

Small Independent Primary Care Practices Serving Socially Vulnerable Urban Populations

Diane R. Rittenhouse, MD, MPH¹

Victoria Peebles, MSW²

Caroline Mack¹

Cindy Alvarez, MPH¹

Andrew Bazemore, MD, MPH²

¹Mathematica, Oakland, California

²American Board of Family Medicine, Washington, DC

ABSTRACT

PURPOSE This mixed methods study sought to describe the extent to which family physicians in urban communities serve socially vulnerable patients and to better understand their practices, their challenges, and the structural supports that could facilitate their patient care.

METHODS We conducted a quantitative analysis of questionnaire data from 100% of US physicians recertifying for family medicine from 2017 to 2020. We conducted qualitative analysis of in-depth interviews with 22 physician owners of urban, small, independent practices who reported that the majority of their patients were socially vulnerable.

RESULTS In 2020, in urban areas across the United States, 19.3% of family physicians served in independent practices with 1 to 5 clinicians, down from 22.6% in 2017. Nearly one-half of these physicians reported that >10% of their patients were socially vulnerable. Interviews with 22 physicians who reported that the majority of their patients were socially vulnerable revealed 5 themes: (1) substantial time spent addressing access issues and social determinants of health, (2) minimal support from health care entities, such as independent practice associations and health plans, and insufficient connection to community-based organizations, (3) myriad financial challenges, (4) serious concerns about the future, and (5) deep personal commitment to serving socially vulnerable patients in independent practice.

CONCLUSIONS Small independent practices serving vulnerable patients in urban communities are surviving because deeply committed physicians are making personal sacrifices. Health equity-focused policies could decrease the burden on these physicians and bolster independent practices so that socially vulnerable patients continue to have options when seeking primary care.

Ann Fam Med 2024;22:89-94. <https://doi.org/10.1370/afm.3068>

INTRODUCTION

Advancing health equity in the United States requires improved access to high-quality primary care, especially for socially vulnerable populations.¹ For the purpose of the present study, the term socially vulnerable was defined on the American Board of Family Medicine (ABFM) recertification questionnaire and includes patients who are uninsured, Medicaid insured, homeless, low income, non-English speaking, racial or ethnic minority, or part of an otherwise traditionally underserved group. Historically, primary care for the socially vulnerable has depended on a fragmented and heterogeneous safety net of public hospitals, clinics, community health centers, and other health care organizations defined only by their shared mission to provide care to people regardless of whether they can pay.^{2,3} Mission-driven primary care physicians in small independently owned practices have long contributed to the safety net,^{4,5} providing an important option for patients seeking care. Recent research suggests that many primary care physicians and patients still prefer small independently owned practice settings over larger system-owned settings,⁵⁻¹⁰ and evidence is growing that small and independent practices often have better patient care outcomes and deliver care at a lower cost than system-owned practices.¹¹⁻¹⁴

In recent years, the federal government has invested substantially in Federally Qualified Health Centers (FQHCs).¹⁵ In federal policy discussions, FQHCs have become synonymous with primary care for the socially vulnerable. Strong financial incentives and tailored technical assistance available to FQHCs from the federal government has led to the relatively rapid adoption of electronic health records and quality improvement processes as well as excellent performance on quality

Conflicts of interest: authors report none.

CORRESPONDING AUTHOR

Diane Rittenhouse

Mathematica

505 14th Street, Suite 200

Oakland, CA 94612

drittenhouse@mathematica-mpr.com

metrics.^{1,16-18} No such investment has been made in independent practices serving socially vulnerable patients. Meanwhile, payment policies, a pandemic, and other market forces have driven many independently owned practices to close or be acquired by hospital systems.^{19,20} If this trend continues, primary care options for socially vulnerable patients could become severely limited.

In this mixed methods study, we first conducted quantitative analysis of questionnaire data to determine the extent to which the largest US primary care specialty, family medicine, works in small independent urban practices serving a substantial proportion of socially vulnerable patients. We then interviewed 22 physicians who reported that most of their patients were socially vulnerable, conducting qualitative analysis of their responses to better understand their reasons for choosing small independent practice, the challenges they face, and what, if any, additional policy and structural supports might facilitate their success.

METHODS

Quantitative Data Analysis

We used data from the 2017-2020 ABFM Family Medicine Certification Examination registration questionnaire. The questionnaire is a mandatory component of examination registration and is completed 3-4 months before the examination date, creating a cross-sectional annual census of recertifying physicians, with a 100% response rate.²¹ The questionnaire asks about practice type and ownership, scope of practice, and practice features and is administratively linked to physician demographic and training characteristics. Our descriptive analysis relied on several questionnaire items including physician age, race/ethnicity, number of years in practice, languages spoken with patients, and the following 4 practice variables: practice address, type (independently owned or other), number of clinicians (1-5 or >5), and proportion of patients who were socially vulnerable (<10%, 10%-49%, and ≥50%). We categorized each physician's practice address as urban or rural using the US Department of Agriculture's Rural-Urban Continuum Code. Rural practice was defined as a Rural-Urban Continuum Code of ≥4.²² We focused on urban underserved communities to understand why independent practices persist in large urban environments with ample health system and multiprovider practice options that physicians could join or sell their practices to. We excluded rural practices. For 2017-2020, we computed descriptive statistics for the demographic and practice characteristics of the physician respondents.

Qualitative Data Analysis

Using the ABFM registration questionnaires, we identified 413 physicians from 2017 to 2020 who met the following inclusion criteria: (1) their principal practice site is independently owned, (2) they are the sole or partial owner, (3) their practice has 1-5 clinicians, (4) their practice is in an urban area, and (5) >50% of their patients are socially vulnerable.

The ABFM researchers e-mailed physicians in batches of 50, beginning with the 2020 cohort, at timed intervals soliciting their participation in the interview. They sent reminder e-mails and repeated this process until they contacted all 413 participants (Health Media Laboratory Institutional Review Board, protocol no. 1104MATH22; approved April 13, 2022). From May to October 2022, a physician researcher conducted 1-hour virtual interviews with 22 participants using a semistructured discussion guide, at which point data saturation was reached. Participants received \$200 on completion of the interview. Interviews were audio-recorded and transcribed for analysis.

Using inductive and deductive analysis techniques,²³ the research team developed a case study template to organize interview data by topics that aligned with the interview questions and additional topics that emerged during analysis.^{24,25} Four research team members were involved in analysis and were organized into 2 teams of 2. For each interview, 2 members of the research team independently reviewed the transcript and summarized data for each topic to minimize researcher bias. Researchers summarized the participant's perspectives and responses to interview questions for each topic, including relevant quotes from the transcript. The researcher pairs met to resolve any discrepancies and created 1 final case study template for each interview. These steps were repeated for all 22 interviews, or cases, before comparing across cases. Next, data from the case study templates were simplified and summarized into an Excel (Microsoft Corp) worksheet to compare across cases. The research team used the worksheet to identify key themes that emerged in multiple interviews and to count the number of interviews from which these themes emerged. All of the researchers discussed themes and findings to validate interpretations of findings.²⁶

RESULTS

In 2020, 19.3% of family physicians working in US urban areas served in small independent practices—a decrease from 22.6% in 2017. Approximately one-half (50.2%) of these physicians reported that >10% of their patients were socially vulnerable in 2020, an increase from 43.9% of those physicians in 2017.

Across the 4 study years, 9.9% of urban family physicians served in small independent practices and reported that >10% of their patients were socially vulnerable. The mean age for these physicians was 52.6 years, compared with 50.6 years for all urban family physicians.

Physician and practice characteristics for the 22 physicians who participated in our qualitative interviews differed slightly from the 413 physicians who met the quantitative inclusion criteria (Table 1). They typically had more years in practice, were more likely to be monolingual, and were less likely to be Asian or from the Northeast.

Our interviews revealed that many of the 22 participants focused their practice on serving a specific socially vulnerable

Table 1. Comparison of Qualitative Interview Participants to Sampling Frame

	Qualitative Interview Participants No. (%)	Sampling Frame No. (%)
Total	22	413
Years in practice		
< 5	1 (4.5)	6 (1.5)
5-10	2 (9.1)	82 (19.9)
11-20	7 (31.8)	182 (44.1)
21-29	7 (31.8)	89 (21.5)
> 30	5 (22.7)	54 (13.1)
Race		
American Indian or Alaska Native	0 (0)	3 (0.7)
Asian	1 (4.5)	95 (23.0)
Black or African American	5 (22.7)	82 (19.9)
Other	4 (18.2)	50 (12.1)
White	12 (54.5)	183 (44.3)
Ethnicity		
Hispanic or Latine	5 (22.7)	96 (23.2)
Non-Hispanic	17 (77.3)	317 (76.8)
Region ^a		
Midwest	4 (18.2)	80 (19.5)
Northeast	2 (9.1)	70 (17.1)
South	10 (45.5)	152 (37.1)
West	6 (27.3)	108 (26.3)
Principal practice size		
2-5 physicians	8 (36.4)	155 (37.5)
Solo practice	14 (63.6)	258 (62.5)
Care in other language		
No	9 (40.9)	121 (29.3)
Yes, other	3 (13.6)	130 (31.5)
Yes, Spanish	10 (45.5)	162 (39.2)

^a Three individuals in the sampling frame practiced in a US territory. They are not included in the Region counts.

population, such as African American patients, immigrants from China or Latin America, transgender people, seasonal farm workers or factory workers, or people with alcohol and/or drug addiction. When asked about their local or regional health care market, most of the 22 participants described large medical groups and practices owned by hospital systems. Some had FQHCs nearby, and almost none described other independent practices in the area.

Qualitative Themes

Theme 1. Addressing Access to Care and Social Determinants of Health

All participants emphasized that addressing social, cultural, and language issues is core to serving socially vulnerable patients and requires substantial physician and staff time. Physicians in these practices described additional time spent

helping patients by reading forms, seeking and scheduling referrals, visiting homes, and even driving patients home so they did not have to walk. Several offered extended evening or weekend hours or flexible schedules to accommodate the needs of the working poor or working children of geriatric patients.

When asked about challenges related to serving socially vulnerable populations, participants described the complexity of treating medical conditions in a small independent practice when it is complicated by social vulnerabilities such as racism, poverty, homelessness, and community violence. Participants also commonly mentioned social needs, such as the cost of medications and lack of affordable and reliable transportation, as major obstacles for their patients:

The 2 medicines [for diabetes] that are generic, we get through them pretty fast. Mostly where other novel, greater controlling, multiple-benefiting medicines have come out for diabetes—we can only tell [our patients] about it. They can't buy it. Insulin itself is crazy expensive.

Several participants conducted universal screening for social needs facilitated by advanced electronic health record capabilities or incentivized by eligibility for health plan quality bonuses. These participants considered universal screening to be informative, helping them provide better care; however, most participants lacked these incentives and did not universally screen for social needs because they knew that most of their patients were considered socially vulnerable, they knew their patients well enough to know their social needs, and they did not want to embarrass their patients by asking sensitive questions.

Theme 2. Minimal External Connection or Support for Addressing Social Determinants of Health

Participants noted receiving minimal support from external health care entities, community-based organizations (CBOs), and physicians in other specialties, making their patient care more challenging and time intensive. Many physicians interviewed did not belong to an independent practice association (IPA) or accountable care organization (ACO) and did not recognize any health care entities as contributing to their success as independent physicians or to their ability to meet the needs of socially vulnerable patients. Among the few participants who did highlight external support, several mentioned additional funding such as shared savings, quality incentive payments, and performance bonuses:

I think shared savings is a secret to making money in medically underserved neighborhoods. But that means you actually have to want to get to know your patients and figure out all the different social problems.

A few other physicians also mentioned that IPAs and other organizations such as clinically integrated networks helped them negotiate contracts, and 1 physician stated that a Medicare ACO was helpful for Medicare coding. Participants

expressed frustration with their lack of connection to CBOs that could help meet their patients' social needs such as translation or interpretation services, health education, transportation, food, and housing. Although most physicians described having some knowledge of CBOs, others reported frustrations including not having enough time to research CBOs, not having enough CBOs in their community, and a frequently shifting social service landscape resulting from inconsistent and insufficient funding of CBOs. Only 3 physicians noted having a formal referral process that included tracking or maintaining a database of CBOs.

A few physicians noted a lack of specialist physicians in their community who would accept Medicaid-insured or uninsured patients. In addition, a few physicians noted insufficient numbers of providers and counselors to help their patients with mental illness or behavioral health needs:

Unless the patient has tried to commit suicide a lot of times, it's hard to get a mental health provider to even see your patients....If you have kids with mental health issues, it's even more difficult.

Theme 3. Financial Challenges Threaten the Sustainability of the Practice and its Mission

Interviewees reported facing considerable financial challenges to maintaining an independent practice while serving socially vulnerable patients. Several noted that they were barely keeping their practice afloat or did not make a living wage. Participants pointed to several factors related to low revenue including inability to negotiate adequate commercial reimbursement rates as a small independent practice, very low Medicaid reimbursement rates, and caring for uninsured patients unable to pay out of pocket:

Medicaid only pays like \$10.00 or \$20.00 a visit. It's very difficult for us to be viable.

One strategy to maximize revenue was to employ dedicated billing staff to help maximize reimbursement whenever possible, but a few physicians stated that it was challenging to find and expensive to hire high-quality billing staff. Several indicated that they had to limit the number of Medicaid or uninsured patients they accepted to improve their revenue and sustain their practice. Several physicians lowered their personal income to sustain their practice:

I have had to make the decision that I would just make less money.

Several participants described other frugal strategies aimed at keeping expenses low including buying used equipment on eBay, working with an older or inadequate electronic health record system, hand-sewing patient gowns, performing administrative work themselves to keep overhead costs low, sharing office space with other clinicians, and delaying personal purchases:

I pinch a penny. If I need equipment, I look on eBay first. I hear some other doctor's retiring, going out of business, I'm there for the estate sale. We are cheap. We almost never buy anything new.

Theme 4. Concern About the Future for Independent Practice Physicians, Their Communities, and Patients

Whereas participants were generally positive about the future, many stating that they planned to be in their independent practice serving socially vulnerable patients in 5 years, they also expressed uncertainties and concerns. Older physicians reported not having retirement savings and doubted they could find a successor for their practice. Younger physicians faced challenges recruiting mission-driven clinicians and staff willing to work in their resource-poor environment. When asked where their patients would seek care if their practice closed, a few assumed that their patients could receive care at an FQHC, a couple said hospital-based clinics, and 1 said a free clinic in the region. A few other physicians were concerned about the lack of access to primary care in their community, suggesting that their patients might forgo care or rely on the emergency department:

There were 7 practices in the neighborhood in 1986. There's 1 now. So, I can tell you when people retire, nobody's there.

I'm very worried about this. I hope you can hear this because I feel like we've done a good job in providing services for a community which had almost none when I started, and now we have very good services available to people. But I'm concerned if I just fell off the planet tomorrow that there would be a big lack of services to this community.

Theme 5. A Deep Personal Commitment to Serving Socially Vulnerable Patients Drives Commitment to Independent Practice

Despite the challenges, participants were deeply committed to independent practice as the best setting for meeting the needs of socially vulnerable patients in their community:

Patients feel like [they're] going to a real doctor's office to see a real doctor rather than the poor clinic for the poor people. It gives them back a lot of dignity, and I do think that I'm able to address things that they haven't been telling other doctors.

The patient wants a private doctor who cares about them, who can listen to them and respond to them....They know they have big groups to go to, and they say, oh, no, no, we want you, we want you.

I have trust in the community. The way we treat the patients... everybody is not a number, but a person that I genuinely want to see....In all the other clinics...they are under the gun in terms of how many people they see. But this is my business, and I don't have to report to anybody but myself. That has allowed me to really connect with my patients.

Several physicians had left other practice settings because they did not have the autonomy to spend adequate time with their socially vulnerable patients to develop the relationships that are essential to building trust and providing high-quality care:

I did not stay there because I was seeing 40 patients a day, and

I didn't feel like I was able to do a good job because you're just rushing. So, at my practice, I give each patient half an hour...or 45 minutes—I'm spending time with them, I'm explaining things to them, we're building a relationship. And because it's my practice, I can schedule patients that way.

In fact, nearly all had the opportunity to be acquired by a larger system but preferred to stay independent. The decision to locate their office in an underserved community stemmed from a deep personal commitment and ran counter to marketplace incentives. For several, this commitment had its roots in their own family or community of origin. Others described a spiritual or political motivation:

My dad's family were sharecroppers, and my mom's family were tenant farmers. I come from a low-income background, and it matters.

I truly do identify as somebody who has...a spiritual commitment to this population and seeing it through for these folks because it's that important to me.

DISCUSSION

In the present study, we found that as of 2020, 9.9% of urban family physicians reported working in independently owned practices serving >10% socially vulnerable patients. Qualitative interviews with a subset of these physicians who reported that most of their patients were socially vulnerable showed that they spend substantial time addressing patients' access issues and social needs, often with insufficient support from other health care entities or CBOs. Despite low revenue and many obstacles, these physicians maintain a deep personal commitment to serving many socially vulnerable patients. Our findings suggest that independent primary care practices for socially vulnerable patients in urban communities are in peril; surviving practices depend on the creativity and personal sacrifice of primary care physicians and staff.

The present study is novel in providing a deep perspective and rich insights from independent primary care physicians serving socially vulnerable patients, perspectives traditionally underrepresented in the literature. The interprofessional mixed methods research team included 2 family physician researchers, a sociologist, and qualitative methodologist, who provided a range of expertise and perspectives. The work is not without limitations, including that our findings might not be generalizable to all US small independent physician practices. We intentionally focused on urban communities, but our findings might also be relevant to small independent practices in rural areas. In addition, we used a definition of socially vulnerable that was available in the national ABFM recertification questionnaire and combined many variables into a single definition. Future research could use a more nuanced definition. Finally, although study participants preferred a small independent practice, there is limited published research on patients' experience across different types of practices, particularly for socially vulnerable patients.

Policy Implications

Public policy focused on health equity could decrease the burden on primary care physicians and staff and bolster independent practices so that socially vulnerable patients continue to have options when seeking primary care. Progress will require action from multiple actors working individually and in collaboration and including policy makers and regulators, purchasers, payers, ACOs, clinically integrated networks, IPAs, and CBOs.¹ For example, new federal and state Medicaid policies could expand coverage for vulnerable populations and increase payments to primary care clinicians in independent practices, paired with incentives to build consortia arrangements with other independent practices that achieve economies of scale in purchasing services, health information technology, and additional team members. New primary care payment models²⁷⁻²⁹ could pay for primary care teams to build trust and assess and address social needs, and new workforce policies could support the recruitment, education, and training of mission-driven people with an enduring commitment to service for all roles on the primary care team. A federal Primary Care Extension Program could play an essential role at the community level by helping small independent practices with better coding and billing practices, technology implementation, quality improvement efforts, and connections to CBOs.³⁰

Policy makers and decision makers with the power to make change should not be daunted by the complexity of the problem. For example, the Purchaser Business Group on Health's California Quality Collaborative recently launched an initiative³¹ with partners to build quality improvement and advanced primary care capabilities across 3 IPAs and 30 independent practices serving Medi-Cal enrollees of color in Los Angeles County, with the goal of improving outcomes for patients served by those practices. Lessons could also be derived from other nations such as the work of Dr Graham Watt and the Scottish Deep End Project.³²

CONCLUSION

According to the National Academies of Sciences, Engineering, and Medicine, the strength and quality of the nation's primary care infrastructure is a public concern.³³ For small independent practices to survive as a part of the primary care delivery ecosystem for socially vulnerable populations, policy makers and decision makers must prioritize health equity, allocate more resources, and align incentives to support the work of deeply committed physicians and staff.

 [Read or post commentaries in response to this article.](#)

Key words: primary care; health equity; delivery of health care; independent practice; safety net

Submitted May 1, 2023; submitted, revised, October 6, 2023; accepted November 13, 2023.

Funding support: The American Board of Family Medicine Foundation

Acknowledgments: Thanks to James Wiley, PhD, for conducting quantitative data analysis; Melina Taylor, PhD, for helping to develop the interview discussion guide and obtain institutional review board approval, for overseeing recruitment of interview participants, and for providing feedback on a draft of the manuscript; Jenny Berelson for helping recruit interview participants; Zachary Morgan, MS, for quantitative data support; and Ann S. O'Malley, MD, MPH, for providing feedback on an earlier draft of the manuscript.

References

- Rittenhouse DR, O'Malley AS, Wesley DB, Manchanda R, Ament A, Genevro J. Primary care's essential role in advancing health equity for California. California Health Care Foundation. Published Mar 2023. Accessed Jan 2, 2024. <https://www.chcf.org/wp-content/uploads/2023/03/PrimaryCaresEssentialRoleAdvancingHealthEquity.pdf>
- Institute of Medicine. Lewin ME, Altman S, eds. *America's Health Care Safety Net: Intact but Endangered*. The National Academies Press; 2000.
- Forrest CB, Whelan EM. Primary care safety-net delivery sites in the United States: a comparison of community health centers, hospital outpatient departments, and physicians' offices. *JAMA*. 2000;284(16):2077-2083. [10.1001/jama.284.16.2077](https://doi.org/10.1001/jama.284.16.2077)
- Metzger LM, Andes S, Gans DN, Margolis JW. Measuring physician contribution to the healthcare safety net. *Bus Horiz*. 2010;53(2):199-209. [10.1016/j.bushor.2009.11.005](https://doi.org/10.1016/j.bushor.2009.11.005)
- Liaw WR, Jetty A, Petterson SM, Peterson LE, Bazemore AW. Solo and small practices: a vital, diverse part of primary care. *Ann Fam Med*. 2016;14(1):8-15. [10.1370/afm.1839](https://doi.org/10.1370/afm.1839)
- Rittenhouse DR, Olszuk T, Gerteis M, et al. Supporting and promoting high-performing physician-owned private practices: voices from the front lines. *Mathematica*. Published Oct 22, 2021. Accessed Jan 1, 2024. <https://www.ama-assn.org/system/files/mathematica-ama-white-paper.pdf>
- Moore G. Answers to your questions on solo, idealized practice. *Fam Pract Manag*. 2002;9(5):39-40, 43-46, 50.
- Iliff D. Solo practice: the way of the future. *Fam Pract Manag*. 2003;10(9):23-26.
- Chavez AM. Life in private practice. *J Am Board Fam Med*. 2021;34(5):1035-1037. [10.3122/jabfm.2021.05.210221](https://doi.org/10.3122/jabfm.2021.05.210221)
- Levine DM, Linder JA, Landon BE. Characteristics and disparities among primary care practices in the United States. *J Gen Intern Med*. 2018;33(4):481-486. [10.1007/s11606-017-4239-z](https://doi.org/10.1007/s11606-017-4239-z)
- Casalino LP, Pesko MF, Ryan AM, et al. Small primary care physician practices have low rates of preventable hospital admissions. *Health Aff (Millwood)*. 2014;33(9):1680-1688. [10.1377/hlthaff.2014.0434](https://doi.org/10.1377/hlthaff.2014.0434)
- Robinson JC, Miller K. Total expenditures per patient in hospital-owned and physician-owned physician organizations in California. *JAMA*. 2014;312(16):1663-1669. [10.1001/jama.2014.14072](https://doi.org/10.1001/jama.2014.14072)
- McWilliams JM, Chernew ME, Zaslavsky AM, Hamed P, Landon BE. Delivery system integration and health care spending and quality for Medicare beneficiaries. *JAMA Intern Med*. 2013;173(15):1447-1456. [10.1001/jamainternmed.2013.6886](https://doi.org/10.1001/jamainternmed.2013.6886)
- Kranz AM, DeYoreo M, Eshete-Roesler B, et al. Health system affiliation of physician organizations and quality of care for Medicare beneficiaries who have high needs. *Health Serv Res*. 2020;55(Suppl 3)(Suppl 3):1118-1128. [10.1111/1475-6773.13570](https://doi.org/10.1111/1475-6773.13570)
- Chang CH, Bynum JPW, Lurie JD. Geographic expansion of Federally Qualified Health Centers 2007-2014. *J Rural Health*. 2019;35(3):385-394. [10.1111/jrh.12330](https://doi.org/10.1111/jrh.12330)
- Rittenhouse DR, Wiley JA, Peterson LE, Casalino LP, Phillips RL Jr. Meaningful use and medical home functionality in primary care practice. *Health Aff (Millwood)*. 2020;39(11):1977-1983. [10.1377/hlthaff.2020.00782](https://doi.org/10.1377/hlthaff.2020.00782)
- Lindner S, Solberg LI, Miller WL, et al. Does ownership make a difference in primary care practice? *J Am Board Fam Med*. 2019;32(3):398-407. [10.3122/jabfm.2019.03.180271](https://doi.org/10.3122/jabfm.2019.03.180271)
- Ding D, Glied SA. Are Medicaid patients seen in office-based practices getting high-quality primary care? The Commonwealth Fund. Published Jan 30, 2023. Accessed Jan 2, 2024. <https://www.commonwealthfund.org/publications/issue-briefs/2023/jan/medicaid-patients-office-practices-high-quality-primary-care>
- Schwartz K, Lopez E, Rae M, Neuman T. What we know about provider consolidation. Kaiser Family Foundation. Published Sep 02, 2020. Accessed Jan 2, 2024. <https://www.kff.org/health-costs/issue-brief/what-we-know-about-provider-consolidation>
- Fulton BD. Health care market concentration trends in the United States: evidence and policy responses. *Health Aff (Millwood)*. 2017;36(9):1530-1538. [10.1377/hlthaff.2017.0556](https://doi.org/10.1377/hlthaff.2017.0556)
- Peterson LE, Fang B, Phillips RL Jr, Avant R, Puffer JC. The American Board of Family Medicine's data collection method for tracking their specialty. *J Am Board Fam Med*. 2019;32(1):89-95. [10.3122/jabfm.2019.01.180138](https://doi.org/10.3122/jabfm.2019.01.180138)
- Economic Research Service. Rural-urban continuum codes. Last updated Dec 10, 2020. Accessed Jan 2, 2024. <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>
- Patton MQ. *Qualitative Research and Evaluation Methods*. 4th ed. Sage Publications, Inc; 2014.
- Crowe S, Cresswell K, Robertson A, Huby G, Avery A, Sheikh A. The case study approach. *BMC Medical Research Methodology*. 2011;11:100. [10.1186/1471-2288-11-100](https://doi.org/10.1186/1471-2288-11-100)
- Yin RK. *Case Study Research: Design and Methods (Applied Social Research Methods, Vol. 5)*. 3rd ed. SAGE Publications Inc; 2009.
- Belgrave LL, Smith KJ. Negotiated validity in collaborative ethnography. *Qual Inq*. 1995;1(1):69-86. [10.1177/107780049500100105](https://doi.org/10.1177/107780049500100105)
- Phillips RL Jr, Ostrovsky A, Bazemore AW. Adjusting Medicare payments for social risk to better support social needs. *Health Affairs Forefront* blog. Published Jun 1, 2021. Accessed Jan 2, 2024. <https://www.healthaffairs.org/doi/10.1377/forefront.20210526.933567>
- Houston R, Smithey A, Brykman K. Medicaid population-based payment: the current landscape, early insights, and considerations for policymakers. Center for Health Care Strategies. Published Nov 2022. Accessed Jan 2, 2024. https://www.chcs.org/media/Medicaid-Population-Based-Payment-Current-Landscape-Early-Insights-and-Considerations-for-Policymakers_111622.pdf
- Phillips RL Jr, Ostrovsky A, Giffillan R, Price D, Bazemore AW. Accounting for social risks in Medicare and Medicaid payments. The Commonwealth Fund. Published Feb 1, 2023. Accessed Jan 2, 2024. <https://www.commonwealthfund.org/blog/2023/accounting-social-risks-medicare-and-medicaid-payments>
- Cohen DJ, Grumbach K, Phillips RL Jr. The value of funding a primary care extension program in the United States. *JAMA Health Forum*. 2023;4(2):e225410. [10.1001/jamahealthforum.2022.5410](https://doi.org/10.1001/jamahealthforum.2022.5410)
- Equity and quality at independent practices in LA County (2023-2025). Purchaser Business Group on Health. Accessed Apr 5, 2023. <https://www.pbgh.org/initiative/equity-quality-improvement-los-angeles>
- University of Glasgow. The Scottish Deep End Project. Accessed Jan 2, 2024. <https://www.gla.ac.uk/schools/healthwellbeing/research/generalpractice/deepend/about>
- National Academies of Sciences, Engineering, and Medicine. *Implementing High-Quality Primary Care: Rebuilding the Foundation of Health Care*. The National Academies Press; 2021.