



## Population Health in Rural Communities

### Introduction

A number of key policy issues are driving the current interest in the concept of population health. The first is the growing realization that the high level of health care spending in the United States is not producing the value desired in terms of the impact on overall health. The second is the acknowledgement that our acute health care system, while very important, is only one contributing factor to the overall health of our population. The third is the recognition that the incentives for the provision of health care services are poorly aligned to achieve the desired results. Prior efforts to address these issues through the development of public and commercial care plans in the late 1980s to mid-1990s were successful in reducing the growth of health care spending, primarily by eliminating unnecessary hospitalizations, implementing discounted rates for provider services, and adopting strict utilization management controls.<sup>1</sup> Eventually, public and provider backlash against the perceived “abuses” of the managed care industry led to the passage of numerous state and federal laws controlling managed care practices. With the passage of the Patient Protection and Affordable Care Act (ACA) in 2010 and expected increases in coverage rates, policymakers are turning to the concept of population health to address these concerns.

The U.S. health care industry is undergoing profound change in financing and service delivery as it shifts from a financial system that pays based on “volume” to one that is based on “value.” Value-based payment systems are being designed to address a three-prong approach known as the Triple Aim of providing better care, improving health and lowering costs, a framework developed by the Institute for Healthcare Improvement (IHI).<sup>2</sup> Today, critical access hospitals (CAHs), small rural hospitals, rural health clinics (RHCs) and rural community health centers (CHCs) face the challenge of remaining viable under current payment systems which are largely cost-based and/or fee for service, while preparing for new value-based payment systems that are being adopted in various forms across the country. Critical Access Hospitals (CAHs) and RHCs are increasingly in the spotlight of federal policymakers as the cost-based reimbursement system is viewed as a potential opportunity to reduce overall spending.

In late 2014, the Department of Health and Human Services (DHHS) announced a substantial initiative on delivery system reform with the goals of improving: the way providers are paid by promoting value-based payment systems; the way care is delivered by encouraging integration and coordination of clinical services, population health, and patient engagement; and the way information is distributed through expanding the use of electronic health information technology and creating transparency on cost and quality information.<sup>3</sup> DHHS’s goals for revising payment incentives are to have half of all Medicare payments paid through value-based alternative

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<sup>1</sup> National Council on Disability, Appendix B. A brief history of managed care. [http://www.ncd.gov/publications/2013/20130315/20130513\\_AppendixB](http://www.ncd.gov/publications/2013/20130315/20130513_AppendixB)

<sup>2</sup> Institute for Healthcare Improvement, <http://www.ihc.org/Topics/TripleAim/Pages/default.aspx>.

<sup>3</sup> Moore, P. (2015). Three focus areas of the Delivery System Reform Initiative. Available: <http://narhc.org/wp-content/uploads/2015/02/Delivery-System-Reform.pdf>.

payment models and 90% of all remaining fee for service Medicare payment models linked to quality and value by 2018.<sup>3,4</sup> This goal related to the improvement of population health is to have 25 states implement comprehensive delivery system reform by 2018.<sup>3</sup> Thus, it is more important now than ever for rural providers to participate in efforts such as implementing population health strategies to help demonstrate the quality and value they provide rural residents.

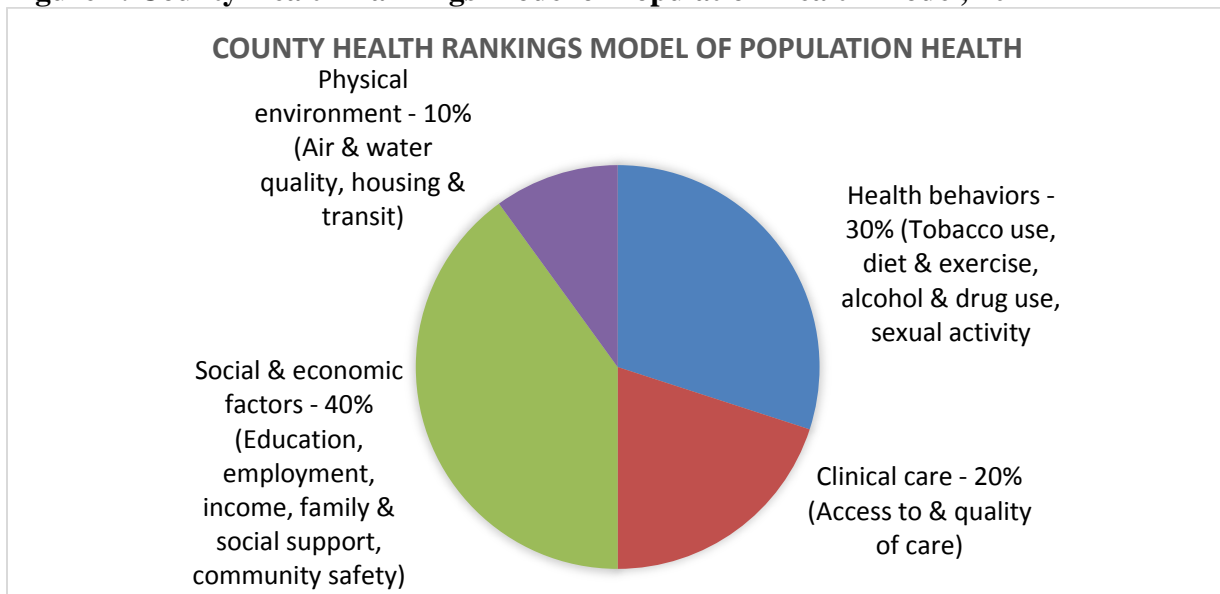
One of the key components of the Triple Aim involves a focus on improving the health of populations. Population health encompasses a cultural shift from a focus on providing care when individuals are sick to a more comprehensive view which includes enhancing and improving the health of communities across a spectrum of ages and conditions and a focus on addressing the social determinants of health. Once considered the domain of public health agencies, the term "population health" has become widespread among health care providers. Recognition that volume-based payment for health care services is fueling unsustainable growth in costs, there has been a renewed focus among payers and policy advocates to address underlying issues such as uncoordinated care, poor chronic disease management, behavioral health, unhealthy behaviors that can drive up utilization and costs, and limited access to evidence-based prevention and wellness services. Thus, care delivery and payment systems are starting to shift focus to keeping populations well, rather than only caring for the sick.

Access to high-quality health care is a key component in supporting a healthy community, and is one of the reasons that rural hospitals, rural clinics and CHCs are instrumental to the overall wellbeing of rural communities. However, access to and the quality of health care services accounts for only about 20% of the overall determinants of population health (See Figure 1). An additional 30% is attributable to health behaviors including tobacco use, diet and exercise, alcohol and drug use, and sexual activity. The remainder is impacted by the complex interplay between social circumstances, behavior patterns, and environmental and economic factors including education, employment, income, family and social support, and community safety (40%) and the physical environment including air and water quality, housing, and transit (10%).

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<sup>4</sup> Better, Smarter, Healthier: In historic announcement, HHS sets clear goals and timeline for shifting Medicare reimbursements from volume to value. January 26, 2015. Accessed at: <http://www.hhs.gov/news/press/2015pres/01/20150126a.html>.

**Figure 1. County Health Rankings Model of Population Health Model, 2014**



*County Health Rankings, University of Wisconsin, Public Health Institute. Accessed at: [www.countyhealthrankings.org/resources/county-health-rankings-model](http://www.countyhealthrankings.org/resources/county-health-rankings-model)*

Recognition of the critical role of improving health to lowering health care costs has led policymakers and payers to drive increased responsibility for the health of populations to health care providers, often blurring the lines between traditional public health and health care delivery roles. Strong partnerships at a community level between local public health agencies, employers, schools, social service providers and health care providers are essential to the overall success of improving population health through alignment of goals and resources. It is important to note that population health should address all age spectrums in a community. Strategies that address needs across that wide spectrum make local partnerships even more critical as the most effective approaches to improving health engage the population where they live, work, and play.

Despite the growing recognition of the importance of population health, confusion persists about what is meant by the term. As defined by Kindig and Stoddart, population health is “the health outcomes of a group of individuals, including the distribution of such outcomes within the group.”<sup>5</sup> Groups of individuals can be defined geographically (e.g., communities) or by common characteristics (e.g., low-income, ethnic, or disabled persons). Their definition has a second important component, that of the distribution of health outcomes within the group. A key focus of health is to reduce the health disparities across members of defined populations.

This definition has been criticized for being quite broad in scope. While this may be true in some respects, it does point out the key fact that no one sector of the health care system can significantly influence overall health improvement on its own. As such, it is necessary to leverage expertise, resources, and organizational influence across the different sectors of the health care system and to coordinate their efforts in a strategic fashion. To do so in an effective manner requires the development of collaborative partnerships at the community, state, and national levels.

<sup>5</sup> Kindig, DA, Stoddart G. (2003). What is population health? *American Journal of Public Health*, 93, 366-369.

As defined in the 2012 American Hospital Association (AHA) report, *Managing Population Health: The Hospital's Role*, population health can serve as a strategic platform to improve the health outcomes of a defined group of people, with a focus on three correlated stages:

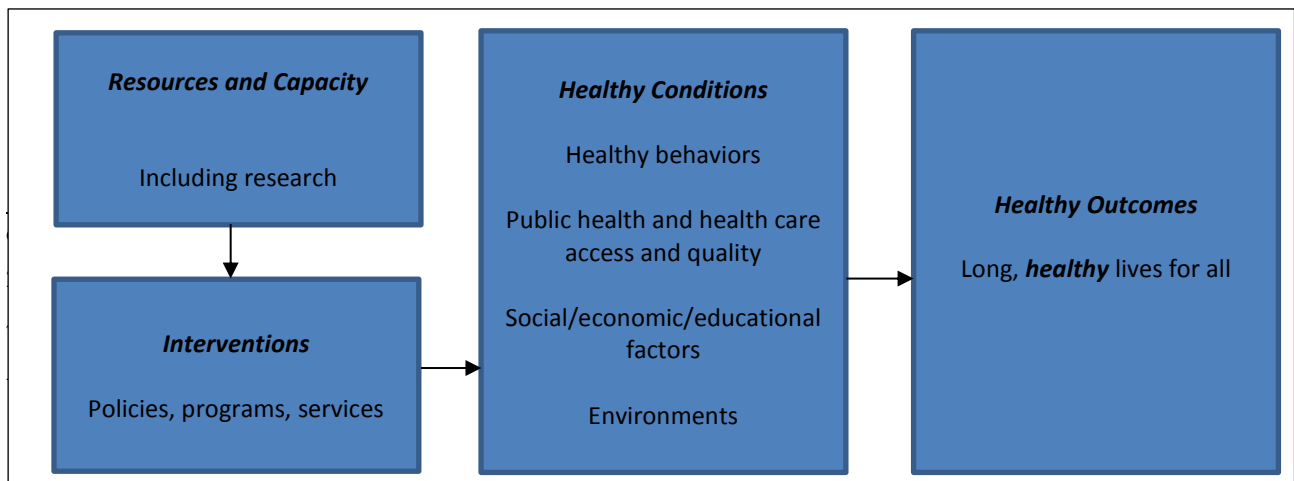
1. Identification and analysis of the distribution of specific health statuses and outcomes within a population.
2. Identification and evaluation of factors that cause the current outcomes distribution.
3. Identification and implementation of interventions that may modify the factors to improve health outcomes.<sup>6</sup>

This definition carries a more specific delivery system focus as it is typically used to describe the care of populations covered by a value-based reimbursement model such as accountable care organizations or managed care plans.

One of the current challenges in discussing population health is the fact that the term is used relatively interchangeably to discuss these two separate but closely related concepts. The Kindig and Stoddart definition involves a focus on the health of the overall population within a defined region (e.g., community, county, or state) and implies a broader focus on public health and health disparities issues. The AHA definition, which in reality can be viewed as a subset of the first definition, involves a more distinct delivery system focus with an emphasis on the care of specific population under a value-based reimbursement model. Although these two concepts are closely related, it is helpful to distinguish the context in which the term “population health” is used to avoid unnecessary confusion.

To guide development of quality measures to monitor progress towards population, the Institute of Medicine developed a logic model to identify the factors and behaviors that lead to health outcomes (See Figure 2).<sup>7</sup> This logic model accounts for resources and capacity, interventions, healthy conditions, and healthy outcomes and identifies key components of the Kindig and Stoddart model including a focus on health disparities issues. The AHA proposed its own model of mechanisms that is consistent with its delivery system approach to population health (See Figure 3). The AHA model specifies that population health resides at the intersection of three distinct health care mechanisms. Improving population health requires effective initiatives to: (1) increase the prevalence of evidence-based preventive health services and preventive health behaviors, (2) improve care quality and patient safety and (3) advance care coordination across the health care continuum.

**Figure 2: Institute of Medicine Health Outcome Logic Model**



Population health resides at the intersection of three distinct health care mechanisms (see Figure 2). Improving population health requires effective initiatives to: (1) increase the prevalence of evidence-based

*Toward quality measures for population health and the leading health indicators. Institute of Medicine, Washington, DC: July 2013.*

Figure 2. Mechanisms to Improve Population Health



*Managing Population Health: The Role of the Hospital. Health Research & Educational Trust, Chicago: April 2012.*

Regardless of the population health definition chosen, there are some key realities that should be kept in mind. First, population health depends of the interaction of many factors, entities, organizations, and interests. Second, population health is a shared responsibility and requires community engagement and broad collaboration between key stakeholders. Third, participating entities must be accountable for the actions they take to improve population health – performance measures to track the impact of their activities must be developed, monitored, and shared with their communities.

### **Policy Background**

Policy and legislation impacting the concepts intrinsic to population health has increased significantly with the passage of the Patient Protection and Affordable Care Act (ACA)<sup>8</sup> which has multiple sections that address population health. Some specific examples include provisions related to Medicaid expansion, individual health insurance mandates, health insurance

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<sup>8</sup> Office of the Legal Counsel. (2010, May). Compilation of Patient Protection and Affordable Care Act [As amended through May 1, 2010]. Accessed at: <http://housedocs.house.gov/energycommerce/ppacacon.pdf>.

exchanges, initiatives to improve quality of care, policy eliminating payment for unnecessary admissions, and encouragement for hospital/community organization partnerships. Along with the health care access considerations, population health is addressed through the requirement that private plans and Medicare provide coverage for the preventive services put forth by the U.S. Preventive Services Task Force without cost sharing. The addition of the Medicare “Annual Wellness Visit” included in the legislation is another example of how the ACA is addressing population health along with some expansion in Medicaid preventive benefits.

The ACA also created opportunities for population health impact through funding for the Centers for Medicare and Medicaid Services (CMS) Center for Medicare and Medicaid Innovation, the National Strategy for Quality Improvement and the Patient Centered Outcomes Research Institute. The CMS Center for Medicare and Medicaid Innovation has impacted population health through the Accountable Care Organization (ACO) Demonstration Projects, the Bundled Payment for Care Improvement Projects and other programs focused on increasing quality and decreasing the cost of care for individuals. Although the CMS initiatives focused on value-based purchasing are important efforts, there are concerns about the extent to which these initiatives are applicable to rural health projects given the minimum population requirements established by CMS regulations (e.g., an ACO must cover a minimum of 5,000 Medicare Fee for Service beneficiaries to be eligible for participation in the Medicare Shared Savings Program)<sup>9</sup>.

Other sections of the ACA focus on impacts to population health such as the ACA-mandated changes to the Internal Revenue Service (IRS) tax code requiring tax-exempt hospitals to conduct triennial community health needs assessments (CHNAs). Under rules published by the Internal Revenue Service, tax-exempt hospitals must undertake a significant survey of their community health needs, define specific service availability, and develop implementation strategy plans to describe how they will address identified community needs. The rules require hospitals to solicit and take into account input from the persons representing the broad interests of the community in identifying and prioritizing community health needs including individuals with special knowledge of or expertise in public health. Although not specified by the ACA, the Public Health Accreditation Board has implemented similar provisions requiring health departments seeking voluntary accreditation to participate in or lead a collaborative process resulting in a Comprehensive Community Health Assessment every five years.<sup>10</sup> These two separate requirements provide opportunities for collaborative hospital/public health collaboration in identifying and addressing community needs.

Legislation and policies that impact health information technology (HIT), such as the Health Information Technology for Economic and Clinical Health (HITECH) Act, have had a significant impact on population health by improving access to information to assist providers in better understanding the burden and potential impacts that could improve population health. From the Department of Health and Human Services, we have seen the release of the Federal

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<sup>9</sup> Commonwealth Fund. The final rule for the Medicare Shared Savings Program. Accessed at: <http://www.commonwealthfund.org/~media/Files/Publications/Other/2011/ZezzasummaryfinalruleMedicaresharedsavingsv2%202.pdf%29>.

<sup>10</sup> Public Health Accreditation Board Standards and Measures Version 1.5 adopted December 2013. Accessed at: <http://www.phaboard.org/wp-content/uploads/SM-Version-1.5-Board-adopted-FINAL-01-24-2014.docx.pdf>.

Health IT Strategic Plan<sup>11</sup> that seeks to improve health through the collection, sharing and use of electronic health information, again with the goal to help providers improve care and outcomes.

Quality of care, a key component in the Triple Aim, requires public reporting of health care providers. Although CAHs and RHCs are not required to report quality measures to CMS, many are now reporting through initiatives including the Medicare Beneficiary Quality Improvement Project (MBQIP). This is a quality improvement activity under the Medicare Rural Hospital Flexibility (Flex) grant program. The goal of MBQIP is to improve the quality of care provided in CAHs. This is being done by increasing the voluntary quality data reporting by CAHs, and then driving quality improvement activities based on the data. For Q2 2012 through Q1 2013 the national CAH reporting rate for inpatient measures was 87.3 percent, outpatient measures was 54.4 percent and HCAHPS was 49 percent.<sup>12</sup> Unfortunately, many of the measures collected by CMS are not rural relevant and those that are they have elected to retire.

The intersection of primary care and public health has provided an opportunity for implementing population health, especially in rural communities. The Institute of Medicine report *Primary Care and Public Health: Exploring Integration to Improve Population Health*, states “The most important way to encourage the integration of primary care and public health is to prevent further erosion of either sector. As states seek to reduce health care spending, public health funding is an easy target for program cuts. One way to combat these cuts is to physically unite or collocate public health departments with local health centers.”<sup>13</sup> The integration of primary care and public health is a silo breaking policy opportunity which has been envisioned in past and currently exists in areas of country such as Community Health Services in Yavapai County, Arizona, Monroe Health Center in Monroe County, West Virginia and Hudson River HealthCare in upstate New York. Current federal funding streams for primary care and public health, however, are not well positioned to promote integration. Other primary care transformation activities with the capacity to improve population health include patient centered medical homes (PCMHs). PCMHs require practices to regard patients as individuals and as members of a population. Doing so allow practices to identify the health needs of their patient populations and determine how best to meet those needs. PCMH involves a proactive, team-based approach to care that focuses on prevention, early intervention, and close partnerships with patients to tightly manage chronic conditions.

Preparing a health care workforce trained to treat patients from a population health perspective is another policy issue which has been explored for almost five years through the Health Resources and Services Administration (HRSA) funding of Teaching Health Centers (THC). In this Graduate Medical Education (GME) training model, Federal Qualified Health Centers are the primary training site of medical residents as opposed to teaching hospitals which are often large academic centers. With the integration of electronic health records, the opportunity for

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<sup>11</sup> Federal Health IT Strategic Plan, 2015-2020. Accessed at: <http://www.healthit.gov/policy-researchers-implementers/health-it-strategic-planning>.

<sup>12</sup> Flex Monitoring Team. Hospital Compare CAH Quality Measure Results, Q2 2012 - Q1 2013. June 2014. <http://www.flexmonitoring.org/wp-content/uploads/2014/09/Alaska-2012-13-HC-Report.pdf>

<sup>13</sup> IOM (Institute of Medicine). 2012. *Primary Care and Public Health: Exploring Integration to Improve Population Health*. Washington, DC: The National Academies Press, p. 132. Accessed at: <http://www.iom.edu/Reports/2012/Primary-Care-and-Public-Health.aspx>.



physicians and other health care providers to monitor their patients as populations is more readily accessible in the treatment of chronic diseases such as diabetes and hypertension. Many of these THCs are located in rural areas. Rural rotations for health professions students have proven to result in more providers going to and staying to practice in rural communities. These have been established through a variety of HRSA funded projects such as Area Health Education Centers.

## **Population Health Challenges Faced by Rural Communities**

In addition to the performance, cost, and reimbursement issues driving the health care industry towards population health, demand forces resulting from policy changes (the ACA and coverage expansion) and demographic changes such as the aging of our population, increasing life expectancy, population diversity, and rising rates of chronic disease, inactivity, and obesity. Rural areas are plagued by higher rates of poverty, lower levels of insurance coverage, greater rates of chronic disease, and poor health behaviors than urban areas. The importance of population health improvement strategies to rural communities become evident when examining the socio-economic and health disparities experienced by rural residents. Data published in the NORC Walsh Center for Rural Health Analysis's 2014 Update of the Rural-Urban Chartbook<sup>14</sup> provide a clear picture of these disparities:

### **SOCIO-ECONOMIC DISPARITIES**

- 17% of the U.S. population lives in the 65% of counties classified as non-metropolitan (rural).
- The age distribution of counties tend to get older as rurality increases with the elderly (65 and older) representing slightly under 12% of the population in large central metropolitan (urban) counties to just under 18% in the most rural counties.
- Rural and large central urban counties had the highest rates of poverty ranging from approximately 18 to 19%.

### **HEALTH BEHAVIORS**

- Adolescent smoking rates increase with rurality with rates ranging from almost 10% in less isolated rural counties to almost 12% in the most rural counties. The same patterns hold true for adult smoking.
- Self-reported rates for obesity increase with rurality with self-reported obesity rates of almost 40% for women and 35% for men in the most rural counties.
- The degree of physical inactivity was also higher in rural counties with approximately 41% of men and women reported to be inactive in the most rural counties.

### **MORTALITY AND DEATH RATES**

- Infant mortality rates were comparable across counties (7 deaths per thousand) with the exception of large fringe urban counties (5.7 per thousand). Death rates for children and young adults (1 to 24) rose steadily from large fringe urban counties (48 per 100,000 females and 56 per 100,000 males) to the most rural counties (76 per 100,00 females and 96 per 100,000 males). The same pattern held true for working age (25 to 64) adults with

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<sup>14</sup> NORC Walsh Center for Rural Health Analysis. (2014, October) The 2014 update of the rural-urban chartbook. Accessed at: <http://ruralhealth.und.edu/projects/health-reform-policy-research-center/pdf/2014-rural-urban-chartbook-update.pdf>.



slightly more than 300 deaths per 100,000 females and slightly more than 500 deaths per 100,000 males in the most rural counties. For seniors (65 and older), rates of death rose with rurality with 4,200 per 100,000 women and 5,591 per 100,000 men in rural counties.

- Residents of the most rural counties had the highest deaths rates due to ischemic heart disease for both men (271 deaths per 100,000) and women (153 per 100,000). These rates were 18% higher than for men living in counties with the lowest rates (large fringe urban counties) and 20% higher for women in counties with the lowest rates (small urban counties).
- Age adjusted rates of chronic obstructive pulmonary diseases for men and women 20 years and older increase with rurality from a low of 64 deaths per 100,000 for men in large urban counties to 101 deaths per 100,000 in the most rural counties and a low of 51 deaths per 100,000 for women in large central urban counties to a high of 70 per 100,000 in rural counties.
- Deaths rates for all unintentional injuries and motor vehicle related injuries were higher for both men and women in rural counties than in urban counties with the highest death rates for men in small rural counties (80 per 100,000 for all unintentional injuries and slightly more than 30 per 100,000 for motor vehicle related injuries) and women (slightly less than 40 per 100,000 for all unintentional injuries and approximately 13 per 100,000 for motor vehicle related injuries)
- Suicide rates among both sexes increased rurality from a low of 21-22 per 100,000 for men and 6 per 100,000 for women in urban counties to a high of 33 per 100,000 for men and 7 per 100,000 for women in the most rural counties. Across the levels of urbanization, suicide rates were 3 to 5 times higher for men than women.

#### OTHER HEALTH DISPARITIES

- Birth rates for adolescent females were lowest in large fringe urban counties (27 per 1,000) and highest in rural counties (47 per 1,000 in small rural counties and 49 per 1,000 in the most rural counties).
- Similar patterns were identified for limitations of activity due to a chronic health condition with the lowest rate for men and women in large fringe urban counties (12% respectively for both sexes) and highest in rural counties with a high of 19% for men and 20% for women in the most rural counties.
- Total tooth loss was lowest for seniors in large fringe urban counties and highest in rural counties with a high of approximately 33% in the most rural counties.

#### ACCESS ISSUES

- Rates of uninsurance vary by rurality with the highest rates of uninsurance across all incomes among people living in the most rural counties (23%). Nonelderly persons with incomes below 200% of the federal poverty level, were more than twice as likely to be uninsured as higher income persons across all levels of urbanization.
- The supply of all physicians decrease as the level of rurality increases from a high of slightly less than 400 per 100,000 population in large central urban counties to a low of less than 100 per 100,000 population in the most remote rural counties.
- The supply of other specialty physicians (e.g., neurology, anesthesiology, and psychiatry) exhibit the most dramatic decline as the level of rurality increases from a high of 63 per

100,000 population in large central urban counties to a low of 30 per 100,000 population in the most rural counties.

- The supply of other general practice physicians showed similar supply patterns:
  - Pediatrician supply was highest in large central urban counties at 25 per 100,000 population dropping steadily to a low of 4 per 100,000 population in the most rural counties;
  - Internist supply ranged from a high of 50 per 100,000 population in large central urban counties to a low of 9 per 100,000 in the most rural counties; and
  - Obstetrician/gynecologist supply was highest in large central urban counties at 16 per 100,000 population and declined steadily to a low of 3 per 100,000 in the most remote rural counties.
- The supply of dentists decrease with rurality from a high of 83 per 100,000 population in large central urban counties to a low of 30 per 100,000 in the most rural counties.

### **Importance of Health Information Technology in Population Health**

The Office of the National Coordinator (ONC) for HIT was charged with building a secure, interoperable nationwide health information system, as well as supporting the widespread meaningful use of HIT. The ultimate goal of HIT is to improve the quality and efficiency of patient care. With population health data becoming increasingly important it is imperative that the electronic medical records (EHR) are optimized to allow for the collection of population health data.

Nationally, 112,000 eligible providers (71%) who were participating in the HITECH Regional Extension Center (REC) technical assistance achieved meaningful use requirements of their EHR. Nationally 1,178 rural and critical access hospitals attested to meaningful use.<sup>15</sup> RECs have supported HIT for small primary care practices and small and rural hospitals; however project activities and funding are nearing completion.

Data from the Flex Monitoring Team on CAH participation in Medicare and Medicaid meaningful use incentive programs indicate that 89 percent had received either Stage 1 Medicare and/or Medicaid EHR payments as of September 2014.<sup>16</sup> The study revealed that the CAHs receiving incentive payments were more likely to be larger and have the maximum number of beds allowed by the program (25). These smaller hospitals that have not qualified for meaningful use incentives may find it difficult to catch up with other hospitals moving on to Stage 2 requirements. Preliminary data from a survey on RHC EHR adoption conducted by the Maine Rural Health Research Center indicates that almost 72 percent of RHCs have implemented an EHR.<sup>17</sup> Similarly, those clinics without an EHR may find themselves left behind as the expectations for substantive meaningful use increase with stages 2 and 3. Other researchers have found that the gap in EHR adoption between urban and rural providers narrowed substantially by

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<sup>15</sup> Regional Extension Centers at a Glance. February 2015. Accessed at: <http://www.healthit.gov/providers-professionals/regional-extension-centers-recs>

<sup>16</sup> Hung, P., Casey, M., & Moscovice, I. (2015, January). Critical access hospital's receipt of Medicare and Medicaid electronic health record incentive payments. Accessed at: <http://www.flexmonitoring.org/wp-content/uploads/2015/01/pb37.pdf>.

<sup>17</sup> Gale, J. Personal communication, March 12, 2015.

2012 (72% and 69.5% respectively).<sup>18</sup> Xierali and colleagues found that practicing in a medically underserved or geographic health professional shortage area, small clinic size, and being an international medical graduate were practice characteristics negatively associated with EHR adoption.<sup>19</sup> Although the rate of EHR adoption is increasing among rural providers and many have attested for Stage 1 meaningful use incentives, many stakeholders are concerned that these providers will have greater challenges meeting the more rigorous Stage 2 and 3 meaningful criteria, coupled with the ongoing increasing costs and lack of staff internally to solely focus on these efforts.

In an effort to improve patient engagement, patient portals are one of the next big steps for meaningful use stage 2. In order to fully engage patients in portals CAHs and RHCs need to have a solid foundation for care coordination. A lack of communication and relationships between inpatient and outpatient providers, as well as primary care physicians and specialists, inhibit providers from delivering high quality, patient-centered, and coordinated care. It is believed that engaging providers and patients at each point along the care continuum is essential to decreasing inappropriate and costly hospital readmissions and unnecessary emergency department utilization. Another big hurdle to recognize is the lack of EHR optimization, functionality of the EHR, and additional cost burdens being placed on providers. Most EHRs implemented during stage 1 meaningful use do not allow the users to directly obtain clinical data from the system, connect with the health information exchange, or provide patient portals without significant costs that must be paid to the vendor and significant costs in terms of time spent by the CAH or RHC and/or expertise they must hire.

As stated earlier, many forces are aligned to encourage the development of initiatives to improve population health and achieve the goals of the Triple Aim – better health, better care, and lower costs. These forces include the alignment of quality and performance measures required by MBQIP, National Committee for Quality Assurance, CMS, and National Quality Forum; collaboration and sharing of resources and responsibility among key health care partners encouraged by the IRS CHNA guidelines and the Public Health Accreditation Board, growing use of HIT, expanding use of evidence-based interventions, and an evolving reimbursement landscape. Although much work needs to be done and rural providers will need ongoing support to assist in the transition to population health, our health care system is moving in the right direction.

## **Policy Recommendations and Justifications**

**DEVELOP A STRATEGIC MISSION AND GOAL WITH SPECIFIC PLANNED OUTCOMES TO ENHANCE POPULATION HEALTH IN RURAL COMMUNITIES**  
By joining forces, HRSA, CDC, CMS, ONC and the United States Department of Agriculture (USDA) could create much more momentum for integration between rural health care and population health. It is important to realize that when you have seen one rural community, you

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<sup>18</sup> Hsiao, C, Jha, A, King, J, Patel, V, Furukawa, M, & Mostashari, F. (2013). Office-based physicians are responding to incentives and assistance by adopting and using electronic health records. *Health Affairs*, 32(8):1470-1477.

<sup>19</sup> Xierali, I, Phillips, R, Green, L, Bazemore, A., & Puffer, J. (2013). Factors influencing family physician adoption of electronic health records. *Journal of the American Board of Family Medicine*, 26(4): 388-396.

have seen one rural community and decisions on how to improve the population health within the community must be a community decision. By this we mean, that each rural community has its own unique constellation of needs, gaps, priorities, and assets that must be considered when developing and adapting interventions for use in rural communities.

Communities must convene to discuss their future and create a direction, vision and momentum for population health. This often starts with the hospital initiating the discussion and gathering other health care providers and stakeholders. Each community must assess their current needs for today and tomorrow as well as the community assets available to support efforts to address these needs. They must create the environment where collaboration with neighboring communities creates survival and long term goals and success.

#### MOVE BEYOND FOCUS OF ACCESS TO CARE TO BROADER EMPHASIS ON POPULATION HEALTH IN THE COMMUNITY

Population health especially in rural communities must move beyond the health care delivery system to improving health equities and expand to include the social and economic conditions of these communities which are the fundamental triggers of poor health over the life continuum. It is this community renewal which is needed for population health to move beyond disease treatment or disease management to disease prevention especially among the most vulnerable populations. Many of these economic triggers, such as lack of access to adequate housing, nutrition, transportation and education prime the pump for poor health outcomes which can be further exacerbated by lack of access to health care. The community health needs assessment should be broad enough to include some of these social determinants of health and are the most vulnerable populations truly represented, not only in the assessment and but also in the strategies to address the needs identified. For rural health care facilities to be viable, these issues must not be ignored because in the long run, it affects the financial bottom line of every rural hospital or clinic. Communities need to be engaged in the planning and have access to resources and technical assistance to implement the initiatives.

Finally, greater strides in promoting population health can be made through reductions in federal, state, and local programs in silos and service systems. The separation of funding streams for acute care and public health systems at the state-level discourages the inefficient use of funding and resources and creates barriers to the effective integration of the two important sectors impacting health. Similarly, acute care systems of care and public health do not always align at the local level. It is not unusual for both sectors to conduct separate community health needs assessments and implement parallel programs.

#### DEVELOP AND SHARE STATE AND NATIONAL RESOURCES FOR INTEGRATION OF SUCCESSFUL RURAL STRATEGIES AND MODELS

HRSA has a network, the State Offices of Rural Health (SORH), led by the National Organization of State Offices of Rural Health (NOSORH) that is positioned to deploy innovative rural approaches to population health. Funding for these innovations could be provided through the network of SORHs and NOSORH, where momentum and integration is already taking place. Many SORHs have programs that create synergy for clinical, process and quality improvement, health information technology, care coordination, community health needs assessments, and financial and operational assessments, however increased funding would be necessary to undertake support for population health activity. Similar to CMMI grants, HRSA could fund SORH innovative rural health community population health projects. An example of these

efforts is the Colorado Rural Health Center's (Colorado' SORH) program Improving Communications and Readmissions (iCARE). The iCARE program engages CAHs and RHCs to better the patient experience by improving communications in the transitions of care and clinical processes, and reducing avoidable hospital readmission rates. iCARE aligns with national trends and funding priorities demonstrating sustainable improvements and outcomes. In 2015, the iCARE program began incorporating population health data to assist with the movement towards the clinical impact on population health. Specifically, preventable hospital stays, Medicaid enrollment, adults diagnosed with diabetes, and diabetes related death rates. Community by community will receive a more comprehensive view of their measures.

#### SHARE RURAL BEST PRACTICES AND RESOURCES FOR TECHNICAL ASSISTANCE AND INTERVENTION

National, statewide, or regional resource centers, SORHs, hospital or public health associations, health care networks, and/or technical assistance centers can facilitate and guide these conversations and serve as the conduit for data collection, measurement, and identifying population health outcomes therefore reducing the duplication of efforts. This information can be shared at the state and national level to inform the conversations level between HRSA, CDC, CMS, ONC, and USDA as well as their counterparts at the state level. The provision of technical assistance, guidance, and support based on the experience gained in the field as well as the commitment of "boots on the ground" true and improvement in the health of rural communities can occur. Existing rural health associations and centers should embrace this trend and offer resources and share best practices.

#### IMPLEMENT REIMBURSEMENT STRATEGIES THAT ALIGN WITH POPULATION HEALTH GOALS AND ADDRESS THE UNIQUE NEEDS OF LOW VOLUME RURAL PROVIDERS

Reimbursement strategies have traditionally focused on acute and "sick care" services using a fee for service methodology. Reimbursement strategies must be aligned with population health goals and shift the focus from "sick care" to a value based model that emphasizes population health outcomes. While the ACA has encouraged development of accountable care organizations and other value-based payment methodologies, it is not clear how applicable these payment methodologies are to low volume rural providers who are dependent on fee-for-service payment systems to maintain viability. As value-based payment models evolve, we recommend these models be tailored to fit the unique practice environment of rural providers and reflect the volume-based reimbursement methodologies developed to support safety net providers such as Critical Access Hospitals, Rural Health Clinics, and Federally Qualified Health Centers. Patient-centered practice transformation models, such as the Patient Centered Medical Home (PCMH) have begun to demonstrate the value of care management, population health, wellness, and preventive services. These services are not universally paid for by third party payers despite the fact third party payers and their patients benefit from these services. Failure to compensate rural providers as well as the expense related to PCMH recognition creates a disincentive for them to engage in these important population health and practice transformation activities. Although the ACA mandates coverage for wellness and prevention services by third party payers, the way they are implemented may exclude rural safety net providers. Third party payers must recognize the

important role of rural safety net providers in meeting the population health needs of their patients and ensure that reimbursement policies do not inadvertently exclude these providers.

#### ENSURE GRADUATE MEDICAL EDUCATION FUNDING CONTINUES FOR POPULATION HEALTH TRAINING IN RURAL COMMUNITIES

At the federal-level, current Graduate Medical Education (GME) funding streams are in separate silos depending on the site of training (i.e., a hospital or a health center). Separation of these funding streams for creates potential funding challenges for GME models better suited to rural communities. For example separate HRSA funding for Teaching Health Centers, in which Federal Qualified Health Centers serve as primary training site for medical residents, may face future cuts or elimination since it has not been transitioned into the traditional CMS GME funding streams. These sites provide an important opportunity to prepare the future health care workforce to treat patients from a population health perspective.

#### Summary

In terms of improving population health, four key issues stand out. First, no one sector of the health care system can improve population health on their own – coordination and collaboration in identifying and addressing priority health needs are vital if we expect to make significant progress in this area. Second, there are insufficient resources in rural communities to address all possible needs – efficient use of resources are needed to maximize population health impact. Third, adequate reimbursement and is needed to incentivize providers to provide coordinated wellness, preventive, and acute care services to improve population health. Finally, existing silos that create barriers to coordinated efforts to improve population health must be eliminated.

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