

Proximity Does Not Equal Access: A Community-Based Assessment of Rural Primary Care

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INTRODUCTION

Access to primary care remains a persistent challenge in rural and frontier communities. Geographic isolation is only one part of that challenge. Workforce shortages and inadequate clinical infrastructure can limit the availability of providers, appointments, operating days, and services even when a clinic is physically present. Research has shown that rural healthcare access is multidimensional: rural residents may travel farther and have less access to providers offering evening or weekend hours, while studies of rural hospital closures demonstrate that changes in outpatient and primary care availability vary across communities and do not consistently offset the loss of hospital-based services.^{1,2,3} This study examined a rural primary care clinic in south-central Montana that faced relocation after losing its long-standing clinical space. Clinic utilization and community survey data were integrated to assess healthcare access, barriers to care, community needs, and residents' perceptions of the importance of local healthcare services.

BACKGROUND

Rural healthcare is especially important in Montana, where approximately 45% of residents live in nonmetro areas.⁴ In rural settings, limited infrastructure and staffing can compound geographic isolation: insufficient clinical space can constrain the availability of providers and services, while workforce shortages can leave available capacity underused. In 2024, a clinic operated by a federally qualified health center in south-central Montana was notified that it would lose the space it had subleased since

2008, putting continued local healthcare access at risk.⁵ Services were subsequently moved to a temporary, retrofitted modular facility. Project observations identified constraints involving examination space, accessibility, equipment, patient privacy, and service capacity. The move preserved a local point of care but did not provide the infrastructure needed to deliver desired services or expand service availability.

The study clinic's patient population extends beyond the community in which it is located. Nearby healthcare alternatives require approximately 21 to 35 miles of travel by road, based on author-calculated driving distances using Google Maps.⁶ However, geographic distance is only one dimension of access. Nationally, residents of the most rural counties traveled farther for care and were less likely than metropolitan residents to have a usual source of care offering evening or weekend hours (27% versus 39%).¹ These findings underscore the need to evaluate rural healthcare access in terms of both proximity and the actual availability of services.

The clinic's operational constraints reflect broader challenges in rural healthcare. Rural populations continue to experience disparities in healthcare access and outcomes compared with urban populations, reflecting the influence of geographic location, community characteristics, healthcare availability, and the financial vulnerability of rural healthcare organizations.^{1,7,8,9} Miller et al. documented changes in outpatient service availability following rural hospital closures,² while Bell et al.³ found that rural areas affected by closures did not experience greater proximity to FQHCs or rural health clinics than other rural areas. Therefore,



➤ maintaining a physical healthcare location does not necessarily ensure adequate capacity; rural healthcare access depends on both sufficient infrastructure and a workforce that can staff it consistently.

RESEARCH OBJECTIVES

This study evaluated the clinic's role in rural healthcare access and residents' perceptions of local care. The study objectives were to examine utilization and geographic reach, identify barriers and unmet needs, assess perceptions of service loss, and evaluate how operating capacity and payer mix may influence long-term sustainability.

METHODOLOGY

A mixed-methods design grounded in community-based participatory action research (CBPAR) was used. CBPAR emphasizes community knowledge, partnership, and shared decision-making to address locally defined concerns.^{10,11} De-identified clinic reports from 2024 and 2025 were reviewed alongside data from a cross-sectional community survey administered electronically via Qualtrics. Survey participation was encouraged through community organizations, local events, social media, and the primary care delivery team.

The survey dataset contained 528 submitted responses associated with 88 unique IP addresses. Shared household computers or networks may account for some repeated IP addresses, and responses from the same IP address were not identical across all questions, suggesting that some shared addresses may represent multiple respondents. Nevertheless, the number of unique individual respondents could not be independently verified, although the data included a minimum of 88 unique IP addresses. All submitted responses were retained for analysis.

Descriptive statistics summarized clinic utilization and survey responses. Visit-type distributions for 2024 and 2025 were compared using a chi-square test, and Pearson correlation was used to assess the relationship between household income category and distance traveled for care. For the clinic geographic analysis, patient-reported hometown was used to preserve anonymity. The distance from each patient's reported hometown to the study

community was estimated. Locations more than 100 miles from the study community were excluded to remove probable tourists, temporary visitors, and others whose hometowns were outside the clinic's geographic service area and therefore were unlikely to represent routine travel for care. Of 526 records with geographic data in 2024, 41 (7.8%) were excluded, leaving 485 for analysis. Of 607 records in 2025, 61 (10.0%) were excluded, leaving 546 for analysis.

RESULTS

Clinic utilization and operating capacity

The final statistical analysis identified 639 unique patients and 1,442 visits in 2024 and 618 unique patients and 1,330 visits in 2025, representing a 3.3% decrease in unique patients and a 7.8% decrease in visits. Despite this modest decline, utilization remained substantial following relocation. Approximately 10% of patients accounted for 36% of visits in both years, indicating continued reliance on the clinic among a subgroup of frequent users. Established-patient visits accounted for 60% of visits in 2024 and 57% in 2025, and same-day visits accounted for 18% and 21%, respectively. Together, established and same-day care comprised approximately 78% of visits in both years. Chi-square analysis found no statistically significant difference in the distribution of visit types between 2024 and 2025 ($p = .277$), indicating that the overall composition of clinic visits remained relatively stable between years.

The clinic was open for approximately 104 days in 2024 and 102 days in 2025, averaging 8.7 and 8.5 days per month, respectively. In 2025, monthly availability ranged from only 7 to 9 days. Approximately 63% and 61% of survey responses identified limited office hours and long wait times as moderately to extremely significant barriers, respectively. Open-ended comments called for more clinic days, additional staffing, and a larger permanent facility. The operational and survey findings suggest that having a local clinic did not consistently translate into timely access to care.

Geographic reach and travel

The clinic drew patients from across the surrounding rural region. Patient-level geographic files contained 526 records in 2024 and 607 in 2025. The study community accounted for





316 records in each year, representing 60% of records in 2024 and 52% in 2025; approximately 90% of records in both years originated from the study community and six nearby communities. For the distance analysis, hometowns located more than 100 miles from the study community were excluded to remove probable tourists, temporary visitors, and others residing outside the clinic's geographic service area. This excluded 41 records (7.8%) in 2024 and 61 (10.0%) in 2025, leaving 485 and 546 records, respectively, for analysis. Among included records, the estimated distance from the patient-reported hometown to the study community averaged 6.3 miles in 2024 and 8.3 miles in 2025, further demonstrating that clinic utilization was predominantly local and regional.

Driving distances from the study community to the nearest identified healthcare alternatives were calculated by the authors using Google Maps and ranged from approximately 21 to 35 miles.⁶ Among the 498 survey respondents who reported their typical travel distance for routine medical care, 22% (n = 111) traveled more than 30 miles, 19% (n = 97) traveled 21–30 miles, 16% (n = 79) traveled 11–20 miles, 22% (n = 108) traveled 5–10 miles, and 21% (n = 103) traveled less than 5 miles. Household income was reported by 497 respondents, including five who selected “prefer not to say.” Among respondents with valid paired income and travel-distance data (n = 487), Pearson correlation analysis found no significant relationship between household income category and reported distance traveled for routine medical care ($r = -0.051$, $p = .261$).

Clinic estimates measured the distance between each patient's reported hometown and the study community, whereas the survey asked about healthcare travel in general. These measures indicate a primarily local and regional clinic population as well as substantial travel for certain healthcare needs.

Payer mix, access, and community need

A payer summary analysis showed differences between the clinic's payer mix and the study community's insurance profile. Among 607 patients with payer data, private insurance accounted for 37% (n = 226) of clinic patients compared with approximately 59% of the community, a 22-percentage-point difference. Medicare accounted for 27% (n = 165) of

clinic patients compared with approximately 12% of the community, a 15-percentage-point difference, while Medicaid accounted for 19% (n = 114) of clinic patients compared with approximately 13% of the community, a 6-percentage-point difference. The proportions of uninsured or noninsured individuals were similar among clinic patients and the community, at 17% (n = 102) and approximately 16%, respectively.¹² Medicare and Medicaid together therefore accounted for 46% of clinic patients, compared with roughly 25% of the study community, a 21-percentage-point difference.

Because detailed insurance coverage by payer type was not available for the broader surrounding geographic area, payer-specific comparisons were limited to the study community, for which these data were available. The clinic serves patients from the broader rural region; therefore, these comparisons describe differences between the clinic patient population and the insurance profile of the study community rather than the clinic's entire service area. The greater representation of Medicare and Medicaid beneficiaries among clinic patients is consistent with the safety-net role of rural FQHCs.^{7,13}

Survey responses showed substantial concern about local healthcare. Approximately 60% (n = 299) indicated that having care within the community was moderately to extremely important, and more than 60% (n = 302) indicated moderate to extreme concern about the future of local healthcare. Approximately 42% (n = 211) agreed or strongly agreed that a lack of local healthcare would have severe consequences for residents. Among the 499 participants who responded to the question regarding ongoing health needs, 49% (n = 244) reported having an ongoing condition requiring management. Because survey items were not required, the number of valid responses varied across questions; percentages were calculated using the number of respondents who answered each respective item.

Perceptions of current access were mixed: 37% (n = 197) rated access as poor or very poor, 18% (n = 96) as average, and 41% (n = 206) as good or very good. Narrative responses highlighted needs for expanded primary care availability, dental and vision services, specialty services, additional staff, longer hours, and a larger permanent facility. Respondents frequently linked a permanent facility to increased



➤ service capacity rather than merely replacing the existing space.

Quality and community impact

Perceptions of care quality were divided. Thirty-six percent (n = 179) were somewhat or very dissatisfied, 41% (n = 205) were somewhat or very satisfied, and 23% were neutral; the mean quality score was 3.06. Narrative comments emphasized staff relationships, continuity, and a welcoming patient experience, suggesting that respondents' perceptions of care quality were influenced by community and relationships with clinic staff.

Respondents perceived local healthcare as contributing to community well-being beyond clinical outcomes. Respondents viewed access to healthcare as benefiting local businesses, property values, the recruitment of new residents, and community morale. Open-ended responses described reduced travel, improved health, support for older and vulnerable residents, and broader community and economic benefits.

LIMITATIONS

Clinic data were obtained through multiple de-identified extracts generated at different points during the study, resulting in some inconsistencies in patient and visit counts. Because this project spanned multiple years, preliminary utilization reports were generated before the end of the 2025 study period. In early 2026, the clinic reran reports to capture complete 2024 and 2025 data. The preliminary reports identified 529 patients and 1,272 visits in 2024 and 607 patients and 1,213 visits in 2025, whereas the final statistical analysis included 639 unique patients and 1,442 visits in 2024 and 618 unique patients and 1,330 visits in 2025. Geographic extracts contained 526 records in 2024 and 607 in 2025. Comparison of the preliminary and final extracts indicated that additional patients had been included in the updated data, particularly for 2024. These differences may reflect changes in clinic attribution, reporting definitions, filters, or extraction procedures; however, the specific cause could not be determined. Because the datasets were de-identified and did not contain unique patient identifiers, individual records could not be matched across extracts to reconcile these differences. Accordingly, each analysis used the denominator associated with

its respective data extract, and findings should be interpreted in light of these differences. The survey also has an important limitation. Although 528 response records were analyzed, they were associated with only 88 unique IP addresses. Multiple people may have responded from shared households or networks, but the number of unique respondents could not be confirmed. Because all records were included, percentages may overrepresent households or networks that submitted multiple responses and should be interpreted as patterns among submitted responses rather than as population estimates based on 528 independently verified residents.

Finally, clinic travel distance was estimated from each patient-reported hometown to the study community rather than from exact addresses or travel routes and thus reflects geographic reach rather than precise individual travel burden.

IMPLICATIONS FOR HEALTHCARE LEADERS

These findings indicate that rural primary care access should not be evaluated solely based on the presence of a clinic in a community. The combination of geography, operating availability, appointment capacity, workforce, infrastructure, service mix, and continuity of care determines whether care is meaningfully accessible. In this study, a limited operating schedule and community-reported access barriers illustrate how insufficient staffing and infrastructure can constrain care even when travel distances are relatively short.

The persistence of more than 1,300 visits in 2025 and the concentration of visits among returning patients suggest continued demand despite limited capacity. The payer mix also has implications for clinic sustainability: Medicare and Medicaid represented 46% of clinic patients compared with approximately 25% of the study community, while private insurance represented 37% of clinic patients versus approximately 59% of the community. This pattern is consistent with the clinic's safety-net role and warrants closer analysis of payer mix and long-term sustainability. The data do not establish why privately insured residents seek care elsewhere, but operating availability, service capacity, and





facility constraints warrant evaluation as possible factors.

Infrastructure and workforce planning are interdependent. Additional clinical space cannot improve access without personnel to staff it, and additional clinicians cannot expand capacity if facilities cannot accommodate them. Investments that expand both service availability and capacity could be evaluated for their effect on use by privately insured residents currently underrepresented among clinic patients while preserving access to care for Medicare, Medicaid, and uninsured patients. Whether a broader payer mix would improve financial performance should be evaluated using reimbursement, contribution margin, and capacity analyses rather than assumed based on payer status alone.

The discrepancies across clinic reports also demonstrate the need for stronger data governance. Healthcare leaders should standardize metric definitions and reconcile operational datasets before using them to inform decisions about capital investments, services, grants, or clinic closures. Survey methods should likewise include safeguards to verify unique participation when findings may influence major organizational decisions.

Maintaining a healthcare facility is not the same as maintaining access. Sustainable rural primary care requires sufficient infrastructure and workforce capacity to deliver services when communities need them. Operational data, paired with community perspectives, can help leaders identify where investments are most likely to strengthen access and sustainability.

NEXT STEPS

In the next phase, a Community Advisory Board will use the Year 1 findings to prioritize infrastructure and workforce options. Stakeholders will assess those options based on feasibility, impact, sustainability, and alignment with community needs, establishing community priorities for further assessment and implementation. ■



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NOTES

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