Advancing the Transition to a High Performance Rural Health System

Prepared by the
RUPRI Health Panel

Charles Alfero, MA

Andrew F. Coburn, PhD

Jennifer P. Lundblad, PhD, MBA

A. Clinton MacKinney, MD, MS

Timothy D. McBride, PhD

Keith J. Mueller, PhD

Paula Weigel, PhD, Guest Author

November 2014

rupri

RURAL POLICY RESEARCH INSTITUTE

Acknowledgements

Contents

Purpose

Despite decades of policy efforts to stabilize rural health systems through the Critical Access Hospital (CAH) and other payment, loan, and grant programs, accelerating rural hospital closures in recent years[1] have created widespread concern that these efforts are inadequate for addressing current rural health system challenges. Moreover, broad health system transformation aimed at achieving the Triple Aim[©]—improved experience of care, lower costs, and improved health of populations—is bypassing too many rural providers and health systems. Small size, low patient volumes, and limited human resource and financial capacity, particularly in frontier communities, make it difficult for rural hospitals and physician practices to participate in risk-based or shared savings arrangements such as accountable care organizations (ACOs) and bundled payments. Some rural health care providers are also often ill-equipped to respond to public and private quality reporting and improvement imperatives and requirements. Too many small rural hospitals and physician practices still lack the necessary electronic health record (EHR) systems, staff, and other capacity needed to mount robust quality improvement programs. And finally, rural health systems typically lack the capacity to pursue population health strategies such as clinical care management and community health improvement.

While small scale—smaller economies, fewer people—is an inherent reality in rural health, the fragmented and "siloed" nature of the health system in many rural communities further undermines the ability of individual providers and the collective system to effectively pursue the goals of the Triple Aim[©]. Hospital care, primary care, specialty care, post-acute care, home health care, and public health providers and services are organized, governed, managed, and delivered largely independently of each other. Categorical public and private payment and funding arrangements, as well as regulatory requirements, have contributed to health system fragmentation and represent significant barriers to service integration. The rural health system of today, including providers and other health and public health services, is the product of legacy policies and programs that often do not "fit" current local needs and often have misaligned incentives that undermine high-value and efficient care delivery. Policies such as cost-based reimbursement, for example, have sustained some hospitals, thereby ensuring access to medical procedures, imaging, and diagnostics/testing services. But those policies have not created incentives for value-based models that invest less in technology-intensive medical services and more in health promotion, improved clinical care quality, enhanced patient safety and experience, and better population health at lower per capita costs.

Rural communities do have enormous potential for achieving the objectives of a high performance rural health system. While there are limitations related to scalability in rural health system development, there are also advantages that come with smaller scale. Smaller systems can be more facile in making the kind of change necessary to succeed in the new health care environment—novel delivery arrangements may be pursued more easily among stakeholders who know one another and who have a collective interest in improving community well-being. And while the transition to high performance rural health systems will require a change in the balance and configuration of essential services, greater integration

within and across service sectors, attention to population health, and shared governance and management structures, the odds of success in rural communities implementing new strategies could be higher than in urban areas.

In this paper, we discuss strategies and options for creating a pathway to a transformed, high performing rural health system. This paper builds on the RUPRI Health Panel's earlier paper that conceptually defined the core elements of a high performance rural health system.[2] We have also incorporated into our discussion many of the ideas and insights gained from a forum of rural health leaders and practitioners convened in May 2014. The paper is intended to foster action, but does not prescribe specific policy actions or delve into details of particular policies or initiatives already being implemented. Through this discussion, we hope to inform rural health system transformation efforts by:

- Describing the essential elements of a high performing rural health system;

- Highlighting different approaches that embody the elements and principles of high performance systems and illustrating strategies for achieving them;

- Discussing the system governance challenges and options needed to implement key strategies and options; and

- Presenting the Panel's assessment of policy and other options for advancing the transition to a high performance system.

Background

The Current Rural Health Landscape

A transformation is underway in the U.S. health care system, driven by pressures from private and public payers and expectations for new approaches to achieve health objectives. This transformation includes a focus on population health and individual well-being, using new technologies such as telehealth, and employing new workers such as community health workers. How that transformation unfolds in rural areas will be influenced by how long-standing rural circumstances are addressed, and how rural providers and communities seize opportunities to redesign service delivery. Historically, service delivery challenges have been related to access to health care services—local access to primary care providers and specialists; access to emergency care, acute care, and long-term care services; and access to important social services that impact the health of rural community members. But barriers to access are much more complex than these factors imply.[3] Economic barriers to access are more prevalent in rural places due to poor economic opportunity, higher uninsured rates, and lower incomes, which lead to a higher number of rural persons relying on public insurance. There are relatively higher percentages of rural people in fair or poor health compared to urban populations, and a higher prevalence of chronic conditions related to an older populace in rural places. Growing population diversity in rural communities introduces complex cultural, personal, and health belief factors. Rural providers, in turn, are disproportionately affected by the reimbursement policies of public payers because of the poorer and older patient mix. Payers, through their reimbursement policies, have enormous influence over who practices in rural areas and how those services are organized. These factors compel a different "fit" between health and social resources in rural communities than in urban centers, and force more vulnerable rural health systems to consider how to deliver health with greater sensitivity, competency, coordination, and efficiency than in the past.

Changes already underway are having a significant impact on rural health systems and the way they deliver care. As discussed below, new public and private payment strategies, expanded insurance coverage, and delivery system reform under the Patient Protection and Affordable Care Act of 2010 (ACA) are three significant drivers of health care delivery change.

New Public and Private Payment Strategies

Government payers, commercial insurers, and self-insured organizations increasingly demand health care of *value.* Health care value is defined and measured as better health care (improved clinical quality, patient safety, and patient experience) and lower per capita costs.

The demand for value has compelled many insurers and some health care providers to look "upstream" for opportunities to prevent disease and disability in order to eventually reduce per capita costs. Health care payers are increasingly holding health care providers accountable (i.e., at financial risk) for improved value through payment alternatives to fee-for-service (FFS) and cost-based reimbursement. These new payment strategies include financial bonuses and

penalties based on clinical quality, per capita payments for care management, and shared savings for improved efficiencies. There is also increasing support for the type of care likely to improve health care value and outcomes, such as care coordination services and robust primary care. Thus, the health care environment is in the midst of a transition from FFS payments to value-driven and population-based (capitated) payments for better outcomes supported by increasingly sophisticated performance metrics.

Unfortunately, many rural health care providers may be unable to meet these demands for value within the rural health system described above. The infrastructure to improve quality and value, including quality improvement expertise, common EHR and connectivity platforms, data analytics, patient experience focus, clinical care standardization, care coordination, common performance metric implementation, and financial resources necessary for innovation, often requires the resources of larger, organized health systems than are present in most rural places. To obtain access to these resources, health care providers are increasingly merging or affiliating, creating opportunities for developing a clinically integrated network to better manage the care of people along the continuum—avoiding duplication, seamlessly transitioning care between providers, ensuring consistent quality, and eventually lowering per capita costs.

Expanded Insurance Coverage under the ACA

Access to affordable health insurance has expanded with the implementation of the ACA, but the full impact of the ACA on rural health systems is as yet unknown. There is early evidence that increased access to health insurance through the insurance marketplaces and Medicaid expansions are reducing the uninsured rate.[4,5] How expanded insurance coverage translates into access to and use of services (and the corollary impact on the financial stability of the delivery system) is still to be determined.

Insurance coverage expansion (in places that are taking advantage of the coverage expansion provision under the ACA) allows health care providers to remain financially stable in areas with smaller populations—a critically important factor in rural places, because these communities represent smaller markets with historically higher numbers of residents uninsured. To date, it appears that coverage expansions through the marketplaces and in states that have expanded Medicaid have already had an effect on rates of un- and under-insured, moderating some of the economic barriers to insurance access in rural areas.[6] The ability of rural health systems to transition to high performance systems may be compromised in states that have not chosen to expand Medicaid and/or where outreach and enrollment in the marketplaces is lower.[7]

Delivery System and Finance Reform under the ACA

The ACA includes many provisions that aim to improve quality and cost efficiency through changes in health care delivery and payment. These changes, including the move to patient-centered medical home (PCMH) and ACO financing models may facilitate changes in rural delivery as providers and systems respond to incentives to change how rural providers

configure and deliver services to better align with quality and payment incentives. The Medicare Shared Savings Program (Medicare ACOs) and the Bundled Payments for Care Improvement Initiative are among the provisions in the ACA that have already been implemented.

Other payment policy changes under the ACA create incentives to improve and sustain quality of care (e.g., payment based on provider performance on clinical care processes, outcomes, and costs), including value-based purchasing in physician payment beginning in 2015, refinement to the quality metrics used in payment systems, and use of quality metrics in the ACO program. Additional payment changes affecting rural health care providers include Medicaid/Medicare payment parity and Primary Care Incentive Payment, which increase payment to rural primary care providers through December 2014 and December 2015, respectively; reducing PPS payment through an increased productivity adjustment; and reducing disproportionate share payments to hospitals.

The ACA also created and funded the Center for Medicare and Medicaid Innovation to support new demonstration projects. After an evaluation, the Centers for Medicare and Medicaid Services (CMS) has the authority to change Medicare policy based on demonstration results. Specific projects have included the Community-based Care Transitions Program and the Federally Qualified Health Center (FQHC) Advanced Primary Care Practice Demonstration.

These and other federal and state policy actions should improve macro-level measures of affordability and access in rural areas (e.g., uninsurance rates, provider supply, improved health outcomes), though it will likely take several years for the full effects of the ACA to be seen. It is also important to note that analyses of the net impact of all ACA provisions may miss significant variation across rural areas, different states, health system sectors, and rural people.

Future high performance rural health systems will require innovative health care approaches that respond to and move beyond these drivers of change. In the following sections we review the foundations of a high performance rural health system and discuss essential services in rural health.

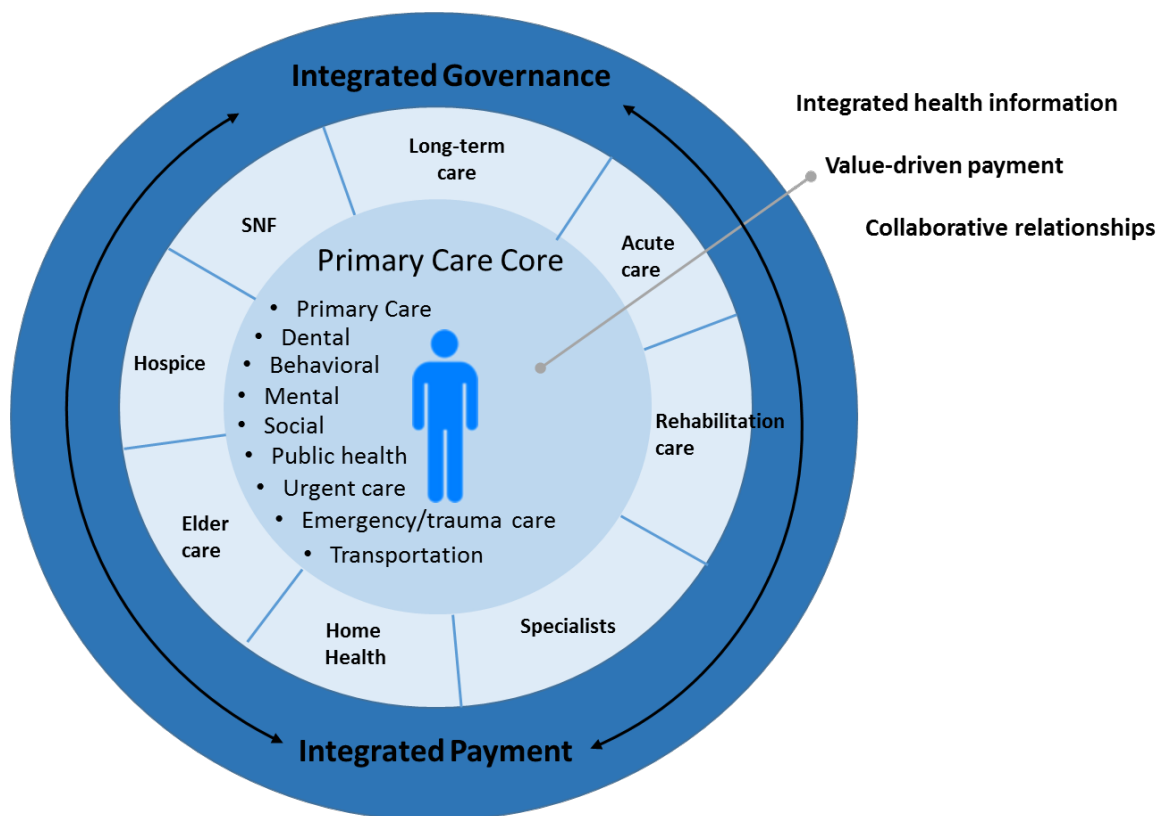## Foundations of a High Performance Rural Health System

High performance rural health systems are predicated on a robust primary care base that integrates medical, dental, and behavioral health care; human services; community health; and other services affecting rural quality of life.[2] Ideally, these services are integrated and aligned beyond the clinical setting, supported by financial arrangements designed to achieve and sustain the five pillars of a high performance system: affordability, accessibility, community health, high quality care, and patient-centeredness. High performance rural health systems are flexible and responsive to a community's unique needs, yet they share a common set of characteristics that rely upon accessible health information to manage and coordinate care, respond to value-driven payment policies, offer collaborative provider relationships across the vertical and horizontal care continua, and pay attention to the health of individuals in the community and the underlying social conditions affecting community well-being.[8]

> *The RUPRI Health Panel envisions rural health care that is affordable and accessible for rural residents through a sustainable health system that delivers high quality, high value services. A high performance rural health care system informed by the needs of each unique rural community will lead to greater community health and well-being.*

Essential Rural Community Health Services

Essential community health services in rural areas should share the basic building blocks of local primary care capacity, including the ability to respond to a range of personal health care needs (e.g., preventive, urgent, emergent, and palliative) and address community health needs. Beyond providing a basic level of access to health care, however, the "ideal" high performance rural health system is designed to meet essential health *and* health-related (e.g., social services, transportation) needs of individuals and families. In future rural health systems, co-locating resources in a proximate location such as a health mall or health hub can facilitate access to a broad range of community-appropriate services. Figure 1 illustrates essential services that are locally provided, physically or virtually integrated, and coordinated across the care continuum in the ideal high performance rural health system.

Figure 1. Essential health services and organization in the ideal high performance rural health system

In this configuration, rural persons have access to locally provided, comprehensive, and affordable primary care services that are integrated with social, behavioral, mental, and dental health services. Screenings such as oral health for infants and children, for example, may be provided at the same time as a primary care visit. Public health, emergency response, urgent

care, and transportation services are a key part of the core model, as they provide various means of access to essential specialized care resources. Access to specialists, acute care/hospitals, home health, hospice, skilled nursing, elder care, rehabilitation (e.g., physical therapy), and long-term services and supports (e.g., home and community-based services) occurs through primary care coordination in collaboration with other community or regional resources. A shared EHR enables providers to view entire health histories and health status factors. Dentists, for example, may see that a patient requires a tetanus shot; primary care providers may see that a dental visit is overdue.

Common medical, surgical, and pharmaceutical supplies are available locally. Emergency response services are mobile rather than fixed, and electronic links via telemedicine to higher level trauma centers, specialists, and/or pharmacists tap into expert resources located remotely in real time. Use of virtual technologies facilitates access to care, transfer planning and coordination, and communication between providers, patients, and families while saving costs associated with patient travel and local provision of specialized services. Acute care services are provided locally or more distant, but referral relationships between providers should be collaborative and seamless to patients. Shifting a portion of the care away from "primacy of the rescue" to disease prevention and health promotion relieves the rural health system of significant back-end costs associated with expensive care. These savings may be reinvested into performance improvement efforts, understanding gaps in community capacity, or community-based workforce training in order to fine-tune the system to local needs.

In this model, workforce design relies upon a team-based approach, with health professionals trained in community settings who effectively collaborate across services and sectors to provide the full continuum of care. Team members should include "comprehensivists," primary care providers who evaluate and treat persons undifferentiated by age, gender, or health condition. Team members should involve a broad range of primary care provider disciplines that may include, but need not be limited to, physicians, nurse practitioners, physician assistants, and prescriptive psychologists. The team should also include nonclinical primary care extenders who perform a variety of care management, coordination, and outreach activities. Many areas of the United States increasingly rely on primary care extenders, such as promoters/community health workers, peer support specialists, care managers/coordinators, and health/wellness coaches, to provide a critical link between the local health care system and the community.[9]

To achieve this ideal, new approaches are needed to change the fundamentals of how community health and health-related services are organized and financed. Governance structures and corresponding mechanisms and protocols for service coordination and/or integration across service sectors (e.g., health, human services, and community development) are needed to achieve the common objective of sustainable, healthy communities. The following section highlights examples of efforts by rural communities to fine-tune their health care delivery models to the unique needs and priorities of their communities.

Rural System Development Approaches to the Changing Health Care Landscape

The health care delivery approaches briefly described here illustrate U.S. and international efforts to respond to changing health care landscapes and local needs. The approaches range in scope and structure, from large-scale provider integration and hospital networks to small, stand-alone urgent care centers integrated with others to provide care across the continuum. Each approach represents a response to the challenge of delivering locally essential services in rural areas, and to the payment paradigms that drive the structure and organization of the delivery system. We categorize these approaches in the following four ways:

1. Community-appropriate health system development and workforce design

2. Governance and integration approaches

3. Flexibility in facility or program designation to care for patients in new ways

4. Financing models that promote investment in delivery system reform

1. Community-appropriate health system development and workforce design

The following examples share an approach to health care delivery that is community-determined and driven. The term "community" is defined in geographical terms (e.g., state, region, town/village), and the form of delivery organization is informed by an identification of local community health needs and priorities.

- *Vermont Blueprint for Health* is a state-led initiative that guides stakeholders in each of the state's geographic Health Services Area toward an integrated health services model. The model promotes health maintenance, prevention, and care coordination and management with the goal of improving the overall health of the population while also controlling health care costs.[10] The model includes PCMHs, multi-disciplinary Community Health Teams (CHTs include health educators, community resource social workers, behavioral health social workers, health coaches, and dieticians), specialized care coordinators (who support the PCMH practices and patients), evidence-based self-management programs, all-payer payment reforms that finance PCMH transformation and the CHTs, and health information technology to support health information exchanges and population management. Recent efforts have expanded in two new directions—Supports and Services at Home (SASH) coverage for high-risk Medicare beneficiaries, and a new model of care for opioid addiction treatment called Hub and Spoke, where hubs consist of five regional addiction treatment centers and spokes are comprised of 30 staff trained in drug prescribing practices.

- *Alaska Tribal Health System* is a voluntary affiliation among 30 Alaskan tribes and tribal organizations that provide health services to Alaska Natives and American Indians in a hub-and-spoke configuration.[11] Specific geographical areas are served by tribes or tribal health organizations, with primary care delivered in small communities and villages, mid-level primary care delivered sub-regionally, hospital services provided at the regional level, and tertiary care provided in Anchorage at the Alaska Native Medical

Center. Village-based primary care services are delivered by community health aides and practitioners, behavioral health aides, dental health aides and therapists, and home health/personal care attendants. Each geographic region has its own configuration of health care delivery managed by tribes or tribal health organizations. The Alaska Native Tribal Health Consortium supports all tribes and tribal health organizations by providing medical, community, environmental health and engineering, and health information technology services statewide. Community health services and programs "wraparound" medical service provision and include health promotion and disease prevention, injury prevention, food safety monitoring, emergency preparedness, and immunizations. The Alaska Area Indian Health Service provides approximately 99% of their budget to the Alaska Native Tribes and Tribal Organizations for the delivery of health care services.

- *Local Health Integration Networks* (LHINs) in rural Ontario, Canada, function as planning boards responsible for improving health care delivery, accessibility, and quality within a specified geographic area. Structured as nonprofit corporations funded by the Ontario Ministry of Health and Long-Term Care, the boards comprise government officials, patient advocates, and providers. The LHINs distribute funds to local providers—who enter into accountability agreements for expenditure targets and care quality with the LHIN—using incentives to drive providers toward increased integration and use of care coordination. The LHIN model is a locally based, top-down program for central planning and funding of rural health services.

- *System-building grants* expand local and regional health care capacity. One example is the Southern Rural Access Program, funded by the Robert Wood John Foundation from 1998-2005. Grants were made to entities in Alabama, Arkansas, Georgia, Louisiana, Mississippi, South Carolina, Texas, and West Virginia for workforce development and expanding the capacity and sustainability of local health providers. Grantees included hospitals, primary care clinics, Area Health Education Centers, and public health agencies. Another example is the Small Communities Program, a system-building grant under the Centers for Disease Control and Prevention's (CDC's) Community Transformation Grants program. This initiative has awarded grants to communities that implement strategies to reduce health disparities and expand clinical and community preventive services. The awards support National Prevention Strategy objectives of tobacco-free living; active living/healthy eating; high-impact, high-quality clinical and community preventive services; social and emotional wellness; and healthy and safe physical environments.[12]

- *Rural alliances* are associations that form to take advantage of resource pooling. Reductions in overhead are achieved by spreading administrative costs (e.g., purchasing, collections, employee benefits, and marketing) over multiple organizations, even though the organizations retain separate ownership. Investments in technology, such as new medical equipment or new EHR systems, can be made with much lower institutional risk in an alliance structure. These types of investments bring technological advancement and shared learning to rural communities. One example is Northland Health Alliance in

North Dakota, which uses mobile MRI units that travel among the 10 member hospitals. The North Dakota Information Technology Network, another technology-focused alliance consisting of 10 CAHs, built a shared EHR system. Sisu Healthcare IT Solutions, based in Northeastern Minnesota, was created by a group of rural organizations to address information technology needs. Their joint purchasing power was used to purchase EHR systems and share information technology staff across CAHs, physician practices, behavioral health, and long-term care.

- *Transforming Rural Urgent Care Systems* (TrUCS) is a pilot project in a remote, southeastern Australia town considered too small for a stand-alone acute care facility. Funded by the State Ministry of Health (Victoria) and staffed through a nearby university's School of Rural Health, the urgent care clinic provides a range of services, from urgent response (ambulance, medical care) to social services (addressing underlying social determinants of health) through the inclusion of social workers on the care team. The facility is also partially staffed through community volunteers, which facilitates community buy-in and involvement. A steering committee coordinates stakeholder efforts and engagement, and includes members of the community, health professionals, health institutions, local and state government representation, and project officers from the State Ministry of Health to coordinate agendas and activities.

2. Governance and integration approaches

The following examples illustrate how entities manage and deliver integrated health services within either a global budget or a constrained reimbursement environment.

- *Primary Care Trusts (PCTs)* in England under the National Health Service (NHS) were administrative bodies that contracted with providers to deliver primary care and public health services in a particular geographic region.[13] PCTs acted independently and set their own budgets with funds from the NHS. They were given wide latitude to perform community needs assessments and tailor service delivery to local needs and resources. Specific services covered through all PCTs were primary care, prescriptions, and behavioral health. Other services were contracted if the trust determined it was an area of need. PCTs management was by a board of directors, who dealt with day-to-day operations, and a professional executive committee.[14] The board of directors was composed of administrators and headed by a CEO. The professional executive committee was composed of providers from the PCT's region and served as an advisory body to the board of directors. Notably, hospitals were excluded from this management structure. In 2013, the British government restructured primary care and public health services, eliminating PCTs and placing responsibility for operations and financial management in the hands of primary care physicians.

- *Hospital Regionalization* in Denmark places responsibility for health care services at the county level.[15] Counties determine the number and location of physicians and negotiate a combined capitated and FFS fee. Hospitals are owned and operated by the county governments. Counties are given wide latitude in operating their health care systems. Each county sets a budget with funds from the national government and establishes

priorities for its system. Public health services are either integrated with county hospital systems or provided through primary care. With this degree of decentralization, there is wide variation in hospital governance and structure of the overall system. Hospitals negotiate a global budget with their respective county. In recent years, some counties introduced payment through DRGs to complement the global budget. The National Board of Health exerts partial authority over county and municipality health care delivery. It requires counties to create four-year plans identifying community needs and steps to address them. Counties are also required to demonstrate coordination of services with local municipalities, which are responsible for long-term support services.

- *Post-acute care integration models* in the United States combine acute care services at a CAH with post-acute care provided at a skilled nursing facility (SNF).[16] Focusing on older patients with multiple comorbidities, both service lines operate under the same facility and share management and resources. This allows providers in both service lines to increase care coordination and transparency in outcomes. Pay for performance incentives work to increase quality of care while reducing inpatient readmissions after patients leave the SNF. Post-SNF, the provider still maintains responsibility for patient care through a combination of case management and telemedicine. The Mayo Clinic has pioneered many of the elements of this model with its Transitional Care and Ventilator Programs that operate in 11 CAHs in Minnesota, Wisconsin, and Iowa. Another version of this model is the Wisconsin Ventilator Program, created in 1997.[16] In this program, SNFs and CAHs maintain separate operations and ownership, but collaborate to create teams dedicated to patient-centered care while reducing costly hospital readmissions.

3.   Flexibility in facility or program designation to care for patients in new ways
The following examples highlight approaches that meet specific programmatic objectives. The objectives may be met by adhering to designation or certification standards set by policy makers or accreditation organizations, or by incorporating business model approaches that designate facility use and purposes.
- *Patient-Centered Medical Homes (PCMHs)* focus on delivering comprehensive, high-quality, and efficient patient-centered preventive and primary care through a team of providers that are either physically or virtually integrated.[17] Health information technology facilitates information sharing, care coordination, and communication among medical home providers, which can include physicians, nurses, nutritionists, pharmacists, social workers, and dentists, among others, and serves as the coordinating hub when a patient needs specialty or acute care. Payment to PCMHs rewards quality of patient outcomes rather than service volume.

- *Frontier Extended Stay Clinics* (FESCs) were designed to provide care in a geographically isolated area where timely transfer to a hospital is not always feasible. Services include primary care, emergency care, and extended-stay services. This service mix is intended to scale up from the capacities of a small subacute clinic. To qualify, a facility had to be at least 75 miles away from the next level of care. Four clinics in Alaska and one in the state of Washington were selected to participate in the pilot program, and early

evidence suggests clinical outcomes have improved due to quality improvement efforts, medical equipment purchases, and knowledge exchange.

- *Frontier Community Health Integration Project* (F-CHIP)[18] is intended to assist rural hospitals in increasing financial sustainability, improving care coordination, and addressing regulatory challenges.[19] F-CHIP allows integration of home health, hospice, acute care, and extended care services under the cost-based reimbursement rules allowed CAHs. The CAHs in this model are responsible for the entire continuum of care in a rural community, and cost-based reimbursement allows them to utilize less expensive services to treat patients with chronic conditions while de-emphasizing inpatient care.

- *FQHCs* are safety-net providers that offer primary care and preventive services, dental services, mental health and substance abuse services, transportation, and hospital/specialist care for all age groups, regardless of ability to pay.[20] These providers include Community Health Centers, public housing centers, outpatient health programs funded by the Indian Health Service, and programs serving migrant and homeless populations. Under Section 330 of the Public Health Service Act, FQHCs receive grant funding and enhanced reimbursement from Medicare and Medicaid to serve communities that by Health Resources and Services Administration (HRSA) definition are medically underserved areas or have medically underserved populations. FQHCs are nonprofit, and require a board comprising a majority of active, registered users of the health center to ensure that it is community-based and responsive to local health care needs.

- *Freestanding EDs (FEDs)* are emergency departments not attached to an inpatient facility.[21] First used in the 1970s, these facilities sought to provide emergency services to rural communities without the patient volume or resources to support a full-fledged CAH. In 2004, FEDs were recognized by CMS. They are similar to urgent care facilities, however most are open 24 hours a day, 7 days a week, and can perform urgent emergency support (e.g., intubation, conscious sedation). Staff at these facilities include emergency physicians and nurses specializing in emergency care. Lab and radiology services are usually provided onsite. Typically, FEDs are part of a larger regional health system.

4.   Financing models that promote investment in delivery system reform

The following examples illustrate how financial mechanisms are used to promote investment via incentives to reconfigure health care services, including shared savings arrangements, Medicaid waivers to experiment with new modes of care delivery, and capitated payments.

- *ACOs* are a new health care financing model in which a group of providers (generally physicians and hospitals) agree to provide high-quality care at lower per capita cost. If costs are lower than predicted, the payer shares the savings with providers. Approximately 660 ACOs operate nationally, and greater than half of them are Medicare ACOs. The National Rural Accountable Care Organization is a group of eight

noncontiguous health care organizations with over 10,000 attributed beneficiaries that operates as an ACO under the Medicare Shared Savings Program.

- *Innovations in Medicaid* (Section 1115 waivers) have long been a mechanism for financing innovative delivery system reform at the state level. Such demonstration waivers allow states to pursue five-year projects that experiment with new ways of providing and paying for care. In 2011, the Texas Health and Human Services Commission received a waiver to expand managed care and create pools of funding for delivery system reform and cover uncompensated care.[22] Under the waiver, Texas is receiving $29 billion to reimburse uncompensated care and fund its Delivery System Reform Incentive Payment (DSRIP). DSRIP funds hospital pilot programs that increase quality and lower the per capita cost of care. Rural hospitals are represented through a Rural Workgroup, which shares knowledge and best practices. Through this waiver, Texas plans to scale up statewide the most successful pilot programs.

- *HMO capitation models* in integrated health systems, such as the Geisinger Health System in Pennsylvania, focus on primary care and aligned delivery across the care continuum. The integrated delivery system is financed through bundled payments, which fosters a focus on managing patients through case management and PCMHs. In the Geisinger System, 2.5 million patients across 50 rural counties are served by 700 physicians in 55 outpatient clinics, three hospitals, and other specialty facilities. *Health Connections*, another example of an integrated system, in rural Minnesota, provides care through several clinics, three hospitals, and long-term care facilities. This system partners with two public health agencies to share resources and collaboratively identify community health needs. The collaboration uses existing public and private community resources to address health-related needs.

These approaches are examples of the many different responses an entity, a group of entities, or a community can make to address changes underway in their health care environment. Not all models will fit all conditions (e.g., FESCs are for frontier designated areas, and freestanding EDs without primary care capacity may not be a viable option in some areas), and careful consideration must be given to the local context and unique circumstances that could enable or hinder the application in a rural setting.

The Importance of Integrated Governance

Delivery of health care has moved from a focus on individual patients to a community or population. Caring for a population requires focusing on overall health rather than simply providing health *care*. A high performance rural health system integrates a continuum of health services in a community, including clinical care, public health, and social services that address the upstream determinants that drive a community's level of health. These services are supplied through public health organizations, medical/clinical providers, insurers, social service providers, schools, and community-based NGOs such as faith-based organizations. However, to improve population health, population health services must be funded. They must also be decoupled from the medical visit, and provided by the most appropriate community entity. Public health, social and community health groups, and health care delivery systems (e.g., hospitals and physicians) should align under community health system boards that oversee and ensure that services are provided in the most effective, appropriate, and efficient way.[23]

Integrated governance is the most critical and necessary condition for a successful and sustained transition to a high performance rural health system. Integrated governance means that leaders from a community's or region's public and private entities that deliver health and health-related services, in tandem with community representation, organize in a formal, unified way with a commitment to transition local health resources away from legacy configurations toward a new, purposeful care delivery system that reflects the actual needs of rural communities, and which is based on providing essential services that are integrated, coordinated, and efficiently delivered regardless of setting (e.g., hospital or clinic). Integrated governance consolidates authority and responsibility for oversight of rural health through consensus building, priority setting, decision-making, and the aggregation and distribution of funds to support system development. The new entity—which could be in the form of a consortium, an alliance, a coalition, or a foundation—must have strong, knowledgeable leaders representing stakeholder and community constituents, yet the entity must also have leaders who are willing to work toward a new, shared vision of system development, even if it means a departure from legacy interests.

The ideal model of governance depends on local context; a rural community of 1,000 needs a different system structure and set of services than a rural community of 10,000. One option for rural communities is the use of community health system boards that bring stakeholders together under one umbrella. The structure results in a single, common board for multiple organizations or a system-level board with representatives from multiple community organizations. In essence, integrated governance has the following functions and purpose:
- Create regional "megaboards" that oversee a wide continuum of health care and social services that address both clinical care and underlying social determinants of health;

- Develop core, shared infrastructure and services needed to coordinate and integrate services across the continuum (e.g., development and implementation of EHRs, telehealth, home health, and other systems);

- Aggregate and create flexible funding streams to support integrated care, and develop new funding and payment arrangements that focus on population health;

- Assess common community and regional health needs to identify gaps and improvement strategies;

- Develop and implement health system innovations and pursue grant-funded initiatives; and

- Support workforce development priorities.

Humboldt County, California, and regional public health entities in New Hampshire, Maine, and other states provide examples of a "megaboard" structure focusing on the health of a population within a geographic region. County or state departments of public health convene these boards to coordinate stakeholder activities to address the full continuum of community needs. Examples of stakeholders include hospitals, private physician practices, social service providers, and employers.

Funding of these boards depends on local context. In Humboldt County, the Department of Public Health largely funds the coalition's activities. New Hampshire's Regional Public Health Networks rely more on hospitals to fund nonpublic organizations that are contracted for certain health or social services. Seed funding may be provided through grants, or through private or public foundations. Regardless of financing, coalition stakeholders should act in concert to address the wide continuum of community health needs.

With increased emphasis on integrated governance, rural communities may be challenged by the tension between the desire for local control and the trend toward hospital and clinic affiliations with larger health systems whose system "home" is not in the local community. Increasingly, this trend means that priority setting and resource allocation occurs centrally by the health system, with the expectation that the local member facilities align and participate in the system-determined goals and activities, which may not be congruent with local goals and priorities.

To address this tension, rural leaders should strive for multistakeholder alignment—including with the system(s) present in their community—regarding community goals and priorities. This increases the complexity of the multistakeholder interaction in decision making and requires enhanced mechanisms for stakeholder participation, coordination, and commitment beyond narrow self-interest to track mutually agreed upon goals. The 2013 World Economic Forum *Multistakeholder Collaboration for Healthy Living – Toolkit for Joint Action*[24] describes the role of an intermediary in resolving conflicting interests, i.e., a brokering individual, group, or neutral platform who can bridge differences to bring stakeholders together. This effort should ensure clarity regarding how the local community is defined, and the scope and authority of governance and decision making. ReThink Health, an organization that aids communities and stakeholders in aligning their health system through shared aspirations and objectives, led a multistakeholder planning and action process in rural Colorado that resulted in a stewardship

strategy supported by a coalition of 45 senior leaders in the region, both directly and indirectly in the health sector.[25] While ultimately the governance structure and financing streams must be tailored to local context, finding common ground among community stakeholders through thoughtful planning and action processes is a critical first step toward transformation, and may require involvement of an intermediary who can facilitate the multistakeholder process.

Public Policy Considerations: Challenges in Transitioning from Status Quo to High Performance

Public policies will help shape the pathway to a transformed, high performing rural health system. Although a great deal of attention is now focused on the effects of the ACA, the rural health delivery system is more broadly impacted by not only the ACA but also payment policies, regulations, administrative actions across state and federal programs, and grants for projects and demonstrations. Some of these policies became law several years before the ACA and are still in the implementation phase. In this section of the paper, we describe policies, general and specific, that are relevant to the four system development approaches leading to a high performance rural health system.

1.   Community-appropriate health system development and workforce design
The creative design of delivery systems should include roles for local rural health care providers, encourage flexible use of public dollars, pay for services developed in new system configurations, and make optimal use of health care professionals.

- The Medicare Shared Savings Program should be continuously improved. Some elements of this program that are of particular importance for rural areas include assignment of Medicare beneficiaries to primary care providers, determining threshold values as a function of total numbers of beneficiaries, inclusion of Rural Health Clinics and FQHCs, and extension of ACO status beyond the initial three years.[26]

- Payment should support development of redesigned rural primary care systems, such as the new payment to primary care providers for care management.[27]

- Policies should facilitate adoption of telehealth where appropriate (i.e., proven clinical value at reasonable cost). Linking rural delivery sites and providers to urban-based systems will help incorporate rural communities into integrated systems of care. Specific policies recommended include payment within the current FFS system, investment in extending high-speed broadband capacity, and changes to licensing and certification to permit health care professionals to practice across state lines and in multiple settings.

- Reviews of potential antitrust violations should consider the benefits to rural communities from integrated systems that can achieve a population and economic scale necessary to support care coordination and other activities in rural places. For example, the Panel has supported a rural exception in the antitrust safety zone treatment for certain Medicare ACOs that include rural-based providers.[28]

- Federal support for training a new health care workforce in HRSA programs supported by Titles VII and VIII of the Public Health Service Act, including ACA provisions focused on primary care workforce (such as the Primary Care Extension Program in Section 5405), will enable new delivery system models and therefore should be fully funded.[6]

- Federal research and planning related to workforce should incorporate all participants in the workforce, including patient assisters/health coaches and others that extend the reach of the delivery system into the community. While HRSA can do much of this work

under current authority and appropriations, the National Health Care Workforce Commission should be funded.[6]

- Several federal grant programs can support system development: The Federal Office of Rural Health Policy's Network and Outreach Grants,[29,30] the State Innovation Models (SIM) Initiative funded by the Center for Medicare and Medicaid Innovation,[31] and Community Transformation Grants supported by the CDC.[12] Program announcements should encourage use of funds to break away from traditional project-specific uses to implement systemic change in rural communities and regions.

2.   Governance and integration approaches

Resources, guidance, and rules are needed to support innovative organizational design and investments for health care entities. Investments might start with modest grant funding through programs listed in approach 1, above. However, the capital requirements for structural (physical and organizational) redesign will likely exceed support available through grant programs.

- Capital available through programs such as the U.S. Department of Agriculture's Community Facilities Program should be targeted to rural providers and places engaged in service integration and redesign. The RUPRI Panel has previously proposed supporting projects that bring local policy sectors (e.g., health and human services) together to meet the needs of particular populations, and demonstrating such a collaboration through use of formal memoranda of understanding or other documentation would be evidence of a commitment to new approaches to governance.[32] We continue to encourage coordination of strategic investments through innovative local organizations (e.g., incorporating support for high-speed broadband connectivity).

- Support should continue through renewable grant funding to specific entities and should be directed to collaborations among local provider and service organizations. Agencies providing the funding should require evidence of collaborations focused on the health of local populations, similar to requirements described above for capital funding.

- A federal task force should review the governing requirements for all types of health care and human service entities receiving federal support through grants and specific payment policies. The review should identify inconsistencies in required composition and recommend policy changes that align those requirements. The review should include consideration of state requirements as well. The intent of a task force review and recommendations is to pave the way for creating locally based megaboards that could unify decision making among local entities.

- The White House Rural Council should discuss new approaches to designing programs across agencies such that funding streams are easily merged to support innovative system design.

- Additional means of aggregating capital for local investment should be explored.

3. Flexibility in facility or program designation to care for patients in new ways

Current designations of provider entities will inhibit a transition to a high performance health system. The following policies will facilitate sustainable approaches (which will vary by community type) to delivering high-quality, coordinated care across the continuum.

- Two options described earlier in this paper, FESC and F-CHIP, should evolve into a federally supported designation of a facility type(s) that provides essential clinical services in frontier settings.

- As alternatives are understood and facilitated by state and federal action, some rural facilities currently configured to provide inpatient hospital services should be reconfigured as medical hubs in their communities to provide essential local services that do not include inpatient hospitalization. Changes in regulatory and payment policies will need to accommodate that evolution.

- The recent growth in PCMHs provides opportunities for new means of delivering care in rural areas. Two sections of the ACA should be implemented in ways to encourage rural innovation in medical homes—Section 2703, "State Option to Provide Health Homes for (Medicaid) Enrollees with Chronic Conditions," and Section 3502, "Establishing Community Health Teams to Support the Patient-Centered Medical Home." We have commented previously on Section 3502.[33]

4. Financing models that promote investment in delivery system reform

Transforming the rural health system requires modification of payment policies, including public and private sources. Medicare payment policy continues to be a major consideration for many rural providers (especially hospitals), and Medicaid—already a very important payment source—is becoming an even more important payment source because of Medicaid expansion in some states. Transitions from current FFS, volume-driven payment systems to new, value-driven payment methods, focused on outcomes such as patient and population health, are necessary. For rural providers, operating on very thin (often slightly negative) financial margins, payment transitions will be challenging and policy implementation should reflect that reality. Payment policies should align with system redesign and improvement.

- Value-based purchasing methods have been implemented for prospective payment hospitals as well as for other health care providers (e.g., FQHCs, home health agencies). The RUPRI Health Panel has consistently supported using achievement and improvement in tandem, so that rural health providers making significant progress toward achieving high quality outcomes are rewarded.[34] Doing so is consistent with transitions to new approaches building and sustaining high quality local systems of care.

- Cost-based reimbursement remains in place for certain rural providers (e.g., CAHs). This methodology helped small rural hospitals remain viable sources of essential services in their communities, and continues to be important to financial viability.[35] However, new payment methodologies, such as shared savings, global payments, or bundled payment to delivery systems, are evolving and may be desirable payment models for rural providers currently reimbursed based on cost. The RUPRI Health Panel has commented

that new payment models should be designed, demonstrated, and implemented to facilitate the transition to high performance systems.[6]

- As changes occur in payment methods, incentives for investment should also change. Such a shift will mean less investment in traditional physical plant infrastructure and more investment in information systems, personnel, and physical infrastructure associated with meeting the needs of populations outside of the "four walls" of hospitals and fixed-place clinics. Policies regarding use of public investment programs and revenues generated by incentives to manage patient care more cost effectively (e.g., shared savings, global payment, payment for care management) should allow new investment strategies.

Next Steps: Demonstrations to Trial Transition Strategies for Rural Health Systems

Rural providers need large-scale rural health care delivery and finance demonstrations that, if shown to improve rural health care value, can be quickly brought to national scale. Demonstrations should incorporate financing changes that effectively optimize and combine funding from previously disparate sources (for example, HRSA, CMS, CDC, private insurers, and charitable funders). To reach national scale, demonstrations should incorporate two or more of the four system development approaches described in this paper. For ease of understanding what might be most helpful, however, we offer the following descriptions of demonstration program ideas focused on each approach.

1. **Community-appropriate health system development and workforce design**
Demonstration Idea: Local primary care redesign

General Description: Projects would be solicited that include local primary care and health care providers (including the local hospital) in an organizational configuration that expands and sustains access to comprehensive primary care through primary care providers focused on individual and community health improvement, including PCMH (or person-centered health home) principles.

Key Elements:
- Involve all health care providers in the service area: Local hospitals, whether or not they also own physician practices, are important participants in the design and delivery of primary care services and therefore an integral part of the local primary care system where hospitals are feasible or financially viable. Similarly, other institutional providers, such as emergency medical care providers and long-term care facilities, should be engaged. Service agencies critical to total patient care, such as public health departments with outreach to homes and senior or social service agencies, should also be engaged.

- Use the principles of an enhanced PCMH model: While the exact configuration may vary across communities and therefore certification as a PCMH may not always be appropriate, the principles and standards included in a PCMH model should drive demonstration projects, including enhanced access and continuity, identification and management of patient populations, planned and managed care, self-care education and community support, the capacity to track and coordinate care, and the ability to measure and improve performance. To ensure optimal health outcomes, the model must include nonclinical providers essential to enabling community residents to understand and implement care, and adjunct services focusing on the underlying causes of ill health.

- Integrate with community-based service providers involved in patient care: Information systems and inter- or intra-organizational relationships should facilitate care management across the continuum, with core management originating from the local

primary care system. Telehealth capacity will be integral to these demonstration projects.

- Align financial incentives: Primary care case management payments are necessary for demonstration projects to be successful. The value-based purchasing model could create incentives based on metrics that include population health. A modest percentage of payment (e.g., 1-2 percent) could be withheld, then used for payment based on achieving threshold values. The payment could be made to the practice, not the individual physician, thus creating the potential to use that payment for the most appropriate service delivered by the appropriate member of the health team.

- Fund infrastructure needed to support new models of integrated community-based, patient-centered primary care services and facilities: New infrastructures include new clinic space in strategic locations, repurposed hospital space, and information systems accessible by patients and non-facility-dependent outreach staff and educators.

2. Governance and integration approaches

Demonstration Idea: Integrated governance

General Description: Projects would align various organizations in a community or region in a new model of governance. The models may include structures that use affiliation agreements and memoranda of understanding, or may require a new governing entity such as a community foundation or new designs that are responsible for merging funding streams and directing new programs.

Key Elements:
- Establish a governing board: A redesigned community board should represent all local organizations serving the health and well-being of community residents, and should include civic leadership. The community board may not necessarily be responsible for merging funding streams and allocating resources locally.

- Mandate board training: Mandatory education for board members must include the dynamics of relationship building among historically independent organizations.

- Assess community health needs: Projects must be grounded in the assessments of community health needs performed by local public health departments and local nonprofit hospitals. These community health needs assessments should be used together to inform a coordinated response for project planning and implementation processes.

- Include local government: In many rural communities a local government entity, typically the county, is involved in health care organization governance (e.g., hospitals, public health departments, social service agencies). Those entities should be involved in new governance models.

- Share leadership: Traditional hierarchical management structures often leave rural and frontier communities without meaningful succession plans, next generation thinking, or even leaders. In addition, health care is among the most complex industries, requiring

specific expertise in a wide variety of service categories. These factors are compressed in rural and frontier communities, which often do not have the luxury of multilayered management systems common in urban areas. Demonstration projects should include designs for shared and accountable leadership models across ranges of entities that would fall under integrated governance structures. These management partnerships are critical to the long-term viability of rural health systems, as they can create dynamic teams of individuals with a broad range of health care perspectives, and reduce system vulnerability to the loss of a single leader.

3.   Flexibility in facility or program designation to care for patients in new ways
Demonstration Idea: Frontier clinics

General Description: While the term "frontier" may be defined by formulae incorporating population concentration and distance criteria, it also characterizes places lacking arrays of health care services that may include acute inpatient capacity and other services found in larger population centers. Innovative models should secure sustainable essential health care services (comprehensive primary care, emergency care, public health and social services) integrated with services across the horizontal and vertical care continua. Models should be tailored to unique community circumstances (including health needs, available resources, linkages to distant health care delivery systems), but key elements can be replicated across locations.

Key Elements:
- Primary care: Unique blends of health personnel trained to meet the primary care needs of the local population may constitute this base, including physicians, physician assistants, advanced nurse practitioners, lay health workers, and community paramedics. Linkages, such as telehealth to health care providers elsewhere for consultation and indirect supervision, may be necessary.

- Emergency services: Existing models, including freestanding emergency rooms and FESCs that are part of delivery systems that support integrated services across the care continuum, may be supported through telemedicine by distant full-service facilities and personnel.

- Public health services: Achieving goals of community and population health requires protecting, improving, and sustaining local community health. Absent the scale needed to support a traditional local public health department, creative models may combine other community resources, such as local employer-based wellness programs, volunteer organizations, and regional service organizations, to meet community needs.

- Payment approaches: Given low volumes and integrated use of locally based personnel, creative means of financial support, including cost-based reimbursement or community capitation, at least initially should be part of any demonstration.

4.   Financing models that promote investment in delivery system reform
Demonstration Idea: Finance tools to repurpose existing local health care delivery assets

General Description: Existing local assets, which may include inpatient hospital facilities, will serve as health hubs in many rural places. Reconfiguring physical plants and using financing capacity of a central organization(s) (e.g., the community hospital, clinic, and SNF) will help transform the local delivery system.

Key Elements:

- Repurpose hospital facilities: Medicare Conditions of Participation should be modified as small rural hospitals (including CAHs) redesign service mix and reconfigure physical space to meet community needs with sustainable services (e.g., transitioning from acute care stays to stabilization following emergency room treatment, rehabilitation, and monitoring).

- Reconfigure service mix: Health hub demonstrations will bring essential services needing capital support under one umbrella, similar to FCHIP for administrative and payment purposes.

- Create new capital financing options: Financing that both retires existing debt from legacy investments and creates new capital to redesign the delivery system should be provided by a mix of governmental, charitable, and investment sources.

- Implement new payment policies: Demonstration projects should test different payment methods that move rural systems toward performance-based systems but with appropriate features that recognize the unique circumstances of some rural providers and systems, especially those located in frontier and more remote locations, where lower volumes, smaller scale, and local resource availability (financial, physical, and personnel) are special challenges.

Conclusion

Transformation underway in health care delivery, organization, and finance creates unprecedented opportunities to develop sustainable rural health care systems designed to meet the health needs of local populations. A high performance rural health care delivery system is achievable. There is a sense of urgency, however, to transform the rural and frontier health system as rural hospitals continue to close, and remaining hospitals (including CAHs) and other rural service providers are under increasing pressure to compete in larger, more sophisticated payment systems. Nonetheless, if rapid change occurs without preserving access to essential health care services during the transition, rural communities may suffer. Specific success stories, detailed policy considerations, and new demonstration ideas will positively and aggressively engage rural communities (including existing health care providers) in local health care system redesign. The RUPRI Health Panel will continue to assess policies and activities using its template for a high performance rural health system.

About the Authors

The RUPRI Health Panel is led by Keith J. Mueller, PhD. He can be contacted at keith-mueller@uiowa.edu. Authors of this report are:

Charles Alfero, MA is the executive director of the Center for Health Innovation, Hidalgo Medical Services (HMS) based in Silver City, NM. He has over 36 years of experience in rural health policy, systems, and program development. The Center for Health Innovation is a research and development organization supporting innovative programming for frontier and underserved population health.

Andrew F. Coburn, PhD, is a professor of Health Policy and Management, directs the Institute for Health Policy in the Muskie School of Public Service at the University of Southern Maine, and is a senior investigator in the Maine Rural Health Research Center.

Jennifer P. Lundblad, PhD, MBA, is president and CEO of Stratis Health, an independent non-profit quality improvement organization based in Bloomington, Minnesota, that leads collaboration and innovation in health care quality and patient safety. Dr. Lundblad has an extensive background in leadership, organization development, and program management in both non-profit and education settings.

A. Clinton MacKinney, MD, MS, Clinical Assistant Professor, University of Iowa, and a board-certified family physician delivering emergency medicine services in rural Minnesota.

Timothy D. McBride, PhD, is a professor of public health in the George Warren Brown School of Social Work, and a faculty scholar in the Institute for Public Health at Washington University in St. Louis.

Keith J. Mueller, PhD, is the Rural Health Panel chair. Dr. Mueller is the head of the Department of Health Management and Policy in the University of Iowa College of Public Health, where he is also the Gerhard Hartman Professor and the director of the RUPRI Center for Rural Health Policy Analysis.

About the Rural Policy Research Institute

The Rural Policy Research Institute (RUPRI) provides unbiased analysis and information on the challenges, needs, and opportunities facing rural America. RUPRI's aim is to spur public dialogue and help policymakers understand the rural impacts of public policies and programs. RUPRI is housed within the College of Public Health at the University of Iowa. RUPRI's reach is national and international and is one of the world's preeminent sources of expertise and perspective on policies impacting rural places and people. Read more at www.rupri.org.

[1] http://graphics.thomsonreuters.com/14/hospitals/index.htm

[2] The High Performance Rural Health Care System of the Future. RUPRI Health Panel, September 2, 2011.

[3] Access to Rural Health Care—A Literature Review and New Synthesis. RUPRI Center for Rural Health Policy Analysis. August, 2014.

[4] "Arkansas, Kentucky Report Sharpest Drops in Uninsured Rate", Dan Witters. Gallup. August 5, 2014. http://www.gallup.com/poll/174290/arkansas-kentucky-report-sharpest-drops-uninsured-rate.aspx.

[5] QuickTake: Number of Uninsured Adults Falls by 5.4 Million since 2013, Health Reform Monitoring Survey, Urban Institute Health Policy Center, April 3, 2014. http://hrms.urban.org/quicktakes/changeInUninsurance.html.

[6] The Patient Protection and Affordable Care Act of 2010: *Impacts on Rural People, Places, and Providers: A Second Look*. RUPRI Health Panel, April 2014.

[7] Status of State Action on the Medicaid Expansion Decision, 2014. Kaiser Family Foundation, June 10, 2014. http://kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/.

[8] Pursuing High Performance in Rural Health Care. RUPRI Rural Futures Lab, Foundation Paper No. 4, January 2012.

[9] Community Health Workers Evidence-Based Models Toolbox, HRSA Office of Rural Health Policy. U.S. Department of Health and Human Services, Health Resources and Services Administration. August, 2011. http://www.hrsa.gov/ruralhealth/pdf/chwtoolkit.pdf.

[10] "Helping all Vermonters access the best health services with an emphasis on prevention," Vermont Blueprint for Health. http://hcr.vermont.gov/blueprint.

[11] Alaska Tribal Health System Overview, presentation by Paul Sherry, Chief Executive Officer, Alaska Native Tribal Health Consortium. http://www.anthc.org/abt/anthsummit.cfm.

[12] Community Transformation Grants (CTG), The Small Communities Program. Centers for Disease Control and Prevention. http://www.cdc.gov/nccdphp/dch/programs/communitytransformation/small-communities/.

[13] "Primary Care Trust Network: Annual Review." NHS Confederation. 2010. http://www.nhsconfed.org/~/media/Confederation/Files/Publications/Documents/PCTN_Annual_Review_2010-11.pdf.

[14] "The legacy of primary care trusts". Primary Care Trust Network, NHS Confederation. 2011. http://www.nhsconfed.org/~/media/Confederation/Files/Publications/Documents/The_legacy_of_PCTs.pdf.

[15] "Health Care Systems in Transition: Denmark." World Health Organization. 2002. http://www.euro.who.int/__data/assets/pdf_file/0007/98836/DENsum110802.pdf

[16] *New Models for Rural Post-Acute Care.* Mark Lindsay et al. May 2014. Web. http://www.allevant.com/assets/documents/New%20Models%20for%20Rural%20Post%20Acute%20Care%20White%20Paper.pdf

[17] The Medical Home Model of Care. National Conference of State Legislatures (NCSL). http://www.ncsl.org/research/health/the-medical-home-model-of-care.aspx.

[18] Department of Health and Human Services. Human Resources and Services Administration. *Options for Rural HealthCare System Reform and Redesign*. National Advisory Committee on Rural Health and Human Services. 2012. Print.

[19] *Framework for a new frontier health system model*. Rep. Montana Health Research and Education Foundation, October 2011. Web. http://www.nosorh.org/events/files/060712frontier_model.pdf.

[20] Federally Qualified Health Centers – FAQs. Rural Assistance Center. Health and Human Services Information for Rural America. http://www.raconline.org/topics/federally-qualified-health-centers/faqs.

[21] "Emergency care, but not at a hospital." Michelle Andrews. *Kaiser Health News.* May 2011. http://www.kaiserhealthnews.org/Features/Insuring-Your-Health/Michelle-Andrews-on-Hospital-ER-Alternatives.aspx

[22] Texas Hospital Association. http://www.tha.org/HealthCareProviders/Issues/FinanceandReimburse098F/MedicaidBBBFWaiver/index.asp

[23] Shortell, S. "A Bold Proposal for Advancing Population Health." July 24, 2013. Discussion Paper, Institute of Medicine. National Academy of Sciences. http://www.iom.edu/~/media/Files/Perspectives-Files/2013/Discussion-Papers/BPH-BoldProposal2.pdf.

[24] "Multistakeholder Collaboration for Healthy Living – Toolkit for Joint Action," World Economic Forum's Healthy Living Initiative and the Pan American Health Organization in collaboration with Bain & Company. March 2013. http://www3.weforum.org/docs/WEF_HE_HealthyLiving_Toolkit_2013.pdf

[25] "County Officials Embark on New, Collective Endeavors to ReThink Their Local Health Systems," Bobby Milstein, et al. *Journal of County Administration*, March/April 2013. http://rippelfoundation.org/rpf-dev/wp-content/uploads/2013/04/JACA-ReThink-Health.pdf.

[26] See the Panel's comment letter on the 2011 proposed final rule: http://www.rupri.org/Forms/HealthPanel_CMSComments_June2011.pdf

[27] Department of Health and Human Services (2014) 42 CFR Parts 403, 405, 410, et al. *Federal Register* 79 (133) July 11: 40318-40540

[28] RUPRI Health Panel (2011) Comment on the Proposed Statement of Antitrust Enforcement Policy Regarding Accountable Care Organizations Participating in the Medicare Shared Savings Program: FTC Matter No: V100017. May 31: www.rupri.org

[29] Rural Health Network Development Program, Health Resources and Services Administration. http://hrsa.gov/ruralhealth/about/community/networkprogram.html.

[30] Rural Health Care Services Outreach Grant Program, Health Resources and Services Administration. http://hrsa.gov/ruralhealth/about/community/careservicesoutreach.html.

[31] State Innovation Models Initiative: General Information, Centers for Medicare & Medicaid Services. http://innovation.cms.gov/initiatives/state-innovations/.

[32] RUPRI Health Panel (2008) Implementing a New USDA Rural Development Program Targeting Small Rural Hospitals and Their Communities. March. http://www.rupri.org/Forms/Implementing_USDAProgram_030308.pdf

[33] RUPRI Health Panel (2010) The Patient Protection and Affordable Care Act of 2010: Impacts on Rural People, Places, and Providers, A First Look. September 16: http://www.rupri.org/Forms/Health_PPACAImpacts_Sept2010.pdf

[34] RUPRI Health Panel (2011) Comments on the Proposed Rule for the Medicare Program; Hospital Inpatient Value-based Purchasing Program. March 4: http://www.rupri.org/Forms/HealthPanel_VBPComments_March2011.pdf

[35] Holmes M., Pink GH. "Change in Profitability and Financial Distress of Critical Access Hospitals from Loss of Cost-Based Reimbursement." Findings Brief, December 2013. NC Rural Health Research Program. http://www.shepscenter.unc.edu/wp-content/uploads/2013/12/Change-in-Profitability-and-Financial-Distress-of-CAHs-November-2013.pdf.