

TAKING STOCK: POLICY OPPORTUNITIES FOR ADVANCING RURAL HEALTH

*Prepared by the
RUPRI Health Panel*

Keith J. Mueller, PhD
Charles Alfero, MA
Andrew F. Coburn, PhD
Jennifer P. Lundblad, PhD, MBA
A. Clinton MacKinney, MD, MS
Timothy D. McBride, PhD
Paula Weigel, PhD - *Guest Author*

January 2018



Acknowledgements

This report was funded by the by the Leona M. and Harry B. Helmsley Charitable Trust, grant number 2017PG-RHC006. We wish to thank Erin Mobley, Winnie Uluocha, and Abe Salako for their research and contributions to the text in this document. We also thank Abigail Barker and Susan Nardie for their assistance in editing this document.

TABLE OF CONTENTS

Introduction	1
LIST OF ABBREVIATIONS	2
Medicare	4
Rural Trends and Challenges.....	5
Looking Ahead.....	7
Medicaid and CHIP	9
Rural Trends and Challenges.....	10
Looking Ahead.....	11
Insurance Coverage and Affordability	14
Rural Trends and Challenges.....	15
Looking Ahead.....	17
Quality	20
Rural Trends and Challenges.....	21
Looking Ahead.....	26
Health Care Finance and System Transformation	28
Rural Trends and Challenges.....	29
Looking Ahead.....	33
Workforce	36
Rural Trends and Challenges.....	37
Looking Ahead.....	38
Population Health	41
Rural Trends and Challenges.....	42
Looking Ahead.....	44
References	47

Introduction

The U.S. health care system is undergoing significant transformation as a result of Federal, State, and private payer policies designed to improve access to medical care as well as the value and outcomes of health care while attempting to slow cost growth. Some payment innovations, such as accountable care and other risk-based models, drive organizational and delivery changes that have shown evidence of improved quality, reduced care fragmentation, and lowered costs for certain populations.^{1,2} Yet overall, the entire system has not realized substantial cost savings nor has quality improved for everyone. There continue to be gaps between people who live in areas where progress is being made and those who do not, perhaps reflecting symptoms such as rising health insurance premiums, unstable insurance markets with limited plan choice, large variation in uninsured rates and access to care, and continued health professional shortages. It is clear that more changes are required if real progress is to be made toward lowering total health care system costs, improving access and health care experiences for all individuals, and achieving better population health.

This paper examines the progress of health system transformation and the gaps that remain as they affect rural people, places, and providers. The health system transformation activities examined here are not limited to the Patient Protection and Affordable Care Act of 2010 (PPACA), but also touch upon activities undertaken by states, insurance plans, and private and public payers.

The paper is organized into seven chapters covering topic areas that have key implications for rural people and the rural health care delivery system: Medicare, Medicaid and CHIP, Insurance Coverage and Affordability, Quality, Health Care Finance and System Transformation, Workforce, and Population Health. Each chapter begins with a summary of *Policy Opportunities*, followed by a background section on *Rural Trends and Challenges* that summarizes rural-related policy advances and continued gaps. We conclude each chapter with a *Looking Ahead* section that highlights the most pressing issues in today's rural health care system environment, and we suggest future policy directions related to each issue.

The RUPRI Health Panel provides policy relevant analysis of rural health services delivery to a wide array of audiences. Since 1993 the Panel has built a particular expertise linking policy suggestions to broader conceptual frameworks. *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.*

LIST OF ABBREVIATIONS

AAPM	Advanced Alternative Payment Models
ACI	Advancing Care Information
ACO	Accountable Care Organization
AHC	Accountable Health Communities
AIM	ACO Investment Model
APRN	Advanced Practice Registered Nurse
CAH	Critical Access Hospital
CDC	Centers for Disease Control and Prevention
CHIP	Children’s Health Insurance Program
CMMI	Center for Medicare & Medicaid Innovation
CMS	Centers for Medicare & Medicaid Services
CPC	Comprehensive Primary Care
CSR	Cost-Sharing Reduction
DGME	Direct Graduate Medical Education
DSH	Disproportionate Share Hospital
EHR	Electronic Health Record
FFS	Fee-for-Service
FORHP	Federal Office of Rural Health Policy
FPL	Federal Poverty Level
FQHC	Federally Qualified Health Center
GME	Graduate Medical Education
HAC	Hospital Acquired Condition
HAI	Hospital Acquired Infection
HHS	U.S. Department of Health and Human Services
HIE	Health Information Exchange
HIT	Health Information Technology
HITECH	Health Information Technology for Economic and Clinical Health
HPSA	Health Professional Shortage Area
HRSA	Health Resources and Services Administration
HVBP	Hospital Value-Based Purchasing
IME	Indirect Medical Education
LTSS	Long Term Services and Supports
MA	Medicare Advantage
MACRA	Medicare Access and CHIP Reauthorization Act

MBQIP	Medicare Beneficiary Quality Improvement Project
MedPAC	Medicare Payment Advisory Commission
MIPS	Merit-based Incentive Payment System
MSP	Multi-State Plan
MSSP	Medicare Shared Savings Program
NHSC	National Health Service Corps
NQF	National Quality Forum
NQS	National Quality Strategy
PA	Physician Assistant
PCMH	Patient-Centered Medical Home
PCP	Primary Care Physician
PMPM	Per Member Per Month
PPACA	Patient Protection and Affordable Care Act
PPS	Prospective Payment System
PQRS	Physician Quality Reporting System
QPP	Quality Payment Program
QPP-SURS	QPP Small, Underserved, and Rural Support
REC	Regional Extension Center
RHC	Rural Health Clinic
RQITA	Rural Quality Improvement Technical Assistance
RRC	Rural Referral Center
SCH	Sole Community Hospital
SHIP	Small Rural Hospital Improvement Grant Program
SIM	State Innovation Model
SUD	Substance Use Disorder
TA	Technical Assistance

Medicare

The disproportionately large and growing elderly population in rural areas underscores the importance of Medicare to rural beneficiaries, providers, and communities. Medicare is the largest health care purchaser in the United States in terms of spending,³ providing coverage to 58 million Americans, 23 percent of whom live in rural areas; thus, any changes in Medicare payment policy or benefit design have a significant impact on rural access, quality, and outcomes. The transition from “volume to value” in payment policy is particularly challenging for rural providers who, because of lower volumes, less capacity, and poorer patient socio-demographics, have lagged in critical infrastructure investments that are required in a new performance-driven environment.

POLICY OPPORTUNITIES

- ❖ **Offer transitional support to rural providers during payment policy changes.** Because rural health care hospitals and professionals function on thin operating margins (at best), they require longer time horizons to change internal financial models. Offering transitional support, such as incentives and time to adapt to new payment policy changes, is critical for rural providers to implement internal changes and build capacity to be successful in the new value-based environment.
- ❖ **Allow for higher fixed costs per patient encounter in low-volume situations.** The provision of essential services to Medicare beneficiaries, including comprehensive and coordinated primary care, emergency access and transportation, and access to specialist services requires that Medicare payment systems allow for higher average fixed costs in more rural places associated with lower volumes of encounters.
- ❖ **Include capital in infrastructure investments to redesign rural health care delivery facilities and support expansion of broadband capacity.** Access by rural Medicare beneficiaries to local essential health services, and to local or remote specialists, can be improved by investments that repurpose rural health care delivery facilities and expand broadband capacity that supports health information exchange (HIE) and telehealth services.
- ❖ **Develop and test alternative delivery models in rural communities through demonstration and pilot programs.** Models that leverage the unique characteristics underlying rural health systems must be piloted and tested to gain evidence of what works in rural communities and how these models may be replicated in other similar areas.

Rural Trends and Challenges

Medicare policy changes have significant effects on rural populations and health care systems. Historically, rural-relevant changes have focused on ensuring access to and availability of care, and correcting for unintended policy consequences by changing payment mechanisms, designing rural “add-ons,”⁴ and creating special categorical designations such as Critical Access Hospitals (CAHs), Disproportionate Share Hospitals (DSH), Rural Health Clinics (RHCs), Sole Community Hospitals (SCH), Rural Referral Centers (RRCs), and Swing Beds in CAHs.^{5,6} These policies, and others like them, were enacted to preserve access to essential primary, acute, and post-acute care in rural areas that otherwise would be at risk of losing such services under new Medicare payment systems, such as prospective payment systems (PPS). PPS was initially established for hospitals, but later extended to skilled nursing facilities, home health agencies, and Federally Qualified Health Centers (FQHCs), thereby having an effect on all types of essential rural providers.

Medicare payment policy has shifted again over the past decade, away from volume-based toward value-based and placing an increased emphasis on prevention and patient-centeredness.⁷ As before, when PPS payment systems were introduced, unique rural considerations require appropriate attention as these new value-based models are established. In general, new policy changes have the potential to lead to positive results over time; however, policymakers must ensure that rural providers and beneficiaries are not disproportionately affected nor excluded by these changes compared to their urban counterparts.⁸

The Patient Protection and Affordable Care Act (PPACA) brought limited yet notable changes to Medicare. Some changes, such as coverage of preventive benefits, extended to all beneficiaries, while others, such as new payment and delivery models, were implemented in more urban areas first before expanding to rural places. However, many Medicare policy changes have now been in place long enough to begin an assessment of their effect on the rural health care system landscape, including the following:

Center for Medicare & Medicaid Innovation (Innovation Center): One of the more significant developments in Medicare policy has been the establishment of the Innovation Center within CMS to test models that improve care, lower costs, and move forward patient-centered payment design.⁹ Innovation Center models include Accountable Care Organizations (ACOs) (the Medicare Shared Savings Programs [MSSPs] and associated demonstration programs of Pioneer and Next Generation ACOs), Episode-based Payment initiatives (including Bundled Payment models), and Primary Care Transformation initiatives (i.e., Comprehensive Primary Care [CPC] models).¹⁰ While Innovation Center opportunities are open to all, rural providers often struggle to participate in demonstrations or initiatives due to participation requirements, unless the model or demonstration is designed specifically for rural providers and circumstances.¹¹ As an example of a higher hurdle for rural providers, the Accountable Health Communities (AHC) model envisions enhanced clinical and community care linkages to address health-related social needs.¹² By design, the model requires a consortium consisting of a bridge organization and a number of partnering clinical delivery sites that have enough opportunities to screen at least 75,000 community-dwelling beneficiaries per year.¹³ Models such as these require scale, with a bridge organization large and experienced enough to bring together the provider participants necessary to meet programmatic requirements. While not impossible, rural participation in many of the new models has been more challenging; consequently, the potential impact of past Innovation Center activities on rural providers is difficult to assess.¹⁴

System Redesign: The Innovation Center priorities and activities continue to evolve, and the formation of the Rural Health Council within CMS is one way in which the health care innovation agenda is trying to fit rural health markets.¹⁵ Since MSSP inception, for example, the program has grown to include models serving rural areas. An early adopter of new payment and delivery arrangements was the National Rural ACO, which met MSSP participation requirements through the formation of rural provider networks that, together, achieved the minimum number of assigned Medicare beneficiaries to qualify as an MSSP ACO. Early experiences have led to new models further enabling rural participation, such as the Advanced Payment ACO and the ACO Investment Model (AIM), which tests the use of pre-paid shared savings to encourage new ACOs to form in rural and underserved areas and encourages existing MSSP ACOs to transition to arrangements with greater financial risk.^{16,17} The adjustments have started to have an effect, reflected by greater involvement of MSSP ACOs in rural areas and greater participation among rural providers. As of April 2016, the RUPRI Center found that at least 1 Medicare ACO was operating in more than 50 percent of all counties in the U.S.¹⁸ In 2017, RHCs were active in 15 percent of MSSPs, and CAHs participated in 11 percent of MSSPs.¹⁹ As of January 2017, 45 ACOs were participating in the AIM, and 36 of the 45 participants had at least 65 percent of their market located in rural areas.²⁰ The Advanced Payment ACO model and AIM initiative demonstrate how a rural investment strategy benefits rural beneficiaries and providers, and how rural providers are able to adapt over time to new payment and organization models. These actions support policy opportunities regarding investment, transition time, and the value of rural-oriented demonstrations and pilots. Currently, the Innovation Center is in the process of seeking input on its future direction,²¹ thereby allowing rural Medicare stakeholders with a strong interest in new value-based models to weigh in on how to best advance their interests.

Medicare Advantage (MA): The PPACA enacted payment reductions to privately administered MA plans, which were fully phased in during 2017.²² The anticipated effect of these payment cuts was slower growth in MA enrollment because fewer plans would be expected to participate in the MA program. However, the impact of payment reductions was blunted by their phase-in over time and by how bonus payments to MA plans accounted for plan quality.²³ A recent analysis has shown that MA enrollment has continued to increase among both metropolitan and non-metropolitan populations, though non-metropolitan enrollment in MA plans continues to lag behind that of metropolitan enrollment.²⁴ Overall, 2017 MA enrollment growth in non-metropolitan areas exceeded 2016 growth (8.3 percent versus 5.2 percent, respectively), indicating continued interest by rural beneficiaries in MA plans.

Telehealth: Medicare telehealth policy has expanded rural beneficiaries' access to specialty care services as barriers to payment and credentialing have been addressed.²⁵ Medicare Part B covers telehealth services if a beneficiary is receiving services at a CAH, RHC, or FQHC, among other rural-designated locations, providers, and service types.²⁶ However, national implementation of effective telehealth has been more difficult.²⁷ In recognition of this, Congress has mandated two assessments of Medicare's relationship with telehealth in the 21st Century Cures Act.^{28,29,30} The first assessment by CMS, due in December 2017, addresses how all Medicare beneficiaries might gain from increased telehealth options, and where telehealth could improve care, among other objectives.³¹ The second assessment by the Medical Payment Advisory Committee (MedPAC), due in March 2018, will examine how Medicare compares to private insurers in telehealth service availability and reimbursement.³² An expansion of covered telehealth services that reaches parity with private

insurers would likely benefit rural beneficiaries further, as would nationwide growth and acceptance of the use of telehealth.

Looking Ahead

Trends in Medicare enrollment and value-based models of care delivery point to the outsized role Medicare policy continues to play for rural populations and providers. The number of Medicare beneficiaries is expected to exceed 80 million by 2030, with an increasing portion of those in the oldest age category (85 and older);³³ a disproportionate share of Medicare beneficiaries, particularly those in the oldest age group, live in rural places.^{34,35} At the same time, an increasing number of Medicare beneficiaries are opting for enrollment in private Medicare plans, and an increasing number of ACOs are including rural providers in their networks. How well Medicare payment policy reflects rural realities will have a significant effect on large numbers of beneficiaries and their access to essential services, as well as on how rural health systems are transformed.

The following Medicare policy areas warrant continued attention for rural people, providers, and communities:

- Because rural health care hospitals and professionals function on thin operating margins (at best), they require longer time horizons to change internal financial models. Offering rural providers transitional support, such as incentives and time to adapt to new payment policy changes, is critical for rural providers to implement internal changes and build capacity to be successful in the new value-based payment environment.

❖ Policy Opportunity: Offer transitional support to rural providers during payment policy changes.

- Low patient volumes in rural health settings have led to special Medicare payment systems that recognize that reality. Moving from volume- to value-based payment systems, however, does not change the underlying higher average fixed costs associated with providing care in lower volume areas. New Medicare payment systems need to recognize that providing essential services to beneficiaries in rural places, including comprehensive and coordinated primary care, emergency access and transportation, and access to specialist services, will have higher fixed costs on a per-patient encounter basis, and to reflect that recognition in payment design.

❖ Policy Opportunity: Medicare payment policies should continue to allow for higher fixed costs per patient encounter in low volume situations.

- An increasing number of rural hospitals have closed their inpatient services in recent years or are under threat of closure from shifting patterns of utilization, including less inpatient and more outpatient services and rural hospital bypass.³⁶ Hospitals no longer providing inpatient services are often left with facilities that could be repurposed to provide needed community-based health services. Investment strategies in rural delivery system transformation should include funding that supports a “glide path” to redesigned rural health care facilities and services, and funding to extend broadband capacity to further HIE and telehealth services.

❖ Policy Opportunity: Include capital in infrastructure investments to redesign rural health care delivery facilities and support expansion of broadband capacity.

- Rural health care systems do not fit easily into Innovation Center initiatives and demonstrations because of low volumes, less infrastructure capacity, less expertise in data collection and reporting, and fewer providers with whom to partner for comprehensive care delivery. However, some health care delivery models in rural communities are effectively delivering services that meet rural population needs. Models that leverage the unique characteristics and context of rural health systems must be piloted and tested to gain evidence of what works in rural communities and how these models may be replicated in other similar areas.

❖ Policy Opportunity: Develop and test alternative delivery models in rural communities through demonstration and pilot programs.

Medicaid and CHIP

Medicaid and Children’s Health Insurance Program (CHIP) are now the largest insurance programs in the United States by coverage, insuring over 74.2 million Americans.³⁷ Medicaid and CHIP have been vital sources of health coverage and access for rural residents and have significantly reduced rural-urban disparities in coverage, especially for children and young adults.³⁸ However, gaps in coverage and access remain, affecting both low-income rural individuals and children as well as the providers who deliver their services. The following policy opportunities highlight areas that have the potential to sustain progress made in rural coverage and access, and to provide new opportunities for rural providers to advance care to this population.

POLICY OPPORTUNITIES

- **Maintain and expand incentives for states to lower eligibility criteria for Medicaid and CHIP.** Currently there is a Medicaid “coverage gap” in 19 states that affects individuals whose incomes exceed eligibility levels for Medicaid and yet are too low to qualify for insurance marketplace subsidies. Medicaid and CHIP eligibility levels vary by state, and both tend to impact rural populations disproportionately. Incentives for states to lower Medicaid and CHIP eligibility criteria for individuals and children would reduce gaps in access to care of rural populations.
- **Monitor the impact of 1115 waiver programs on rural beneficiaries, providers, health plans, and communities.** In states’ review and approval of 1115 waiver evaluation strategies, it is critical that CMS require states to monitor the potentially differential effects on rural populations, providers, and communities.
- **Provide incentives and technical support to state Medicaid agencies and rural providers to build accessible and effective Substance Use Disorders (SUDs) prevention, treatment, and recovery services.** Medicaid is an essential source of funding and payment for SUDs treatment. As states seek to use their Medicaid programs to expand treatment options, it is critical that rural primary care, mental health, and addiction treatment providers have the appropriate incentives and technical support to build accessible and effective prevention, treatment, and recovery services.
- **Include rural beneficiaries, providers, and communities in Medicaid payment and delivery system innovations, and monitor innovation impact over time.** As states continue to expand their use of innovative payment and delivery system models, it is critical for CMS and the states to ensure the inclusion of rural beneficiaries and providers, and specifically assess the impact on rural beneficiaries, providers, and communities.

Rural Trends and Challenges

Rural residents rely more heavily on Medicaid for health insurance coverage than do their urban counterparts. In 2015, the Medicaid share of coverage for non-elderly adults in the most rural areas of the country was higher than urban and other areas at nearly 25 percent (versus 22 and 21 percent, respectively).³⁹ Among those under the age of 19, Medicaid is an even more crucial source of insurance, covering 45 percent of rural children versus 38 percent in urban areas.⁴⁰ Medicaid plays a key role in filling rural coverage gaps for those who do not have access to other sources of coverage, such as employer-sponsored insurance or Medicare. Changes to Medicaid eligibility, financing, and other policies are vitally important to rural residents' access to health care and the providers who deliver it.

Medicaid is also the single largest payer of Long Term Services and Supports (LTSS) in the U.S.⁴¹ While Medicaid and CHIP currently provide health insurance coverage to more than 74 million people,⁴² including children, pregnant women, low-income adults, elderly, and persons with disabilities, most Medicaid spending benefits the elderly and disabled. Together, these populations are responsible for nearly two-thirds of total Medicaid spending.⁴³ A more detailed discussion of the fundamentals of the rural LTSS system, rural access to and use of LTSS, and the opportunities and limitations of LTSS policy may be found in *Rural Long-Term Services and Supports: A Primer*.⁴⁴

As a result of rural residents' greater reliance on the Medicaid program, Medicaid tends to be a more significant source of payment for rural physicians, hospitals, and many other health service providers compared with those in urban areas. In 2015, Medicare and Medicaid combined paid for more than 63 percent of rural hospital inpatient days compared to 49 percent in urban hospitals.⁴⁵ Nationwide, nearly 70 percent of office-based physicians accept new Medicaid patients, and physician participation is generally highest in the most rural states.⁴⁶ In 11 states where 50 percent or more of the population lives in rural areas, the median physician participation rate in Medicaid is 90 percent.⁴⁷

Medicaid and CHIP enrollment has grown by 27 percent (15.5 million people) since 2013, in large part through the PPACA Medicaid expansion option, though growth has varied depending on states' expansion decisions and on other state-determined policy decisions.^{48,49} While Medicaid enrollment grew faster in states that opted to expand Medicaid compared to states that did not (36 percent versus 12 percent),⁵⁰ rural Medicaid enrollment growth lagged behind that of urban in both expansion and non-expansion states.^{51,52} Of the population in non-expansion states, on average 17 percent is rural compared with 12 percent in expansion states, indicating that rural residents have benefited less than those in urban areas from greater access to insurance coverage through the Medicaid expansion option. Substantial numbers of rural residents remain without affordable health insurance coverage.

In the 19 states that did not expand Medicaid, a "coverage gap" affects individuals whose income is above those state's Medicaid income eligibility level and below 100 percent of the Federal poverty level (FPL) (the level at which subsidies are available for plans purchased on the insurance marketplaces). Many of those who fall in the coverage gap will go without health insurance because they do not qualify for premium tax credits on the health insurance marketplaces, nor do they qualify for Medicaid under their state's income eligibility threshold, and they cannot afford the full price of health insurance. A greater number of rural than urban individuals and households fall into

the coverage gap, creating a coverage disparity unless states pursue other coverage policies that specifically address this population.

In addition to the Medicaid expansion, Medicaid growth has been bolstered by other policy and administrative changes that states have made to simplify the eligibility determination and enrollment processes. These include outreach and awareness efforts to increase individual coverage in the health insurance marketplaces, hospital presumptive eligibility for Medicaid and CHIP, and modernized, streamlined enrollment and renewal processes that expedite eligibility determination for both individual health insurance premium tax credits and Medicaid applications on Federal- and State-run marketplaces (also known as a “No Wrong Door” approach to eligibility determinations). All states now have online Medicaid applications, while 41 states offer enrollees online accounts through which they may manage their coverage; 39 states make Medicaid eligibility decisions in real-time, and 42 states have automated renewal processes.⁵³ These investments in enrollment systems and settings, including assistance to individuals in hospitals through presumptive eligibility determinations, have been instrumental for rural uninsured individuals to gain timely access to care with payment guaranteed to providers.

The use of waivers in Medicaid allows states to experiment with policy changes, and Section 1115 waivers in particular, which authorize experimental, pilot, or demonstration projects, have been used by 7 states (with 3 additional states awaiting approval) to implement their Medicaid expansion. These state expansion models include specific features such as the use of premium assistance to help beneficiaries access private coverage, the use of incentives for healthy behaviors, waivers of required benefits, time limits on benefits, and work requirements, all of which have potentially important implications for rural enrollees.^{54,55} Ongoing evaluations will need to assess the rural-urban effects of these and other waiver features on expansion enrollment, continuity of coverage, and other important outcomes.

Looking Ahead

The expansion of Medicaid eligibility and other Medicaid-related delivery system transformation provisions were essential to the central policy goals of PPACA to achieve near-universal insurance coverage and, as discussed later in this paper, improve the value of health care services through changes in how care is financed and delivered. The limited expansion of Medicaid, combined with serious challenges in the Federal and State insurance exchanges, have disproportionately limited growth in health insurance coverage among rural populations. Several key Medicaid-related problems and considerations merit attention.

- Nineteen states currently have a Medicaid “coverage gap,” affecting individuals whose incomes exceed eligibility levels for Medicaid and yet are too low to qualify for marketplace subsidies. Medicaid and CHIP eligibility levels vary by state, and both tend to impact rural populations disproportionately. Incentives for states to lower Medicaid and CHIP eligibility criteria for individuals and children would reduce gaps in access to care of rural populations.

❖ Policy Opportunity: Maintain and expand incentives for states to lower eligibility criteria for Medicaid and CHIP.

- As states propose and implement new Medicaid expansion models, the potential and/or actual impact on rural beneficiaries, providers, and health systems must be recognized. In states’ review and approval of 1115 waiver evaluation strategies, CMS should require states to monitor the potentially differential effects on rural populations, providers, and communities.

❖ Policy Opportunity: Monitor the impact of 1115 waiver programs on rural beneficiaries, providers, health plans, and communities.

- Medicaid is an essential source of funding and payment for substance use disorders (SUDs) treatment. With rural areas of many states suffering higher rates of opioid overdose deaths, access to SUDs treatment and recovery services is vital. In the face of the current opioid and SUDs epidemic, states have greater flexibility to use Medicaid as a vehicle for expanding SUDs treatment and recovery services. As states seek to use their Medicaid programs to expand treatment options, it is critical that rural primary care, mental health, and addiction treatment providers have the appropriate incentives and technical support to build accessible and effective prevention, treatment, and recovery services.

❖ Policy Opportunity: Provide incentives and technical support to state Medicaid agencies and rural providers to build accessible and effective SUDs prevention, treatment, and recovery services.

- Rural stakeholders should be included in Medicaid, Medicare, and other payment and delivery system innovations because participation brings opportunities for performance improvement and financial rewards. As states continue to expand their use of innovative payment and delivery system models, CMS and the states must ensure the inclusion of rural beneficiaries and providers, and specifically assess the impact on rural beneficiaries, providers, and communities.

❖ Policy Opportunity: Include rural beneficiaries, providers, and communities in Medicaid payment and delivery system innovations, and monitor innovation impact over time.

Insurance Coverage and Affordability

Access to affordable health insurance coverage has been especially challenging for rural residents as they have historically had lower coverage rates and less generous health insurance benefits than those in urban areas. Rural insurance markets, too, are challenged by low populations, smaller risk pools, and higher average administrative costs for health plans. Policy proposals must focus on ways to mitigate these challenges by improving insurance market stability and ensuring the affordability of comprehensive health plans to rural populations.

POLICY OPPORTUNITIES

- **Maintain insurance reforms.** A number of insurance market reforms have significantly improved the access, cost, and quality of insurance plans to rural people, and these reforms should remain in place. This includes but is not limited to reforms such as establishing guidelines that standardize qualified health plan benefits, expanding access to preventive care, allowing access to coverage for dependents up to age 26, and bans on the exclusion of pre-existing conditions.
- **Consolidate rating areas.** Policies that encourage or require states to consolidate rating areas (including statewide) would expand the size of risk pools, helping insurers spread risks across a greater number of people, and perhaps discourage insurers from exiting rating areas with small populations. In addition, state governments should consider requiring plans to offer insurance across an entire rating area if the plan is offered anywhere in a rating area.
- **Offer incentives to carriers to establish Multi-State Plans.** Policies that create explicit incentives for Multi-State Plans (MSPs) are needed in order to achieve the goal of nationwide coverage by one or more MSPs, as was called for in the PPACA. Such policies would ensure that at least one viable option would be available to every rural person.
- **Strengthen risk mitigation.** Reforms that offer insurers the ability to better manage risk would reduce their vulnerability to high-cost outliers, leading to increased predictability in rural markets and thereby encouraging issuer participation in those markets. Greater health plan participation has the potential to keep premiums in check.
- **Encourage demand for marketplace plans.** Policies that encourage individuals to purchase insurance plans from the “on exchange” markets would stabilize markets in rural areas and would encourage firms to enter and stay in those areas. Some of these policies include increased outreach, guaranteed payment of cost sharing reductions (CSRs), and automatic enrollment. Other policies include sunseting “off exchange” grandfathered plans and discouraging “off exchange” enrollment.

Rural Trends and Challenges

Rural residents disproportionately rely on public insurance largely because of lower incomes, higher poverty rates, and less access to employer-sponsored insurance than those living in urban areas.^{56,57} Before the implementation of PPACA, rural populations were more likely to be covered by Medicaid or other public insurance (21 percent and 4 percent, respectively) than urban residents (16 percent and 3 percent, respectively).⁵⁸ Rural employers, likewise, are less likely than their urban counterparts to offer insurance because of high premiums, which are in part a reflection of smaller group sizes and a larger complement of part-time and seasonal workers in rural areas. Small businesses, a staple of rural communities,⁵⁹ are less likely to offer employer-sponsored insurance to employees due to high premium costs.⁶⁰ When private health insurance is offered and taken up, rural employers and employees typically have plans that offer less generous coverage with fewer benefits and higher out-of-pocket costs.^{61,62}

The economic burden associated with lack of coverage (or underinsurance) is significant for rural people and providers. Comparatively higher insurance costs (including higher premiums, higher shares of out-of-pocket costs for premiums, and higher out-of-pocket deductibles and coinsurance rates) are substantive economic hardships to rural residents.⁶³ High levels of uncompensated care and health plans with fewer covered benefits and/or higher out-of-pocket costs place significant financial burdens on rural providers and the rural health system. The sustainability of rural hospitals and health systems is threatened by high uncompensated care costs (among other challenging conditions) and is reflected in trends in rural hospital closures.^{64,65}

Problems in the individual and small employer insurance market have existed for decades, and these problems are particularly acute in rural areas given small population densities and other market failures.⁶⁶ Health plans offering insurance in rural markets struggle with challenging economic, social, and demographic factors. Higher administrative costs associated with servicing smaller populations and employer markets, fewer providers competing for contracts, and population characteristics (e.g., older, less healthy, lower income) all contribute to health plans either choosing to not offer products in some rural markets or doing so at higher premiums.⁶⁷ On average, health plan premiums have been higher in insurance rating areas with fewer residents, and the gap has been widening since implementation of the marketplaces in 2014.⁶⁸ Annual premium growth has also been higher in low population density rating areas, with fewer firms competing to sell health plans.

Under the PPACA, insurers offering health plans in the marketplaces decide whether to offer in rural markets, especially in states that chose to establish insurance rating areas that segregate rural and urban markets and in states that allow an insurer to cover partial rating areas if they prefer. From the health plan perspective, the limited ability to spread risk and administrative costs in low population rural rating areas creates a higher risk of financial loss. While risk adjustment is designed to mitigate adverse selection, the potential selection of sicker rural populations is a challenge insurers must take into consideration, especially with the elimination of rating for pre-existing conditions and requirements for guaranteed issue and renewability under PPACA.

The PPACA represents the first concerted effort to reform insurance markets at the Federal level; prior State and Federal policies had largely been inadequate to resolve problems in the individual and small employer insurance markets. PPACA reforms include, but are not limited to, insurance regulatory reform (e.g., bans on pre-existing condition exclusions, guaranteed issue of plans),

premium and cost-sharing subsidies, and insurance risk payments for health plans. The key strategies developed to address problems in the individual and small group insurance markets have included the following:

- **Expanding access to affordable private plans.**

Federal and State policies have focused on several strategies designed to expand access to affordable insurance in the individual and small group markets. Key assumptions underlying these strategies are that multiple insurers offering plans to individuals will reduce premiums due to competition among issuers, and that people value choice among plans. The strategies have included policies designed to accomplish the following:

- Develop marketplaces where insurance plans are offered (the PPACA marketplaces);
- Encourage more people to enter into the health insurance market, especially younger, healthier individuals, through the use of financial incentives;
- Require health insurance coverage, increasing the number of individuals in the pool and providing a larger group across which health plans can distribute risk;
- Make insurance more affordable by providing income-targeted premium and CSR subsidies;
- Protect firms offering health plans from undue fluctuations in risk through risk reinsurance and risk adjustment.

The experience of the PPACA marketplaces suggests that these strategies have worked in many if not most rural areas, especially for those who qualify for premium and CSR subsidies on the PPACA marketplaces. These subsidies, combined with expanded Medicaid eligibility in states that adopted the expansion, have reduced the uninsured rates in rural areas to levels on a par with urban areas.⁶⁹

- **Changing insurance rules to “level the playing field” for consumers and health plans.**

State and Federal policies have used insurance regulatory reform to limit risk selection by health plans in favor of price-based competition. To do so, policies have set rules for health underwriting and risk rating. The following strategies have been used:

- Limiting exclusions for pre-existing health conditions;
- Requiring guaranteed issue and plan renewability in the individual insurance marketplace;
- Using adjusted community rating for individual plans, which restricts risk rating to specific factors such as age, smoking status, individual or family policy, and geographic area (reflecting the different cost structures of providing care in different geographical areas);
- Using rate bands that reduce variations in premiums based on above factors;
- Setting standards for “Qualified Health Plans” that require coverage of essential health benefits and that meet network adequacy requirements, allowing consumers to shop and buy health plans based on an “apples-to-apples” comparison.

- **Revising insurance rating areas in the individual and small group markets.** Historically, health plans have had some latitude to determine the geographic areas used to establish rates that they would charge customers. In general, the size and configuration of rating areas can have a significant effect on insurance premium pricing. This is especially true if rating areas have, for example, a concentration of older, less healthy people.

Under PPACA, each state defines the geographic rating areas that all issuers in the state must uniformly use to set rates,⁷⁰ and as of May 2017, there were 498 premium rating regions in the U.S.⁷¹ At the extremes, are states with a single, statewide rating area (e.g., Delaware, Hawaii, New Hampshire, Vermont), and states with more than 20 rating areas (e.g., Florida 67, South Carolina 46, and Texas 26), including 3 that designated each county as a rating area (e.g., Florida).

Whether insurers find it feasible to offer insurance in a rating area at all—or at a premium that would be considered affordable—depends in part upon the number of people in the rating area. In general, the smaller the rating area, the harder it is to spread the unpredictably high costs of a few outlier individuals across the pool. In urban areas, not only are there more people over which to spread a few high-cost individuals' costs, but also the competition among health plans leads to more plan offerings, lower premiums, and lower premium growth.⁷² Rating areas with low populations, such as rural areas, present small-market problems. Specifically, the risk associated with low-density population rating areas has resulted in significantly higher premiums, premium growth, and fewer plan offerings than would be the case if a state's rating area design had more balanced rating areas.⁷³ Trends in insurer participation on PPACA marketplaces reflect many of these small-market issues, as insurer participation has declined since 2014 from an average of 5.0 insurers participating in each state to 4.3 in 2017.⁷⁴ Additionally, a growing number of counties have only one insurer in 2018, disproportionately affecting rural areas.⁷⁵ There was even concern a few months prior to 2018 open enrollment that some counties might not have any insurers offering plans, although as of the start of open enrollment, there are no counties and people without an insurer on the marketplace in 2018.⁷⁶

The fact that insurers are able to selectively offer plans in parts of rating areas, but not the entire rating area, is an additional destabilizer of PPACA marketplaces. In essence, this allows insurers to cherry-pick the healthier parts of the rating area, which undermines the effective functioning of the individual insurance market for rural enrollees.

Looking Ahead

Many of the insurance reforms have increased rural insurance coverage, yet there continues to be a need to reinforce and adjust certain existing policies as well as add new policies to make further headway, particularly in certain challenging areas. These problems and policy opportunities include the following:

- We suggest maintaining existing insurance reforms, such as establishing guidelines that standardize qualified health plan benefits, expanding access to preventive care, allowing access to coverage for dependents up to age 26, and bans on pre-existing conditions.

❖ **Policy Opportunity: Maintain insurance reforms.**

- We also recognize that several problems threaten continued progress in expanding affordable coverage in rural areas. Market factors contribute to continued limited plan offerings in rural markets. Although premium subsidies have offset higher premiums for lower income people, health plans have still been hesitant to enter these areas because higher premiums discourage enrollment, especially among those whose income disqualifies them from receiving subsidies. Some policies were meant to help insurers deal with smaller risk pools, including funds created for risk adjustment, reinsurance, and risk corridors. However, once funding for the latter two programs was discontinued, insurers became reluctant to remain in areas with higher risk individuals, including some rural areas with high poverty and higher unemployment. As a result, many rural citizens have limited or no access to insurance plans offered competitively by multiple insurance firms, or to a limited number of health plans in the Federal and State marketplaces. Policies that encourage or require states to consolidate rating areas (including statewide) would expand the size of risk pools, helping insurers spread risks and perhaps discourage them from exiting small population rating areas. In addition, state governments should consider requiring plans to offer insurance across an entire rating area if the plan is offered anywhere in a rating area. Lastly, policies that create explicit incentives for MSPs are needed in order to achieve the goal of nationwide coverage by one or more MSPs, as was called for in the PPACA. This would ensure that at least one viable option would be available to every rural person.

❖ **Policy Opportunity: Consolidate rating areas.**

❖ **Policy Opportunity: Offer incentives to carriers to establish Multi-State Plans.**

- In general, plan premiums in the marketplaces have been higher for rural consumers than urban, and premium increases since 2013 have been higher as well.⁷⁷ Continued high premiums and premium growth in rural areas are problematic for rural consumers trying to purchase affordable plans. Reforms that offer insurers the ability to better manage risk would reduce their vulnerability to high-cost outliers, leading to increased predictability in rural markets and thereby encouraging issuer participation in those markets. Greater health plan participation has the potential to keep premiums in check.

❖ **Policy Opportunity: Strengthen risk mitigation.**

- Many rural people are accessing individual health insurance outside of the PPACA marketplaces, which negatively impacts the PPACA markets. Furthermore, even when marketplace plans are available, rural consumers are less likely to enroll. As a result, low enrollment in rural areas continues to be a challenge. The decision to allow “grandfathered” insurance plans has meant that more people remained in “off exchange” plans, diminishing the size of the exchange risk pools. This has had significant consequences for the stability and competitiveness of health insurance markets for rural residents, especially given that rural people tend to rely more on individual insurance plans because they are less likely to be offered employer-sponsored insurance. Policies that encourage individuals to purchase insurance plans from the “on exchange” markets would stabilize markets in rural areas, and encourage firms to enter and stay in those areas. These policies include increased outreach, guaranteed payment of CSRs, and automatic enrollment. Other policies include sunseting “off-exchange” grandfathered plans and discouraging “off exchange” enrollment.

❖ **Policy Opportunity: Encourage demand for marketplace plans.**

Quality

As noted by the RUPRI Health Panel in its report, “The High Performance Rural Health Care System of the Future,” quality is one of the five foundations of a high performance rural health care system, along with affordability, accessibility, community focus, and patient-centeredness.⁷⁸ Elements that contribute to quality are training and technical assistance (TA), quality measurement and transparency, and payment models which incent and reward quality. In today’s rapidly changing payment and care delivery environment, quality is paramount; yet policies and programs often present barriers and challenges to rural provider and community participation in quality improvement initiatives, as well as to appropriately measuring and demonstrating the quality of care delivered in rural areas. Policy action is feasible, and concerted rural health quality efforts in the past have proven to be effective.

POLICY OPPORTUNITIES

- ❖ **Support development of rural-relevant quality measures.** Policymakers should support the development of rural-relevant measures, as recommended by the National Quality Forum (NQF) expert committee on rural and low-volume measures. The NQF panel recommended 9 areas for consideration and the creation of a workgroup, which was formed and started its work in November 2017, to advise CMS on the selection of rural-relevant measures.
- ❖ **Develop a comprehensive cross-agency approach to rural health care quality improvement technical assistance (TA).** Policymakers should consider a comprehensive and aligned program of rural-focused quality improvement TA, coordinated through contracting, management, and oversight across the multiple agencies of HHS with responsibility for health care and rural health.
- ❖ **Offer quality initiatives specifically designed to meet rural needs and opportunities.** Policymakers should advocate new health care quality pilot programs that are designed specifically to test methods to improve quality and value for the unique rural environment (and are not just pared down versions of urban/suburban efforts), and that address the barriers to participation by CAHS and RHCs.

Rural Trends and Challenges

Federal policies and programs, especially those led by CMS, have steadily intensified a focus on improving health care quality through publicly reporting quality measures, paying differentially based on quality, incentivizing value-based care, and providing quality improvement technical support.^{79,80} In 2001, the U.S. Department of Health and Human Services (HHS), in conjunction with CMS, launched *Quality Initiatives* aimed at improving the quality of health care for Americans.⁸¹ The Institute for Healthcare Improvement's *Triple Aim* was created to pursue coinciding efforts towards "improving the patient experience of care (including quality and satisfaction), improving the health of populations, and reducing the per capita costs of health care."⁸² Furthermore, section 1115A of the Social Security Act (as amended by section 3021 of the PPACA) required the creation of the Innovation Center to implement and evaluate new payment and service delivery models, referred to as *demonstration projects*.^{83,84}

At both the Federal and State levels, initiatives focused on quality measurement and quality improvement have been proposed, implemented, and studied in an effort to continue to move health care towards the *Triple Aim*.⁸⁵ Medicare has been consistently leading this shift. In hospitals, the Medicare quality focus started with the core measure reporting program and the quality measure reporting program (Reporting Hospital Quality Data for Acute Payment Update), and has evolved to today's Hospital Value-Based Purchasing (HVBP) incentive program and Hospital Acquired Conditions (HAC) and Hospital Acquired Infections (HAI) penalty programs.^{86,87} In outpatient primary and specialty care, the Medicare quality efforts started with Physician Quality Reporting System (PQRS), then the Value-Based Payment Modifier program, and now the Congressionally-mandated Quality Payment Program (QPP).^{88,89} These policies and programs have been supplemented by the Meaningful Use program and accompanying incentives in both the inpatient and outpatient settings to encourage the use of electronic health records (EHRs) to measure and improve quality. Similarly, but more slowly, Medicare has been reporting quality measures across the remaining continuum of care (e.g., home health, skilled nursing facilities, and end-stage renal disease facilities), and is now implementing value-based purchasing programs in these settings.⁹⁰ The PPACA dramatically accelerated the shift from paying for volume to paying for value with its emphasis on high-quality care through redesigned care delivery and payment systems.

The *Triple Aim* applies in concept universally to urban and rural areas; however, federally sponsored quality measurement and payment programs (described above), and initiatives and demonstration projects that test new models of care delivery and payment, are less available in rural areas due to participation requirements and other limitations.^{91,92,93} As a result, despite the fact that almost 20 percent of the population lives in and gets their care in rural communities, the march toward quality, and measuring and paying for quality and value, has only marginally included rural health care organizations and the patients they serve.^{94,95}

Rural residents want and deserve the highest quality health care possible. However, the quality measures that are currently used do not adequately or accurately reflect rural health care, due to lower volumes in rural settings, different type and scope of care provided, and differences in case mix compared to urban areas.⁹⁶ As a result, the gaps in how quality is measured and the reliability of those measurements leaves rural areas at a disadvantage compared to their urban counterparts, given that measuring quality is foundational to most improvement and payment programs. In

addition, quality improvement TA and support in rural areas, where it is often most needed due to limited resources, is often not as consistently available or robust as in urban areas.

Notwithstanding these barriers to rural participation in various quality improvement initiatives, there has been effort at both the State and Federal levels to incorporate rural areas for targeted TA and support. For example, the Health Information Technology for Economic and Clinical Health (HITECH) Act was passed as part of the American Reinvestment and Recovery Act of 2009 to help address barriers to EHR adoption.⁹⁷ To combat the slow uptake of EHRs in rural and underserved areas, the HITECH Act included a provision to launch the EHR Incentive Program, which incorporated a national TA program targeted to rural and underserved hospitals and clinicians (in addition to financial incentives).⁹⁸ For primary care physicians (PCPs) in small practices, participating in a Regional Extension Center (REC) TA program was positively associated with electronic health record adoption, and 68 percent of REC participants successfully received incentives for achieving Stage 1 Meaningful Use compared with only 12 percent of those not participating in the TA program, according to the final report prepared for the Office of the National Coordinator for Health Information Technology.⁹⁹

For CAHs, the Medicare Beneficiary Quality Improvement Project (MBQIP) was established under the Medicare Rural Hospital Flexibility (Flex) grant program, and is administered by the Health Resources and Services Administration's (HRSA) Federal Office of Rural Health Policy (FORHP).¹⁰⁰ MBQIP was created to improve the quality of care provided in CAHs, and TA and support are available through the state rural Flex offices and the Rural Quality Improvement Technical Assistance (RQITA) program.¹⁰¹ More recently, FORHP created the Small Rural Hospital Improvement Grant Program (SHIP) to help offset rural hospital costs for implementing CMS requirements, including MBQIP.¹⁰² As a result of the MBQIP and SHIP programs and TA provided, 100 percent of CAHs are reporting quality measures to Hospital Compare in 2017, up from 73.4 percent in 2009, despite not being mandated to do so.¹⁰³ However, since MBQIP is not part of the CMS measurement and payment system, rural hospitals that collect and report quality data do not have an opportunity to earn quality performance incentives to reinvest in care improvement and infrastructure.¹⁰⁴

For clinics and clinicians, the QPP was established through the passage of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA).¹⁰⁵ QPP changes Medicare Part B payments to allow eligible providers to choose between either Advanced Alternative Payment Models (AAPM) or the Merit-based Incentive Payment System (MIPS).¹⁰⁶ Furthermore, QPP is thought to be a "major step in improving care across the entire health care delivery system."¹⁰⁷ The needs of rural areas were acknowledged in this legislation through the mandated QPP Small, Underserved, and Rural Support (QPP-SURS) program, launched in early 2017, to help practices with technical support and outreach.¹⁰⁸

Through the EHR Incentive Program, MBQIP, SHIP, QPP-SURS, and other initiatives and assistance, rural providers' unique needs have been given more attention. Additionally, these targeted efforts have helped prepare for future transitions in terms of quality and MIPS requirements that rural providers will need to meet for reimbursement purposes. However, more coordination and consistency across programs would help drive continued quality improvement in rural areas. In addition, attention is needed to continue to push the focus on rural providers' unique circumstances at the Federal policy level.

The HHS National Quality Strategy (NQS) provides an opportunity to highlight rural health care policy and program considerations going forward. The NQS was established in 2011 as the first national effort to articulate the country’s strategy for health care quality, stemming from the legislative mandate in section 3011 of the PPACA.^{109,110} The NQS includes 3 overarching aims and 6 supporting priorities that build upon the *Triple Aim*.¹¹¹ In order to put the NQS into practice, nine levers were developed to allow organizations to align their administrative functions to enhance quality improvement. The nine levers are displayed in Table 1 below, with rural considerations highlighted.

Table 1. Rural Considerations of the National Quality Strategy Levers of Change*

Lever	Model	Rural Considerations
Payment	<i>Reward and incentivize providers to deliver high-quality, patient-centered care</i>	<ul style="list-style-type: none"> • Rural areas should have the opportunity to participate in new payment incentives to test their applicability, usability, and outcomes in rural areas; however, payment and reimbursement mechanisms for specific rural provider types (e.g., CAHs, RHCs) often prohibit participation. • The proportion of rural residents (20 percent) should be used as a guideline in establishing demonstration projects and other learning opportunities, and demonstration projects should be designed specifically to address rural needs. • Value-based purchasing should be required by Medicare for rural providers in a phased approach, as recommended in the 2015 National Quality Forum report on rural and low volume quality measures. • Consider rural-relevant sociodemographic factors in risk adjustment for payment.
Public Reporting	<i>Compare treatment results, costs, and patient experience for consumers</i>	<ul style="list-style-type: none"> • In rural areas, measurement is often challenging due to low volume and a more limited scope of care and services. • Quality measure reporting must be valid and reliable, and must consider unique rural situations; the 2015 National Quality Forum report on rural and low volume quality measures, which emphasized funding the development of appropriate measures and developing and/or modifying measures to explicitly address low case volume, provides practical and actionable guidance on how to achieve this.

Lever	Model	Rural Considerations
Learning and Technical Assistance	<i>Foster learning environments that offer training, resources, tools, and guidance to help organizations achieve quality improvement goals</i>	<ul style="list-style-type: none"> • Rural providers may have less experience and/or fewer resources to achieve quality goals, and can often benefit most significantly from TA and peer learning opportunities. Rural participants may need to use technology or other approaches to remote participation in training and TA. • Rural-targeted TA has shown good results in a variety of programs, and alignment of TA and other informational resources could improve impact.
Certification, Accreditation, and Regulation	<i>Adopt or adhere to approaches to meet safety and quality standards</i>	<ul style="list-style-type: none"> • Rural providers may find it difficult to manage multiple reporting systems for quality measures, and they may not have the resources to seek voluntary accreditation. • Organizations dedicated to certification, accreditation, and regulation must work together to harmonize their processes and measures, and better meet the needs of small rural health care organizations. • Medicare Conditions of Participation are an opportunity to address rural needs by ensuring that quality standards and requirements are appropriate to low volume, and limited service and access, and are flexible in implementation to meet the unique training, workforce, and service needs in rural provider organizations.
Consumer Incentives and Benefit Designs	<i>Help consumers adopt healthy behaviors and make informed decisions</i>	<ul style="list-style-type: none"> • In rural settings, with smaller populations, people often have fewer health care insurance choices, and therefore have to work within the benefits and options available to them. • Rural per capita spending on consumer education regarding incentives and healthy behaviors may need to be higher since large rural areas, with sparse populations, may need different programs and education than urban areas, with more programs, resources, and choices. • Different approaches may be appropriate for rural consumers, including roles for public health and community-based organizations.

Lever	Model	Rural Considerations
Measurement and Feedback	<i>Provide performance feedback to plans and providers to improve care</i>	<ul style="list-style-type: none"> Plans and providers should receive feedback that differentiates their rural members/patients in order to effectively design improvement initiatives and/or benefits to meet unique rural needs. Rural measurement can be more difficult due to fewer resources, fewer relevant measures, and lower patient volume. Measures should be meaningful to rural patients and providers, such as small volume and service benchmarks and group reporting.
Health Information Technology	<i>Improve communication, transparency, and efficiency for better coordinated health and health care</i>	<ul style="list-style-type: none"> The Health Information Technology (HIT) Regional Extension Center program (2010-2015) targeted assistance to small and low-volume hospitals and clinicians, which accelerated EHR adoption and use. Continue to provide rural Technical Assistance Grants and opportunities to share HIT costs, and expand assistance across the continuum of care delivery. All areas (rural and urban) need greater oversight, incentives, and support concerning interoperability issues.
Workforce Development	<i>Investing in people to prepare the next generation of health care professionals and support lifelong learning for providers</i>	<ul style="list-style-type: none"> Delivering rural health care throughout the care continuum requires a diverse workforce that nurtures rural-focused providers and community-based partners. The rural health care professional pipeline should employ multiple strategies to encourage retention of rural providers. Rural health care systems should have licensing and payment flexibility to employ emerging types of health care workers, such as community health workers and community paramedics, who can provide efficient and effective care and support in rural areas.
Innovation and Diffusion	<i>Foster innovation in health care quality improvement, and facilitate rapid adoption within and across organizations and communities</i>	<ul style="list-style-type: none"> The Federal quality improvement innovation and TA support infrastructure (QIN-QIOs, HIINs) has been inconsistently directed to prioritize rural health quality. Specially focused efforts, including rural-specific evaluation and/or incentives, are needed to bring these valuable resources to rural communities.

*Adapted from NQS Fact Sheet;¹¹² NQF Performance Measures for Rural Low-Volume Providers;¹¹³ Core Metrics for Health and Health Care Progress.¹¹⁴

Looking Ahead

Considering the background, current state, limitations, and opportunities described above, three overarching challenges emerge as most essential in ensuring and improving rural health quality:

- Quality measures are often not appropriate or relevant in measuring and understanding health and care in rural places, due to the lower volumes and a narrower set of services offered in rural areas. With a more limited set of measures that are relevant and reflect the quality of care in rural areas, provider participation in new value-based care delivery and payment programs is challenging, incentivizing quality is more difficult in Federal and State programs, and patients and community members are not able to assess quality and use measures to inform decision making. Policymakers should support the development of rural-relevant measures, as recommended by the NQF expert committee on rural and low-volume measures. The NQF panel recommended 9 areas for consideration and the creation of a workgroup, which has been formed and started its work in November 2017, to advise CMS on the selection of rural-relevant measures.

❖ Policy Opportunity: Support development of rural relevant quality measures.

- Quality improvement TA to rural providers and organizations has been demonstrated to be effective when designed and targeted with unique rural characteristics and needs in mind. Yet such rural-focused TA tends to be fragmented across programs and agencies within HHS, and is inconsistently available, making it hard for rural health care organizations to know whether such assistance is available, how to access and make the best use of it, and whether it will be available when needed. Policymakers should consider a comprehensive and aligned program of rural-focused quality improvement TA, coordinated through contracting, management, and oversight across the multiple agencies of HHS with responsibility for health care and rural health.

❖ Policy Opportunity: Develop a comprehensive cross-agency approach to rural health care quality improvement technical assistance.

- Demonstrations and pilot projects to improve quality are seldom designed to include rural patients and providers. Programs and projects intended to test new care delivery and/or payment methods and to improve quality often exclude CAHs and RHCs because of how they are reimbursed by Medicare payment. When programs or pilots do not include rural, design refinements often promote and increase effectiveness in larger volume environments inclusive of a comprehensive range of health care services, without recognition of the tradeoffs that occur in rural environments with low volume and a more limited set of services. Policymakers should advocate new health care quality pilot programs which are designed specifically to test methods to improve quality and value for the unique rural environment (and are not just pared down versions of urban/suburban efforts), and they should address the barriers to participation by CAHs and RHCs.

❖ **Policy Opportunity: Offer quality initiatives specifically designed to meet rural needs and opportunities.**

Health Care Finance and System Transformation

Multiple rural health care policies support rural providers, either through special payments or through exclusion from certain regulations. However, the same policies designed to preserve the rural health care safety net have limited rural provider participation in health care finance and system transformation activities. This chapter examines challenges faced by rural providers and stakeholders in pursuing health care finance and system transformation.

POLICY OPPORTUNITIES

- ❖ **Offer alternative pathways to rural provider inclusion in value-based payments.** Rural providers should have the same opportunities to implement new value-based care strategies and be financially rewarded for delivering value-based care.
- ❖ **Expand collaborative opportunities among rural providers.** Rural providers can excel if given the opportunity to share resources through collaboration. Public policy should support rural provider collaborations designed to deliver value.
- ❖ **Support expanded rural provider participation in CPC+ and other similar models.** Primary care is the foundation of the rural health care system. CPC+, and other multi-payer models that have tripartite payments (care coordination, quality, and FFS), should be modified to apply to RHCs and FQHCs.
- ❖ **Consider low volumes in rural performance analyses.** Rural providers may be disadvantaged in performance-driven payment models because of low volume. Special statistical analysis techniques, such as combining cohort populations, trending performance data, or using rolling averages should be used to address low volume measurement issues.
- ❖ **Provide TA to rural providers.** Rural providers do not have the same resources to manage care delivery transformation as do urban providers. Therefore, public policy should fund TA for rural providers to facilitate change.
- ❖ **Improve timeliness and transparency of demonstration evaluations.** Rural providers cannot plan for, or afford, prolonged or indefinite transitions. Demonstrations should be evaluated expediently and with transparency. Demonstration-to-program decisions should strongly consider participant input.
- ❖ **Support care transitions and care coordination.** Rural areas have lower provider concentrations and fewer community-based resources. Payment policy should incentivize rural providers to improve care transitions (e.g., from hospital to home) and care coordination (e.g., between primary care provider and social services).
- ❖ **Monitor emerging research on the impact of social determinants on health care performance, and consider rural social risk factors in payment design.** Rural people are generally poorer, older, and sicker than urban people. New value-based payment systems should consider rural social risk factors likely to impact health care performance.
- ❖ **Support telehealth expansion to extend rural health capacity and improve rural health care quality.** Telehealth is an important tool in rural areas where providers are distant from patients. Telehealth should support rural providers and increase access to non-local care, but should not supplant local health care resources.

Rural Trends and Challenges

How health care is delivered is determined by how that care is reimbursed (*form follows finance*). Organizational goals are influenced by financial incentives because they enable investment in infrastructure (e.g., electronic health records, telehealth, Lean processes) and care delivery changes (e.g., hiring community health workers or paramedics, establishing group visits). However, rural providers have been historically excluded from, or less able to participate in, payment or system transformation initiatives. Without access to incentives, rural providers have consequently had fewer opportunities to innovate, have struggled to keep pace with payment reform, and have realized reduced capacity to serve rural patients.

Health care payment system and demonstration experiences are primary drivers of delivery system change.¹¹⁵ CMS programs such as the Inpatient Quality Reporting, Outpatient Quality Reporting, and HVBP programs, have been at the forefront of the volume-to-value transition. Rural providers such as CAHs, however, are not mandated to participate in quality reporting programs (i.e., Hospital Compare), and because CAHs receive cost-based reimbursement (as opposed to prospective payment), they are precluded from participating in many CMS value-based programs.¹¹⁶ Similarly, providers who practice in FQHCs or RHCs cannot participate in Medicare's QPP.¹¹⁷ A complicating factor for rural providers is that many quality measures are not appropriate to rural settings, limiting the number of eligible rural providers from participating in performance-based payment systems. For those rural providers that have adequate mechanisms to capture and submit performance data, low service volumes hinder statistically reliable analysis.¹¹⁸

Innovation Center demonstrations are testing new delivery models that reward performance. To improve care delivery, for example, ACO programs and demonstrations, the CPC+ model, and AHC demonstrations encourage care coordination and other strategies to focus on care quality, continuity, and waste reduction. Value-based Innovation Center demonstrations and CMS programs are laudable; however, unique rural payment systems (originally designed to preserve the rural provider safety net), low patient and service volumes, and underdeveloped rural infrastructure have limited rural provider participation in these Innovation Center opportunities.

Federally Led Finance and System Transformation Initiatives. In 2015, HHS stated new payment system goals¹¹⁹ guided by three overarching strategies directing finance and system reform initiatives: (1) *offer incentives* that shift payment from volume to value, (2) *improve care delivery* by reducing fragmentation and improving quality, and (3) *accelerate information availability* to guide decision-making. Motivated by these new HHS finance and system transformation goals, both public and private sectors have developed payment and system transformation strategies.¹²⁰ Table 2 lists each of the HHS strategies, specific goals associated with each strategy, current programs and new payment models that try to achieve those goals and objectives, and rural considerations that preclude or dissuade rural participation in demonstrations and programs.

Table 2. System Transformation Strategies, Goals, Programs, and Rural Considerations*

HHS Strategy	Goals	Programs	Rural Considerations
<p>Offer incentives</p>	<p>Reward value (not volume)</p>	<p><i>Quality Payment Program (QPP)</i></p> <p><i>Value Based Purchasing (VBP)</i></p> <p><i>Episode-based payment initiatives (bundled payment)</i></p>	<ul style="list-style-type: none"> • RHCs and FQHCs are not eligible for QPP due to their reimbursement methodology. • CAHs are not eligible for VBP due to cost-based reimbursement and other regulatory factors. • Although CAHs, RHCs, and FQHCs are encouraged to voluntarily report quality data, there are no associated incentives to pay for data collection and reporting. • CMS designated \$20 million in QPP TA support over 5 years to help small practices in rural and underserved areas. • The minimum number of beneficiaries required for participation in bundled payment initiatives makes it unlikely that rural providers will be eligible; however, rural providers and communities may be included as part of regional or health system collaborations. • Unique swing bed payments make CAHs prohibitively costly for delivering post-acute services in episode-based payment initiatives. • CMS is transitioning rural home health agencies and skilled nursing facilities to value based payments. Attention to unique rural circumstances, and thus unintended rural consequences is required.
	<p>Link reimbursement to value</p>		
	<p>Test alternative payment models (APMs)</p>		
	<p>Implement proven APMs</p>		

HHS Strategy	Goals	Programs	Rural Considerations
<p>Improve care delivery</p>	<p>Integrate and coordinate care</p>	<p><i>Accountable Care Organizations (ACOs)</i></p> <p><i>Comprehensive Primary Care+ (CPC+)</i></p> <p><i>Transforming Clinical Practice Initiative</i></p> <p><i>Accountable Health Communities (AHC)</i></p>	<ul style="list-style-type: none"> • Medicare ACO initiatives, such as the ACO Investment Model (AIM) that encourages new ACOs to form in rural or underserved areas, have evolved to be more inclusive of rural providers and beneficiaries. • To be eligible for the Medicare Shared Savings Program (MSSP), providers must have at least 5,000 attributed Medicare fee-for-service (FFS) beneficiaries, which may be unattainable in many rural areas. • Although CPC+ is not rural-specific, several participating regions include rural areas, but RHCs and FQHCs are not eligible. • The Transforming Clinical Practice Initiative includes rural practices and is designed to help clinicians achieve large-scale health transformation, including sharing, adapting, and further developing their comprehensive quality improvement strategies. • Although the required number of beneficiaries for screening in the AHC demonstration is high, current participation includes a sizable proportion of rural counties. • CMS is contemplating how to include social risk factors in payment; pertinent rural risk factors may include poverty, disability, chronic disease, and health literacy.
	<p>Focus on population health</p>		
	<p>Enhance patient shared decision making</p>		

HHS Strategy	Goals	Programs	Rural Considerations
Accelerate access to information	Increase transparency regarding cost and quality	<i>Advancing Care Information (ACI)</i> <i>Medicare Compare</i> <i>Medicare Advantage Star Program</i>	<ul style="list-style-type: none"> Rural provider performance data may be less reliable and publicly reportable due to low service volumes. Unreported performance due to low rural patient volumes, for example, may inappropriately imply lesser quality. Through the HITECH Act, Federal investment has supported rural providers in adopting EHRs and achieving Meaningful Use; similar assistance is needed to support health information exchange and ACI. If value-based benefit insurance products emerge, rural beneficiaries will require accessible, reliable, and valid data about their available provider networks.
	Support shared decision making by patients and providers		
	Promote Meaningful Use readiness		

* Information adapted from: Catalog of Value-Based Initiatives for Rural Providers¹²¹ and the Patient Protection and Affordable Care Act of 2010.¹²²

State-led Finance and System Transformation Initiatives. An increasing number of states are also pursuing delivery system transformation objectives. Maryland, through its All-Payer Model, is testing whether a system for hospital payment that is accountable for the total hospital cost of care on a per capita basis is an effective model for advancing better care, better health, and reduced costs.¹²³ This program includes rural hospitals. States are also using their Medicaid programs to test models that emphasize improved care coordination and quality through risk-based contracts. Specifically, 275 Medicaid MCOs have risk-based contracts within and across 39 states for comprehensive service provision to Medicaid beneficiaries, including in some cases LTSS care.¹²⁴ Health Homes, an optional Medicaid State Plan for beneficiaries meeting certain criteria and authorized under section 2703 of PPACA,¹²⁵ are designed to integrate and provide coordinated primary, acute, behavioral health, and LTSS to those who qualify. Health Home service providers must meet performance metrics and must report quality measures to the state. Lessons learned from early state adopters suggest that Health Homes can serve targeted, high-needs populations well, including those in rural places; however, among several take-aways from the first four years of experience, the importance of strong state support throughout the practice transformation process, including resources devoted to education, training opportunities, and financial support (including start-up or seed funding to support putting staff in place and assisting with EHR adoption or modification prior to program implementation) cannot be overstated.¹²⁶

States are also using funding from the State Innovation Model (SIM) initiative to design, implement and test novel multi-payer payment and delivery system arrangements, typically leveraging a state's Medicaid system as the focal point for innovation.¹²⁷ SIM encourages grantees to lower costs associated with Medicaid, Medicare, and CHIP; improve patient care by convening public and private stakeholders to enhance collaborative/collective efforts; improve the state's health information technology infrastructure; and develop a comprehensive plan specific to the state's population.¹²⁸ State SIM funding has been used to further practice transformation, with a number of states focusing extensively on practices in rural areas of their state. The "State Innovation Model Testing Awards from the Center for Medicare & Medicaid Innovation: Highlighting Rural Focus"¹²⁹ report contains several examples of states using SIM funding that enables rural practices to invest in infrastructure and capacity-building (e.g., HIT and HIE capacity).

Looking Ahead

The transition of the U.S. health care system from volume to value represents a transfer of financial risk from payers to providers. Consequently, how providers deliver health care will change. *Form follows finance*. Instead of optimizing revenue by simply increasing service volumes, providers will increasingly optimize savings by improving care delivery and health outcomes. The transition from volume to value will come more slowly to rural areas, however. Many new value-based payment systems are not applicable, nor are they easily adapted, to older payment systems designed to sustain access to local providers by paying fixed costs. Rural health system transformation driven by new payment systems will require policy attention to unique rural circumstances and challenges. These challenges, and policy opportunities, follow.

- Rural providers will face increasing financial distress if payment systems change without parallel care delivery change, especially for those already at risk due to low service volumes and thin profit margins. Yet a greater risk is that rural providers will simply be left out of the volume-to-value transformation, excluded from the opportunity and the demand to restructure health care processes to deliver better clinical quality, patient satisfaction, and smarter spending. Rural providers should have the same opportunities as their urban counterparts to implement new value-based care strategies and be financially rewarded for delivering value-based care.

❖ **Policy Opportunity: Offer alternative pathways to rural provider inclusion in value-based payments.**

- Transitions to new health care payment and delivery systems are challenging, especially in relatively under-resourced rural environments. As exemplified by the national consortiums of rural ACOs, rural providers can excel if given the opportunity to share resources through collaboration. Public policy should support rural provider collaborations designed to deliver value.

❖ Policy Opportunity: Expand collaborative opportunities among rural providers.

- The CPC+ demonstration is a multi-payer and tripartite payment (care coordination, quality, and FFS) model that builds on the medical home model and gradually shifts payment from volume to value. Rural providers should be supported, and encouraged to participate in, CPC+ and other similar primary care innovations. New Innovation Center models, such as CPC+, should be modified to be applicable for RHCs and FQHCs.

❖ Policy Opportunity: Support expanded participation of rural providers in CPC+ and other similar models.

- Because some rural delivery sites are typically low volume, obtaining statistically reliable quality measures is difficult. Special statistical analysis techniques, such as combining cohort populations, trending performance data, or using rolling averages, should be used to address low-volume measurement issues.

❖ Policy Opportunity: Consider low volumes in rural performance analyses.

- Rural providers do not have the same resources as urban providers with which to manage care delivery transformation. Therefore, public policy should fund TA for rural providers to facilitate change.

❖ Policy Opportunity: Provide technical assistance to rural providers.

- Rural providers cannot plan for, nor afford, prolonged or indefinite transitions. Programmatic decisions around demonstrations that support rural provider transformation or offer rural-relevant designation opportunities should be made expediently and shared with greater transparency. Furthermore, demonstration-to-program decisions should strongly consider participant input.

❖ **Policy Opportunity: Improve timeliness and transparency of demonstration evaluations.**

- Due to lower provider concentrations and fewer community-based resources in rural areas, payment policy should incentivize rural providers to improve care transitions (e.g., from hospital to home) and care coordination (e.g., between primary care provider and social services).

❖ **Policy Opportunity: Support care transitions and care coordination.**

- Rural residents are generally poorer, older, and sicker than urban residents. New value-based payments should consider rural social risk factors and social support needs that are likely to impact health care performance.

❖ **Policy Opportunity: Monitor emerging research on the impact of social determinants on health care performance, and consider rural social risk factors in payment design.**

- Telehealth is a tool that complements and supports rural providers and increases access to non-local care for rural residents, though it should not supplant local health care resources. Policymakers should encourage telehealth expansion that improves access to care and quality of care while supporting local rural health systems.

❖ **Policy Opportunity: Support telehealth expansion to extend rural health capacity and improve rural health care quality.**

Workforce

Rural health worker shortages have made it difficult to sustain a comprehensive health care delivery system in rural areas and have hampered access to essential health services for millions of rural residents. Developing and supporting the requisite health workforce for the twenty-first century delivery system requires that the three issues of supply, distribution, and scope of practice for health workers be considered in policy development to support access to care in rural areas. Policies should focus on these primary components, and pertain to all health care professionals, including dental, nursing, behavioral health, and public/community health practitioners.

POLICY OPPORTUNITIES

- **Decentralize training programs into rural environments.** Programs that encourage rural youth and adults to enter health careers are important to the future of rural health, as is training in rural areas for health professionals of all kinds. CMS, HRSA, and Medicaid-related policies should support the development of decentralized training programs.
- **Target GME funding toward rural health care needs, including primary care.** There is a need to simplify GME funding and align GME policies toward addressing the nation's health workforce needs, including rural health workforce supply and distribution problems. Changes in GME policy to incentivize primary care training and primary care access in general, such as removing GME caps on primary care residencies, is key.
- **Target Federal funding of non-GME training programs to national health priorities.** Federal funding of non-physician education and training via Title VII and Title VIII in the Public Health Service Act should be conditioned on favorable state scope of practice regulatory environments to encourage more states to remove scope of practice restrictions that prevent non-physician providers from practicing to the full extent of their training.
- **Update payment policies to non-physician and patient support providers.** Removing restrictive public payer policy requirements, such as direct or on-site physician supervision or collaboration, and increasing reimbursement for non-physician and patient support providers can improve access to care in rural and frontier areas experiencing provider shortages.
- **Align payer policies to rural service delivery circumstances.** Payment policies that support the unique circumstances of service delivery in rural areas, such as PPS for FQHCs and Per Member Per Month (PMPM) payments based on local health system needs and costs, are most likely to ensure sustainability and increase the ability to recruit a workforce appropriate to local community circumstances.
- **Create a comprehensive workforce strategy and plan that aligns with the health goals of the nation.** A comprehensive approach to address the nation's twenty-first century health care workforce needs should be created among the Federal agencies with funding authority over health care education and training programs. On-going assessments of the efficacy of the component training programs should also be a part of the comprehensive plan.

Rural Trends and Challenges

Historically, rural areas have had significantly fewer health professionals per capita than urban areas.¹³⁰ This rural-urban health workforce disparity is a consequence of several factors, including policies that have favored urban areas for student recruitment, education, experiential training, residency, and practice of health professionals.¹³¹ The tendency of health workers to locate in urban rather than rural areas has led to acute shortages of health workers in rural communities.¹³² Given that rural populations tend to be older, sicker, and poorer, not resolving access issues caused by health workforce shortages perpetuates health inequities facing rural residents.¹³³ From an economic perspective, rising rural health care costs are the result of rural residents caught in utilization patterns in which they only use health services when their health conditions become acute, requiring more expensive, and often urban-based, care. While policy changes have made progress addressing rural workforce shortages, more changes targeting three health workforce domains—supply, distribution (geographic and specialty), and scope of practice—are needed if sustainable access to health care in rural areas is to be achieved.

With the aid of both Federal and State funding, various pipeline programs have been established across the country that prioritize recruiting students with certain characteristics considered to be predisposing factors to later rural practice, such as rural background. Evaluations of these programs have shown an increased likelihood of graduates practicing in rural areas compared to traditional recruits.^{134,135,136} However, the small size of these pipeline programs has constrained their ability to address the severe shortages of health workers in rural areas.

Also with the aid of public funding, many academic institutions have sought to move away from the status quo in which almost all training of health workers occurs in urban environments to establishing rural tracks in which students receive all or part of their training at rural sites, with the expectation that this will increase their likelihood of practicing in rural areas post-graduation. Similar to the pipeline programs, evaluations of these rural tracks have revealed increased graduate recruitment and retention in rural areas. Also like the pipeline programs, the impact on access to care in rural areas has been limited by both the size of these rural tracks and the small number of programs resulting from restrictions in CMS funding, among other challenges.^{137,138,139,140,141,142,143}

Policymakers at Federal and State levels have instituted several programs and policies to improve the supply and distribution of health workers, including funding health workers' training at places such as Area Health Education Centers and providing financial incentives to practice in rural and other underserved areas, such as the National Health Service Corps (NHSC).¹⁴⁴ The NHSC provides scholarships and loan repayment incentives to students and graduates of certain health professions in return for practice in a health professional shortage area (HPSA) for a period of at least two years.¹⁴⁵ The NHSC has successfully placed over 50,000 health professionals in HPSAs over the last 4 decades, and an estimated 11 million residents are currently being served by NHSC providers. In 2011, more than half of NHSC providers were in rural areas.¹⁴⁶ HRSA's Teaching Health Centers, a program developed to expand the number of primary care residents trained in community settings, is an additional Federal effort to address physician maldistribution. While relatively small in terms of total numbers, the program offers a sound alternative to urban and specialty-focused training.

States often provide matching support to Federal programs or establish mirror programs. Many states have employed scholarships and loan repayment programs similar to the NHSC, in addition to other financial (i.e., bonus payments) and non-financial incentives to address issues of health

workforce supply and distribution.^{147,148} For example, Iowa employs a mix of loan repayment, bonus payments, spousal recruitment strategies, and other strategies to recruit and retain health care workers in Iowa.¹⁴⁹ These state efforts have had varying levels of success, but like their Federal counterparts have been unable to meet the demand for health workers in rural areas.¹⁵⁰

As a means of improving access to health services in rural areas, many states have removed some scope of practice restrictions on non-physician health workers. In some of these states, the expanded scopes of practice have been granted only to non-physician providers practicing in rural and other underserved areas, in recognition of the high, unmet demand for health services.^{151,152} Policies that create different standards of care based on where people reside need to be carefully crafted to ensure that there is no difference in quality or range of services available.

The financing and payment components of the health system play key roles in the supply and distribution of health professionals. Policies related to the financing of health workforce training have been used to improve supply and geographic distribution, but the majority of these programs have not prioritized the type of training needed to produce health workers that meet public need.^{153,154} For example, funds allocated to physician training often do not prioritize PCP training despite the nationwide shortage of PCPs,¹⁵⁵ a situation that exacerbates acute shortages in rural areas.^{156,157} Similarly, these programs have done little to address shortages of behavioral health providers, which, though not exclusively a rural issue, is more severe in rural areas.^{158,159} The current financing system continues to incentivize investments in subspecialty and invasive health care services rather than focusing on the requisite workforce to support a more cost-effective and outcomes-oriented system. Rather than providing financial incentives for the primary care system, the current system incentivizes higher level, specialist care, which, due to small populations, is not efficiently provided in rural areas.^{160,161}

Looking Ahead

Addressing the health workforce needs of rural areas would require that issues relating to supply, distribution, and scope of practice of health professionals be considered in health policy making. The following six issues and policy opportunities have the potential to improve the capacity of the rural health workforce to meet the needs of rural residents:

- Despite Federal and State efforts to improve physician maldistribution, the demand for providers in rural areas far outweighs the abilities of Federal and State programs to supply them given limited funding.^{162,163} And even though NHSC members have shown a predilection to continue to practice in shortage areas after their commitment period, this long-term retention falls short of the need in these areas.¹⁶⁴ Programs that encourage rural youth and adults to enter health careers are important to the future of rural health, as is training in rural areas for health professionals of all kinds. Federal policies should support the development of decentralized training programs.

❖ **Policy Opportunity: Decentralize training programs into rural environments.**

- Graduate Medical Education (GME) represents the largest and most complex physician supply and distribution factor in the country. It represents the most substantial Federal investment in health workforce supply through direct graduate medical education (DGME) and indirect medical education (IME) payments made by the Medicare program (and to a lesser extent, Medicaid and HRSA) to academic medical centers.^{165,166} However, unlike funding for pipeline programs and rural tracks, DGME and IME payments by CMS are not required to be linked to addressing the nation’s need for a better distribution of health workers.¹⁶⁷ Thus, this massive influx of Federal funding has not made a significant impact in addressing the nation’s need for more rural and primary care providers. There is a need to simplify GME funding and align GME policies toward addressing the nation’s health workforce needs, including rural health workforce supply and distribution problems. Changes in Federal GME policy to incentivize primary care training and primary care access more generally, such as removing GME caps on primary care residencies, are key.

❖ **Policy Opportunity: Target GME funding toward rural health care needs, including primary care.**

- Restrictive scope of practice regulations that prevent certain health workers from being able to practice to the full extent of their training pose barriers to creating the right complement of professionals to meet local needs in rural areas. Practice scope for advanced practice registered nurses (APRNs), physician assistants (PAs), and other non-physician allied health professionals, for example, vary by state and contribute to the inequitable distribution of health workers.^{168,169} Though scope of practice restrictions are not exclusively a rural issue, rural areas stand to benefit more from less restrictive scope of practice regulations. Allowing non-physician providers to work to the full extent of their training and experience would allow access gaps created by physician shortages in rural areas to be filled. Models designed to extend access to primary care by using primary care teams, including physicians and non-physician primary care providers serving a region with multiple clinics (likely to be Rural Health Clinics), are supported when all members of those teams are practicing at optimum service levels. Federal funding of non-physician education and training through HRSA’s Title VII (Allied Health Professionals) and Title VIII (Nursing Professionals) in the Public Health Service Act should be conditioned on favorable State scope of practice regulatory environments to encourage more states to remove scope of practice restrictions that prevent non-physician providers from alleviating access to care issues. Such policies could improve access to community-appropriate services in rural and frontier areas.

❖ **Policy Opportunity: Target Federal funding of non-GME training programs to national health priorities.**

- State government expansions of non-physician providers' practice scope do not guarantee that payers will remove similar restrictions on scope of practice. Removing restrictive public payer policy requirements, such as physician supervision or collaboration, and increasing reimbursement for non-physician patient support providers can improve access to care in rural and frontier areas experiencing provider shortages.

❖ Policy Opportunity: Update payment policies to non-physician and patient support providers.

- Provider payments can be used to address the inequitable supply and poor distribution of health workers if payment incentives are aligned to prioritize access to primary care and supportive services and to address inequities in health outcomes. For instance, current volume-based payment models, which are not adjusted to reflect population differences, place rural areas at a disadvantage in provider compensation when compared to their higher volume, urban counterparts.¹⁷⁰ As a result, urban areas have been better poised to attract and retain health professionals to the detriment of their rural counterparts. Payment policies that support the unique circumstances of service delivery in rural areas, such as PPS for FQHCs and PMPM payments based on local health system needs and costs, are most likely to ensure sustainability and increase the ability to recruit a workforce appropriate to rural community circumstances.

❖ Policy Opportunity: Align payer policies to rural service delivery circumstances.

- A comprehensive plan and strategy to address the nation's twenty-first century health care workforce needs should be created among the Federal agencies with funding authority over health care education and training programs. Ongoing assessments of the efficacy of the component training programs should also be a part of the comprehensive plan. The plan should develop community-based strategies that take full advantage of all levels of health care workers. Examples include integrating emergency care responders (e.g., community paramedics, emergency medical technicians) into other elements of care, and utilizing community health workers.

❖ Policy Opportunity: Create a comprehensive workforce strategy and plan that aligns with the health goals of the nation.

Population Health

Improving the health of populations is essential to achieving national policy goals of better health and lower overall costs. While population health is important regardless of geography, policies that address key indicators of population health affecting rural populations more acutely should be a priority. Further, in order to realize the full potential of high performance rural health systems, the Panel recognizes the importance of system attributes that facilitate integrating population health services into comprehensive approaches to caring for population health needs. Public policies should be structured to encourage integration of clinical and non-clinical support services to best leverage rural resources.

POLICY OPPORTUNITIES

- **Ensure affordability of clinical and community-based preventive services.** A precondition to consumers using clinical and community-based preventive health services is that they are affordable, which in turn is a function of insurance coverage and benefit design, including consumer cost sharing. We recommend retaining policies that require coverage of preventive care at minimal or no out-of-pocket cost, and recommend continuously assessing the adequacy of coverage of clinical and community-based preventive services using actual services used and changes in key health indicators in the patient population as outcomes.
- **Provide stable long-term funding to support locally-appropriate public health prevention programs.** Federal funding for public health entities, programs and research has been unstable and has suffered severe cuts in the recent past. This fluctuating financing is incompatible with the long-term planning and implementation that is required for successful public health interventions.
- **Ensure availability of comprehensive and integrated services through policies that target workforce adequacy development strategies to achieve health equity.** A precondition of realizing gains from preventive services is availability of health care professionals (including all members of care teams). Policies focused on workforce needs, particularly all components of primary care, are necessary to meet population health objectives.
- **Incent integrated preventive and clinical services.** Achieving goals in population health requires seamless transitions of care that include both treating conditions as presented in clinical settings and maintaining health status through activities taking place independent of clinical intervention. Grants and demonstrations can support development and diffusion of new approaches, and payment policies should be modified to include activities that evidence indicates support optimum health.
- **Integrate population health goals into financing strategies and payment policy formulation.** A comprehensive approach to population health would focus on drivers that extend beyond clinical settings. Public and private organizations at all levels (national, state, local, private providers) need to start with a population health strategy that integrates activities across specific programs, including the social service infrastructure. We recommend developing and updating strategic plans to drive continuous investments in population health.

Rural Trends and Challenges

The Surgeon General's National Prevention Strategy envisions a collective effort to improve health and quality of life for individuals, families and communities by moving the nation from a focus on sickness and disease to one based on prevention and wellness, with a goal of increasing the number of Americans who are healthy at every stage of life.¹⁷¹ The push toward achieving this goal has occurred against the backdrop of rising health care costs, which policymakers have, in part, sought to tackle by increasing access to and encouraging uptake of less costly prevention and CPC services. Greater access to and use of less costly prevention and primary care is expected to curtail future need for more expensive acute care.^{172,173}

At both Federal and State levels, various steps have been taken to address barriers in accessing and utilizing preventive services. Steps that have resulted in increased access and utilization include enhanced coverage of preventive services for Medicare and Medicaid patients, enactment of policies and regulations that promote payer-provided wellness programs, provision of grants for disease prevention and health promotion programs, better patient-support systems (Patient-Centered Medical Homes [PCMHs]), community-level data collection, and research on effectiveness of prevention interventions.¹⁷⁴

Improving uptake of preventive and CPC services for all populations is important, yet for rural populations it is especially critical because problems in rural places are often accentuated. For example, residents of rural areas have higher rates of coronary heart disease, diabetes, and other chronic conditions that could be prevented or at least ameliorated by early preventive and primary care.^{175,176,177} Many population health indicators, too, are worse in rural areas. In 2015, for example, the rate of drug overdose deaths in rural areas exceeded metropolitan areas for the first time (17.0 vs. 16.2 per 100,000, respectively).¹⁷⁸ Suicide rates in rural counties are consistently higher than suicide rates in metropolitan counties,¹⁷⁹ and compared with urban residents, rural residents are at an increased risk for death from motor-vehicle crashes.¹⁸⁰ Policies that incentivize improved access to preventive care, early diagnosis and treatment, and support services, as well as those that promote public health interventions and coordinated approaches that meet the different needs of rural areas could have a substantial impact on rural-urban health disparities.

The importance of covering prevention services cannot be overstated. For consumers to use clinical and community-based preventive health services, they must be affordable, which is a function of insurance coverage, benefit design, and out-of-pocket cost. For providers, the absence of Medicare or other third-party coverage for a preventive service often deters them from offering such services because they are not reimbursed. Many rural providers are typically under significant financial strain and are therefore less predisposed to delivering services that would not be reimbursed adequately.¹⁸¹ Over the years, the Medicare program has progressively expanded its coverage of preventive services for beneficiaries,¹⁸² along with removing beneficiary cost-sharing for many preventive services in recognition of the negative effect that cost-sharing can have on utilization.¹⁸³ However, evaluations of the effects of these expansions in coverage on utilization of preventive services have been mixed, with some showing minimal increases in utilization.^{184,185,186,187,188,189,190} These findings may be connected to other barriers beyond insurance coverage, including lack of awareness or shortages of providers to deliver services.

In rural areas, improving the availability and utilization of key services such as preventive and primary care services requires a sufficient workforce of primary care and public and community

health professionals available to deliver these services. Acute shortages of these health workers in some rural places have been a factor in limiting access.¹⁹¹ Further, provider payment policies that fail to appropriately reward providers, or teams of providers (such as those including Community Health Workers), for keeping their patient populations healthy have hampered utilization.¹⁹² Correcting unbalanced payment policies for rural providers could have a greater impact because the key challenges to address in rural areas are different in many ways than those in urban or suburban areas.

Federal funding for state and local public health departments is critical for building public health workforce capacity, developing health education and outreach programs, and pursuing many other initiatives directed at improving community and population health. The Centers for Disease Control and Prevention (CDC) is a major source of support for these and other programs, including community health models.¹⁹³ Federal funding also supports prevention initiatives through various HRSA public health programs. HRSA's initiatives are to a large extent focused on improving the health of medically underserved populations, including rural residents.¹⁹⁴ States, too, have taken steps to fund prevention initiatives as a way of tackling rising budgetary spending on health. For instance, in 2012, Massachusetts created a Prevention and Wellness Trust Fund.¹⁹⁵ This fund was set up to provide grants to entities conducting various community-based health promotion and prevention programs in the state.

Improving rural population health is a critical challenge given the significantly greater health problems of rural populations and the inadequate health improvement infrastructure in most rural communities. Promoting an expanded role for preventive services, such as designing and implementing educational and outreach campaigns, has been challenging in rural areas given geographical isolation, populations that are spread diffusely over a large area, and the low penetration of communication infrastructure in these areas.^{196,197} Local public health agencies and health departments often lack the infrastructure needed to collect community-level data, and thus are unable to effectively conduct community needs assessments and health surveillance.¹⁹⁸ As a result, many of these local entities do not have an accurate picture of the needs of their communities in terms of prevention and routine care, nor are they able to detect emerging threats to public health in a timely fashion. Inadequate funding and lack of resources in these local health departments, as with many other public health and prevention efforts, has limited their ability to address these infrastructural problems.^{199,200}

Public health and primary care integrated prevention initiatives must be locally based and tailored to the unique needs of the communities for which they are intended. It is important for designers of prevention interventions to bear in mind rural-urban differences in the availability of public health workers and social infrastructure when designing interventions, as failure to fully account for these considerations may limit the success of programs. Furthermore, the needs of one rural community would likely differ from those of the next, as will the level of infrastructure and workforce available. As programs are developed based on current models and tested practices, demonstrations should be supported in a variety of rural settings. Doing so provides practical knowledge of how public health programs can be adjusted to particular local circumstances.

Looking Ahead

Efforts by both Federal and State policymakers to refocus the nation's health care delivery system have seen some success over the years. Though these efforts have been largely motivated by a desire to tackle rising health care costs,^{201,202} they have far-reaching impacts beyond simply curtailing health care costs. With preventive care and services, individuals can avoid the morbidity and associated direct and indirect costs of preventable illnesses, and communities at large could be spared the loss of productivity associated with these illnesses.²⁰³ Additionally, and perhaps more importantly, a preventive and population-oriented health care delivery system can help address rural-urban disparities in health outcomes. Challenges remain, however, that hinder this shift towards preventive and population-focused care—more so in rural areas where it is needed the most.

- A precondition to consumers using clinical and community-based preventive health services is that they are affordable, which in turn is a function of insurance coverage and benefit design, including consumer cost sharing. We recommend retaining policies that require coverage of preventive care at minimal or no out-of-pocket cost, and recommend continuously assessing the adequacy of coverage of clinical and community-based preventive services using actual services used and changes in key health indicators in the patient population as outcomes.

❖ **Policy Opportunity: Ensure affordability of clinical and community-based preventive services.**

- Federal funding for public health entities, programs, and research, including CDC and HRSA funding, largely fall under discretionary spending.²⁰⁴ Discretionary spending items must go through the annual appropriation process and must have congressional approval before being allocated. As a result, funding for these agencies and their public health programs has been unstable and has witnessed severe cuts in the recent past. This fluctuating financing is incompatible with the long-term planning and implementation that is required for successful public health interventions. Congress and the administration should work out a long-term agreement on public health funding that provides a steady funding stream for these all-important public health and prevention programs.

❖ **Policy Opportunity: Provide stable long-term funding to support locally-appropriate public health prevention programs.**

- Public health funding is also a state and local responsibility; thus, the low levels of public health funding in some places is a result of variation in state and local commitments to public health spending. Improved and sustained funding at the Federal and State level could help address the manpower and infrastructural problems that local health departments and public health agencies, particularly those in rural areas, face. Gains from preventive services depend on availability of health care professionals (including all members of care teams). Policies focused on workforce needs, particularly all components of primary and team-based care, are necessary to meet population health objectives.

❖ Policy Opportunity: Ensure availability of comprehensive and integrated services through policies that target rural workforce adequacy development strategies to achieve health equity.

- Another way of addressing manpower and infrastructure issues at local levels is to encourage partnerships between local health departments and health systems both within and outside the community. Local health departments and public health agencies could benefit from the resources and infrastructure health systems have while the health systems could benefit from primary prevention campaigns, social service availability, population-level data and better understanding of local needs that local health departments possess. In the area of SUDs treatment, for example, evidence shows that the traditional separation of SUDs treatment and mental health services from mainstream health care has created obstacles to successful care coordination. A key finding from the Surgeon General report on health care systems and SUDs states that “the current substance use disorder workforce does not have the capacity to meet the existing need for integrated health care, and the current general health care workforce is undertrained to deal with substance use-related problems. Health care now requires a new, larger, more diverse workforce with the skills to prevent, identify, and treat substance use disorders, providing ‘personalized care’ through integrated care delivery.”²⁰⁵ Efforts are needed to support integrating screening, assessments, interventions, use of medications, and care coordination between general health systems and specialty SUDs treatment programs or services.²⁰⁶ Achieving goals in population health requires seamless transitions of care that include both treating conditions as presented in clinical settings and maintaining health status through activities taking place independent of clinical intervention. Public policies should be structured to encourage integrated care and supportive services. Grants and demonstrations, such as those funded through the CDC’s Partnerships to Improve Community Health (PICH),²⁰⁷ can support development and diffusion of new approaches tailored to local needs, and payment policies should be modified to include activities that evidence indicates supports optimum health.

❖ Policy Opportunity: Incent integrated preventive and clinical services.

- A comprehensive approach to population health includes consideration of all dimensions of health, including oral health and mental health. Additionally, there should be a focus on drivers of maintaining optimal health that extend beyond clinical settings. Public and private organizations at all levels (national, state, local, private providers) need to start with a population health strategy that integrates activities across specific programs, including social service infrastructure. We recommend developing and updating strategic programming that would drive continuous investments in public health.

❖ **Policy Opportunity: Integrate population health goals into financing strategies and payment policy formulation.**

References

- ¹ Office of Inspector General. (2017). *Medicare Shared Savings Program Accountable Care Organizations Have Shown Potential for Reducing Spending and Improving Quality*. (Report No. OEI-02-15-00450). Department of Health and Human Services. <https://oig.hhs.gov/oei/reports/oei-02-15-00450.pdf>.
- ² Shih T, Chen LM, Nallamotheu BK. Will Bundled Payments Change Health Care? *Circulation*. 2015;131:2151-2158.
- ³ MedPAC. *Health Care Spending and the Medicare Program: A Data Book*. Washington, D.C.: Medicare Payment Advisory Commission;2017.
- ⁴ RHIHub. Medicare and Rural Health. <https://www.ruralhealthinfo.org/topics/medicare>.
- ⁵ Ibid.
- ⁶ Mueller K, Alfero C, Coburn AF, Lundblad JP, MacKinney AC, McBride TD, Weigel P. *Medicare Value-Based Payment Reform: Priorities for Transforming Rural Health Systems*. Rural Policy Research Institute; November 2015.
- ⁷ Mueller K, Alfero C, Coburn AF, Lundblad JP, MacKinney AM, McBride TD, Weigel P. *The Patient Protection and Affordable Care Act of 2010: Impacts on Rural People, Places, and Providers-A Second Look*. Rural Policy Research Institute; November 2015.
- ⁸ Ibid.
- ⁹ Centers for Medicare & Medicaid Innovation. About the CMS Innovation Center. <https://innovation.cms.gov/About/index.html>
- ¹⁰ Innovation Models. CMS.gov. <https://innovation.cms.gov/initiatives/index.html#views=models>.
- ¹¹ Mueller K, Alfero C, Coburn AF, Lundblad JP, MacKinney AC, McBride TD, Weigel P. *Medicare Value-Based Payment Reform: Priorities for Transforming Rural Health Systems*. Rural Policy Research Institute; November 2015.
- ¹² Accountable Health Communities: Model Overview and Requirements. <https://innovation.cms.gov/Files/slides/ahcm-appreqslides.pdf>
- ¹³ Ibid.
- ¹⁴ Mueller KJ, Alfero C, Coburn AF, Lundblad JP, MacKinney AC, McBride TD, Weigel, P. *Advancing the Transition to a High Performance Rural Health System*. Rural Policy Research Institute; November 2014.
- ¹⁵ Rural Health Council. CMS.gov. <https://www.cms.gov/About-CMS/Agency-Information/OMH/equity-initiatives/rural-health/rural-health-council.html>.
- ¹⁶ Mueller KJ, Ullrich, F. *Spread of Accountable Care Organizations in Rural America*. Iowa City, Iowa: RUPRI Center for Rural Health Policy Analysis: Rural Policy Brief; October 2016.
- ¹⁷ ACO Investment Model. CMS.gov. <https://innovation.cms.gov/initiatives/ACO-Investment-Model/>.
- ¹⁸ Ibid.
- ¹⁹ Fast Facts. All Medicare Shared Savings Program Accountable Care Organizations. CMS. Baltimore, MD: Centers for Medicare & Medicaid Services, January 2017. <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/All-Starts-MSSP-ACO.pdf>.
- ²⁰ CMS. ACO Investment Model | Center for Medicare & Medicaid Innovation. 2017; <https://innovation.cms.gov/initiatives/ACO-Investment-Model/>.
- ²¹ Centers for Medicare & Medicaid Services: Innovation Center New Direction - Request For Information. <https://innovation.cms.gov/initiatives/direction/>.
- ²² Jacobson G, Damico A, Neuman T, Gold M. Medicare Advantage Plans in 2017: Short-term Outlook is Stable. Issue Brief. December 2016. The Henry J. Kaiser Family Foundation. <http://files.kff.org/attachment/Issue-Brief-Medicare-Advantage-Plans-in-2017>.
- ²³ Ibid.
- ²⁴ Ullrich F, Mueller K. Medicare Advantage Enrollment Update 2017. Rural Policy Brief. RUPRI Center for Rural Health Policy Analysis. August, 2017.
- ²⁵ Medicare.gov. Telehealth. 2017; <https://www.medicare.gov/coverage/telehealth.html>.
- ²⁶ Ibid.
- ²⁷ Redd D. The Future of Medicare Telehealth Coverage: CBO Hesitates, Congress Inches Forward - Leavitt Partners. In. Vol 2017: Leavitt Partners; 2017.
- ²⁸ Ibid.
- ²⁹ 21st Century Cures Act. In. *Public Law No: 114-255*.
- ³⁰ McCarthy J. "21st Century Cures Act a boon to telehealth, experts say." Healthcare IT News. December 16, 2016.

-
- ³¹ Ibid.
- ³² Ibid.
- ³³ MedPAC. *Chapter 2: The next generation of Medicare beneficiaries*. Report to the Congress: Medicare and the Health Care Delivery System. June 2015. <http://www.medpac.gov/docs/default-source/reports/chapter-2-the-next-generation-of-medicare-beneficiaries-june-2015-report.pdf?sfvrsn=0>.
- ³⁴ 2011-2015 American Community Survey 5-year Estimates. U.S. Census Bureau.
- ³⁵ Reaves EL, Musumeci M. *Medicaid and Long-Term Services and Supports: A Primer*. December 2015. The Henry J. Kaiser Family Foundation. <http://www.kff.org/medicaid/report/medicaid-and-long-term-services-and-supports-a-primer/>.
- ³⁶ Mueller KJ, Alfero C, Coburn AF, Lundblad JP, MacKinney AC, McBride TD, Weigel P. *After Hospital Closure: Pursuing High Performance Rural Health Systems without Inpatient Care*. June 2017. Rural Policy Research Institute. <https://www.public-health.uiowa.edu/rupri/publications/policypapers/Alternatives%20for%20Developing%20the%20High%20Performance%20Rural%20Health%20System.pdf>.
- ³⁷ Medicaid. October 2017 Medicaid and CHIP Enrollment Data Highlights. <https://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-enrollment-data/report-highlights/index.html>.
- ³⁸ Appendix Table 3: Health Coverage Among the Nonelderly Population by Geographic Area, 2015. *The Role of Medicaid in Rural America*. The Henry J. Kaiser Family Foundation. Apr 25, 2017. <http://www.kff.org/report-section/the-role-of-medicaid-in-rural-america-appendix/>.
- ³⁹ Ibid.
- ⁴⁰ Hoadley J, Wagnerman K, Alker J, Holmes M. *Medicaid in Small Towns and Rural America: A Lifeline for Children, Families, and Communities*. June 6, 2017. Rural Health Report. Georgetown University Health Policy Institute. <https://ccf.georgetown.edu/2017/06/06/rural-health-report/>. Accessed June 26, 2017.
- ⁴¹ Long Term Services and Supports. Medicaid.gov. <https://www.medicaid.gov/medicaid/ltss/index.html>.
- ⁴² Medicaid. October 2017 Medicaid and CHIP Enrollment Data Highlights. <https://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-enrollment-data/report-highlights/index.html>.
- ⁴³ Reaves EL, Musumeci M. *Medicaid and Long-Term Services and Supports: A Primer*. December 2015. The Henry J. Kaiser Family Foundation. <http://www.kff.org/medicaid/report/medicaid-and-long-term-services-and-supports-a-primer/>.
- ⁴⁴ Coburn A, Lundblad J, et al. *Rural Long-Term Services and Supports: A Primer*. October 2017. RUPRI Health Panel. <http://www.rupri.org/wp-content/uploads/LTSS-RUPRI-Health-Panel-2017.pdf>.
- ⁴⁵ "Data Shows Rural Hospitals At Risk Without Special Attention from Lawmakers". Healthcare Management Partners, LLC. Rev. 6-6-17. <https://hcmpllc.com/wp-content/uploads/2017/06/2017-6-5-Rev.-HMP-Study-AHCA-Imperils-Rural-Hospitals.pdf> Accessed June 26, 2017.
- ⁴⁶ Paradise, J. Data Note: A Large Majority of Physicians Participate in Medicaid. May 2017. The Henry J. Kaiser Family Foundation. <http://files.kff.org/attachment/Data-Note-A-Large-Majority-of-Physicians-Participate-in-Medicaid>.
- ⁴⁷ Ibid.
- ⁴⁸ Gates A, Rudowitz R, Artiga S. *Two Year Trends in Medicaid and CHIP Enrollment Data: Findings from the CMS Performance Indicator Project*. June 2016. The Henry J. Kaiser Family Foundation. <http://www.kff.org/medicaid/issue-brief/two-year-trends-in-medicaid-and-chip-enrollment-data-findings-from-the-cms-performance-indicator-project/>.
- ⁴⁹ Barker AR, Huntzberry K, McBride TD, Mueller KJ. *Changing Rural and Urban Enrollment in State Medicaid Programs*. Rural Policy Brief, May 2017. Brief No. 2017-2. <https://cph.uiowa.edu/rupri/publications/policybriefs/2017/Changingpercent20Ruralpercent20andpercent20Urbanpercent20Enrollmentpercent20inpercent20Statepercent20Medicaidpercent20Programs.pdf>.
- ⁵⁰ Gates A, Rudowitz R, Artiga S. *Two Year Trends in Medicaid and CHIP Enrollment Data: Findings from the CMS Performance Indicator Project*. June 2016. The Henry J. Kaiser Family Foundation. <http://www.kff.org/medicaid/issue-brief/two-year-trends-in-medicaid-and-chip-enrollment-data-findings-from-the-cms-performance-indicator-project/>.
- ⁵¹ Barker AR, Huntzberry K, McBride TD, Mueller KJ. *Changing Rural and Urban Enrollment in State Medicaid Programs*. Rural Policy Brief, May 2017. Brief No. 2017-2.

<https://cph.uiowa.edu/rupri/publications/policybriefs/2017/Changingpercent20Ruralpercent20andpercent20Urbanpercent20Enrollmentpercent20inpercent20Statepercent20Medicaidpercent20Programs.pdf>.

⁵² Among states that expanded, rural enrollment grew on average 35 percent. By comparison, urban enrollment grew by 41 percent in these states. In non-expansion states, rural Medicaid enrollment growth was significantly lower (5 percent) and below the enrollment growth in urban areas (10 percent).

⁵³ Medicaid and CHIP Eligibility, Enrollment, Renewal, and Cost Sharing Policies as of January 2017: Findings from a 50-State Survey. January 2017. The Henry J. Kaiser Family Foundation.

<http://files.kff.org/attachment/Report-Medicaid-and-CHIP-Eligibility-as-of-Jan-2017>

⁵⁴ Musumeci M, Hinton E, Rudowitz R. Section 1115 Medicaid Expansion Waivers: A Look at Key Themes and State Specific Waiver Provisions. August 2017. The Henry J. Kaiser Family Foundation.

<http://www.kff.org/medicaid/issue-brief/section-1115-medicicaid-expansion-waivers-a-look-at-key-themes-and-state-specific-waiver-provisions/>.

⁵⁵ Musumeci M, Rudowitz R, Hinton E. An Early Look at Medicaid Expansion Waiver Implementation in Michigan and Indiana. January 2017. The Henry J. Kaiser Family Foundation.

<http://www.kff.org/medicaid/issue-brief/an-early-look-at-medicicaid-expansion-waiver-implementation-in-michigan-and-indiana/>.

⁵⁶ Rural America at a Glance: 2016 Edition. USDA.

<https://www.ers.usda.gov/webdocs/publications/80894/eib-162.pdf?v=42684>

⁵⁷ “The Urban-Rural Divide in America”. March 29, 2017.

http://www.realclearpolicy.com/articles/2017/03/29/the_urban-rural_divide_in_america.html

⁵⁸ Newkirk V, Damico A. The Affordable Care Act and Insurance Coverage in Rural Areas. May 2014. The Kaiser Family Foundation. <http://www.kff.org/uninsured/issue-brief/the-affordable-care-act-and-insurance-coverage-in-rural-areas/>.

⁵⁹ “The Divide Between Rural and Urban America, in 6 Charts”. U.S. News. March 20, 2017.

<https://www.usnews.com/news/national-news/articles/2017-03-20/6-charts-that-illustrate-the-divide-between-rural-and-urban-america>.

⁶⁰ Kaiser Family Foundation/Health Research & Educational Trust, Employer Health Benefits Survey, 2016.

<http://www.kff.org/report-section/ehbs-2016-summary-of-findings/>

⁶¹ Lenardson JD, Ziller EC, Coburn AF, Anderson NJ. Profile of Rural Health Insurance Coverage: A Chartbook. June 2009. University of Southern Maine Muskie School of Public Service.

<http://muskie.usm.maine.edu/Publications/rural/Rural-Health-Insurance-Chartbook-2009.pdf>

⁶² Ziller E, Coburn A. Private Health Insurance in Rural Areas: Challenges and Opportunities. April 2009. University of Southern Maine Muskie School of Public Service.

⁶³ Kaiser Family Foundation/Health Research & Educational Trust, Employer Health Benefits Survey, 2016.

<http://www.kff.org/report-section/ehbs-2016-summary-of-findings/>

⁶⁴ Pink GH, Thomas SR, Kaufman BG, Holmes M. (2017). *Rural Hospital Closures and Finance: Some New Research Findings*. North Carolina Rural Health Research Program. http://www.healthforum-edu.com/rural/PDF/2017/RL17_pink.pdf.

⁶⁵ Wishner J, Solleveld P, Rudowitz R, Paradise J, Antonisse L. A Look at Rural Hospital Closures and Implications for Access to Care: Three Case Studies. Issue Brief. The Kaiser Family Foundation. July, 2016.

<http://www.kff.org/report-section/a-look-at-rural-hospital-closures-and-implications-for-access-to-care-three-case-studies-issue-brief/>

⁶⁶ Barker AR, McBride TD, Mueller KJ, Huntzberry KA. The Market as a Solution to Health Insurance in Rural Places: Lessons Learned from an Economics and Policy Perspective. November, 2017. Rural Policy Research Institute.

⁶⁷ Holahan J, Blumberg LJ, Wengle E. “What Characterizes the Marketplaces with One or Two Insurers?” May 2017. Urban Institute: Washington D.C. <http://www.rwjf.org/en/library/research/2017/05/what-characterizes-marketplaces-with-one-or-two-insurers.html>

⁶⁸ Abigail Barker et al., “Health Insurance Marketplaces: Premium Trends in Rural Areas,” Center for Rural Health Policy Analysis, May 2016. <https://www.public-health.uiowa.edu/rupri/publications/policybriefs/2016/HIMs%20rural%20premium%20trends.pdf>

⁶⁹ Cross-Call J, Straw T, Sherman A, Broaddus M. “House-Passed Bill Would Devastate Health Care in Rural America. Center on Budget and Policy Priorities”. May, 2017. Center on Budget and Policy Priorities.

<http://www.cbpp.org/research/health/house-passed-bill-would-devastate-health-care-in-rural-america>

-
- ⁷⁰ The Center for Consumer Information & Insurance Oversight. Market Rating Reforms. <https://www.cms.gov/cciiio/programs-and-initiatives/health-insurance-market-reforms/state-gra.html>.
- ⁷¹ Holahan J, Blumberg LH, Wengle E. "What Characterizes the Marketplaces with One or Two Insurers?" May 2017. Urban Institute. <http://www.rwjf.org/en/library/research/2017/05/what-characterizes-marketplaces-with-one-or-two-insurers.html>
- ⁷² Holahan J, Blumberg LH, Wengle E. "What Characterizes the Marketplaces with One or Two Insurers?" May 2017. Urban Institute. <http://www.rwjf.org/en/library/research/2017/05/what-characterizes-marketplaces-with-one-or-two-insurers.html>
- ⁷³ Ibid.
- ⁷⁴ Semanskee A, Cox C. Insurer Participation on ACA Marketplaces, 2014-2017. June 2017. The Henry J. Kaiser Family Foundation. <http://www.kff.org/health-reform/issue-brief/insurer-participation-on-aca-marketplaces-2014-2017/>.
- ⁷⁵ In 2016, 2 percent of enrollees living in 6 percent of counties had access to just one insurer; by 2017, those figures increased to 21 percent of enrollees living in 33 percent of counties. See Semanskee above.
- ⁷⁶ Counties at Risk of Having No Insurer on the Marketplace (Exchange) in 2018. August, 2017. <http://www.kff.org/interactive/counties-at-risk-of-having-no-insurer-on-the-marketplace-exchange-in-2018/>.
- ⁷⁷ Barker A, et al., "Health Insurance Marketplaces: Premium Trends in Rural Areas," Center for Rural Health Policy Analysis, May 2016. <https://www.public-health.uiowa.edu/rupri/publications/policybriefs/2016/HIMs%20rural%20premium%20trends.pdf>
- ⁷⁸ Mueller KJ, Coburn AF, Lundblad JP, MacKinney AC, McBride TD, Watson SD. *The High Performance Rural Health Care System of the Future*. September, 2011. Rural Policy Research Institute. <http://www.rupri.org/wp-content/uploads/2014/09/The-High-Performance-Rural-Health-Care-System-of-the-Future.pdf>.
- ⁷⁹ NQF. *Performance Measurement for Rural Low-Volume Providers*. Washington, D.C.: National Quality Forum; September 14, 2015.
- ⁸⁰ Centers for Medicare and Medicaid Innovation. About the CMS Innovation Center. <https://innovation.cms.gov/About/index.html>.
- ⁸¹ Centers for Medicare and Medicaid Services. Quality Initiatives - General Information. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/index.html>.
- ⁸² IHI. Institute for Healthcare Improvement: Triple Aim. <http://www.ihl.org/Engage/Initiatives/TripleAim/Pages/default.aspx>.
- ⁸³ Centers for Medicare and Medicaid Innovation. About the CMS Innovation Center. <https://innovation.cms.gov/About/index.html>.
- ⁸⁴ Patient Protection and Affordable Care Act of 2010.
- ⁸⁵ NQF. *Performance Measurement for Rural Low-Volume Providers*. Washington, D.C.: National Quality Forum; September 14, 2015
- ⁸⁶ VanLare JM, Conway PH. Value-Based Purchasing—National Programs to Move from Volume to Value. *N Engl J Med* 2012; 367:292-295. <http://www.nejm.org/doi/full/10.1056/NEJMp1204939>.
- ⁸⁷ CMS' Value-Based Programs. CMS.gov. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/Value-Based-Programs.html>.
- ⁸⁸ VanLare JM, Conway PH. Value-Based Purchasing—National Programs to Move from Volume to Value. *N Engl J Med* 2012; 367:292-295. <http://www.nejm.org/doi/full/10.1056/NEJMp1204939>.
- ⁸⁹ CMS' Value-Based Programs. CMS.gov. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/Value-Based-Programs.html>.
- ⁹⁰ New Census Data Show Differences Between Urban and Rural Populations [press release]. U.S. Census Bureau, 2015.
- ⁹¹Centers for Medicare and Medicaid Innovation. About the CMS Innovation Center. <https://innovation.cms.gov/About/index.html>.
- ⁹² Centers for Medicare and Medicaid Services. Quality Initiatives - General Information. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/index.html>.
- ⁹³ IHI. Institute for Healthcare Improvement: Triple Aim. <http://www.ihl.org/Engage/Initiatives/TripleAim/Pages/default.aspx>.

-
- ⁹⁴ NQF. *Performance Measurement for Rural Low-Volume Providers*. Washington, D.C.: National Quality Forum; September 14, 2015.
- ⁹⁵ New Census Data Show Differences between Urban and Rural Populations [press release]. U.S. Census Bureau, 2015.
- ⁹⁶ *2014 National Healthcare Quality and Disparities Report: Chartbook on Rural Health Care*. Rockville, MD: Agency for Healthcare Research and Quality; August 2015.
- ⁹⁷ American Recovery and Reinvestment Act of 2009, Public Law No: 111-5.
- ⁹⁸ Sandefer RH, Marc DT, Kleeberg P. Meaningful use attestations among US hospitals: the growing rural-urban divide. *Perspectives in health information management*. 2015;12(Spring).
- ⁹⁹ Farrar B, Wang G, Bos H, Schneider D, Noel H, Guo J, Koester L, Desai A, Manson K, Garfinkel S, Ptaszek A, Dalldorf M. Evaluation of the Regional Extension Center Program: Final Report. (Prepared by the American Institutes for Research Under Contract No. HHSPS23320095626WC.) Washington, DC: Office of the National Coordinator for Health Information Technology; 2015.
- ¹⁰⁰ Medicare Beneficiary Quality Improvement Project (MBQIP). <https://www.ruralcenter.org/tasc/mbqip>.
- ¹⁰¹ Ibid.
- ¹⁰² Small Rural Hospital Improvement Grant Program (SHIP). <https://www.ruralcenter.org/ship>.
- ¹⁰³ Casey M, Swenson T, Evenson A. Hospital Compare Quality Measure Results for CAHs, 2015. Data Summary Report #22. Flex Monitoring Team, University of Minnesota. February 2017. <http://www.flexmonitoring.org/wp-content/uploads/2017/02/DSR-22-Hospital-Compare-2017.pdf>
- ¹⁰⁴ Small Rural Hospital Improvement Grant Program (SHIP). <https://www.ruralcenter.org/ship>.
- ¹⁰⁵ Medicare Access and CHIP Reauthorization Act of 2015. Public Law No: 114-10.
- ¹⁰⁶ MACRA Quality Payment Program Webinar Slides. 2016; <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-Quality-Payment-Program-webinar-slides-10-26-16.pdf>.
- ¹⁰⁷ Ibid.
- ¹⁰⁸ Ibid.
- ¹⁰⁹ Patient Protection and Affordable Care Act of 2010.
- ¹¹⁰ About the National Quality Strategy. <https://www.ahrq.gov/workingforquality/about/index.html>.
- ¹¹¹ Ibid.
- ¹¹² National Quality Strategy: Using Levers to Achieve Improved Health and Health Care. <https://www.ahrq.gov/workingforquality/about/nqs-fact-sheets/nqs-fact-sheet-using-levers.html>.
- ¹¹³ NQF. *Performance Measurement for Rural Low-Volume Providers*. Washington, D.C.: National Quality Forum; September 14, 2015.
- ¹¹⁴ IOM. *Vital Signs: Core Metrics for Health and Health Care Progress*. Washington, D.C.: Institute of Medicine; 2015.
- ¹¹⁵ National Quality Forum. *Performance Measurement for Rural Low-Volume Providers*. Washington, D.C.: National Quality Forum; September 14, 2015.
- ¹¹⁶ Ibid.
- ¹¹⁷ Ibid.
- ¹¹⁸ Delivery System Reform and Implications for Rural Communities. National Advisory Committee on Rural Health and Human Services; Policy Brief: December 2015.
- ¹¹⁹ Burwell SM. Setting Value-Based Payment Goals — HHS Efforts to Improve U.S. Health Care. *New England Journal of Medicine*. 2015;372(10):897-899.
- ¹²⁰ Conway P, Fryhofer SL, Seshamani M, DeSalvo, KB. Progress and Path Forward on Delivery System Reform. In: *New England Journal of Medicine: Catalyst*; 2017.
- ¹²¹ *Catalog of Value-Based Initiatives for Rural Providers*. Iowa City, Iowa: Rural Health Value, RUPRI Center for Rural Health Policy Analysis, Stratis Health; July 2017.
- ¹²² Patient Protection and Affordable Care Act of 2010.
- ¹²³ Maryland All-Payer Model. CMS.gov. <https://innovation.cms.gov/initiatives/Maryland-All-Payer-Model/>.
- ¹²⁴ Total Medicaid MCOs. The Henry J. Kaiser Family Foundation. As of March 2017. <https://www.kff.org/medicaid/state-indicator/total-medicaid-mcos/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>
- ¹²⁵ Health Homes. Medicaid.gov. <https://www.medicaid.gov/medicaid/ltss/health-homes/index.html>.

-
- ¹²⁶ Spillman BC, Allen EH, Lallemand N, Hayes E. Evaluation of the Medicaid Health Home Option for Beneficiaries with Chronic Conditions: Progress and Lessons from the First States Implementing Health Home Programs, Annual Report – Year Four. Urban Institute. April 2016. <https://aspe.hhs.gov/system/files/pdf/224581/HHOption4.pdf>.
- ¹²⁷ State Innovation Models Initiative: General Information. CMS.gov. <https://innovation.cms.gov/initiatives/state-innovations/>.
- ¹²⁸ RUPRI Health Panel. Medicaid Payment and Delivery System Reform: Challenges and Opportunities for Rural Health Systems. June 2016. <http://www.rupri.org/wp-content/uploads/RUPRI-Health-Panel-Medicaid-Payment-and-Delivery-System-Reform-June-2016.pdf>.
- ¹²⁹ “State Innovation Model Testing Awards from the Center for Medicare & Medicaid Innovation: Highlighting Rural Focus”. Rural Health Value project. July 2017. University of Iowa, College of Public Health. <https://cph.uiowa.edu/ruralhealthvalue/files/RHV-SIM-Profiles.pdf>.
- ¹³⁰ Chopra M, Munro S, Lavis JN, Vist G, Bennett S. Effects of policy options for human resources for health: an analysis of systematic reviews. *Lancet* 2008;371:668-74.
- ¹³¹ The Rural Implications of Key Primary Care Provisions in the Affordable Care Act: White Paper National Advisory Committee on Rural Health and Human Services, 2011.
- ¹³² Chopra M, Munro S, Lavis JN, Vist G, Bennett S. Effects of policy options for human resources for health: an analysis of systematic reviews. *Lancet* 2008;371:668-74.
- ¹³³ Ibid.
- ¹³⁴ Rabinowitz HK. A program to recruit and educate medical students to practice family medicine in underserved areas. *Jama* 1983;249:1038-41.
- ¹³⁵ Rabinowitz HK. Evaluation of a selective medical school admissions policy to increase the number of family physicians in rural and underserved areas. *The New England journal of medicine* 1988;319:480-6.
- ¹³⁶ Rabinowitz HK, Diamond JJ, Markham FW, Santana AJ. The relationship between entering medical students' backgrounds and career plans and their rural practice outcomes three decades later. *Academic Medicine: Journal of the Association of American Medical Colleges* 2012;87:493-7.
- ¹³⁷ Smucny J, Beatty P, Grant W, Dennison T, Wolff LT. An evaluation of the Rural Medical Education Program of the State University Of New York Upstate Medical University, 1990-2003. *Academic medicine : journal of the Association of American Medical Colleges* 2005;80:733-8.
- ¹³⁸ Pacheco M, Weiss D, Vaillant K, et al. The impact on rural New Mexico of a family medicine residency. *Academic medicine : journal of the Association of American Medical Colleges* 2005;80:739-44.
- ¹³⁹ Ferguson WJ, Cashman SB, Savageau JA, Lasser DH. Family medicine residency characteristics associated with practice in a health professions shortage area. *Family medicine* 2009;41:405-10.
- ¹⁴⁰ Brown SR, Birnbaum B. Student and resident education and rural practice in the Southwest Indian Health Service: a physician survey. *Family medicine* 2005;37:701-5.
- ¹⁴¹ Chen F, Fordyce M, Andes S, Hart LG. Which medical schools produce rural physicians? A 15-year update. *Academic medicine : journal of the Association of American Medical Colleges* 2010;85:594-8.
- ¹⁴² Farmer J, Kenny A, McKinstry C, Huysmans RD. A scoping review of the association between rural medical education and rural practice location. *Hum Resour Health* 2015;13:27.
- ¹⁴³ Wood D. Effects of educational focus on a graduate nurse's initial choice of practice area. *Journal of professional nursing : official journal of the American Association of Colleges of Nursing* 1998;14:214-9.
- ¹⁴⁴ Public Health, Workforce, Quality, and Related Provisions in the Patient Protection and Affordable Care Act (P.L. 111-148). Congressional Research Service, 2010. <https://www.aamc.org/download/131052/data/workforce.pdf.pdf>.
- ¹⁴⁵ van Dessel N, den Boeft M, van der Wouden Johannes C, et al. Non-pharmacological interventions for somatoform disorders and medically unexplained physical symptoms (MUPS) in adults. *Cochrane Database of Systematic Reviews*: John Wiley & Sons, Ltd; 2014.
- ¹⁴⁶ The Rural Implications of Key Primary Care Provisions in the Affordable Care Act: White Paper National Advisory Committee on Rural Health and Human Services, 2011. <https://www.hrsa.gov/advisorycommittees/rural/publications/wpacapprimarycareprovisions092011.pdf>.
- ¹⁴⁷ Ibid.
- ¹⁴⁸ Merchant K, Nelson G, Ullrich F, Mueller K. Iowa Healthcare Workforce Project: Final Report: Center for Health Policy and Research, The University of Iowa; 2017 06/2017.
- ¹⁴⁹ Ibid.

-
- ¹⁵⁰ Barnighausen T, Bloom DE. Financial incentives for return of service in underserved areas: a systematic review. *BMC Health Serv Res* 2009;9:86.
- ¹⁵¹ Phillips SJ. 29th Annual APRN Legislative Update. *The Nurse Practitioner* 2017;42:18-46.
- ¹⁵² Phillips SJ. APRN consensus model implementation and planning. *Nurse Pract* 2012;37:22-45.
- ¹⁵³ van Dessel N, den Boeft M, van der Wouden Johannes C, et al. Non-pharmacological interventions for somatoform disorders and medically unexplained physical symptoms (MUPS) in adults. *Cochrane Database of Systematic Reviews*: John Wiley & Sons, Ltd; 2014.
- ¹⁵⁴ Public Health, Workforce, Quality, and Related Provisions in the Patient Protection and Affordable Care Act (P.L. 111-148). Congressional Research Service, 2010.
<https://www.aamc.org/download/131052/data/workforce.pdf.pdf>.
- ¹⁵⁵ Hing E, Hsiao CJ. In which states are physician assistants or nurse practitioners more likely to work in primary care? *JAAPA : official journal of the American Academy of Physician Assistants* 2015;28:46-53.
- ¹⁵⁶ Chopra M, Munro S, Lavis JN, Vist G, Bennett S. Effects of policy options for human resources for health: an analysis of systematic reviews. *Lancet* 2008;371:668-74.
- ¹⁵⁷ The Rural Implications of Key Primary Care Provisions in the Affordable Care Act: White Paper National Advisory Committee on Rural Health and Human Services, 2011.
<https://www.hrsa.gov/advisorycommittees/rural/publications/wpacapprimarycareprovisions092011.pdf>.
- ¹⁵⁸ Chopra M, Munro S, Lavis JN, Vist G, Bennett S. Effects of policy options for human resources for health: an analysis of systematic reviews. *Lancet* 2008;371:668-74.
- ¹⁵⁹ Rao KD, Ryan M, Shroff Z, Vujicic M, Ramani S, Berman P. Rural clinician scarcity and job preferences of doctors and nurses in India: a discrete choice experiment. *PLoS One* 2013;8:e82984.
- ¹⁶⁰ Chopra M, Munro S, Lavis JN, Vist G, Bennett S. Effects of policy options for human resources for health: an analysis of systematic reviews. *Lancet* 2008;371:668-74.
- ¹⁶¹ Shi L. The impact of primary care: a focused review. *Scientifica* 2012;2012:432892.
- ¹⁶² Public Health, Workforce, Quality, and Related Provisions in the Patient Protection and Affordable Care Act (P.L. 111-148). Congressional Research Service, 2010.
<https://www.aamc.org/download/131052/data/workforce.pdf.pdf>.
- ¹⁶³ Barnighausen T, Bloom DE. Financial incentives for return of service in underserved areas: a systematic review. *BMC Health Services* 2009;9:86.
- ¹⁶⁴ Ibid.
- ¹⁶⁵ Public Health, Workforce, Quality, and Related Provisions in the Patient Protection and Affordable Care Act (P.L. 111-148). Congressional Research Service, 2010.
<https://www.aamc.org/download/131052/data/workforce.pdf.pdf>.
- ¹⁶⁶ Mumby C. Uganda placements. *The practising midwife* 2013;16:6-7.
- ¹⁶⁷ Fleming C. Rethinking graduate medical education funding: an interview with Gail Wilensky. *Health Affairs Blog* 2016.
- ¹⁶⁸ Stange K. How does provider supply and regulation influence health care markets? Evidence from nurse practitioners and physician assistants. *J Health Econ* 2014;33:1-27.
- ¹⁶⁹ Phillips SJ. 29th Annual APRN Legislative Update. *The Nurse Practitioner* 2017;42:18-46.
- ¹⁷⁰ Medicare Value-based Payment Reform: Priorities for Transforming Rural Health Systems. Rural Policy Research Institute (RUPRI), 2015. <http://www.rupri.org/wp-content/uploads/FORHP-comments-km-DSR-PANEL-DOCUMENT PRD Review 112315.clean-4 sn-3.pdf>.
- ¹⁷¹ National Prevention Strategy. Surgeongeneral.gov.
<https://www.surgeongeneral.gov/priorities/prevention/strategy/index.html#The%20Vision>.
- ¹⁷² Redhead C, Williams E. Public Health, Workforce, Quality, and Related Provisions in the Patient Protection and Affordable Care Act (P.L. 111-148). 2010;
<https://www.aamc.org/download/131052/data/workforce.pdf.pdf>.
- ¹⁷³ Innovating, Leading & Moving Public Health Forward: A forum co-hosted by the American Public Health Association and the Robert Wood Johnson Foundation. 2013;
<https://www.apha.org/~media/files/pdf/factsheets/2013aphareport6192014.ashx>.
- ¹⁷⁴ Redhead C, Williams E. Public Health, Workforce, Quality, and Related Provisions in the Patient Protection and Affordable Care Act (P.L. 111-148). 2010;
<https://www.aamc.org/download/131052/data/workforce.pdf>.
- ¹⁷⁵ The Rural Implications of Key Primary Care Provisions in the Affordable Care Act: White Paper 2011;
<https://www.hrsa.gov/advisorycommittees/rural/publications/wpacapprimarycareprovisions092011.pdf>.

-
- ¹⁷⁶ What's Different about Rural Health Care? <http://www.ruralhealthweb.org/go/left/about-rural-health/what-s-different-about-rural-health-care>.
- ¹⁷⁷ Health Disparities: The Basics. https://www.apha.org/~media/files/pdf/factsheets/hlthdisparty_primer_final.ashx.
- ¹⁷⁸ Mack KA, Jones CM, Ballesteros MF. Illicit Drug Use, Illicit Drug Use Disorders, and Drug Overdose Deaths in Metropolitan and Nonmetropolitan Areas — United States. *MMWR Surveill Summ* 2017;66(No. SS-19):1–12. DOI: <http://dx.doi.org/10.15585/mmwr.ss6619a1>.
- ¹⁷⁹ Ivey-Stephenson AZ, Crosby AE, Jack SP, Haileyesus T, Kresnow-Sedacca M. Suicide Trends Among and Within Urbanization Levels by Sex, Race/Ethnicity, Age Group, and Mechanism of Death — United States, 2001–2015. *MMWR Surveill Summ* 2017;66(No. SS-18):1–16. DOI: <http://dx.doi.org/10.15585/mmwr.ss6618a1>
- ¹⁸⁰ Beck LF, Downs J, Stevens MR, Sauber-Schatz EK. Rural and Urban Differences in Passenger-Vehicle–Occupant Deaths and Seat Belt Use Among Adults — United States, 2014. *MMWR Surveill Summ* 2017;66(No. SS-17):1–13. DOI: <http://dx.doi.org/10.15585/mmwr.ss6617a1>.
- ¹⁸¹ Moscovice I, Stensland J. Rural hospitals: trends, challenges, and a future research and policy analysis agenda. *J Rural Health*. 2002;18 Suppl:197-210.
- ¹⁸² Ibid.
- ¹⁸³ Ibid.
- ¹⁸⁴ Breen N, Feuer EJ, Depuy S, Zapka J. The effect of Medicare reimbursement for screening mammography on utilization and payment. National Cancer Institute Breast Cancer Screening Consortium. *Public Health Rep*. 1997;112(5):423-432.
- ¹⁸⁵ Eisner EJ, Zook EG, Goodman N, Macario E. Knowledge, attitudes, and behavior of women ages 65 and older on mammography screening and Medicare: results of a national survey. *Women Health*. 2002;36(4):1-18
- ¹⁸⁶ Kelaher M, Stellman JM. The impact of Medicare funding on the use of mammography among older women: implications for improving access to screening. *Prev Med*. 2000;31(6):658-664.
- ¹⁸⁷ Ko CW, Kreuter W, Baldwin LM. Effect of Medicare coverage on use of invasive colorectal cancer screening tests. *Arch Intern Med*. 2002;162(22):2581-2586.
- ¹⁸⁸ Ko CW, Kreuter W, Baldwin LM. Persistent demographic differences in colorectal cancer screening utilization despite Medicare reimbursement. *BMC Gastroenterol*. 2005;5:10.
- ¹⁸⁹ Lesser LI. Evaluating the effectiveness of Medicare's preventive visits. *Journal of women's health (2002)*. 2013;22(1):5-6.
- ¹⁹⁰ Salloum RG, Jensen GA, Biddle AK. The "Welcome to Medicare" visit: a missed opportunity for cancer screening among women? *Journal of women's health (2002)*. 2013;22(1):19-25.
- ¹⁹¹ What's Different about Rural Health Care? <http://www.ruralhealthweb.org/go/left/about-rural-health/what-s-different-about-rural-health-care>.
- ¹⁹² Allen CG, Escoffery C, Satsangi A, Brownstein JN. Strategies to Improve the Integration of Community Health Workers Into Health Care Teams: "A Little Fish in a Big Pond". *Prev Chronic Dis* 2015;12:150199. DOI: <http://dx.doi.org/10.5888/pcd12.150199>.
- ¹⁹³ Centers for Disease Control and Prevention and the Health Resources and Services Administration: Fact Sheet. https://www.apha.org/~media/files/pdf/advocacy/phact/160201_cdchrsa.ashx.
- ¹⁹⁴ Ibid.
- ¹⁹⁵ Innovating, Leading & Moving Public Health Forward: A forum co-hosted by the American Public Health Association and the Robert Wood Johnson Foundation. 2013; <https://www.apha.org/~media/files/pdf/factsheets/2013aphareport6192014.ashx>.
- ¹⁹⁶ What's Different about Rural Health Care? <http://www.ruralhealthweb.org/go/left/about-rural-health/what-s-different-about-rural-health-care>.
- ¹⁹⁷ Gamm L, Van Nostrand JF. Rural healthy people 2010: A companion document to healthy people 2010. Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center; 2003.
- ¹⁹⁸ Ibid.
- ¹⁹⁹ Ibid.
- ²⁰⁰ Morrissey T. The Affordable Care Act's Public Health Workforce Provisions: Opportunities and Challenges. 2011; https://www.apha.org/~media/files/pdf/topics/aca/apha_workforce.ashx.

²⁰¹ Redhead C, Williams E. Public Health, Workforce, Quality, and Related Provisions in the Patient Protection and Affordable Care Act (P.L. 111-148). 2010;

<https://www.aamc.org/download/131052/data/workforce.pdf.pdf>

²⁰² Innovating, Leading & Moving Public Health Forward: A forum co-hosted by the American Public Health Association and the Robert Wood Johnson Foundation. 2013;

<https://www.apha.org/~media/files/pdf/factsheets/2013aphareport6192014.ashx>.

²⁰³ Public Health and Chronic Disease: Cost Savings and Return on Investment. American Public Health Association. Washington D.C.

https://www.apha.org/~media/files/pdf/factsheets/chronicdiseasefact_final.ashx

²⁰⁴ Centers for Disease Control and Prevention and the Health Resources and Services Administration: Fact Sheet. https://www.apha.org/~media/files/pdf/advocacy/phact/160201_cdchrsa.ashx.

²⁰⁵ Key Findings: Health Care Systems and Substance Use Disorders. Surgeon General's Report on Alcohol, Drugs, and Health. <https://addiction.surgeongeneral.gov/key-findings/health-care-systems>.

²⁰⁶ Ibid.

²⁰⁷ Partnerships to Improve Community Health (PICH). Centers for Disease Control and Prevention.

<https://www.cdc.gov/nccdphp/dch/programs/partnershipstoimprovecommunityhealth/index.html>.

About the Authors

The RUPRI Health Panel is led by Keith J. Mueller, PhD. He can be contacted at (319) 384-1503, keith-mueller@uiowa.edu.

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 research professor of public health and directs the Maine Rural Health Research Center in the Muskie School of Public at the University of Southern Maine.

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

A. Clinton MacKinney, MD, MS, is a clinical associate professor in the Department of Health Management and Policy, College of Public Health, University of Iowa. He is also a board-certified family physician delivering emergency medicine services in rural Minnesota. He is the deputy director, RUPRI Center for Rural Health Policy Analysis.

Timothy D. McBride, PhD, is a professor at the Brown School, at Washington University in St. Louis. He also serves as one of the principal analysts in the RUPRI Center for Rural Health Policy Analysis, and serves in many state and federal roles, including serving as chair of the state of Missouri's MOHealthNET Oversight Committee, which oversees the state's Medicaid program.

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

Paula Weigel, PhD, is an assistant research scientist and adjunct assistant professor in the Department of Health Management and Policy in the College of Public Health at the University of Iowa. Dr. Weigel's research focuses on the impact of policy changes on rural health systems and populations.

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.