

Population Health Approaches to Improving Rural Health



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America is becoming increasingly urbanized, with the growth rate in the nation's urban population outpacing the growth for the nation as a whole. Increasingly, too, the growth in the country's population is in major metropolitan areas, clustered in and around the largest cities.¹ Still, 59 million people, or nearly 17% of the country's population, reside in remote rural areas,² and many face unique challenges in accessing health care services and maintaining their health.

To identify health care priorities for rural America, the federal Office of Rural Health Policy provided support to Texas A&M University to prepare Rural Healthy People 2020 (RHP2020)³ as a companion to the national Healthy People 2020 report. Building on an earlier analysis commissioned a decade earlier, the report findings are based on a national survey of key stakeholders. While rural communities are of course unique, and have diverse populations and

needs, the study found that access to care remains the key priority across all rural areas.

Further, the study identified as the top ten rural health priorities nationally: access to care (76%); nutrition & weight status (54%); diabetes (54%); mental health (54%); substance abuse (45%); heart disease and stroke (45%); physical activity and health (45%); concerns for older adults (40%); maternal, infant and child health (37%); and 10) tobacco use (35%). While these concerns mirror those identified in many underserved communities, the unique characteristics of rural areas add complexity and challenges to addressing them.

Geographic isolation and related challenges, including the lack of transportation and challenging roads, and extreme weather,⁴ make it harder for people in rural communities to travel for care, and services are typically further away. The lack of infrastructure is

not limited to roads and highways; health care infrastructure may also be extremely limited and health care resources scarce, with few clinical providers. RHP2020 noted that only 9% of the nation's doctors and 16% of the nation's registered nurses practiced in rural areas, and dentists and pharmacists were also scarce.⁵

In this context, community health centers play an especially important role in rural and remote areas and form one of the largest systems of care available to rural populations. Today, community health centers serve 1 in 6 rural residents.⁶ These health centers offer a broad range of medical, dental, behavioral health and enabling services essential to their residents, who are more likely than their urban counterparts to be poor, elderly or suffer from chronic and debilitating medical conditions.⁷

Thus, while enhancing population health capabilities is essential for community health centers everywhere, both because of regulatory requirements and most significantly, because these efforts offer a very real way to improve health outcomes overall, rural health centers may especially benefit from strengthening their population health management focus.

Two different examples drawn from our recent work with rural community health centers — one focused on assessing community need and embedding the health center in the general life of the community, and the other on implementing a population-focused clinical intervention — illustrate the relationship of population health practices to rural health improvement.

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One health center organization located in the west central part of the country, with nearly two dozen rural and frontier sites, began the formal, organizational portion of its population health work by evaluating both its HIT infrastructure and the content and quality of available EHR data. This approach was driven by an understanding that community outreach and patient engagement would require strong data capacity.

The health center found that a good deal of work would have to be done to strengthen its capacity for analytics-based population health projects beyond those functions and analyses embedded in its EHR product, and it is on the path to exploring options in this area.

Meanwhile, the health center has strengthened its base in the community by continuing to build relationships across organizations and directly with its neighbors, and enhancing the role of the health center as a true community-facing organization.

In addition to participating in formal collaborations with partner organizations, health center staff are encouraged to participate actively in school committees, sports coaching, town government, mentoring, scouting, the volunteer fire department — anything and

everything that improves the general health and well-being of the community, and engages people to work together on behalf of the community's overall health. These activities directly benefit the life of the area's residents, while increasing visibility of the health center and enhancing the credibility of the organization and its staff.

The health center has also developed and implemented group-based care, available both on-site and via telemedicine services, to supplement individual care plans and provide community-based support and engagement. This provides opportunities for important interpersonal connections where people may live far from friends, family and care providers and helps to keep patients focused on meeting their own health care goals and following care plans.

Another health center identified a clinically-focused entry point to strengthening its population health capacity, and used clinical outcomes data to identify an opportunity to improve care management for diabetic patients.

Under the leadership of the state primary care association, this Midwestern health center collaborated with other community health centers to participate in a

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statewide data repository, which was developed by a contracted vendor and included accessible reporting capabilities.

Once the data was mapped and normalized, the organization explored quality metrics and decided to focus on diabetes. It designed, executed and measured an intervention to improve HbA1c levels, developing both patient and community level goals, and implementing new programs focused on transitions of care and integration of community resources, while also expanding the availability of vision, dental and other services.

The results of this concentrated effort, aimed at tackling both social determinants and clinical challenges, were impressive – by the end of the first year, substantial progress had been made toward achieving the goals for diabetes outcome improvements.

These two health centers took different approaches; but both addressed not only the immediate health concerns of their patients, but also the broader needs of their rural neighbors. Other examples abound.

So, how can an organization get started with comprehensive population health programs, aimed at improving care in communities?

Health centers beginning this process may want to start by first:

- Characterizing patterns of social determinants and chronic disease occurrence by analyzing EHR as well as sociodemographic data; and
- Integrating clinical information with public health and population-wide sociodemographic data. Sources for data include: CDC FastTrack (diagnosis percentages, general population); CMS (iBlueButton, Medicare Limited Data Set); FDA (openFDA, FAERS); as well as local or state-specific sources.

This will establish priority issues, and help determine the data needed to undertake a risk assessment, stratify the population based on risk, and develop appropriate interventions targeted at both patient care and community engagement.

Once a baseline is established, a programmatic framework and tracking metrics can be developed to measure progress; these metrics may be fine tuned over time. These data and analytic requirements necessitate an IT infrastructure sufficient to support external data acquisition, data sharing, and large-scale storage, but such functions need not be developed at the health center level or replicated across health centers. Many primary care associations and Health Center Controlled Networks are able to support them.

It is just as important to strengthen engagement in the life of the community by working collaboratively with other organizations to address local health, public health and social welfare issues.

As the nation continues to grapple with the challenges of providing health care for all, rural health centers – like their metropolitan counterparts – are at the epicenter, serving as health care innovators and community resources. Strengthening population health capabilities – in rural, frontier and urban centers alike – can help centers grow and thrive in a changing health care landscape. ♦

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¹ Metropolitan Areas Now Fueling Virtually All of America's Population Growth (2014) https://www.washingtonpost.com/news/wonk/wp/2014/03/27/metropolitan-areas-are-now-fueling-virtually-all-of-americas-population-growth/?utm_term=.db352364f0d0

² Bolin, J.N., et al. (2015.) Rural Healthy People 2020: New decade, Same Challenges. *J. Rural Health*. 31(3). 326-333/

³ Bolin JN, Bellamy G, Ferdinand AO, Kash BA, Helduser JW, eds. (2015). *Rural Healthy People 2020*. Vol. 1. College Station, Texas: Texas A&M Health Science Center School of Public Health, Southwest Rural Health Research Center

⁴ Fact Sheet - Research to Improve Care for Veterans: Healthcare disparities & barriers to healthcare (2010). eCampus Rural Health in the Division of General Medical Disciplines, Stanford Medicine.

⁵ Bolin, et al.

⁶ HRSA. (2017). Health center program <https://bphc.hrsa.gov/about/healthcenterfactsheet.pdf>

⁷ NACHC (2013) Removing Barriers to Care - Community Health Centers in Rural Areas. http://www.nachc.org/wp-content/uploads/2015/06/Rural_FS_1013.pdf