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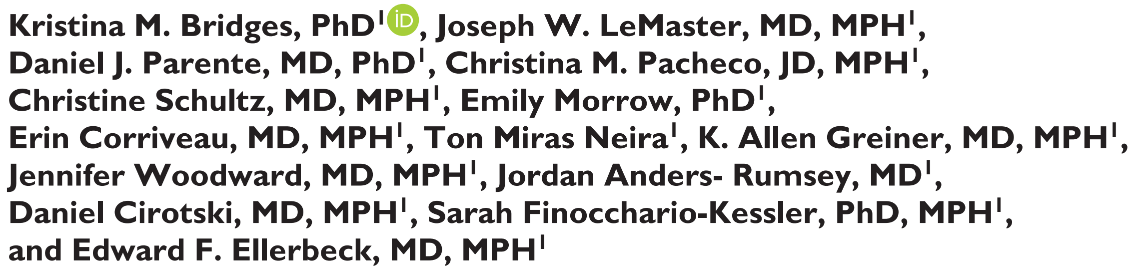
Assessing Social Needs and Engaging Community Health Workers in Underserved Kansas Counties: Insights From Primary Care Providers and Clinic Managers



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Abstract

Introduction: Rural and under-resourced urban communities face unique challenges in addressing patients' social determinants of health needs (SDoH). Community health workers (CHWs) can support patients experiencing social needs, yet little is known about how rural and under-resourced primary care clinics are screening for SDoH or utilizing CHWs. **Methods:** Interviews were conducted with primary care clinic providers and managers across a geographically large and predominately rural state to assess screening practices for SDoH and related community resources, and perspectives on using CHWs to address SDoH. Interviews were conducted by phone, recorded, and transcribed. Data were analyzed using thematic analysis. We completed interviews with 27 respondents (12 providers and 15 clinic managers) at 26 clinics. **Results:** Twelve (46.1%) clinics had a standardized process for capturing SDoH, but this was primarily limited to Medicare wellness visits. Staffing and time were identified as barriers to proper SDoH screening. Lack of transportation and affordable medication were the most cited SDoH. While respondents were all aware of CHWs, only 8 (30.8%) included a CHW on their care team. Perceived barriers to engaging CHWs included cost, space, and availability of qualified CHWs. Perceived benefits of engaging CHWs in their practice were: assisting patients with navigating resources and programs, relieving clinical staff of non-medical tasks, and bridging language barriers. **Conclusions:** Rural and under-resourced primary care clinics need help in identifying and addressing SDoH. CHWs could play an important part in addressing social needs and promoting preventive care if financial constraints could be addressed and local CHWs could be trained.

Keywords

social determinants of health, community health workers, rural, under-resourced, primary care physicians, health equity

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Introduction

Primary health care can have an important impact on the health of a community and the patients in that community, but health may be impacted even more by patients' underlying social determinants of health needs (SDoH).[1] These SDoH can undermine primary care efforts; primary care

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organizations have advocated for routine screening for SDoH[2,3] and a variety of tools have been developed to assist providers in screening for SDoH.[3] There is, however, limited information regarding screening practices for SDoH in rural and under-resourced urban settings.

Screening alone, however, is insufficient and clinics need to have access to resources to address any social needs identified by screening. One strategy for addressing these needs is through the integration of community health workers (CHWs) in primary care.[4] CHWs are frontline public health workers who are trusted members of their communities.[5] These individuals can promote preventive care and connect patients with available community resources and help patients develop action plans to alleviate unmet social needs.[5] CHWs have been proposed or utilized in rural and under-resourced settings to target a variety of health outcomes, including cardiovascular disease,[6] cancer screening[7-9] and cancer survivorship.[10]

It is unclear how rural and under-resourced primary care clinics are utilizing CHWs and what barriers may preclude more widespread use of CHWs to address SDoH. The recent COVID-19 pandemic disproportionately affected rural and under-resourced urban areas and demonstrated how diseases impact individuals without critical social resources and support. In 2021, the Communities Organizing to Promote Equity (COPE) project, funded by the CDC, was launched in 20 high-risk counties across Kansas (17 rural and 3 urban).[11,12] The COPE project was designed to mitigate the adverse impact of COVID-19 on under-resourced communities by mobilizing community members and supporting local CHWs. As part of this project, primary care practices have served as both a resource and a source of referrals for at-risk members of the community. To better understand opportunities for maintaining, improving, and expanding services, we undertook the qualitative study described here to identify how practices were screening for SDoH, provider and clinic manager perspectives of patient needs, available community resources, and use of CHWs to address SDoH.

Methods

We used a purposive sampling method to identify interviewees from rural or under-served counties in Kansas who were either a primary care provider or a clinic manager. Using a combination of e-mail (directly to provider most often) and telephone calls (answered by front desk staff typically), we reached out to 158 primary care practices that were either participating in COPE activities, a member of the Kansas Patients and Providers Engaged in Prevention Research (KPPEPR) research network, or hosting medical students on rural rotations during this study (March 2022 to March 2023). The person who received the email or phone call was asked to complete the interview (providers) or identify a provider or clinic manager to complete a 20-min telephone interview addressing the practice's experiences and perspectives on addressing SDoH and engaging CHWs. Each clinic call was initiated with a standard script and a request to speak to either a provider or clinic manager. If the provider or clinic manager was available to respond to the interview at the time, the interview was performed immediately. If prospective participants were interested but were unavailable then, an interview was scheduled later. If no answer was received, a voicemail was left when possible. Three attempts were made to email or call each clinic. No response after 3 attempts was considered no interest in participation.

Instrument Design

To guide our qualitative methodology, we used the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist.[13] The research team developed the interview guide with input from both primary care providers and CHWs. The interview questions addressed 6 major topics: 1) SDoH screening; 2) Resources available to address SDoH; 3) SDoH present in the patient populations; 4) Current utilization of CHWs; 5) Perceived barriers to utilizing CHWs; and 6) Current or potential perceived impact of CHWs on the clinic (Appendix 1). The interview questions were pilot tested with 2 primary care providers to refine the questions and to determine the interview length (the final version required 20 min to complete).

All interviews were conducted via phone by a female fourth-year medical student who was not previously acquainted with the interviewee (CS or JA-R). Interviewers were trained by qualitative researchers on the study team. Interviews were recorded using the iPhone Voice Memo application and transcribed using Descript software or Speechpad online transcription service.

Each transcript was reviewed by the study team to check for potential errors by the transcribing software. Transcripts were not reviewed by participants. All interview responses were coded independently by 2 of 4 coders (KB, EM, CS, or DC). The coding process was conducted in 2 stages. First, the 6 topic areas covered in the interview guide were used as a priori parent codes to group the interview responses by topic area. Next, child codes emerged within each of those parent code categories to further group responses by more refined categories. These codes were reviewed and confirmed by consensus between the coders. Codes were then aggregated across interviews and thematic analysis was used to identify similarities within the data; cross-code memos were used to summarize and synthesize key themes and sub-themes.[14] The final themes are described at length, below.

Each county where a participating clinic was located was assigned to 1 of 9 Rural-Urban Continuum (RUCC) Codes

according to the US Department of Agriculture's 2013 database.[15]

This project was designated "not human subjects research" by the authors' University Institutional Review Board.

Results

We completed interviews with 12 providers and 15 clinic managers representing 26 primary care clinics including 4 Federally Qualified Health Centers, 11 Federally designated Rural Health Clinics, and 11 private practices. According to rural-urban continuum codes (RUCC),[16] most participating clinics serve patients in non-metropolitan (RUCC codes 4–9) counties (Table 1).

Table 2 contains the interview findings, including emergent sub-themes and representative quotes.

We asked respondents about their SDoH screening process and whether they use a validated tool or form. Respondents from 12 clinics (46.2%) described a formal screening process (use of a standardized tool by most or all providers in the clinic), 5 (19.2%) indicated that their clinic had an informal or not routinely used process, and 9 (34.6%) clinics had no screening process. The most common screening tool mentioned was the use of questions required to complete the Medicare annual wellness visits; these questions were only utilized for Medicare patients. Some reported using questions that were built into their electronic medical record but could not report if these questions were evidence-based.

Respondents from 12 clinics identified reliable transportation as the most common SDoH need among patients. Even if a respondent's clinic had access to transportation services, transportation was still difficult for their patients. Some respondents stated that their towns had extremely limited public transportation options and if there were other options, they were small programs operated by church volunteers. Respondents shared that lack of transportation contributed to frequently missed appointments, incomplete laboratory and radiology testing, and unfilled prescriptions. Additionally, lack of transportation also meant that many patients could not attend specialty clinic appointments as many of those appointments require long distance travel to larger cities.

Other stated needs were lack of funds to afford medication (8 respondents), overall lack of finances (3 respondents), inability to pay for utilities (2 respondents), and lack of childcare (1 respondent). The needs that were identified under the umbrella of "lack of finances" included housing costs (3 respondents), food (2 respondents), and clothing (1 respondent).

While discussing patients' SDoH, respondents also discussed available clinic and community resources. The availability of resources varied among the clinics with some having well-developed clinic and community resources and others not having many. There was a wide range of knowledge about what resources were available, and some respondents did not seem to know what their community offered. Respondents (n = 13) stated that their clinics relied heavily on social workers and care managers to find available resources for patients. Some clinics provided social support with home visits, benefit enrollment assistance, maternity programs, food pantries, clothing closets, drug and financial assistance programs, and early detection programs. A few respondents shared that patients are directed to the local FQHC or sliding scale clinics in town if they feel that their needs are beyond their clinic can offer.

Table 1. Clinic Characteristics.

Characteristic	Clinics (n = 26)
Clinic type	n (%)
RHC	11 (42.3)
FQHC	4 (15.4)
Private	11 (42.3)
RUCC	
1	2 (7.7)
2	2 (7.7)
3	2 (7.7)
4	3 (11.5)
5	4 (15.4)
6	2 (7.7)
7	9 (34.6)
8	0
9	2 (7.7)
Person surveyed[a]	
Provider	12 (44.4)
Clinic manager	15 (55.6)
Formal SDoH screening process	12 (46.2)
Utilized CHW at clinic	8 (30.8)

Abbreviations: CHW, community health worker; FQHC, federally qualified health center; RHC, Rural health clinic; RUCC, Rural Urban Continuum Code; SDoH, social determinants of health.
[a]At one clinic, both a provider and clinic manager were surveyed.

We asked clinic respondents about their use of CHWs, specifically, if they had ever worked with CHWs from the community or if they had any among their staff. Respondents at all 26 clinics were familiar with the role of a CHW; 8 respondents had utilized CHWs in their clinic and 19 had not. When asked what barriers they faced to utilizing CHWs, many voiced similar responses: the practice was not able to afford them; they did not have space in the clinic for them; or they were not able to find someone with the skillset of a CHW to employ.

Based on emerging data from early respondents, we began asking respondents if they wanted to be contacted by the COPE CHW supervisor to receive further information about opportunities to work with CHWs. Seven of the 8

Table 2. Interview Topics, Themes, Subthemes and Representative Quotes.

Topic	Themes	Sub-themes and representative quotes
Social Determinants of Health	Screening	*"They just started at the hospital but not in our clinic, not sure the tool used."* *"So, my clinic itself does not have like a, "Yes, this is what we're going to do." I, myself, yes, I have an initial face sheet that I go over with the patient to see where they're at, access to medications, what their insurance is, what their living situation is."* *"We don't have a lot of capacity to do that here. We do have our triage nurses that help a lot with the community and getting that information out to patients, but we just don't have any social workers, anything like that, that can really take that next step."*
	Patient needs	Access to Transportation *"Transportation is huge in Kansas."* *"We have many patients who struggle to get to their appointments with us because they don't have transportation."* *"We have company vehicles that our staff use, you know, to help with transportation, but it's just not enough for what the need is truly. I would say that transportation is our biggest barrier."* *"I think one of the hardest ones is transportation. Out here it's not like you just call an Uber."* Finances *"So, some of what we see right now is that we have a large number of people who are having a harder time with their day-to-day expenses, things like groceries and gas are a real challenge. People are making big changes in how they choose to spend their money, what money they make."* *"Medication costs continue to go up, as does cost of food and everything else. So if you're gonna pick one or the other, you're probably not gonna take meds."*
	Resources	Availability of Resources *"There is not much here at the facility, I'm trying to think of what even, I can't think of what we have now in the community."* Community and Clinic Resources *"Nothing organized . . . maybe Meals on Wheels. We do depend on the Council on Aging for some services for our older populations. We have a food pantry. But, in general, I would say it's pretty limited."* Clinics' Knowledge of Resources *"Sometimes it's much more affordable for them if they get their care through one of the FQHCs in town, so sometimes we are answering their need by telling them to go somewhere else."*
Community Health Workers (CHW)	Utilization	Desire for CHW Utilization *"A CHW would be able to do a lot of the things that I want to do for my patients, but I just simply don't have time, kind of that, like, wraparound care. Instead of me feeling like I'm going up against a brick wall to be able to get my patient what she needs, give those very, like, tangible sort of services like taking a form to someone's house to help them get food."* Barriers to Utilization *"We have no idea where to find people. I mean, there is just, there's just nobody. It's our biggest challenge right now"* *"We have currently somewhere upwards of 12 to 15 open positions in our small rural facility so any employee alone would be wonderful. The community health worker seems like a dream right now."* *"Number one is cost, and then number two is availability of somebody that would be able to do a service like that here."* Impact for Clinics with Current CHW Utilization *"Oh my gosh, we rely on them so much . . . to have someone there to help listen and understand what their needs are . . . I mean, they help us with so many things. Our patients have built relationships with them as well. I just, I just can't say enough about them. We utilize them all day long."* *"Our CHW can just drop what they're doing and meet the patient where they're at because if they're willing to bring [their social needs] up, but then we say, 'Oh, we'll get back to you in a couple of weeks'. Well, by that part, you know, who knows if we'll get in touch with them again. We miss that opportunity to help sometimes."*
	Impact	Potential Benefits of CHW Utilization *"They would be able to make patients more aware of resources, make us more aware of resources, take some of the stress off of our care managers. They do everything they can, but it gets to be a lot. So, anyone who is aware of resources and programs that we might not know of or just even have the ability to set our patients up with those would be very helpful."*

respondents asked expressed this desire and were contacted and provided with a flyer detailing how CHWs could help their practice (Supplemental Appendix 2).

We asked about the potential benefits of using a CHW, or what impact their previous utilization of CHWs had had on their clinic or patient population. Many agreed that having a CHW on staff would be beneficial and shared that a CHW could help identify resources, assume the work of assessing SDoH so that clinical staff could focus on the clinical duties specific to their professional training, assist with language interpretation, and help patients navigate resources and assistance programs.

Respondents working in clinics that currently or previously utilized CHWs had positive things to say about their interactions and were grateful for their expertise; and felt that CHW's could have a significant impact on their practice, patients, and community. This discussion elicited some unique and pragmatic ideas from respondents, including a recommendation to train and engage high school or college students as CHWs—providing those interested in a healthcare career a unique opportunity to learn about assisting patients and navigating resources.

Discussion

This research provided insight into whether and how rural and under-resourced clinics in Kansas are screening for and addressing SDoH needs, as well as clinic staffs' perceptions about the use of CHWs. We found that resources and screening processes varied widely across counties in this mostly rural state, with many clinics reporting a deficit of resources or using SDoH screening processes that did not meet current recommendations.[17] All respondents understood that their patients faced many difficulties related to SDoH-; however, many could not offer resources to mitigate patients' needs. Common sentiments among many providers and clinic managers were frustration and stress. Many clinics face serious staffing shortages. Staff dedicated to helping patients with SDoH (social workers and care managers) were overwhelmed and overworked. The COVID-19-19 pandemic exacerbated the SDoH needs of patients while taxing already limited social service resources. Providers and other respondents were enthusiastic about using CHWs during clinical processes and to connect their patients to resources to address SDoH. Most, however, did not see a path forward to funding CHW services in their clinical context. Nonetheless, those who had used CHWs in their clinics described their value in addressing the SDoH of their patients.

Extensive research in multiple countries has provided evidence for the efficacy of CHWs working in primary care settings to improve health and healthcare outcomes.[18-24] A number of systematic reviews have established that CHW-mediated interventions are effective (compared to usual care) at increasing adherence to cancer screening, improving chronic disease self-management,[18,19] promoting smoking cessation,[20] encouraging immunization and breastfeeding, aiding in the diagnosis and treatment of selected infectious diseases,[21] and reducing hospitalizations,[22] and emergency department visits.[23] Educational interventions by CHWs can improve patient behaviors, whereas navigational interventions can improve access to services.[24] Despite this overwhelming evidence, patient benefits will not be realized if CHWs are not integrated in primary care delivery.

Similar to our findings, other primary care providers have expressed the desire to incorporate CHWs into their care teams.[25] Primary care providers from a practice in California with embedded CHWs reported that CHW involvement added flexibility and continuity to patient care, and enhanced providers' understanding of SDoH, which proved valuable during the COVID-19 pandemic when social needs and resource deficits grew.[26]

Lack of funding for CHWs in the current reimbursement environment was a major obstacle for hiring CHWs at many of the clinics in this study. Several US states' Medicaid programs have recently expanded payment for CHW reimbursement in primary care. Traditionally in the US, reimbursement for CHW staff efforts has not been available, which has caused clinicians to rely upon programmatic grant funding to support those efforts or to coordinate with non-profit organizations when referring patients to CHWs to assist with patient education or care coordination. As of July 1, 2022, 9 US states (CA, IN, LA, MN, ND, NV, OR, RI, and SD) have authorized payments to primary care practices under their state Medicaid for services provided by CHWs.[27] This topic is particularly relevant for Kansas as the state Medicaid program is re-considering its plan for CHW reimbursement to provide direct payments for CHWs supervised by physicians and other licensed healthcare providers. Since community-based non-profit organizations currently employ the majority of CHWs in the state, an explicitly stated allowance for supervision by other provider types, specifically registered nurses, or others within community-based organizations, is needed to avoid excluding a significant portion of the CHW workforce serving Medicaid clients.

While providers expressed an interest and identified a need for assistance to cope with patient's SDoH given their staff shortages, most of our respondents expressed seemingly insurmountable barriers (finances, clinic space, and personnel shortages) to integration of CHWs in their own context. Our data make it clear that most primary care providers we interviewed do not have the resources needed to incorporate CHWs into their practice teams or engage them in providing comprehensive primary care. In addition, it is not clear that reimbursement levels for CHW-provided services will be sufficient to cover CHW salaries; rural practices already facing financial difficulties may therefore have difficulty in taking on this added expense. Particular

attention should be given to ensuring adequate payment rates to support employers to provide a living wage to CHWs.

This study was limited to the small pool of respondents willing to be interviewed. A larger sample, including more clinics who have used CHWs, might have provided additional insights. The interview questions were not pilot tested with clinic managers, which may have impacted the richness of the information gained from those interviewees. Additionally, this study was conducted in a state in which reimbursement for CHWs relies currently on grant or other private funding and respondents had little experience with alternative funding strategies. Future studies should explore the impact of CHWs before and after implementation of new funding models and assess their effectiveness to assist primary care providers in similar rural contexts to address unmet SDoH.

Conclusions

A variety of SDoH, particularly transportation, have a large impact on rural and under-resourced primary care practices and their patients. Screening for SDoH in these practices in Kansas is inconsistent and hampered by a lack of resources (eg, CHWs) to address SDoH when they are found. The interviews suggest that more extensive use of CHWs in rural primary care clinics might help providers in those clinics better meet their patients' SDoH needs, but practices will need training and financing strategies to better integrate these services into their practices.

Appendix 1. Survey Questionnaire.

Social Determinants of Health

1) Do you have a formal process to screen patients for social determinants of health as part of your clinic visit?
1a) If yes, what type of tool do you use to screen? What is it?
2) If patients identify they have a need, what services are in place to help them?
2a) If yes, who? What is their role and qualifications?
3) Who does the practice refer to for social needs of patients?
4) What are the major social determinants of health needs among your patients?

Community Health Workers
Definition: CHWs are members of the community that help patients connect with services such as transportation, access to medications, interpretation services, care coordination, and health education.

5) Does your practice have any experience working with community health workers from the community?
5a) If yes, describe?
5b) If not, skip 6
6) Does your practice have any community health workers on staff?
6a) Is so, how have the CHWs impacted your practice?
6b) If not, how might your practice benefit from utilizing CHWs?
6c) If yes, do you have community health workers in your practice to help address social determinants of health?
7) Would having access to someone like this be helpful to your practice?
7b) If yes, what specific issues might you want such a person to address?
9) Has your practice considered hiring community health workers?
9a) If yes, what barriers does the clinic face when it comes to hiring and using community health workers?
10) COPE connects clinics to potential opportunities to work with CHWs. Would your practice like to be contacted by our CHW manager for further information?
10a) What would be the best way for a CHW to contact your clinic?

Abbreviations

CHW, community health worker; FQHC, federally qualified health center; RUCC, rural urban continuum code; SDoH, social determinants of health.

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Declaration of Conflicting Interests

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Prior Presentation

Primary care clinic managers' and clinicians' understanding of COVID-19 vaccination practices, available community resources, and familiarity with community health workers in underserved Kansas counties. (Oral Presentation) American Public Health Association 150th Annual Meeting. Boston, Massachusetts. November 2022.

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Supplemental Material

Supplemental material for this article is available online.

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