Cover Letter

We have known for decades the systemic problems that exist with the current health care delivery system. Patients often receive different care based on their age, gender, race/ethnicity but also their zip code. For the most part, the top of health equity was largely relegated to policy discussions and academic reviews, with infrequent action taken to comprehensively address it. The pandemic has changed that by exposing the deep fault lines regarding access and outcomes, demonstrating the impact on patients in ways that could no longer be ignored.

In this report, we surveyed the people who care for them – health care professionals in rural and non-rural communities. We looked at their perceptions of healthcare in America, comparing the responses of rural vs non-rural clinicians. Comparisons between rural and non-rural care, and the distinct and often overlooked concerns faced by rural health care professionals. It is the first report to do so, and with responses from more than 10,000 clinicians.

Policy efforts have largely focused on affordability, a shortage of clinicians, outdated equipment, and unreliable internet service – critically important if we are to see any lasting improvement in outcomes. But from our report, we learned that health care professionals, like their patients, are most concerned about the quality of care. In rural communities especially, the concerns with quality are sobering and urgent. We can no longer wait for old models to work.

Instead, the issues of health care quality demand innovative solutions that look beyond the walls of the doctor’s office, with new and expanded partnerships, community and business collaborations and the expertise of an expanded health care team that leverages the existing health care infrastructure to support health care professionals, and to empower patients with the tools they need to maximize their health.

The trials and challenges of the past two years have been unprecedented in the stress they have placed on the health care system. Yet, they have also presented us with opportunities to look past the ideas and solutions that have not been working, and instead redirect our efforts to new sustainable solutions to eliminate health disparities, wherever they exist.

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Chief Medical Officer, WebMD
Introduction

The health disparities between rural areas and non-rural areas have been well documented by a series of Centers for Disease Control and Prevention (CDC) studies. Rural Americans are at greater risk for heart disease, cancer, and stroke than their non-rural counterparts.

A recent National Well-being Survey (NWS) of 3,847 adults, reported by the CDC, provided further data to support this gap. Individuals who lived in rural counties reported worse physical health compared with residents of large non-rural counties.

Our report, *Health Care Professionals’ Perspectives on Healthcare in Rural America*, with more than 10,000 respondents, is the first and largest study to assess barriers and solutions to care delivery from the perspective of those on the front lines of healthcare in rural and non-rural communities — primary care health care professionals in these communities, providing care.

Most surveyed health care professionals acknowledge the role of previously documented systemic problems — including affordability, a shortage of clinicians, outdated equipment, and unreliable internet service; however, those serving as primary care clinicians in rural areas perceived a different issue to be the key obstacle: quality of care. Rural health care professionals clearly stated the quality of care in their communities to be of greater concern than accessibility, and efforts to address these issues to-date have not done much to close this gap.

The path forward, as this white paper details, is crafting solutions centered around the fundamentals of evidence — and team-based community care that harnesses resources within and across health care teams. Proven solutions may exist, and new ones may need to be developed that will allow us to make a meaningful impact on the lives of rural Americans.
Methodology

PROFILE OF RESPONDENTS


Respondents who agreed to participate in the research were randomly invited via email to answer a 10-minute online survey. Participants included primary care physicians, physician assistants, nurse practitioners, registered nurses, pharmacists, and optometrists, all of whom see a minimum of 10 patients per week. Qualified respondents who completed the survey received a Visa gift card.

TYPE OF CLINICIAN

- Primary care physician: 49.9%
- Optometrist: 6.2%
- Pharmacist: 10.6%
- Registered nurse: 10.5%
- Primary care physician assistant: 8.7%
- Primary care nurse practitioner: 14%

TYPE OF COMMUNITY

- Rural: 29.2%
- Non-rural: 70.8%

GEOGRAPHIC REGION

- West: 25%
- Midwest: 24%
- Northeast: 18%
- South: 33%

WORK SETTING*

- Office: 24%
- Outpatient clinic: 40%
- Health care facility: 13%
- Hospital: 22%
- Pharmacy (independent or chain): 4%
- Retail/grocery store: 2%
- Academic (non-hospital), research, military, government: 4%
- Other: 5%

*This survey question was multi-choice, so the total response percentages equal greater than 100%.
Methodology

STATISTICAL ANALYSIS

A power analysis was conducted to evaluate sample size requirements. Standard quality control measures included checking for clear question wording and proper question ordering, as well as the use of appropriate scales and response categories. Surveys were checked to ensure respondents were answering all questions logically and completing them in a reasonable amount of time.

Survey weighting was developed to match the U.S. Census region and rural proportions of the respondents with those of the U.S. Department of Health and Human Services, Sex, Race, and Ethnic Diversity of the U.S. Health Occupations (2011-2015). Rural zip codes were identified based on the U.S. Health and Human Resources Department’s designated zip codes of rural areas. Collection and reporting of race and ethnicity data in this report aligns with the 1997 OMB Standards for the Classification of Federal Data on Race and Ethnicity.

Demographic factors (race, ethnicity, gender, income, years of training), location (rural or non-rural), number of patients, region, practice location setting, and work situation were used as covariates in the statistical models. For physicians, an additional covariate used was the distance between the zip code of their current workplace and the zip code of their medical school.
Methodology

PATIENT CHARACTERISTICS

This study explored the role of social determinants of health (SDoH), which the CDC identifies as the conditions in which people live, learn, work and play, as well as their age, that impact their health risks and status. Our findings, as others have shown, support a strong correlation between certain SDoH factors — including higher rates of poverty and less access to quality healthcare — and health care professionals’ perceptions of poorer health outcomes.

Rural patients tend to have lower incomes and lower health literacy than non-rural patients, according to surveyed primary care health care professionals’ assessments. Rural patients also rely on Medicare and Medicaid more often, and they are less racially and ethnically diverse than non-rural patients.

<table>
<thead>
<tr>
<th>PATIENT SOCIOECONOMIC CHARACTERISTICS</th>
<th>RURAL VS. NON-RURAL CLINICIANS</th>
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<tbody>
<tr>
<td>Household income of less than $45,00</td>
<td>Rural 50%</td>
</tr>
<tr>
<td>Low or very low health literacy</td>
<td>Rural 37%</td>
</tr>
<tr>
<td>Have private insurance</td>
<td>Rural 30%</td>
</tr>
<tr>
<td>Rely on Medicaid</td>
<td>Rural 22%</td>
</tr>
<tr>
<td>Rely on Medicare</td>
<td>Rural 33%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PATIENT RACE AND ETHNICITY</th>
<th>RURAL VS. NON-RURAL CLINICIANS</th>
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</thead>
<tbody>
<tr>
<td>Caucasian or white</td>
<td>Rural 73%</td>
</tr>
<tr>
<td>African American or Black</td>
<td>Rural 12%</td>
</tr>
<tr>
<td>Hispanic / Latino</td>
<td>Rural 12%</td>
</tr>
<tr>
<td>Asian</td>
<td>Rural 3%</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>5%</td>
</tr>
<tr>
<td>Native Hawaiian / Pacific Islander</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>Rural 5%</td>
</tr>
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</table>
Executive Summary

In the first study of its kind, *Health Care Professionals’ Perspectives on Healthcare in Rural America* assesses the state of rural and non-rural healthcare from the perspective of a broad community of health care professionals, including primary care physicians, primary care nurse practitioners, primary care physician assistants, nurses, pharmacists, and optometrists.

Rural health care professionals clearly state that the quality of care in their communities is unsatisfactory. Striking differences in quality of care ratings between rural and non-rural clinicians exist for mental healthcare, specialty care, long-term care, urgent care, and chronic care services. The findings also underscore that efforts to address rural health challenges over the past several years have not been perceived to have had a substantive impact on closing the health care gaps in rural communities.

Rural health care professionals identify a variety of systemic problems that factored into their assessment, including patients’ health care costs, a shortage of appropriate specialists, the need for staff training on new technologies and digital tools, upgraded medical equipment, faster internet, improved community support services and financial assistance for patients. Indeed, rural health care professionals rate all of these except appointment wait times and cultural and language barriers as challenging more often than their non-rural counterparts.

A notable finding in our report is that the majority of rural health care professionals — similar to non-rural clinicians — do not believe that virtual care, including telehealth and remote patient monitoring, can drive substantive health care quality improvements on their own. Their adoption of these technologies is comparable. Rural and non-rural professionals alike expressed concerns over insufficient resources and infrastructure to train staff and patients on technology, as well as a lack of access and technological literacy among patients. In fact, when asked to rank what they feel will most impact quality of care, fewer than two in five clinicians are optimistic that these tools will do so.

And, while recent legislation providing funding for increased broadband in rural areas is welcome — and could potentially increase patient fluency in virtual care — these findings make clear that personal health technology is a component in what needs to be a fundamental shift in how we envision the future of quality care in rural communities.

The findings of this report provide an opportunity for recasting the issues of rural health disparities through an interdisciplinary lens. Solutions should possibly include team-based care that involves community health workers (CHWs) to support services, providing professionals with the tools and partnerships to succeed in delivering quality healthcare, and allowing technology to enable shared decision-making with patients.

Addressing the social determinants of health that are beyond the doctor’s span of influence — such as food insecurity, transportation barriers, or access to quality education — can offer an important pathway to improved care.

We have the potential to create a new focus on what health and well-being means in America — one that will make it more affordable and more convenient for communities to get healthy, stay healthy, and better manage their conditions. As the data reflects, rural and non-rural health care professionals and patients have different needs and face unique challenges. We need a community-based approach if we are to eliminate disparities in health, and this data supports that need.
Less than two-fifths of rural health care professionals rate the quality of specialty, urgent and chronic care as high, compared to more than half of non-rural professionals.

Less than two-fifths of all health care professionals — rural and non-rural — are optimistic that remote patient monitoring or personal health technology will improve the quality of their care.

Only 25% of rural health care professionals think their patients have reasonable access to mental or behavioral healthcare, compared to 43% of non-rural professionals.

Just one-third of rural health care professionals think their patients have reasonable access to specialty care, compared to two-thirds of non-rural professionals.
Key Findings: How Health Care Professionals See Rural and Non-Rural Healthcare

RURAL HEALTH CARE PROFESSIONALS SAY QUALITY CARE IS LACKING

A recent report from the CDC found that patients in rural America assess their own physical health as just “fair” or “poor” (rather than “good” or “better”) at higher rates than their counterparts in non-rural areas. Just 23% of those in large urban counties reported fair/poor physical health, compared to 31% in medium/small urban counties, 40% in metro-adjacent rural counties, and 34% in remote rural counties. A separate body of research indicates that poor health self-assessments are strongly associated with chronic disease and premature death.

Our study helps focus on key areas that are amenable to improvements of care for rural patients which, in turn, can result in better health overall. Rural clinicians rate the quality of healthcare in their regions more poorly than do non-rural clinicians assessing care in their cities.

Less than two-thirds of rural clinicians think mental health, long-term, chronic-illness, specialty, and urgent care in their geographical areas are of good quality. The largest gaps between rural and non-rural communities are in specialty care, urgent care, and chronic care. Less than 38% of rural clinicians rate the quality of these types of care as high, compared with over 50% of non-rural health care professionals. For hospitals, fewer than half of rural clinicians rate quality as high, compared to 68% of non-rural clinicians.

![Quality of Care Comparison Chart]

<table>
<thead>
<tr>
<th></th>
<th>Rural (%)</th>
<th>Non-rural (%)</th>
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<tbody>
<tr>
<td>Specialty care</td>
<td>35%</td>
<td>62%</td>
</tr>
<tr>
<td>Hospitals</td>
<td>46%</td>
<td>68%</td>
</tr>
<tr>
<td>Urgent care</td>
<td>38%</td>
<td>57%</td>
</tr>
<tr>
<td>Chronic care (e.g., dialysis, diabetes)</td>
<td>35%</td>
<td>53%</td>
</tr>
<tr>
<td>Mental/behavioral healthcare</td>
<td>18%</td>
<td>31%</td>
</tr>
<tr>
<td>Long-term care</td>
<td>28%</td>
<td>36%</td>
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</tbody>
</table>
Key Findings: How Health Care Professionals See Rural Healthcare

Quality Concerns Exceed Those of Access

Barriers to access are indeed a concern in rural areas, whether due to lack of broadband internet, transportation problems, or doctor shortages. Data has shown that many medical students and residents practice where they train, which contributes to doctor shortages in rural areas, since 95% of physicians attended medical schools in non-rural areas, while only 5% attended schools in rural areas. And nearly one-third work within 300 miles of their place of study.

The most striking gap between rural and non-rural clinicians is in lack of appropriate specialists in the community — more than half of rural physicians see a significant challenge, compared to about a fifth of non-rural physicians. A notable finding is that the only structural attribute where rural patients have a slight advantage is the wait time to secure a medical appointment in primary care.

However, rural health care professionals are more likely to say healthcare in their communities is overwhelmingly low quality than they are to say it is hard to access.

Rural health care professionals rated quality of care lower than access to care for nearly every type of healthcare, with particularly stark assessments when it comes to the quality of urgent, long-term, chronic, and mental healthcare.

Only regarding specialty care do rural clinicians view access and quality in nearly equal terms, with 33% rating specialty care as accessible or very accessible, and a similarly low 35% rating quality as very good or excellent.
Key Findings: How Health Care Professionals View Solutions

Technology Alone Won’t Close the Gaps

A range of new technologies have become prevalent in healthcare — from telehealth to e-prescribing — across both rural and non-rural areas.

Telehealth is widely used by both rural and non-rural physicians as well as nurse practitioners and physician assistants. The majority of health care professionals are comfortable using telehealth and find it beneficial.

Regardless of location, there is a significant divide in clinicians’ comfort with and interest in some health technologies, particularly remote patient monitoring (employing devices like glucose monitors, blood pressure cuffs, and pulse oximeters) and personal health technology (such as Fitbits, smartwatches, nutrition or fitness apps). Just 22% of rural health care professionals and 28% of their non-rural counterparts use patient monitoring. Less than one-third of rural and non-rural health care professionals use personal health technologies.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Rural Use</th>
<th>Non-Rural Use</th>
<th>Comfortable</th>
<th>Beneficial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Patient Monitoring</td>
<td>22%</td>
<td>28%</td>
<td>58%</td>
<td>65%</td>
</tr>
<tr>
<td>Personal Health Technology</td>
<td>29%</td>
<td>32%</td>
<td>66%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Health care professionals are also split when it comes to interest in using such technologies. Although 65% of rural health care professionals and 70% of non-rural health care professionals believe remote patient monitoring might benefit patients, only about half are interested in using such technology. Similarly, 50% of rural and 63% of non-rural health care professionals believe personal health technology can benefit patients, while just 46% of each group are interested in using it. And roughly one-fourth express digital apathy and have no interest in using either technology.
One exception to this division is electronic health records, which 90% of rural and non-rural health care professionals use, perhaps because electronic health records have been tied to reimbursement and may make it easier to manage their patients.

Leveraging the full benefits of all promising health information technology, for the sake of patients, will require addressing health care professionals’ concerns — from lack of technology literacy among patients to a lack of resources to train staff on how to use the technology.

Supporting avenues for health care professionals to develop a firm grasp of health technologies’ value and functionality is a critical first step — whether that’s setting up individual “self-training” sessions or running mock telehealth visits with other clinicians.

Once they’re completely comfortable, professionals can make better use of tools — like the ones aggregated by the National Institutes of Health’s Health Literacy Tool Shed — to assess the technology literacy of all their patients. If literacy is lacking, they can ask patients to identify a digitally savvy advocate who can facilitate the use of technology platforms. Members of the health care professional community, like community health workers, can lead sessions to teach those patients the basics of how to “do” telehealth visits or use remote patient monitoring moving forward, employing step-by-step iconography with screen grabs.
TOP PATIENT-BASED BARRIERS TO HEALTH TECHNOLOGY USE
ALL CLINICIANS

- low engagement
- lack of technology access
- lack of technology literacy
- lack of support system (e.g. family, community) to support use
- out-of-pocket cost
- lack of health literacy
- disinterest

TOP PRACTICE-BASED BARRIERS TO HEALTH TECHNOLOGY USE
ALL CLINICIANS

- staff comfort with technology
- training requirements (e.g. time investment)
- liability concerns
- current systems are considered adequate
- out-of-pocket cost
- work setting lacks technology infrastructure to support
- return on investment not worthwhile
Key Findings: How Health Care Professionals View Solutions

WHAT HEALTH CARE PROFESSIONALS SAY THEY NEED

To understand what health care professionals believe would improve the quality of care they provide, our survey posed two questions. When asked what general factors would most improve the quality of their care, rural health care professionals cited more staff, better community support systems, such as community health programs to help patients outside the doctor’s office, and patient financial assistance. Non-rural professionals similarly emphasized the need for more staff, but ranked smaller patient load as the second main factor while rural physicians ranked community support systems as second.

When asked separately what specific technologies or behaviors would most improve the quality of their care, rural health care professionals go back to the basics. Rural clinicians cited better or upgraded medical equipment as their greatest need, followed by faster and more reliable internet service and expanded use of electronic health records.

Survey respondents in rural and non-rural communities were also invited to elaborate further on what they needed to improve quality of care. Those who did so continued to identify factors that are largely outside their control, including more affordable or universal healthcare, lower medication costs, better insurance coverage for patients, and better health literacy.
Conclusion: A New Way Forward

Our findings underscore that persistent health equity gaps exist between rural and non-rural communities. To address the challenge posed by rural health disparities and overcome social determinants of health, we need a new interdisciplinary approach. Solutions must be localized, be agile, and deliver a variety of different tools for both clinicians and patients that can be leveraged across the broader team of health care professionals. That team includes physicians, nurses, pharmacists, allied health professionals, and innovative partnerships with community organizations to deliver care across the continuum.

This does not remove the need for policy changes that address the fundamental issues of healthcare, such as costs and an overall shortage of health care professionals in rural areas. In charting a more community-oriented path forward, leveraging partnerships and expanded care teams will prove critical.

Use of telehealth, as we learned, is part of care today in these communities and will continue to grow. Access to specialists through telehealth presents an opportunity in rural areas. But for that future to materialize, we need to ensure health care professionals and patients alike have the necessary resources at their disposal and are properly trained.

But, as our findings indicate, virtual care isn’t enough. Rural — and non-rural — patients lean on the support of in-person care as well. Given the distinct staffing and quality of care concerns in rural areas, it is essential that we broaden the care model to be more team-based with data sharing and use of local community health workers. Providing training on use of existing tools and standardizing evidence-based care can assist in closing gaps in the quality of rural care.

Successfully confronting these challenges also demands that we grow the number of health care professionals working in these areas through community clinics, mobile health clinics, retail health clinics, schools and virtual methods.

Community partnerships have the potential to address the social determinants of health and health stressors that go beyond the doctor’s office, such as access to quality food and opportunities for physical activities, health literacy, and transportation issues that can impede health outcomes especially in rural areas. In practical terms, this can include a community health worker teaching a patient to manage high blood pressure and use ambulatory blood pressure cuffs, or a pharmacist helping a patient to find low-cost medications, sharing reminders on immunizations or conducting a virtual visit to help a patient understand their health risks.

No single policy or action alone will fix healthcare, especially in rural areas. But together, a combination of new and innovative solutions can transform the delivery of care, improve the lives of the millions, and offer a measurable improvement in health to future generations.
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