implementing any kind of project of a technological nature. It is critical that networks assess the level of existing skill in the community and develop training programs that are appropriate for their level of skill. Often, key staff are not comfortable using software programs because they do not possess basic computer skills.

After the Grant

Future network activities will focus on expanding BCCSN membership to include law enforcement agencies, emergency medical service agencies, fire departments, faith communities, and businesses inside and outside of Bamberg County; increasing the number of agencies linked to the health information system; increasing awareness of the case management system; expanding the Patient Assistance Outreach Fund; expanding the health information system and Case Management Program to other communities; and implementing an Adult Literacy Program.

Target Service Area

Lamoille Valley, located in the geographic center of northern Vermont, includes Lamoille County and the adjoining towns of Hardwick, Greensboro, Craftsbury, and Waterbury Center. The region covers approximately 700 square miles with a population density of 43 people per square mile. Morrisville is the largest town in the area and is the county's geographic center. Copley Hospital, a 53-bed acute care facility, is located in Morrisville along with 85 percent of the state and local health and social service providers in the region. Area residents on the outskirts of the region travel as far as 20 miles to services, usually using paved and gravel country roads.

Network Objectives

The Lamoille Valley Long Term Care Team is a coalition of diverse health and social service providers committed to developing coordinated long-term care services for the Lamoille Valley community. Network goals and objectives focused on seven key areas: 1) overall network development and integration, 2) volunteer coordination, 3) expansion of services, 4) training, 5) case management, 6) public information and education, and 7) payment for services. As a result, the network outlined a myriad of initiatives and projects for implementation, ranging from investigating group purchasing systems and implementing a consumer satisfaction tool to increasing the breadth and scope of long-term care services available in the region and ensuring access to supportive and transportation services.

Network Innovations and Results

In May 1999, the governing bodies of the 12 network organizations formally consented to the Agreement of Resources to Results, which specified the network's purpose, vision, governance, and operational, financial, and program development provisions. In July 2000, the network entered into a partnership with the Vermont Department of Aging and Disabilities and Synergy Software Technologies to pilot an information management system that would link network members and the Department of Aging and Disabilities. The system uses two software programs. The first automates and standardizes client management functions, making it possible for agencies to share

VERMONT

LAMOILLE VALLEY LONG TERM CARE TEAM
MORRISVILLE, VT

CONTACT:

LAMOILLE VALLEY LONG TERM CARE TEAM
29 SUNSET DRIVE, ROOM 1B
MORRISVILLE, VT 05661
802-999-7582

data, generate reports, and meet Federal Administration on Aging requirements. The second provides a flexible assessment tool that can respond to changing assessment requirements, provide sharable and reusable data, and produce reports and statistics for analysis. Ultimately, it is anticipated that other long-term care coalitions throughout the state will utilize this model. The project also procured hardware and software to support a comprehensive database that provides an internal tracking and reporting system for monitoring the network's progress and managing its budget.

The network used grant funds to develop a range of public affairs materials and products. For example, the network produced brochures for the individual member agencies, as well as display and presentation materials. It also developed a public relations plan, launched a network Web site, and implemented a range of marketing and media campaigns.

To improve service coordination, the network established a case management position on the Hospital Discharge Planning Team—the first such position in the State. Case management staff hours were expanded, which increased the number of clients served and improved outcomes. The network also hired an In-Home Behavioral Health Worker. Other service expansions included the Meals on Wheels program, outreach to disabled residents, and the Out and About Adult Day Service.

Lessons Learned

Establishing trust among members is a key ingredient to a network's success. The Lamoille Valley Long Term Care Team is fairly unique in that it is composed of several acute care facilities (hospitals, nursing homes, and home health organizations), an advocacy organization, residential care facilities, service providers, and community-based organizations. Most are nonprofit agencies, but some are private, forprofit organizations. In spite of the diversity of the network members, the team has established a strong sense of cohesiveness built on the mutual commitment to a healthy and safe community. It takes work to achieve and maintain trust among members, but there is no denying the fact that trust is essential to the success of the network.

After the Grant

One of the network's top priorities for the future is to implement uniform data collection and reporting procedures. The network believes that this step is critical to ensuring that the project achieves its intended outcomes. The network also is exploring the possibility of using the management information system to achieve cost-savings so that such savings could be reinvested in the network as a means to sustain the program.

Target Service Area

The Greater Grand Coulee Dam Area in Washington is a distinct, isolated rural community characterized by a high unemployment rate, low family incomes, large elderly and American Indian populations, and low population density. The community encompasses several small towns and a portion of the Colville Indian Reservation. It also includes parts of Ferry, Grant, Lincoln, Okanogan, and Douglas counties. Because the community is divided among so many government lines and served by so many different jurisdictions, agencies, and providers, the community suffers from a health care and social services system that is sorely inadequate and severely fragmented.

Network Objectives

The Healthy Communities Alliance (HCA) Network has continued to evolve since it was first conceptualized in 1995. HCA membership includes Coulee County Hospital, the local mental health provider, the Indian Health Service clinic, the State Division of Children and Family Services, the health districts of the various counties included in the service area, and the Chamber of Commerce. The hospital and its partners determined that a coordinated network of providers and agencies would allow for the most efficient and effective use of the community's limited health and social service resources and lead to measurable improvement in the health status of local residents and their access to health and related support services.

When Coulee County Hospital was awarded a Network Development Grant in 1998, the network decided that these funds would be best used to develop and implement a single-point-of-access system among all HCA members. Specifically, the goals of the project were to improve coordination and cost-effectiveness of needed health and social services in the Grand Coulee Dam service area; to minimize fragmentation in service delivery; to improve the quality of services; and to foster and strengthen working relationships between providers.

Network Innovations and Results

Upon receipt of the Network Development Grant, the HCA was initially occupied with addressing two of its major goals—to improve the quality of services and to strengthen relationships

WASHINGTON
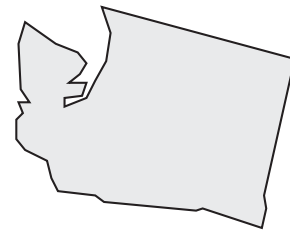
**HEALTHY COMMUNITIES
ALLIANCE NETWORK**
GRAND COULEE, WA

CONTACT:

MIKE WILTERMOOD
CHIEF EXECUTIVE OFFICER
COULEE COMMUNITY HOSPITAL
411 FORTUYN ROAD
GRAND COULEE, WA 99133-8718

between providers. The network focused on developing and exchanging provider-related information, and developing and disseminating information to clients and the public. A great deal of energy was put into creating a Web site to serve regional health and social service professionals and the public. The Web site offers information on community resources, links to health information, a calendar of network events, and the ability to search for specific information. The content of the Web site was then converted into a Provider Resource Manual.

HCA also began working on another key network goal—to expand the membership of the network. As a result, several local organizations decided to join the HCA, including the Colville Convalescent Center, several Tribal organizations, the Columbia River Area Agency on Aging, and the Colville Indian Area Agency on Aging. It was at this stage of the grant workplan that significant changes and difficulties began to affect the partners' ability to pursue network development activities. Key staff transitions—including the hospital's Chief Executive Officer, the grant Project Manager, and the local manager for Grant Mental Healthcare—interrupted the guidance and leadership of the network. At the same time, Coulee County Hospital was hit hard by the Balanced Budget Act of 1997. Because of the dramatic changes required by the legislation, the hospital soon found itself with a significant operating deficit. In 2000, the hospital began the process of changing its designation to a Critical Access Hospital, but it is unclear how the rapidly changing health care environment could continue to exact enormous changes on the hospital, reimbursement levels, and its financial viability.

Lessons Learned

Given the profound challenges facing rural communities, many networks try to accomplish too much at once. Often, trying to do less is the most productive path. The HCA found this to be true. As a result, the network shifted its focus to developing a local network of care that supported and enhanced the viability of the three principle health care providers in the area—Coulee County Hospital, Colville Tribal Health, and the Indian Health Service clinic. By taking this approach, the network can focus on opportunities for sharing services and systems among these providers.

After the Grant

The network's primary objectives for the future include:

- updating the community needs and services assessment;

- identifying mutual operational and facility needs as they relate to identified community needs;

- identifying joint-venture and operational activities;

- exploring new opportunities for enhanced information systems, teleradiology, and telemedicine;

- learning more about community barriers that inhibit cooperative efforts; and

- developing a joint business plan.

Target Service Area

The service area, consisting of Chelan and Okanogan counties, is situated in the northern portion of eastern Washington State. It is bordered by Canada to the north and the Columbia River to the east. The service area covers 8,203 square miles and constitutes 12 percent of the State's land mass. The western half of the service area is dominated by dense, rugged, and mountainous terrain (the Cascade Range), which descends into rolling hills and grassy ranges. The service area is very dry with harsh summers and winters.

Unemployment rates in both counties are well above the statewide rate of 4.7 percent (8.8 percent in Chelan County and 11.8 percent in Okanogan County). The per capita income in Okanogan County was $18,253 in 1995—24 percent below the State average and 22 percent below the national average. Incomes in two nearby counties, Grant and Adams, are even lower. As a result, many area health care providers are doing a considerable amount of charitable care and carrying bad debts that total nearly $3 million per year.

Changes in the insurance marketplace combined with welfare reform efforts to compound local health care challenges. The individual insurance market has collapsed as health plans stopped offering individual health insurance throughout most of eastern Washington. In addition, enrollment in the State's Basic Health plan was capped, so individuals could only obtain insurance on an emergency basis. Prior to this crisis, the Washington State Department of Health had estimated that 16.2 percent of the rural population was uninsured compared to 11.1 percent of the urban population.

Network Objectives

Community Choice was established to continue the delivery of high-quality heath care in the central Washington region. The overarching purpose of Community Choice was to integrate three local primary health care organizations (PHCOs) and to promote the sharing of pertinent health care data between participants. The network's secondary objectives were to enable network members to participate in managed care risk contracting, to encourage the growth of independent providers in the region, and to provide evaluation, assessment, and benchmarking for all network

WASHINGTON
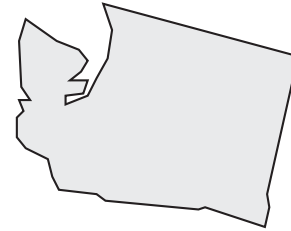
COMMUNITY CHOICE PRIMARY HEALTH CARE ORGANIZATION
WENATCHEE, WA

CONTACT:

THOMAS M. JONES
EXECUTIVE DIRECTOR
COMMUNITY CHOICE
240 NORTH MISSION, SUITE A
WENATCHEE, WA 98801

members. In 1993, the Washington State Department of Social and Health Services began awarding capitated contracts to health plans, and at that time, many PHCOs were established to provide network contracting to the health plans. Unfortunately, many of the provider networks were very small and underfunded, so most did not last very long. Community Choice had negotiated many fee-for-service contracts to sustain its organization and looked toward building the organization to a degree that it could enter into at-risk, capitated contracts.

Network Innovations and Results

Community Choice chose to focus its efforts on supporting and empowering community-based health care delivery. It also observed that computerized electronic communication capabilities were the primary missing piece for most of its members. In 1999, Community Choice contracted with Pointshare to provide a wide-area network of highly secure communication between network members and each of the health plans operating in the State. This contract provided for the installation and setup of hardware and software, personnel training, onsite technical assistance, Web site construction, and payment of the monthly charges for all members for a standard package of services, including insurance eligibility verification and a patient referral tracking system. The system has reduced costs for network members and opened the door to a new range of network communication opportunities.

While most Community Choice members abhorred managed care, as they perceived it, network staff worked to educate members of the various managed care models and the possibility of working with a model that fit the local, rural health care delivery system. The Board of Directors directed network staff to prepare a business plan for risk contracting. The plan was carefully researched, tested, critiqued, and amended. Community Choice devised a plan in which the network would accept the capitation payments and then make fee-for-service payments to members, based on submitted claims. While the rates offered from health plans were not sufficient to allow the network to enter into risk-based contracts, the education process caused many members to consider how they might participate in a managed care environment without experiencing financial disaster.

Lessons Learned

Getting physicians involved in and committed to network activities can be a difficult task. On the other hand, hospital members supported the organization from the start. When the network changed its method for gathering organizational monies from a percentage-of-net-receipt method to a monthly

membership fee, the network experienced a 15 percent drop in membership. The Pointshare service was offered to physicians as a membership benefit, and the network bought all hardware necessary to secure their connection. As a result, some of those who left the network have since rejoined because they realized that the service would help reduce costs.

Another important lesson is that new services for network members will almost always be easier, faster, more reliable, and more credible if the services are made available through the Internet. New networks should consider building the electronic backbone of their network, if one isn't in place already, because this approach will provide the avenue for improved services, communications, and intra-networking in the future.

After the Grant

Even though the number of health plans available in the community has dwindled considerably during the grant period, Community Choice will continue to spearhead negotiations on behalf of member providers. The network will also continue to serve as a liaison between members and health plans in resolving disputed claims and other issues. The network also is exploring ways to create and coordinate Community Provider Groups that assess the health care being delivered in their communities and seek ways for improvement.

The network also has exciting plans for the Community Choice Web site. In addition to serving as an information center for members and the public, the network is planning to offer a provider satisfaction survey page where patients can give feedback to their providers via the Internet. The site will also provide members with comparisons of their surveys to other members' surveys and how their results change over time.

Target Service Area

The Eastern Panhandle Integrated Delivery System (EPIDS) service area included nine counties in the Eastern Panhandle of West Virginia. All nine counties are either fully or partially designated Medically Underserved Areas, and six of the counties are Federally designated as rural. Much of the region is also considered a Health Professional Shortage Area. Many of these counties have higher than average incidences of poverty, the working poor, inadequate access to affordable health insurance, and low education levels. While many residents are employed, most work in low wage jobs, for small employers, or multiple part-time jobs that prevent them from being eligible for health benefits or purchasing health care coverage on their own.

A community needs assessment conducted in 1996 revealed three major community needs: 1) access to a high-quality, cost-effective, and locally controlled insurance product; 2) increased cooperation and integration among rural providers; and 3) a mechanism to link providers for more efficient electronic transfer of information and referrals.

Network Objectives

The EPIDS is a provider-sponsored, vertically integrated health care delivery system consisting of hospitals, primary care and specialist physicians, outpatient mental health clinics, primary care centers, public health departments, and other health care providers. The network's main purpose was to deliver or coordinate high-quality, cost-effective care to the region's residents. Creating and implementing a claims-based management information system was considered a critical component of the network's strategy to achieve this mission. Such a system would be used to process claims and generate management reports. In turn, the reports would provide information about the prevalence of medical conditions in the covered population, physician practice patterns, health care costs, and utilization trends, and likely prove to be a valuable tool in negotiating managed care contracts. Network development grant funds were used to support the development of the management information system, to recruit claims processing and customer service staff, and to provide staff training. Grant funds were also used to develop a provider-sponsored health plan.

WEST VIRGINIA
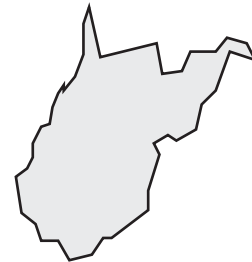
EASTERN PANHANDLE INTEGRATED DELIVERY SYSTEM
MARTINSBURG, WV

CONTACT:

ROBERT HARMAN
C/O GRANT MEMORIAL HOSPITAL
P.O. BOX 1019
PETERSBURG, WV 26847
304-257-1026

Network Innovations and Results

The network successfully operationalized the management information system. A vendor contract was signed in March 1998. Computer equipment was purchased, and special telephone lines were installed. Network staff received intensive training and began processing claims for the EastCare Health Plan in July 1998. Naturally, the process of initiating a new claims system required many hours of programming, testing, and "debugging." In January 2000, EPIDS began processing claims for Grant Memorial Hospital. The network currently handles approximately 1,200 claims and 400 customer service calls per month. External technical consultants were hired to assist the network in developing standardized management reports using data contained in the management information system. These reports track a range of critical data, including inpatient hospital statistics, in-network and out-of-network use, and emergency room use.

During the grant cycle, the network membership continued to expand. The network now includes more than 120 independent professionals and 20 mental health professionals at an outpatient mental health clinic. Using the services of another West Virginia network, EPIDS is streamlining its provider credentialing and re-credentialing process. EPIDS entered into several types of contractual relationships designed to strengthen the network, including several contracts with managed care organizations. EPIDS also negotiated arrangements with a national managed care network, tertiary care facilities, and a national organ transplantation network to provide access to services outside of the immediate nine-county region.

The network also placed strong emphasis on marketing and communications—both among its members and the community at large. The network has been producing the *Physician Bulletin* for 2 years, and in 1998, published a "Report to the Community." EPIDS began marketing its plan administration services to self-insured employers and exploring opportunities to contract directly with self-insured employers.

EPIDS administers a self-insured health plan, the EastCare Health Plan, whose enrollees include the employees of two member hospitals. The plan had already existed for a year before the network assumed administrative responsibility. EastCare negotiates rates with providers, uses primary care practitioners as "gatekeepers," and provides medical management to help control costs and service utilization. The plan design offers extensive coverage for preventive and well-care services. EPIDS plans to use EastCare as a model for a fully insured product to be offered to area employers.

Lessons Learned

Since its inception, the network has tried to be as inclusive as possible so that a wide range of health care providers would join the network. Those who were involved in the early stages have emerged as the core leaders of the network, which has helped EPIDS stay true to its original mission. The leaders have also worked to educate other members about important organizational and business issues.

Given that health care providers are extraordinarily busy treating patients, communicating with them and ensuring that messages are heard and understood is a formidable challenge. Communication with providers must be a constant and ongoing task, and messages must be reinforced repeatedly.

Another important lesson is the impact of external forces on network activities and goals. A strong, well-informed business plan is critically important to charting an organization's future activities; however, it does not guarantee that plans will be implemented as originally intended. External forces can interfere with, delay, and alter the course of a network's original plans.

After the Grant

EPIDS will continue to improve the health care delivery system in the region, as well as the health status of area residents. EPIDS recently received a 3-year Rural Health Outreach Grant from the Office of Rural Health Policy to implement a coordinated approach to improving outreach services for the elderly and near-elderly in the network's six rural counties. EPIDS also continues to seek an insurance partner to offer a private label product for the local small group market and hopes to explore opportunities to provide Medicare-funded services to the region's growing elderly population.

Target Service Area

The majority of the Rural Wisconsin Health Cooperative's 28 member hospitals are located in south central and midstate Wisconsin. The collective service area is predominantly rural, with 16 of the 21 counties they serve located outside of Metropolitan Statistical Areas. These counties are predominantly agricultural, which usually translates to an older, poorer population with limited access to health care and a greater dependence on Medicare and Medicaid. Approximately 13 percent of the population live in poverty, which is higher than the State average. Between 15 and 20 percent of the population in these counties is over the age of 65, which also exceeds the Wisconsin average of 13.3 percent.

Network Objectives

The purpose of Rural Zones of Collaboration was to increase collaboration among competing health plans along with rural hospitals and practitioners in southcentral Wisconsin. The initiative grew out of the work of three networks (two incorporated and one ad hoc) serving the rural communities of this region—the Rural Wisconsin Health Cooperative (RWHC), which represented 25 community-based or Catholic hospitals and member systems; the Community Physicians Network (CPN), which represented 400 physicians; and the Rural Zones of Collaboration Task Force, which included representatives of HMOs and insurers, an employer health care purchasing cooperative, state public health representatives, the state hospital association, and the state medical society.

Over a series of meetings, the Rural Zones of Collaboration Task Force identified five key opportunities for promoting collaboration among competing HMOs/insurers and rural providers: 1) regionalizing credentialing, 2) collecting data, 3) developing clinical practice guidelines, 4) implementing quality improvement projects, and 5) developing a rural patient satisfaction database.

Network Innovations and Results

One of the major priorities for the network was to obtain credentialing certification from the National Committee for Quality Assurance (NCQA) The RWHC Credentials Verification

WISCONSIN
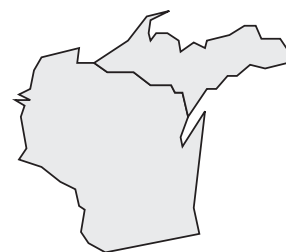
RURAL ZONES OF COLLABORATION
SAUK CITY, WI

CONTACT:

TIM SIZE
EXECUTIVE DIRECTOR
RURAL WISCONSIN HEALTH COOPERATIVE
880 INDEPENDENCE LANE
P.O. BOX 490
SAUK CITY, WI 53583
608-643-2343
WWW.RWHC.COM

Service was first certified in February 1999. Obtaining NCQA certification was essential to achieving collaboration among the participating entities as it provided a common and respected starting point. It also solidified a working relationship with the CPN (the physician network). A direct result of this level of collaboration is a streamlined process for rural providers participating in multiple health plans. It allows providers to direct their resources, especially staff time, to more pertinent areas of need. The collaborative effort also expedites the addition of new physicians to the region as it assures eligibility for payment from health plans and patient access to new providers.

To accommodate the increase in volume and to work toward a paperless process, an automated database was established along with several online primary source verifications. The system decreased staff time in processing files by 50 percent and provided the capability to establish a variety of tracking systems.

In the area of quality improvement, network staff participated in a presentation on the Health Employer Data Information Set (HEDIS) measures and developed a quality improvement program to improve the documentation of preventive health services Clinic managers were hesitant to stop using their current tool in order to use the new network tool, so the network decided to incorporate the collaborative tools in to the CPN Clinic Orientation Packet, which is made available to all physician practices that join the CPN.

The network implemented a range of projects to improve the health status of populations served by multiple health plans. For example, the network launched a childhood immunization project, a program to improve the use of antibiotics, and a low-back pain physical therapy project.

Lessons Learned

Some network members do not have experience in how to collaborate effectively. The network found that educational programs, focus groups, small committee work, and onsite presentations were valuable tools in teaching members how to collaborate with one another. It is also important to recognize that, in general, collaboration works best when the people involved have different skills.

Given the high staff turnover rate in many rural service organizations, it is critical that rural networks establish a system to orient new participants to the work of the network. Training materials should be updated regularly so that they information given to new staff is current. Likewise, many rural hospitals and clinics interested in data collection lack the computer hardware and software needed to participate. It may be necessary to provide members with the computers and applications they will need to collect network data, perhaps on a

"free trial" basis, so they can experience the methodology prior to incurring any cost. This approach may help them realize the potential for offsetting the costs associated with purchasing such equipment by significantly reducing operational costs.

After the Grant

The network is considering a range of opportunities to expand the RWHC Credentials Verification Service, data collection efforts, the immunization project, the antibiotic project, and the physical therapy program. Meanwhile, future efforts will also focus on marketing the program to health plans, potential members, and the public, as well as securing network sustainability.

CONTINUING EDUCATION FOR HEALTH PROFESSIONALS	PROJECT NUMBER
Emergency medical services personnel	
Emergency medical technicians	4
Paramedics	4
Emergency room personnel	
Nurses	13

HEALTH PROMOTION/EDUCATION	PROJECT NUMBER
Health promotion/disease prevention (general)	3,13, 14, 15, 16, 19, 22
Health promotion/disease prevention (specific)	
Child abuse	21
Diabetes	3, 16, 19, 21, 22
First aid	5
Mental health	9, 16
Substance abuse	13, 16, 21
Tobacco prevention	7, 21

POPULATION GROUP	PROJECT NUMBER
Adolescents	5, 14, 19, 20, 21
Children	5, 12, 14, 17, 19, 20, 25
Disabled	21, 23
Elderly	7, 11, 12, 13, 14, 17, 19, 20, 21, 22, 23, 25, 26, 27
Infants	5
Minorities	
African-American	7, 20, 22
Hispanic	2, 4, 6, 7, 20
Native American	1, 7, 10, 20, 25
Pregnant women and teens	12, 13, 17
Women	13

2001 INDEX (BY PROJECT NUMBER)

SERVICES	PROJECT NUMBER
Advocacy	2, 3, 5, 6, 9, 11, 14, 16, 17, 23
Case management	4, 6, 8, 16, 18, 22, 23
Counseling services	3, 13, 18, 20
Dental care	20
Emergency medical services	3, 4, 5, 20
Health fairs	3
Immunizations	10, 21, 27
Media coverage	3, 23
Medicaid	12, 14, 15
Medicare	12, 14, 15, 19
Mental health services	4, 5, 9, 11, 12, 16, 17, 18, 20, 21, 25, 26
Preventive health care	18
Primary care	2, 3, 4
Public health	1, 4, 10, 11, 18, 20
Referrals	16, 17, 18
Screenings (general)	16, 18
Telemedicine	3, 4, 9, 10, 12, 16, 18, 19, 25

Project Title, Location   **Project Number**

200 INDEX (BY PROJECT NUMBER)

Project Title, Location   **Project Number**