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# A RURAL PHYSICIAN'S GUIDE TO MITIGATING RISKS

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One in five, or 60 million people, live in rural America. As defined by the U.S. Census Bureau,[1] rural areas are sparsely populated, have low housing density, and are distant from urban centers.

The challenges of providing healthcare for this demographic are vast. Physicians are in short supply, the disease burden is high, and for many high-risk patients, the miles to access care are long.

In rural Maine, for example, patients looking to establish care with a primary care physician can expect to wait months to be seen, says Hans Duvefelt, MD, a family physician of nearly 40 years who is currently practicing in Bucksport (population 4,923) and Van Buren, Maine (population 2,058).

"Right now, every healthcare facility I know of in Maine is actively recruiting primary care physicians," he says. And specialty care is even harder to come by. "In northern Maine, there's one neurologist. In Caribou, if you need a heart catheterization that isn't just a leisurely diagnostic one, but where you might need some stenting done, you get airlifted or put in an ambulance to drive 200 miles to Bangor."

## RECOGNIZE HEALTH DISPARITIES

These realities of a marketplace where mega-mergers increasingly push healthcare resources and talent toward big cities mean that rural patients receive fewer preventive screenings as well. "They are often much sicker by the time we realize they have [conditions] that are predisposing them to bad complications," says Heidi Larson, MD, a consultant with Stroudwater Associates.

To make matters worse, residents of rural communities are more likely to use tobacco products, start using them at a younger age and use them more heavily. They are also more likely to be exposed to secondhand smoke at work and at home than their counterparts in cities and suburbs, according to the American Lung Association.[2]

As a result, people living in rural areas have 18-20 percent higher rates of lung cancer than people living in urban areas, according to the Centers for Disease Control and Prevention (CDC). In addition, coronary heart disease and stroke rates are higher in the South than other regions, while the COPD hospitalization risk is higher among people living in parts of Appalachia, the southern Great Lakes, the Mississippi Delta, the Deep South and West Texas, the CDC finds.[3]

Food insecurity and poor nutrition are also prevalent in many rural communities and contribute to the disease burden, says Larson, who spent the first 15 years of her career in solo family practice in Portland, Maine.

In fact, the CDC has identified a diabetes belt that includes counties in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia and West Virginia, plus the entire state of Mississippi. Nearly 12 percent of people living in these regions have been diagnosed with the chronic disease, compared to 8.5 percent among people living elsewhere.[4]

Characteristics of community design can also play a negative role in people's health, Larson says. "When we're out in these rural communities [seeing clients], there is nowhere safe to exercise—no sidewalks, no parks, and no gyms."

Another cultural phenomenon among such

patients is that they can be very reluctant to take time away from work, says John Cullen, MD, who relocated from San Diego to Valdez, Alaska (population 3,862) in 1994. "One of the first things I noticed in Alaska is that they're very tough people. Getting them to sit still and recover was almost impossible."

Although the specifics of every rural community are different, a strong sense of self-reliance appears to be a common thread, Cullen adds. Resourcefulness is another prevalent trait—as much among rural patients as their clinicians—and a key advantage to harness in providing quality care.

## BROADEN SERVICES

By necessity, rural primary care physicians tend to provide as much care as possible before referring patients to distant hospitals or specialists. "I know in the big city sometimes you have more of a triage function, but here we can work to the fullest of our abilities because the specialty care is not available," Duvefelt says.

For example, with higher rates of poverty and psychosocial issues among rural populations, the need for behavioral healthcare is high. In fact, a study in the *American Journal of Preventive Medicine* found that the majority of non-metropolitan counties in the United States (65 percent) do not have a psychiatrist and almost half (47 percent) do not have a psychologist.[5]

"The lack of psychiatry means that primary care providers need to shoulder more of that," Duvefelt says. In Maine, a network of psychiatrists is available for phone consultations with primary care providers in remote areas, he explains.

That's not the only discipline in which strong relationships with specialist colleagues at other healthcare organizations are essential, Duvefelt says. "They're very gracious when we call up and say, 'This is what we've got. What should I do before I refer this patient down to you?' They're very accommodating and collaborative with that."

Cullen agrees with the need for primary care physicians to stretch their capabilities, especially when it comes to obstetric care, which has become dangerously scarce in rural America. Only 6 percent of the nation's OB-GYNs currently work in rural areas, according to the American Congress of Obstetricians and Gynecologists (ACOG).[6] Meanwhile, a study published in the *Journal for the American Medical Association* (JAMA) found that a total of 179 U.S. counties lost hospital obstetric services between 2004 and 2014.[7]

As a result, more than half of women in rural America live outside a 30-minute drive of the closest hospital offering obstetric services, ACOG data show. And it's not uncommon for women in labor to travel one to two hours to give birth, Cullen says.

Given the unpredictable nature of labor and delivery, that means some women are delivering in hospitals that aren't set up for obstetrics or possibly by the side of the road en route to the hospital, he says. "Home deliveries [are] also a huge issue because a lot of times patients are relying on hospitals or even clinics that don't have the capacity to handle complicated obstetrics," he says. "All of a sudden, they're the backup for a home delivery gone bad, and that's where we've had some really negative outcomes."

Indeed, the *JAMA* study found an increase in both preterm births and births that occurred without maternal care support during the study period.

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While the solutions to obstetric deserts are multifold, rural primary care physicians need to become trained to help meet the need, Cullen says. "Even if you aren't planning to do obstetrics, if you're rural, you're going to wind up doing obstetrics."

## EXPAND ACCESS

Within primary care practices, one surprisingly effective way to improve access is for physicians to empower employees to control their appointment schedules. This change allows practices to structure a more efficient daily workflow, says Ken Hertz, FACMPE, a principal consultant with the Medical Group Management Association.

He recalls implementing this strategy at a rural primary care practice in the Northwest that had a six- to eight-week wait for an appointment when the consulting engagement began. "First, we worked to standardize appointment types and lengths, which helped move away from the concept of addressing every problem with every patient," Hertz says. The group's initial approach created almost incalculable time with each patient, and the new visit structures, including virtual visits and group appointments, freed up the doctors' schedules substantially.

Getting all members on board, especially physicians, was the key to success, Hertz notes. "We overcame resistance through a strong physician champion who impressed upon the providers the importance of making changes in a rapidly changing environment."

The final proof of the concept for the medical director was spending a day off-site at a family practice where staff were already skilled at managing the physician's day. "He wouldn't believe it unless he had seen it: The physician was able to see more patients, complete his documentation at the time of the visit, and complete his day—on time—with a great sense of accomplishment."

The scheduling transformation had a huge impact on patient access for the practice. Hertz says it also resulted in happier employees and providers.

### OUTSOURCE HOUSE CALLS

While many rural physicians are willing to make house calls for patients who can't travel, the drive time alone substantially reduces the number of patients a doctor can see in a day. This results in lesser medical access for the community and lower revenue for the practice.

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For those reasons, Duvefelt has reduced the number of house calls he makes. "I think providers have to do house calls on a somewhat sporadic basis where people need it," he says.

Instead of making most of the trips himself, Duvefelt's practice works with a network of home health and hospice agencies. For some patients who are essentially shut in during the winter months (or year-round for those with anxiety disorders), home health providers check in and take vital signs on a pre-scheduled basis.

For some of these patients, physicians have created standing orders for specific circumstances, such as weight fluctuation over a set amount or signs of upper respiratory tract infection.

"By using skilled nurses, patient self-monitoring, remote technology, and some standing orders, we're able to provide more care at home quicker than trying to send physicians out to visit patients when we learn they're not doing well," Duvefelt says.

### CONTROL CHRONIC CONDITIONS

Many rural populations suffer higher rates of obesity, hypertension, stroke, heart disease, COPD, and cancer than their more urban counterparts, Larson notes.

For treating these disease processes and more, she recommends that rural practices build strong foundations in team-based care. This means not only optimizing the skillsets of nurse practitioners and physician assistants, but also incorporating supporting services into the practice when possible. "We've looked at embedding community health nurses who can play a key role in promoting healthier lifestyle choices into some of our practices," Larson says.

Rural America also sees disproportionate rates of opioid use disorder, she says. In fact, 74 percent of farmers report they've been directly affected by the opioid crisis, according to a study from the American Farm Bureau Federation.[8]

As thought leaders, Larson and colleagues recommend addressing the rural addiction crisis in part by training family physicians comprehensively around substance abuse prevention, management of opioid use for chronic pain, and medication-assisted therapy. "As it is now, people have to travel a couple of hours to the larger urban centers for treatment," she says.

### LEVERAGE TECHNOLOGY

Oftentimes, health information technology and telemedicine can provide literal lifelines for rural populations. "Telemedicine has been a huge development," Cullen says. "We really are not as alone as we have been in the past."

Thanks to advances in technology, Cullen can do more than seek advice from colleagues in Anchorage, Alaska, or San Francisco by phone. Now, it's possible for multiple clinicians to talk to one another while looking at a patient's electronic health record (EHR), X-rays, EKGs, and other data in real time.

"Beyond that, we have tele-stroke units and tele-ICU, as well as a program where we can consult with an intensivist, who can actually see the patient and EHR. And we can chat, with me at the bedside," he says. "It's wonderful to have somebody, at least by tele-presence, there with you when you're seeing a difficult patient—with essentially everyone in the same room, at the same time, coming up with a treatment plan."

Technology can also expand a practice's ability to provide team-based care, Hertz says. "We've seen the use of telemedicine in dietician counseling, long-term care management, behavioral counseling and more," he says.

And while care managers and other team members may interface with patients in real time, physicians

can communicate with patients more efficiently using asynchronous visits, says Hertz.

### CONSIDER TECH CAVEATS

Across specialties, telemedicine can help drive increased volume while improving patient care, care coordination and outcomes. But it's not always a guarantee. Duvefelt's northern clinic abandoned tele-psychiatry because of high patient no-show rates. "We were paying the vendor whether patients showed up or not," he says. "I think with the newness of the technology and the fact that psychiatry is a pretty personal business, the no-show rate for those appointments was much higher than in primary care."

However, a more widespread barrier to offering virtual care is that many rural areas don't yet have broadband internet connections strong enough to support telemedicine, experts note. In addition, reimbursement is still generally tied to seeing patients in person, Larson says, adding that value-based care will eventually help solve the problem. Finally, practices must take care to ensure their telecommunications technology is secure and HIPAA compliant.

Before investing in communications technology, practices should conduct due diligence, Hertz says. "Go into this with your eyes wide open regarding hardware, networking capabilities, compliance, security, design, planning, education and patient engagement," he says.

### RECRUIT THE RIGHT WAY

Fundamentally, rural America needs more clinicians. According to the National Rural Health Association only 11.4 percent of U.S. physicians practice in rural areas.[9] Although improving recruitment to these areas is a complex challenge, there are some techniques that are more effective than others, experts say.

Notably, because so many new doctors face substantial medical debt, loan repayment programs can be a powerful recruiting tool, Cullen says. There are many state-run programs throughout the country, he notes. "If that's something a community can offer, it really does improve recruitment substantially."

To participate in most programs, the practice site must be a federally designated health professional shortage area (HPSA). Alternatively, some practices may be open in locations that are designated as a medically underserved area (MUA) or provide healthcare services to medically underserved populations (MUP). The Health Resources and Services Administration (HRSA) provides resources to determine a practice's HPSA, MUA and MUP status.

Types of loan repayment programs for physicians include the National Health Service Corps (NHSC) loan repayment, NHSC Students to Service Loan Repayment Program, Indian Health Service Loan Program, and State-based Loan Repayment Programs through the NHSC and other organizations. Similar programs exist for nurses and other medical professionals.

In states that have legislation supporting loan-repayment programs but not the money, such as Alaska, communities can achieve a great return on investment by funding the programs themselves, Cullen says. "For every family physician who comes into a community, it generates $1.4 to $1.5 million in economic activity. Most loan forgiveness programs cost around $60,000 a year."

### ENHANCE RETENTION

To motivate primary physicians receiving this assistance to stay in the community beyond the agreed commitment (e.g. two to four years), Larson advises incorporating them into leadership and governance structures. "Have them lead care teams and design new care models so then they own that process," she says. "That will lead to higher retention rates."

She also emphasizes the importance for communities to grow their next generation of physicians. "Recruit locally because people who have family in the area are more likely to stay," Larson says. "And start young because it helps build loyalty." To do so, she suggests that rural practices offer job shadowing, internships and scholarships for high school students already in the community.

With the right foundation, recruits may come to agree with Cullen that rural medicine is incredibly fun. "I've spent over 25 years doing it, and it's a joy," he says. "I've watched the kids that I delivered grow up and start having kids. It is the most incredible experience."

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