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Rural Futures Lab™

Pursuing High Performance in Rural Health Care

RUPRI Rural Futures Lab Foundation Paper No. 4

A. Clinton MacKinney
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RUPRI RURAL HEALTH PANEL

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The RUPRI Rural Health Panel was established in 1993 to provide science-based, objective policy analysis to federal policy makers. While panel members are drawn from a variety of academic disciplines and bring varied experiences to the analytical enterprise, panel documents reflect the consensus judgment of all panelists.

Panel Members

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Rural Futures Lab Foundation Papers are intended to present current thinking on the economic drivers and opportunities that will shape the future of rural America. They provide the foundation upon which it will be possible to answer the question that drives the Lab's work—What has to happen today in order to achieve positive rural outcomes tomorrow?

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Introduction

In 2001, the Institute of Medicine (IOM) called for transformation of the United States health care system to make it safe, effective, patient-centered, timely, efficient, and equitable.[1] The journey toward these six aims in public policy and the private sector is underway, but fundamental challenges detailed by the IOM remain. Patients are injured at alarming rates, wide variation in care exists across geographies, patients complain of insensitive and/or inaccessible health care providers, health care costs are nearly twice that in other developed countries, and nearly 50 million Americans lack health insurance. As a result, our health care is often fragmented, uncoordinated, and excessively costly. In fact, the United States health care system has been called a "non-system." The rural health care landscape is additionally challenged by independent and autonomous providers often struggling to survive financially, burdensome geographic separations in health care services, and incompatible information technologies. As a result, resources are wasted, patients are harmed, and rural communities are neglected.

Health care in the United States has been called "a non-system."

Despite persistent rural challenges, public policies during the past 30 years have helped build and stabilize rural health care services. New payments have increased revenue for physicians practicing in shortage areas, rural hospitals certified as Critical Access Hospitals (very small hospitals in isolated places), Sole Community Hospitals (larger hospitals also in isolated areas), and Rural Health Clinics (primary care clinics staffed by nurse practitioners and/or physician assistants). New programs continue to provide technical assistance and grants to rural hospitals (Medicare Rural Hospital Flexibility Program), fund installation of telemedicine equipment, and promote rural health professions education.

These successes have required political capital and developmental resources to support a system that delivers discrete and uncoordinated health care services, provided by specific professionals and institutions, each paid on a per-service basis. Yet, progressive work by the Institute of Medicine (especially the Rural Health Committee document *Quality Through Collaboration: The Future of Rural Health Care*), the Commonwealth Commission on a High Performance Healthcare System, and other organizations suggest more effective strategies to improve and sustain the health of rural people.

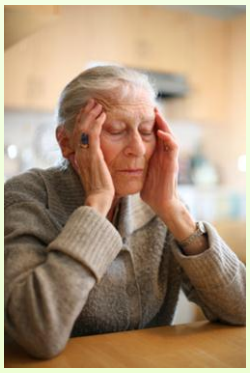
Emerging public policy and private sector innovations have the potential to change the organization, financing, and delivery of rural health care services. What might appear to be threats to rural health care, such as challenges to current special payments and new administrative requirements, may instead be opportunities to update and improve outdated and unsustainable health care service configurations.

But as Yogi Berra famously said, "You've got to be very careful if you don't know where you're going, because you might not get there." So in the spirit of getting us "there," the RUPRI Health Panel offers an aspiration, our vision, for a high performance rural health care system.

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 system, informed by the needs of each unique rural community, will lead to greater community health and well-being.

Rural Health Today

Passage of the Patient Protection and Affordable Care Act (ACA) of 2010 offers an unprecedented menu of new programs and policies that can potentially move the current health care system, albeit incrementally, toward our vision for high rural health performance. Yet we believe that more fundamental changes to the organization of health care delivery and the payment for health care services are required. The first step in ethos change requires a thorough understanding of the status quo and then a documentation of the urgency for change. We have identified six characteristics of the current health system that act as fundamental barriers to change. The barriers include medical specialization, acute illness focus, fragmentation, provider centricity, fee-for-service, and the medical model.



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Mrs. Jones had long ago stopped her blood pressure medicine. It was expensive and she didn't feel any better while taking it. When her right arm went numb, she called her neighbor. But since Mrs. Jones' speech was garbled, her neighbor thought it was a crank call and hung up. Mrs. Jones no longer had a regular doctor she could call. The nearest hospital was 30 miles away, and she didn't know anyone there anyway. So Mrs. Jones went to bed, but couldn't get out of bed the next morning. Thirty-six hours later friends noticed that she didn't show up for church. An ambulance took her to the hospital and a stroke was diagnosed. Because her medical records were not available, the doctor didn't know that her kidneys functioned poorly. Furthermore, she couldn't tell anyone that she'd been in bed for a day and a half. Lying at home in one position caused her muscles to release a toxin that destroyed what remained of her kidney function. Now the doctor says she needs dialysis, but can't drive to the city 75 miles away. She doesn't know what she will do.

Medical Specialization

Pioneering research by Starfield and her colleagues demonstrated that health is better in areas with more primary care physicians; people who receive care from primary care physicians are healthier; and characteristics of primary care are associated with better health.[2] Yet primary care never developed in the United States in the 20th century as it did in other developed countries such as Canada, England, New Zealand, and the Netherlands. In 1910, the Flexner report[3] dramatically changed the face of United States medical education. The report called for university-based medical education based on science, rather than the then prevalent small, for-profit trade schools. New and strict academic standards were recommended and faculty were encouraged to both teach and do research. Although the Flexner report is credited with much needed improvements in medical education, the unintended consequence was the marked expansion of academic health centers and the proliferation of medical specialties at the expense of generalist (primary care) disciplines.[4,5]

The medical specialization trend continues today. The percent of medical school graduates choosing family medicine dropped from 14% on 2000 to 8% in 2005.[6] Less than 24% of all graduating physicians enter primary care.[7] The primary care shortage is most acute in rural America. The smallest counties (population less than 2,500) in the United States have an average of 1.9 primary care physicians per 10,000 persons while the largest counties (population greater than 50,000) have approximately 5.4 primary care physicians per 10,000 persons. As a consequence, persons living in nonmetropolitan area are 4 times as likely to live in a Health Professional Shortage Area (less than 1 primary care physician per 3,500 persons) than persons living in a metropolitan area.[8]

In 1978, the World Health Organization defined *primary care* as first-contact access for each new need; long-term person- (not disease) focused care; comprehensive care for most health needs; and coordinated care when it must be sought elsewhere.

In the United States, only 42% of outpatient visits for acute care are to primary care physicians (28% to ERs, 20% to specialists, and 7% to hospital outpatient clinics).[9] Yet in Australia, England, and the Netherlands, where the national health systems prioritize primary care, the proportion of patients/problems managed within a general practice (primary care) without referral to specialists or hospitals is 88%, 90%, and 98% respectively.[10]

Despite the national need for primary care providers, and rural primary care providers in particular, United States primary care professionals remain among the lowest paid of all medical specialties. Yet rural America's defined communities, low populations, and distance from urban centers need the first contact and comprehensive care that primary care provides.

Acute Illness Focus

Medical specialization and disease-focused care prioritizes acute illness and individuals rather than health and communities. Coexisting payment systems that compensate providers for individual tests, procedures, and face-to-face visits also reinforce the individualization of health care. Although health care over the past century has provided extraordinary advances in treating disease, fundamental preventive and population health needs (such as regular exercise, healthy eating, and safe lifestyles) have not received deserved attention.

Rural America is more aged due to retired persons migrating into rural areas and young people migrating out of rural areas.[11] With advanced age comes an increased prevalence of chronic diseases, such as diabetes and heart failure. Chronic disease requires a different type of health care than acute illnesses, more comprehensive and longitudinal, focusing on patient engagement and self-care. But the current medical education and clinical practice focus on acute illness and disease-specific care neglects chronic disease management, prevention, and health improvement.

Fragmentation

Health care is complex, often requiring multiple providers and multiple treatments, separated by both time and distance. Yet the United States health care system had been described as a "cottage industry," characterized by independent (and frequently competing) hospitals, physicians, and other providers. Providers often practice independently, even within the same community or when caring for the same patient. Fragmentation tends to be even more pronounced in rural America where practices are smaller and care often requires distant providers. Although provider independence does not necessarily equate with poor care coordination, patients are mystified and frustrated when critical health information does not follow them from one provider to another. More importantly, fragmentation and absent care coordination fosters expensive care duplication, erroneous care omissions, and delayed or inaccurate diagnoses resulting in excessive health care costs and potential patient harm. Moreover, fragmentation rewards high-cost, intensive medical intervention over higher-value primary care, including preventive medicine and chronic illness management.[12]

Government planning and intervention has been relatively ineffective in dramatically reducing health care fragmentation. States divide health care responsibilities among multiple agencies. Clinical processes of care are not standardized across care setting and providers. It is therefore not surprising that personal health records (or illness documentations) do not flow seamlessly from one provider to another and that health care quality and cost varies indefensibly from one geographic area to another.[13] As a result, health care services are often disconnected, uncoordinated, and fragmented by provider, time, distance, and care process.

Provider Centricity

In 2010, Epstein *et al* wrote that patient-centered care "is about the healing relationships between physicians and patients and patients' families. This relationship is grounded in strong communication and trust, highlighted by clinicians and patients engaging in a two-way dialogue, sharing information, exploring patients' values and preferences, and helping patients and families make clinical decisions. These interactions strive to achieve a state of 'shared information, shared deliberation, and shared mind.'"[14] But United States health care tends to be provider-centric rather than patient-centric. For example, accessibility to physician services is more likely to revolve around physician schedules and preferences than that of patients and families. Despite the stereotype of rural America homogeneity, rural is rapidly becoming more culturally and ethically diverse. Unique language, cultural, and disability needs are often inadequately addressed in physician offices. And patients and families often do not receive adequate information about tests and procedures to make informed choices that honor patient preferences.

"Patient-centered care is about the healing relationships between physicians and patients."

Fee-for-Service

Physicians tend to be paid by fee-for-service; that is, payment for individual visits, tests, or procedures. Just like many of us, physicians and other providers respond to financial incentives. Fee-for-service payment strategies reward volume over value. So it should be no surprise that to optimize income (for example) surgeons perform surgeries and family doctors schedule office visits. Although there is first-blush merit to "more work equals more pay," desirable system characteristics such as high-quality clinical services, care coordination, chronic disease management, and patient-centered care are not prioritized during current care process development and clinical practice.

The Medical Model

Both public and private health care policies tend to recognize a "medical model" of health care in which medical care (e.g., visits, tests, and procedures) is delivered by medical professional (e.g., physicians and nurses). Medical care is of unquestioned importance. Yet it has been estimated that "medical care" addresses only about 10% of an individual's health. The remaining 90% of health is determined by non-medical factors labeled as the *social determinants of health*. The World Health Organization defines social determinants of health as "the conditions in which people are born, grow, live, work and age, including the health system. These circumstances are shaped by the distribution of money, power, and resources at global, national, and local levels, which are themselves influenced by policy choices. The social determinants of health are mostly responsible for health inequities – the unfair and avoidable differences in health status seen within and between countries."[15] The "medicalization" of health care in the United States requires vast resources, approximately $2.3 trillion in 2008.[16] Many believe that "going upstream" to address the social determinants of health *before* illness and disability develop will save both money and lives.

Foundations for Rural Health

The recently developed United States *National Quality Strategy* offers critical aims for a high performance rural health system. Those aims include:

- **Better Care**: Improve the overall quality, by making health care more patient-centered, reliable, accessible, and safe.
- **Healthy People/Healthy Communities**: Improve the health of the U.S. population by supporting proven interventions to address behavioral, social, and, environmental determinants of health in addition to delivering higher-quality care.
- **Affordable Care**: Reduce the cost of quality health care for individuals, families, employers, and government.[17]

To achieve these aims, we envision a high performance rural health care system built on foundations of affordability, accessibility, community focus, high quality, and patient centeredness. We describe these foundations below and associated key characteristics of a high performance rural health system. But even foundations need solid bedrock. The rural health care bedrock must be a robust primary care system. Yet current payment methods tend to differentially reward subspecialty services and sophisticated technologies. And as noted previously, the United States medical education system promotes medical specialization, not primary care. Therefore, rural primary care and other fundamental rural health care services often struggle to remain viable due to health professions shortages and inadequate payments. Our vision thus includes a system that develops and sustains primary care with a primary care-focused medical education system and a payment blend that rewards clinical quality, population care, and efficient resource utilization.

A high performance rural health care system is:

- Affordable
- Accessible
- Community-focused
- High-quality
- Patient-centered

Affordability

A high performance rural health care system is affordable. An individual's (or family's) health care costs are a reasonable percentage of their income and do not impoverish those in need of health care. In addition, health care costs are equitably shared across individuals in rural communities so disproportionate costs or disparities do not arise. Lastly, health care affordability is enhanced because health care is both effective (i.e., medically necessary, evidence-based, and prevention focused) and efficient (i.e., administrative costs are minimized and futures costs reduced through prevention and screening). The rural provider practice is a responsible partner in community health and affordability through implementing clinical care and business practices that utilize resources wisely and efficiently.

"Health care costs are equitably shared."

Accessibility

Accessibility is the companion to affordability as a foundation for a high performance rural health care system. Although rural communities differ in the level and range of services that are supportable and sustainable, core rural community health care services include primary care, emergency medical services (EMS), and public health. Primary care is readily accessible to patients. When face-to-face visits with providers are not needed, or not possible, 24/7 access to health information is available. Emergency medical services and disaster response are regionally organized and always ready to respond. During standby times, the role of EMS includes preventive and community health improvement activity. Public health services are fundamental and proactively assess community health and coordinate preventive care locally with regional/state/federal partners. Yet not

"Primary care is readily accessible."

all care can be provided locally. For those services not locally available, rural communities proactively develop and support a regional health care infrastructure that includes transportation, technology, and provider relationships that make the full continuum of health care services accessible.

A high performance rural health care system includes care integration and coordination based in primary care, the cornerstone of rural health care delivery. Health care is delivered by teams consisting of well-trained professionals practicing at the optimum of their license and experience. The team is not only accessible for timely acute care, but anticipates and provides needed preventive care. Care integration and coordination in rural communities also assures that patients have access to the full continuum of care such as skilled nursing, home health, hospice, palliative, dental health, and behavioral health. Rural health care services are available as proximate to the patient as possible to reduce travel costs, time, and burden. When needed services are not available locally, strong referral and consultation relationships and care coordination systems exist such that the right information is available to the right care team at the right time.

Community Health

As the United States health care system takes steps toward re-designing health care delivery and payment, the value of a population health perspective is becoming more apparent. The inclusion of population health as part of the *National Quality Strategy* (healthy people/healthy communities) is a testament to a critical shift in thinking and action that includes prevention and wellness of people and communities as a top priority. In rural communities, there is a convergence of need and opportunity in population and community health.

In accord with the *National Quality Strategy,* a high performance rural health care system places new priority on wellness, personal responsibility, and public health. In rural communities, population and community health focus begins with an in-depth understanding of both community need and the unique challenges and opportunities in rural communities. Public health policies and professionals assess community needs and resources, then build programs and services to link needs to resources by utilizing available, but perhaps previously untapped, assets. For example, local employers provide employees time and space for regular exercise. Local restaurants, groceries, and schools promote healthy food choices. And the local Area Agency on Aging collaborates with medical providers to identify elders in need of additional in-home services. This community capacity building approach is particularly appropriate in a rural health context in which the boundary of "community" can be well defined. Through community capacity development efforts, rural communities identify health gaps and disparities, then design and implement interventions. Community capacity building is not limited to the health care system, and thus links to, and aligns with, local and regional economic development.

> "New priority on wellness, personal responsibility, and public health."

High-Quality Care

"Efficiency without quality is unthinkable."

High quality care is an integral component of health care value. Although most would agree that health care needs to be more cost-effective, efficiency without quality is unthinkable. A high performance rural health system makes quality improvement a central focus with education and technical assistance, quality information transparency and public reporting, and payment systems that reward the delivery of quality care. A high performance rural health care system embraces the mandate that its care be the highest possible quality for those services rural providers actively and routinely deliver. Provider payment policies reward, and thus sustain, providers that deliver value: high-quality and patient-centered care that is as efficient as service volumes allow. Rural sustainability is not jeopardized by payment policies that exclusively reward volume-dependent efficiency. Instead, in a high performance rural health care system, providers are paid for performance based on a combination of factors including quality, efficiency, and attention to individual and community needs.

Patient-Centeredness

A high performance rural health care system responds to the unique needs of each rural community and each resident of that community. At the individual level, health care is a partnership between the patient and his or her health care team, each taking responsibility for health decisions and behaviors. The primary care team serves as the hub of patient information flow and interactions. Shared decision making and similar tools are used to evaluate treatment options in ways that respectfully consider both patient preferences/values, and clinical/scientific evidence. Providers are also culturally competent, delivering care and information that is sensitive to an individual's or family's unique needs. For example, health care teams accommodate different languages and understand unique cultural norms. Teams also deliver patient-preference care that actively explains health care options and helps patients select care that meets personal health and life goals.

"Health care is a partnership between the patient and his or her health care team"

Patient-centered care can make real differences in the lives of patients and their providers. Patient-centered care can:

- improve disease-related outcomes and quality of life;
- increase patient adherence to medications and improve chronic disease control, without higher costs;
- boost well-being by reducing anxiety and depression;
- promote patient access and self-efficacy;
- address racial, ethnic, and socioeconomic disparities in care and outcomes; and
- reduce diagnostic-testing costs in primary care and decrease lawsuits against clinicians.[18]

Pursuing Rural Health High Performance

The Patient Protection and Affordable Care Act of 2010 (ACA) is emblematic of new public policy innovations designed to transform the currently fragmented, uncoordinated, and costly health care system. Private sector (health care providers, systems, and payers) policies are also fostering health system improvements. For example, The Engelberg Center for Health Care Reform at Brookings and the Dartmouth Institute for Health Policy & Clinical Practice leads the ACO Learning Network: a member-driven network that provides participating organizations the tools necessary to successfully implement accountable care.[19] Premier has launched two new Partnership for Care Transformation™ (PACT) Collaboratives.[20] And the Comprehensive Primary Care (CPC) initiative is a new CMS-led, multi-payer initiative fostering collaboration between public and private health care payers to strengthen primary care.[21] Rural health care will benefit too from these innovations, but change cannot come fast enough. The following table provides examples of public policy changes designed to improve health system performance.

Issue	Innovative Public Policies (examples)
Population Health	The Public Health Title (IV) of the ACA
Chronic disease management	Hospital Value-Based Purchasing and Physician Value-Modifier programs
Health care coordination	Bundled Payment and Care Coordination demonstrations
Primary care	Primary care bonus payments and Comprehensive Primary Care Initiative
Patient-centered	Patient-Centered Medical Home demonstration
Care delivery innovation	Medicare Shared Savings Program (Accountable Care Organizations)

Although the *National Quality Strategy* provides critical national aims, and the aforementioned policies are a step in the right direction, consistent national strategies and aligned incentives that cross payer and provider types are needed to deliver coordinated and consistent care. As policy makers and key stakeholders consider health system improvements, the following recommendations can serve as a priority list, and a place to start, for pursuing rural health high performance.

Getting Started

It's been said that all politics are local. Health care is no different. Thus change should begin "at home." Transformation of a health care system based on the foundations of affordability, accessibility, high quality care, community focus, and patient-centeredness requires *local* creativity supported by policy innovation.

Just like the Yellow Brick Road, with health system change, "It's always best to start at the beginning." Rural communities poised to lead health system transformation first need a *convener*. The convener brings disparate parties together, helps identify a common vision, catalyzes change, and perseveres

despite obstacles to transformation. A convener may be local (e.g., hospital or public health agency), state (e.g., Office of Rural Health, Department of Health), regional (e.g., Quality Improvement Organization, non-governmental organization), or a combination.

The next stage for change is development, distribution, and analysis of a community health assessment(s). Although assessment templates exist, a rural community health assessment should assess both health challenges and untapped resources, including those beyond traditional medical care. Consider the full continuum of care to foster a broad and inclusive health care perspective. Attend to health care *value* to support the dual goal of high quality care delivered efficiently. Think about strategic alliances and develop relationships by listening to understand and finding common vision. And lastly, incorporate Don Berwick's five principles for change.[22]

1. Put the patient first.
2. Among those, put the poor and disadvantaged first. "Let us meet the moral test."
3. Start at scale. "There is no more time left for timidity. Pilots will not suffice."
4. Return the money. "It is crucial that the employers and wage-earners and unions and states and taxpayers – those who actually pay the health care bill – see that bill fall."
5. Act locally. "Every community must mobilize."

Preserve Rural Health System Design Flexibility

"Rural communities should have local access to public health, emergency medical, and primary care services."

Despite the need for single national health care strategy and consistent policies, the diversity of rural America requires health care services design and implementation flexibility. Rural health care delivery models of the future must adapt to unique local and regional circumstances and resources. For example, in a market-based payment system in which efficiencies of scale are not achievable in a low volume rural area, payment differentials will be required to maintain access to essential health care services. Or, a rural retirement community will require a different mix of health care services than a rural mining community. Yet there are constants. As Mueller and MacKinney have argued that rural residents living in most rural communities should have local access to public health, emergency medical, and primary care services. Rural patients and providers also should have access to regional health systems to obtain hospital and/or specialty care necessary for the full continuum of care – from "cradle to grave."[23] In addition and importantly, rural health care delivery system design based on urban models or dictated from distant areas is unlikely to serve rural people and places with either high quality or efficiency. Rural health system planners should be informed and learn from best practices around the country – both rural and urban. But rural community providers and patients should be an active and influential voice in the design, organization, and delivery of local health care.[24]

Expand and Transform Local Primary Care

Cornerstone Medical Recruiting

The new high performance rural health care system will be anchored in primary care that integrates medical care, human services, and other services necessary for rural quality of life. Current policies designed to strengthen rural primary care (e.g., Rural Health Clinic payments, health professional shortage areas bonuses, and training programs designed to encourage locating practices in rural places) should be continued and evaluated. However, by themselves these policies are not enough to transform health care from medical specialty-focused system to a primary care-based system. This transformation is particularly important in rural areas where "community" is well-defined and patients and specialty care are separated by time and distance. Attention to three foci is needed to help expand and transform primary care: medical education, provider payment, and practice transformation.

As noted previously, the United States medical education system is specialty-focused. To train and supply an increased number of primary care physicians, medical schools should prioritize primary care in both organizational mission and programs. The admissions process should consider aptitudes beyond science courses and standardized texts to sociology, behavioral psychology, and economics.[25] Students from rural backgrounds and/or with rural interests should be prioritized for admission. Interdisciplinary teaching and practical experiences should be expanded so students learn that team-based care is preferable to autonomous care. And increased academic status and compensation should be afforded primary care educators to provide not only exceptional clinical role models, but highly regarded professionals as well.

Understandably, provider payments and other financial considerations have shaped both the availability and delivery of rural health care services. Payments to physicians and other providers have not adequately promoted or supported the development of a sustainable primary care-based system. For example, payments exclusively for office visits do not reward telephone or email counseling and do not encourage attention to quality. Therefore, provider payment should change from its current system of individual service payments (fee-for-service) that rewards office visits, tests, and procedures to one that rewards preventive health, illness care, chronic disease management, and care coordination – the hallmarks of primary care. A payment blend of fee-for-service (to reward work), capitation (to reward care coordination), and pay-for-performance (to reward quality) should be gradually implemented as practices adjust to new payment methodologies.

Although reformed medical education and provider payment systems are required to expand primary care, primary care practice *transformation* is also urgently needed.

Patient-Centered Medi***cal Home*** is the primary care practice infrastructure (team-based providers and practice systems) that delivers proactive, comprehensive, and coordinated primary care.

One exciting strategy to transform the primary care practice is the Patient-Centered Medical Home (PCMH). Health care in a PCMH is team-based. Members of a health care team vary based on local health care needs, but a team typically includes physicians, nurse practitioners or physician assistants, health coaches, social workers, counselors, dieticians, and pharmacists. The PCMH develops and implements practice-based systems that improve access, anticipate preventive health care needs, consider the health of all patients in the practice (not just those with appointments), and coordinate care with local health and human services and distant specialist providers. The PCMH utilizes an electronic health record to coordinate care and manage population heath. Increasingly sophisticated consumers and new payment systems will demand improved clinical quality and patient satisfaction performance. So the PCMH actively reports practice performance to the community and to payers, and then employ various quality improvement tools to continuously improve clinical care and the patient experience.

Multiple governmental (federal- and state-based) and private payer initiatives support PCMH development, but more is needed. PCMH transformation is resource-intensive. As a consequence, transformation is occurring to a greater extent and more rapidly in larger, urban, and more resource-rich practices. Many rural practices do not have the financial capital or human resources necessary to affect dramatic (and often disruptive) change. Thus, many rural primary care practices will need provider education and technical assistance for transformational development.

Use Health Information to Manage and Coordinate Care

As active participants in a responsive and patient-centered rural health care system, patients will appreciate seamless transfer of clinical and administrative information among providers, transparency of health care cost and quality information, access to proactive disease management and prevention assistance, and sensitivity to unique personal or cultural circumstances. Health information should be readily available 24/7 through communication techniques and media that are accessible in rural places and understandable to individual patients. Accurate and easily accessible health information may obviate the need for higher cost face-to-face visits. Health information systems are expensive; expensive to purchase and to maintain. Plus, the loss of provider productivity during health information system implementation is significant. Therefore, grants and loan programs will be required for rural providers to acquire and utilize new health information systems.

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Pay for Value, Not Volume

Decisions about where services are available and how patients will access them should be based on patient experience, care quality, and delivery efficiency. Understandably, reimbursement incentives and other financial considerations have played a major role in shaping rural health care service availability and delivery. Too often, provider payment incentives have not adequately promoted or supported the development of a sustainable, primary care-based system. However, under new financing and delivery system models such as the PCMH described above and the Accountable Care Organization (ACO), the incentives are beginning to align with the *National Quality Strategy* of better care, better health, and lower cost. For example, the Medicare Shared Savings Program (Medicare's ACO program) establishes new collaborations between hospitals and physicians to coordinate care and control costs. Other Medicare programs, such as value-based purchasing for all providers including physicians and critical access hospitals, will differentially pay for good clinical quality and attentive patient care. Thus, health care value (better quality at lower cost), not simply service volume (e.g., office visits or tests), will increasingly drive payment. As a provider of lower cost, preventive, and coordinated care, primary care is well-positioned to lead the value-based movement. Thus, in a high performance rural health system, care delivery should be organized around a robust primary care base.

Accountable Care Organization is a health care delivery system organized to improve health care quality and control costs through care coordination and provider collaboration, and then is held accountable for its performance.

Collaborate to Integrate Services

The autonomous and independent "cottage industry" historically typical of especially rural health care providers is not conducive to consistent and efficient health care. Instead, collaborations that integrate clinical services, share learning, and deliver the continuum of care seamlessly to patients, while respecting provider independence, will be a hallmark of a high performance rural health system. Rural primary care providers should collaborate within and across local services (long-term care, dental health, behavioral health, social services, and public health) to achieve improved health outcomes, greater efficiency, and better financial performance. And rural providers should collaborate with distant providers to ensure timely access to high-quality specialty services not available locally.

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Urban systems will wish to collaborate with high performing rural health systems to manage care transitions and meet performance and financial goals (e.g. reduce readmissions, reduce preventable admissions, improve patient experience, and improve outcomes). However, urban systems interested in expanding into rural areas must develop a thorough understanding of, and sensitivity to, the rural situation before approaching rural providers.

To facilitate both provider collaborations and seamless information transfer, rural providers should participate in developing health information exchanges. Clinical and administrative information, shared with robust privacy safeguards, will smooth care transitions, reduce duplicative and unnecessary services, and improve outcomes.

Strive for Healthy Communities

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Organized, action-oriented, and appropriately funded community health planning is an essential foundation for healthy communities. The ACA requires that hospitals perform a Community Health Needs Assessment. The assessment should include an in-depth analysis of community needs and an implementation strategy outlining how to address those needs. In a high performance rural health system, community stakeholders are not limited to health care providers. To achieve improved health outcomes for both individual patients and communities, the rural health system requires that primary care providers and their patients connect to community health resources, services, and initiatives that can contribute to improved individual health (especially for those with chronic conditions) and "go upstream" to address social determinants of health that influence community well-being. Collaborations to improve community health may include public health agencies, school districts, local employers, Area Agencies on Aging, community colleges, social services, environmental control boards, law enforcement, and community planners.

The collaborations required for a high performance rural health system do not develop spontaneously. Potential collaborators are divided by history, financing, priority, approach, and even language. For example, a person living at a nursing home may be a patient, beneficiary, resident, client, or neighbor depending on which professional are agency is consulted. Therefore, government as the key representative of healthy people and vital communities should actively engage convening organizations and develop community health leaders.

Conclusion

The United States health care system has been described as a "non-system." Yet it need not be that way. Public policies (including the ACA) and private sector dynamics involving insurance plans and providers are moving us toward the *National Quality Strategy* of better patient care, better population health, and lower health care costs.

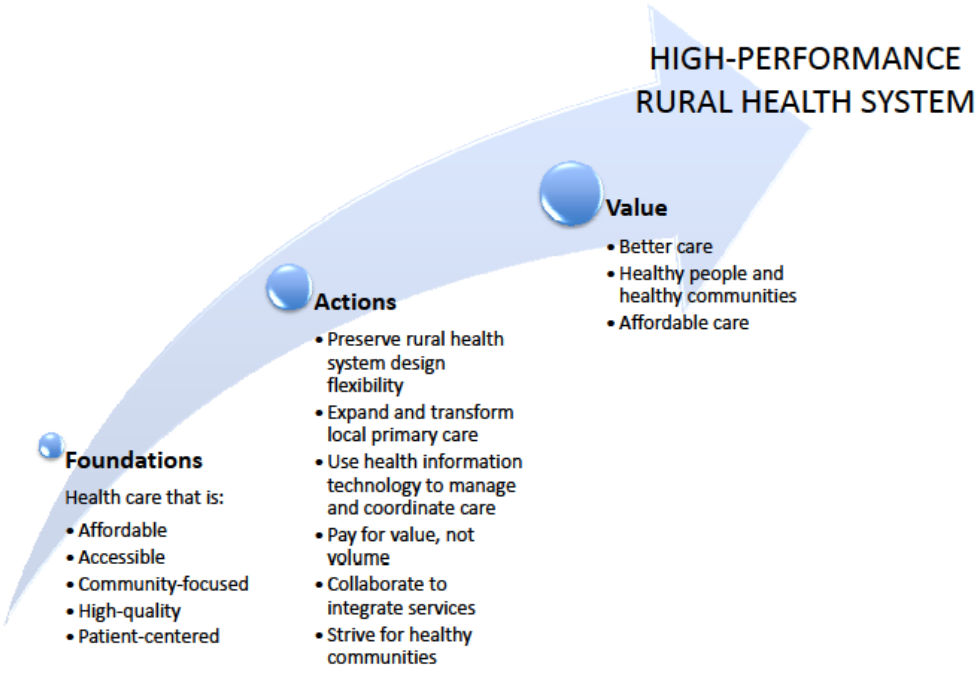

Figure 1: High Performance Rural Health System

Yet rural people and places are unique, requiring concerted yet flexible efforts to achieve healthy rural people and places. Rural providers and local rural community writ large should be active participants in developing a high performing rural health care system organized around a robust primary care base and resting on foundations of affordability, accessibility, community focus, high quality, and patient centeredness. Those foundations will allow transformative actions that will lead to increased health care *value* (Figure 1). Only then will rural America capably and steadily nurture its children, support a productive workforce, and make its elderly safe and secure.

Endnotes

[1] Institute of Medicine (2001). *Crossing the Quality Chasm: A New Health System for the 21st Century.* National Academy of Sciences.

[2] Starfield B., Shi J., Macinko J. (2005). Contributions of Primary Care to Health Systems and Health. *The Milbank Quarterly*, Vol. 83, No. 3, 2005: 457–502.

[3] Flexner, Abraham (1920). *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching*. Bulletin No. 4. The Carnegie Foundation for the Advancement of Teaching. New York City.

[4] Prislin, M.D., Saultz, J.W., and Geyman, John P. (2010). The Generalist Disciplines in American Medicine One Hundred Years Following the Flexner Report: A Case Study of Unintended Consequences and Some Proposals for Post-Flexnerian Reform. *Academic Medicine* 85: 228–235.

[5] World Health Organization (1978). *Declaration of Alma-Ata: International Conference on Primary Health Care, Alma-Ata, USSR,* 6–12 September 1978. Geneva. http://www.who.int/hpr/NPH/docs/declaration almaata.pdf. Accessed December 3, 2001.

[6] Council on Graduate Medical Education (2010). *20th Report: Advancing Primary Care*. December.

[7] Salsberg, E., Rockey, P.H., Rivers, K.L., Brotherton, S.E. and Jackson, G.R. (2008, September 10). U.S. residency training before and after the 1997 Balanced Budget Act. *Journal of the American Medical Association*, 300(10), 1172-1180.

[8] Facts about…Rural Physicians. Developed by the North Carolina Rural Health Research Program, University of North Carolina at Chapel Hill Cecil G. Sheps Center for Health Services Research for the Federal Office of Rural Health Policy. http://www.shepscenter.unc.edu/rural/pubs/finding_brief/phy.html. Accessed November 22, 2011.

[9] Geyman J. (2011). Addressing the Primary Care Crisis. *Health Workforce News*. October. http://www.hwic.org/news/oct11/geyman.php. Accessed November 22, 2011.

[10] Willcox S., Lewis G., and Burgers J. (2011). Strengthening Primary Care: Recent Reforms and Achievements in Australia, England, and the Netherlands. *Issues in International Health Policy.* The Commonwealth Fund. November 2011.

[11] Beale C. and Cromartie J. (2004). *Profile of the Rural Population.* Commissioned paper for the IOM Committee on the Future of Rural Health Care. Washington, DC.

[12] Shih A., Davis K., Schoenbaum S., Gauthier A., Nuzum R., and McCarthy D. (2008). *Organizing the U.S. Health Care Delivery System for High Performance*. The Commonwealth Fund. August 2008.

[13] Skinner J. and Fisher, E.S. (2010). *Reflections on Geographic Variations in U.S. Health Care*. The Dartmouth Institute for Health Policy and Clinical Practice. May 12, 2010.

[14] Epstein R.M., Fiscella K., Lesser C.S., and Stange K.C. (2010). Why the Nation Needs a Policy Push on Patient-Centered Health Care. *Health Affairs*. Aug. 2010 (29)8: 1489–95.

[15] World Health Organization (2011). *The Social Determinants of Health*. http://www.who.int/social_determinants/en/. Accessed December 5, 2011.

[16] Kaiser Family Foundation. http://www.kaiseredu.org/Issue-Modules/US-Health-Care-Costs/Background-Brief.aspx. Accessed December 5, 2011.

[17] Report to Congress: National Strategy for Quality Improvement in Health Care. http://www.healthcare.gov/law/resources/reports/quality03212011a.html#na. Accessed December 12, 2011.

[18]Epstein, R.M. *et al.* (2010). Ibid.

[19]The Engelberg Center for Health Care Reform at Brookings and the Dartmouth Institute for Health Policy & Clinical Practice. http://www.acolearningnetwork.org/. Accessed December 5, 2011.

[20] Premier, Inc. http://www.premierinc.com/quality-safety/tools-services/ACO/index.jsp. Accessed December 5, 2011.

[21] Center for Medicare and Medicaid Innovation. http://innovations.cms.gov/initiatives/cpci/. Accessed December 5, 2011.

[22] Berwick, D. Speech given at the 23rd Annual National Forum on Quality Improvement in Health Care. December 2011.

[23] Mueller, K.J. and MacKinney, A.C. (2006). Care Across the Continuum: Access to HealthCare Services in Rural America. *Journal of Rural Health*. Winter 2006.

[24] Personal communication with Robert Pannell, Director Office of Rural Health, Florida Department of Health. December 1, 2011.

[25] Prislin, M.D. *et al.*(2010). Ibid.