

Barriers and Facilitators to Managing Social Care in the Digital Era Among Michigan Health Centers

ANTHONY M. PROVENZANO, PHD, MS, MSW, MPA; FAIYAZ SYED, MD, MPH; JODYN E. PLATT, PHD, MPH; GRETCHEN A. PIATT, PHD, MPH; MARK S. ACKERMAN, PHD; AYSE BUYUKTUR, PHD; AND MICHAEL S. KLINKMAN, MD, MS

ABSTRACT

Objectives: Health care organizations are taking a greater role in providing social care. Federally qualified health centers (FQHCs) lead these efforts, leveraging investments in technology to manage patient care and information. This study describes the challenges of meeting patient social needs and presents new opportunities for engaging in community-wide activities to address care and quality.

Study Design: Sociotechnical systems theory was applied in qualitative research.

Methods: Eleven of the 40 Michigan FQHCs were recruited into the study. Twenty-five semistructured interviews were conducted with practice leadership, clinicians, and staff to explore information technology and other resources used for managing social care. Analyses of the interviews were used to organize infrastructural and technological factors that emerged into key themes.

Results: Interviews revealed that Michigan FQHCs participated in community-wide activities to develop value-based care practices and quality initiatives using shared data and technology. Study participants revealed that their community-level involvement facilitated improved data management, digital information sharing, and quality improvement efforts. Ultimately, however, limited housing services and inadequate behavioral health care created challenges in connecting patients with essential treatments and social supports.

Conclusions: Developing information infrastructure and new technological capabilities to manage patient care and population health is necessary but insufficient. Major investments in both technology and human capital are critical to effectively provide social care and improve quality. Building on the evidence gained from FQHC partnerships and data activities offers public officials and health care leaders insight into the local resources and policy changes that are needed.

The American Journal of Accountable Care. 2024;12(2):9-15

Health departments and social services have long recognized social risks (eg, food insecurity, housing instability, unemployment), providing necessary interventions to individuals and communities. Within the health care system, screening for social risks and responding to patients' social needs (eg, food, housing, and employment) are growing priorities.¹ Information technology (IT) is increasingly being used to document social needs² and coordinate services often outside of traditional medical care. The changes occurring in practice are in part prompted by new payments and quality measures used to improve patient care and population health.³ This shift to provide social care (eg, food assistance, housing services, job support) has helped to redefine the roles of public health and social services as critical agents in health care delivery.

Despite the evolving landscape, there are challenges to integrating social care into medical practice⁴ and managing care delivered in communities. A better understanding of the infrastructural and technological factors is necessary to effectively guide policy and practice changes. Efforts to study health care partnerships and activities at the community level are more apparent among government programs and demonstration projects. Federal agencies and researchers are examining new payment and care models used to meet health-related social needs.⁵

Investigations of population health initiatives led by public and private payers are also demonstrating the efficacy of using IT to screen for social risks, refer patients to community services, and identify health plan superutilizers by accounting for different social factors.^{6,7} However, studies systematically examining the local infrastructure and data activities that have emerged are needed. To our knowledge, this is the first study of its kind to investigate health care partnerships and community resources used to provide social care among a statewide network of federally qualified health centers (FQHCs).

Nationally, FQHCs represent cornerstones of public safety net systems in more than 12,000 communities.⁸ They are influential in shaping local policies to improve access to quality medical care. Historically, FQHCs have met complex patient needs through partnerships with health departments and social services.⁹ In recent years, FQHCs have leveraged their IT investments to adopt social care data collection standards supported by their national network of 1370 health centers.¹⁰ Increasingly, FQHCs are using electronic health record–embedded screening tools and data analytic software to identify social risks and manage care needs.¹¹ The role and involvement of FQHCs in actively developing local information infrastructure and sustainable social care models offer insight and provide a setting in which to examine the barriers and facilitators to delivering high-quality care in the digital era.

In this study, an academic–community research partnership guided the investigation of local resources, workforce, and IT adopted by Michigan FQHCs and partner organizations. The purposes of the study were to (1) offer policy makers a better understanding of the investments in local infrastructure needed and (2) present health care leaders with opportunities to support social care integration and respond to local health needs. The study describes the advantage of participating in community-wide activities and identifies which social care needs are most difficult to meet. Investigators drew on sociotechnical theory to reveal the human/organizational and technological elements of the local information infrastructure and care management activities developed in Michigan communities.^{12,13} A sociotechnical systems model was used to categorize community priorities, IT adopted, and workforce developed to manage social care and address quality.¹⁴ Results were presented to answer these research questions: (1) What are the facilitators of participating in community-wide activities to deliver high-quality care? and (2) What are the barriers to meeting patient social care needs in communities?

METHODS

This is a qualitative study of community-wide activities and resources used to deliver social care. Investigators defined *social care* as screening for risks, diagnosing care needs, and providing at least 1 of the following services: food assistance, housing, transportation, financial assistance, legal assistance, employment, or educational support. Screening, diagnostics, treatment, and referrals for child maltreatment, intimate partner violence, substance use disorder, and mental health needs were categorized by investigators as care activities used to address patient safety and well-being.

Setting and Site Selection

Sampling was used to recruit FQHCs and participants through the academic–community partnership with the Michigan Primary Care Association and its network of primary care practices in Michigan. The investigation was limited to FQHCs in Michigan (N = 40). The study was determined to be exempt from review by the University of Michigan Institutional Review Boards. All Michigan FQHCs were eligible to participate in the study. FQHCs were recruited through an online webinar in June 2021. Webinar attendees consisted of quality directors and chief operating officers from all 40 Michigan FQHCs. Purposive sampling was used to correctly identify the appropriate FQHC employees within each practice to enroll in the study. Gift cards (\$25 each) were provided to study participants for their interview participation. Informed consent was received from each participant interviewed.

Semistructured Interviews

A semistructured interview guide was created to explore the infrastructural and technological factors related to meeting patient care and community health needs among Michigan FQHCs and their partners. Sittig and Singh's sociotechnical systems model for studying IT adoption and use in adaptive health care settings informed the questions asked.¹⁴ All 8 dimensions of the model—hardware and software; clinical content; people, workflow, and communication; human–computer interface; organizational policies and procedures; culture; external rules, regulations, and pressures; and system measurement and monitoring—were used to conceptualize the characteristics of community-wide activities, partnerships, resources, and IT adopted.¹⁵ The 22-question interview guide ([eAppendix](#) [available at [ajmc.com](#)]) was developed, iterated, and tested through the academic–community research partnership. Interviews were conducted and recorded using video conferencing. Study participants were asked about the challenges of meeting social needs in the community and partnerships formed to improve care coordination and develop IT infrastructure.

Data Analysis

A qualitative rapid assessment process (RAP) was used to develop a data extraction template tool based on the sociotechnical model described. RAP is an intensive, team-based qualitative inquiry using data triangulation, iterative analysis, and additional data collection to quickly develop an understanding of a situation, setting, or phenomenon from an insider's perspective.¹⁶ RAP is a demonstrated and efficient method for time-sensitive health services research used in evaluations of applied clinical informatics across settings (eg, hospitals, primary care).¹⁷ The data extraction

template tool was tested by the investigators for consistency and reliability before transcript coding commenced. The coding occurred until data saturation was achieved and disconfirming data were no longer identified. Data matrices were derived from the extraction template tool and used to capture coded information regarding socio-technical domains from the transcripts. Domain and subdomain summary profiles were then created to analyze the multilevel factors, barriers, and facilitators associated with setting and community differences. A thematic analysis was completed to identify factors and themes related to building local capacity and meeting patient care needs.

RESULTS

Practice leadership, clinicians, and staff (n=25) from 6 urban and 5 rural health centers were enrolled in the study. **Table 1** lists study participants by position type, title, and practice setting. Results from an analysis of the interviews revealed overarching themes: advantages of participating in community-wide activities and challenges of meeting patient care needs in communities.

Advantages of Participating in Community Activities to Address Social Care and Quality

Several themes emerged from the investigators' discussion with FQHCs about their involvement in community-wide activities to address social care, quality, and IT infrastructure (**Table 2**). This section describes the benefits of participating in these activities.

Theme 1: Community workforce development initiatives supported FQHCs. FQHCs often discussed care coordination improvement efforts and community capacity building as key local initiatives to meet patient social needs. Directors and care managers described the strengths of partnerships and shared resources as being advantageous to their involvement in community-wide activities. A quality manager stated, "There is a collaboration among care managers from different practices in the area through a value-based program. And so they are big on sharing resources..." A quality director explained, "There was a speaker from Michigan State University through the Integrated Health Partnership [who] talked specifically about social determinants of health [SDOH]." A community health worker said, "Most of the local coalitions write grants." A chief operating officer stated, "Some of our partners have applied for grants to help with communication and technology."

Theme 2: Community-wide activities sustained public investments and FQHC involvement. During our interviews with FQHCs involved in State Innovation Model projects, designed to test care models and IT solutions, we

Table 1. Study Participants by Position Type, Title, and Practice Setting

Position type	Urban (n = 14)	Rural (n = 11)
Executives	<ul style="list-style-type: none"> • CEO • Chief operating officer • Executive director 	Chief of behavioral health and integrated services
Quality staff	<ul style="list-style-type: none"> • Director of quality improvement • Quality manager • Quality RN • Quality support specialist 	<ul style="list-style-type: none"> • Quality improvement director (2) • Director of quality
Practice managers	<ul style="list-style-type: none"> • Clinic manager • Manager of patient services 	Enabling services manager
Program staff	<ul style="list-style-type: none"> • Youth and legal program director • Behavioral health and social work supervisor 	<ul style="list-style-type: none"> • Population health manager • Population health supervisor
Care managers	<ul style="list-style-type: none"> • Public health worker • Community health worker 	<ul style="list-style-type: none"> • RN care coordinator manager • Community health worker
Outreach staff	Resource specialist	Outreach supervisor
IT support	N/A	EHR support manager

EHR, electronic health record; IT, information technology; N/A, not applicable; RN, registered nurse.

learned that those federal investments were sustained. Various executives described how these projects had evolved to address data and care quality. An executive director explained, "The committee has members from all over the community. They've spent a lot of time creating the SDOH needs form to ensure it fits. [That included] the infrastructure to pull the data and gather the information, and then discussions around how we can do better care management, how we can make sure that we are reaching the people [who] need to be reached...are we missing any gaps in care, that type of thing. And so they continue to meet, and it just keeps evolving to identify current needs and resources in the area that can help fill those needs."

Theme 3: FQHC community participation supported care and quality activities. During interviews with FQHC leadership and staff, they commonly discussed health plan and practice performance measures used to incentivize community

Table 2. Advantages of Participating in Community-Wide Activities to Manage Social Care and Address Quality

Theme	Facilitator	Quote
Community workforce development initiatives supported FQHCs.	Local care management efforts and community capacity-building grants	"Some of our partners have applied for grants to help with communication and technology." (chief operating officer)
Community-wide activities sustained public investments and FQHC involvement.	Federal demonstration projects were sustained through local efforts to address data and care quality.	"The committee has members from all over the community. They've spent a lot of time creating the SDOH needs form to ensure it fits. The infrastructure to pull the data and gather the information, and then discussions around how we can do better care management, how we can make sure that we are reaching the people that need to be reached. Are we missing any gaps in care, that type of thing. And so they continue to meet, and it just keeps evolving to identify current needs and resources in the area that can help fill those needs." (executive director)
FQHC community participation supported care and quality activities.	Alternative payment models supported FQHC community collaboration and quality activities.	"We have value-based contracts with [multiple health plans]. We also meet different HEDIS quality measures to build in incentives to pay for staff." (CEO)

FQHC, federally qualified health center; HEDIS, Healthcare Effectiveness Data and Information Set; SDOH, social determinants of health.

engagement and quality activities. A care manager described the financial incentives: "For Meridian [health plan,] we are working on gaps in care reports, high emergency department use, and [SDOH]. And the Healthy Michigan Plan through Medicaid provides patients transportation." One quality director discussed revenue-generating opportunities through their statewide network of FQHCs: "[Michigan Primary Care Association] has contracted with Molina [health plan] on disparities of care, and payments are tied to whether you reduce some of these gaps." A CEO summarized their financial strategy: "We have value-based contracts with [multiple health plans]. We also meet different HEDIS [Healthcare Effectiveness Data and Information Set] measures to build in incentives to pay for staff."

Challenges of Meeting Patient Social Care Needs in Communities

This section describes resource shortages, service gaps, and IT limitations (Table 3).

Theme 1: lack of community resources and services.

During the interviews conducted with FQHC leadership and staff, nearly everyone discussed a lack of resources in their respective communities. Limited housing options were identified as a local issue throughout Michigan. A community health worker stated, "Probably the biggest unmet need is housing resources." A care manager further explained how patients go untreated because of unavailable resources and compounding social problems: "If there's no housing available and the people don't have jobs, it does get really difficult to match them up with local resources." A chief operating officer from another practice

even characterized the lack of housing as a major catastrophe: "We have a real housing need. I would call it a crisis."

Theme 2: inconsistent care and scarce funding. In interviews with FQHC directors and managers, they repeatedly discussed barriers to meeting patient needs in the community. Erratic funding levels, changing eligibility criteria, and limited program capacity were frequently mentioned. A quality manager described poor communication as a reason why patients don't get the treatment they need: "The biggest gap has always been that follow-up piece." A care manager further explained the root problem: "You're not going to find an organization that can help every single person." A quality director offered additional insight: "You get to these periods of time where there's just not anything available." A program director summed it up best: "There is too much competition for scarce funding in the nonprofit world."

Theme 3: inadequate behavioral health care. In the interviews with FQHC leadership, managers, and care staff, study participants described inadequate behavioral health care throughout Michigan. A social worker from an urban practice said, "There's no psychiatrist. It's very difficult to get psychiatry, even in an area like Ann Arbor or Troy [affluent communities in Michigan]." A clinic manager discussed the challenges of providing quality care and offered reasons why patients go untreated: "There have been poor patient experiences with providers due to short staffing and only a few alternatives available." A director of behavioral health discussed local resource and service gaps, saying, "Lack of recovery support programs and psychiatric services presents barriers for our patients trying to access care in the community."

Table 3. Challenges of Meeting Patient Medical and Social Care Needs in Communities

Theme	Barrier	Quote
Lack of community resources and services	Limited affordable housing and insufficient options for the unhoused	"We have a real housing need. I would call it a crisis." (chief operating officer)
Inconsistent care and scarce funding	<ul style="list-style-type: none"> • Erratic funding levels, changing eligibility criteria, and limited program capacity • Limited local funds to support community programs and services 	<ul style="list-style-type: none"> • "The biggest gap has always been that follow-up piece." (quality manager) • "You're not going find an organization that can help every single person. Everybody is limited on budget and [it is a] first-come, first-serve sort of thing." (care manager) • "Funding and upfront monies are structured oddly. You get to these periods of time where there's just not anything available." (quality director)
Inadequate behavioral health care	Quality care is compromised, and patients go untreated due to poor care and staffing shortages.	"Lack of recovery support programs and psychiatric services presents barriers for patients trying to access care in the community." (director of behavioral health)
Limited technology and community expertise	Lack of information infrastructure and technological expertise	<ul style="list-style-type: none"> • "Systems don't interact at all." (care manager) • "A lot of things are still done on paper." (chief operating officer)

Theme 4: limited technology and community expertise. During the interviews with FQHC leadership and staff, study participants repeatedly described a lack of technology and community expertise as challenges to meeting patient care needs. This was particularly evident among FQHCs and their social care partners throughout Michigan. A quality director explained, "The way they document their [electronic health record] does not facilitate the information crossing over and interfacing with our [electronic health record] system." A population health supervisor asserted, "They don't have an electronic form yet, so they are only doing the paper form." A chief operating officer also stated, "A lot of things are still done on paper." A care manager echoed the IT limitations: "Systems don't interact at all."

DISCUSSION

This study explored the infrastructural and technological factors related to managing social care and addressing quality among Michigan FQHCs and partner organizations. Results showed that FQHC involvement in community-wide activities supported social care data management, digital information sharing, and quality improvements. Michigan FQHCs benefited from the structure of these engagements, forming partnerships and collaborations to address resource shortages, improve care coordination, and monitor quality. During the interviews with FQHC leadership and staff, they

discussed the advantages of participating in community-wide activities and opportunities that emerged, such as leveraging grant awards received locally to improve care management and develop information infrastructure. Consistent with the findings of Hughes and colleagues, this investigation confirmed that more research on health care and community initiatives is crucial to better understand and support IT adoption and partnership data activities.⁵ Findings from this study revealed that shifting to a focus on quality care and data sharing sustained investments (eg, federal demonstration projects) made in local IT infrastructure and secured funding for social care and IT adoption when resources were scarce. But even with new payment systems to incentivize the provision of high-quality care, the lack of local programs and services created barriers for Michigan FQHCs to meet patient social needs in communities.

This study examined the broader societal and structural issues that often overwhelm community organizations and public safety net systems. Study results showed that patients of FQHCs experienced insufficient housing and homeless services, inadequate psychiatric care, and limited substance use disorder community programs. This was evident in both urban and rural practices, creating barriers to addressing patient behavioral health and social care needs. Findings suggested that major investments in public health infrastructure and social services may be more critical than investing in medical care

when developing policies for improving quality and outcomes.¹⁸ Furthermore, a lesson learned from the Health Information Technology for Economic and Clinical Health Act, enacted as part of the American Recovery and Reinvestment Act of 2009,¹⁹ was that incentivizing IT adoption and data use is not enough to change practice behavior.^{4,20} Policies that incentivize new partnerships and shared data activities are imperative to support local IT adoption and other practice changes.

The study results also pointed to significant resource and workforce issues, such as staff shortages and turnover. During interviews with FQHC leadership, almost everyone discussed competing priorities and staffing challenges as major barriers to developing financial incentive programs. Nonetheless, Michigan FQHCs found ways (eg, creating new reimbursements and performance measures) to generate additional revenue for the provision of social care. Study findings offered evidence that these efforts afforded FQHCs the resources to hire staff for managing patient care and monitoring quality efforts. Data showed that most Michigan FQHCs leveraged fee-for-service and value-based contracts to support a wider range of social care services and partnership activities. Study results confirmed that contracts with payers were used to address health disparities and improve access to care among homeless populations and other vulnerable groups FQHCs did not serve.

Identifying social needs in medical practice is only the tip of the iceberg for health care organizations. Results of this study revealed challenges that go well beyond linking patients to social care. With an affordable housing crisis, chronic homelessness, mental health parity issues, and a growing opioid epidemic, local health departments and social services are not capable of meeting patient social needs alone. It will be difficult to provide social care and improve quality without major investments in local resources, workforce development, and social interventions necessary to address these larger societal and structural issues. This study's findings underscore the importance of investing in behavioral health care, housing programs, and other social services to effectively meet patient care needs in communities. Health care involvement in community-wide activities creates opportunities to develop resources, social care services, and IT. Still, new policy priorities are imperative to scale critical human capital and key IT infrastructure.

Limitations

The scope of the study was limited to the perspectives of FQHCs, which revealed biases in the study findings. There was a general sense that the interview respondents held other sectors of care responsible for the lack of local resources, services, and IT. Future studies should identify the barriers and facilitators to

managing social care from the perspectives of government and community agencies. A better understanding of the challenges and opportunities from their vantage point will better inform policies and investments made to incentivize IT adoption for these critical partners. The investigation was conducted during the COVID-19 pandemic, and IT research was not a high priority for FQHCs. This impacted site recruitment and subject willingness to participate in the interviews, therefore affecting the sample size and generalizability.

CONCLUSIONS

This study revealed challenges that go well beyond linking patients to community resources and services. The findings underscore the importance of investing in public health infrastructure and social services to address the broader societal and structural issues impacting outcomes. Data demonstrated that FQHC participation in community-wide activities offered structure and processes for developing resources to improve care and quality. New policy priorities are imperative to scale critical services and IT infrastructure that support local care management and data activities.

Author Affiliations: Department of Learning Health Sciences (AMP, JEP, GAP) and Department of Family Medicine (MSK), University of Michigan Medical School, Ann Arbor, MI; now with AMP Consulting (AMP), North Bethesda, MD; Michigan Primary Care Association (FS), Lansing, MI; Department of Electrical Engineering and Computer Science, University of Michigan School of Information (MSA), Ann Arbor, MI; Michigan Institute for Clinical and Health Research, University of Michigan (AB), Ann Arbor, MI; now with Center for Health and Research Transformation, University of Michigan (AB), Ann Arbor, MI.

Source of Funding: None.

Author Disclosures: The authors report no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

This article was prepared by Dr Provenzano in his personal capacity and not in his current role with the Substance Abuse and Mental Health Services Administration. The opinions expressed in this article are the author's own and do not reflect the official view of HHS or the US government.

Authorship Information: Concept and design (AMP, FS, JEP, GAP, AB, MSK); acquisition of data (AMP, FS, JEP, MSK); analysis and interpretation of data (AMP, FS, GAP, MSA, AB, MSK); drafting of the manuscript (AMP, FS, MSA, MSK); critical revision of the manuscript for important intellectual content (AMP, FS, AB, MSK); statistical analysis (AMP, MSK); provision of study materials or patients (AMP,

FS); administrative, technical, or logistic support (AMP, FS); and supervision (AMP, FS, JEP, GAP, MSA, MSK).

Send Correspondence to: Anthony M. Provenzano, PhD, MS, MSW, MPA, AMP Consulting, 5411 McGrath Blvd, Apt 1119, North Bethesda, MD 20852. Email: anthony2515@gmail.com.

REFERENCES

- Glied S, D'Aunno T. Health systems and social services—a bridge too far? *JAMA Health Forum*. 2023;4(8):e233445. doi:10.1001/jamahealthforum.2023.3445
- Arons A, DeSilvey S, Fichtenberg C, Gottlieb L. Documenting social determinants of health-related clinical activities using standardized medical vocabularies. *JAMIA Open*. 2018;2(1):81-88. doi:10.1093/jamiaopen/ooy051
- Rawal P, Cloke A, Zawistowich L. Making alternative payment models work for patients. *Health Affairs Forefront*. August 13, 2021. doi:10.1377/forefront.20210805.193727
- Gold M, McLaughlin C. Assessing HITECH implementation and lessons: 5 years later. *Milbank Q*. 2016;94(3):654-687. doi:10.1111/1468-0009.12214
- Hughes DL, Mann C. Financing the infrastructure of Accountable Communities for Health is key to long-term sustainability. *Health Aff (Millwood)*. 2020;39(4):670-678. doi:10.1377/hlthaff.2019.01581
- RTI International. *State Innovation Models Round 2: Model Test Annual Report Three*. CMS; 2017. Accessed June 11, 2020. <https://downloads.cms.gov/files/cmmti/sim-rd2-test-ar3.pdf>
- Alley DE, Asomugha CN, Conway PH, Sanghavi DM. Accountable Health Communities—addressing social needs through Medicare and Medicaid. *N Engl J Med*. 2016;374(1):8-11. doi:10.1056/NEJMp1512532
- Community Health Center Chartbook 2020*. National Association of Community Health Centers; 2020. Accessed April 24, 2021. <https://www.nachc.org/wp-content/uploads/2020/01/Chartbook-2020-Final.pdf>
- Community Health Centers Past, Present, and Future: Building on 50 Years of Success*. National Association of Community Health Centers; March 2015. Accessed June 17, 2021. https://www.nachc.org/wp-content/uploads/2023/03/NACHC_50th-Report.pdf
- Cottrell EK, Dambrun K, Cowburn S, et al. Variation in electronic health record documentation of social determinants of health across a national network of community health centers. *Am J Prev Med*. 2019;57(6)(suppl 1):S65-S73. doi:10.1016/j.amepre.2019.07.014
- Gold R, Bunce A, Cowburn S, et al. Adoption of social determinants of health EHR tools by community health centers. *Ann Fam Med*. 2018;16(5):399-407. doi:10.1370/afm.2275
- Hughes TP. *Networks of Power: Electrification in Western Society, 1880-1930*. Johns Hopkins University Press; 1983.
- Edwards PN. Infrastructure and modernity: force, time and social organization in the history of sociotechnical systems. In: Misa TJ, Brey P, Feenberg A, eds. *Modernity and Technology*. MIT Press; 2002:185-225.
- Sittig DF, Singh H. A new sociotechnical model for studying health information technology in complex adaptive health-care systems. *Qual Saf Health Care*. 2010;19(suppl 3):i68-i74. doi:10.1136/qshc.2010.042085
- Strauss A, Corbin J. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. 2nd ed. Sage Publications Inc; 1998.
- McMullen CK, Ash JS, Sittig DF, et al. Rapid assessment of clinical information systems in the healthcare setting: an efficient method for time-pressed evaluation. *Methods Inf Med*. 2011;50(4):299-307. doi:10.3414/ME10-01-0042
- Brown DR, Hernández A, Saint-Jean G, et al. A participatory action research pilot study of urban health disparities using rapid assessment response and evaluation. *Am J Public Health*. 2008;98(1):28-38. doi:10.2105/AJPH.2006.091363
- Bradley EH, Canavan M, Rogan E, et al. Variation in health outcomes: the role of spending on social services, public health, and health care, 2000-09. *Health Aff (Millwood)*. 2016;35(5):760-768. doi:10.1377/hlthaff.2015.0814
- Health Information Technology for Economic and Clinical Health Act, Pub L No. 111-5, 123 Stat 115 (2009). Accessed January 8, 2022. <https://www.congress.gov/111/plaws/publ5/PLAW-111publ5.pdf>
- Update on the Adoption of the Health Information Technology and Related Efforts to Facilitate the Electronic Use and Exchange of Health Information*. Office of the National Coordinator for Health Information Technology; 2014. Accessed November 10, 2021. https://www.healthit.gov/sites/default/files/rtc_adoption_and_exchange9302014.pdf

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan's Federally Qualified Health Centers

Partners: MPCA & UofM

INTERVIEW PROTOCOL

A. ZOOM HEALTH INTERVIEWS WITH MICHIGAN'S FEDERALLY QUALIFIED HEALTH CENTERS (N=11)

1) Who would we be interviewing?

We are interviewing staff from Federally Qualified Health Centers (FQHCs) that have agreed to participate in an interview. Interested staff were identified through the previously administered Health Information Technology (HIT) capabilities survey. Interviewees will range in staff roles from direct care, data and quality improvement to practice management and executive leadership. It is conceivable that we interview multiple staff from FQHCs who have expressed interest in an interview to gain a much broader perspective of the health center's ability to address social needs and manage population health.

2) What do we want to learn from these interviews?

- a. What clinical-community collaborations, technology and resources have been useful in meeting patients' behavioral health and social needs? Why?
- b. What are staffing and technical barriers to connecting with behavioral health and social care service providers? Why?
- c. What has been challenging surrounding the integration of behavioral health/social care and SDOH data into practice? Why?
- d. How has your health center navigated different levels (coordinated, collaborative, integrated) of cross-sector care?
- e. What data infrastructure, policies and governance structures has your CHC developed and implemented to collect, track, exchange, and monitor data in partnership with service providers, and local and state agencies?

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan’s Federally Qualified Health Centers

Partners: MPCA & UofM

B. INTERVIEW GUIDE

Abbreviated Consent: Have you seen the consent form? Do you agree to be in the study?

Interviewer Note: If the participant has not seen the consent form. Read the full consent below:

Thank you for your willingness to participate in this study. This interview is being conducted to learn more about your health center’s activities to address community-wide barriers to SDOH and responding to the social needs that exist outside of traditional care. We will discuss your health center’s active involvement in capacity building and data-driven activities to improve care coordination and better manage chronic disease and population health.

Your participation in this interview is voluntary. We expect it will take about 50-minutes to complete. The interview is being recorded and transcribed for data collection and analysis. We plan to publish what we learn from this study; Yet no identifiable personal or health center information will be revealed without your permission.

We understand it may take more than one person to successfully answer all the interview questions. Therefore, we might invite additional staff to participate in a similar interview. Everyone who participates in an interview will receive a \$25 Visa gift card for their participation. By taking part in the interview today, you recognize this is a research study and agree to participate.

[START VIDEO RECORDING: Select “Record to the Cloud”]

We will start the interview by discussing what your health center does to manage the social needs of patients.

Interviewer Note: All interviewees will be able to answer the questions in this section.

1. Please describe what your health center has done to identify the social needs of patients?

Screening, community referrals, risk stratification, Azara data analytics

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan’s Federally Qualified Health Centers

Partners: MPCA & UofM

2. Describe what your health center has done to connect the social needs of patients to services?

Who are the staff involved? What are their roles and responsibilities? Who are the partners involved?

Process. Planning/execution are random or systematic; priority driven; strategic planning and execution; focus on care that is more easily integrated; provider availability; capacity for responding to care; action supported by technology

3. Are there social needs of your patients that are unmet?

What social needs? What services would you like to provide to meet these needs? What service providers would you like to work with? Why?

4. What challenges has your health center encountered trying to establish partnerships to meet these unmet [respondent identified] social needs?

5. Which external service provider(s) does your health center work well with to meet patient social needs?

If you could spotlight your partnership with one external service provider, who would that be? Why?

Housing & Homelessness, Food Assistance, Child Care Assistance, Financial Assistance, Transportation, Child Welfare, Domestic Violence, Criminal Justice, Employment, Educational Support, Mental Health, Substance Use Disorder, Maternal and Infant Health

Now, we will discuss your partnership(s) with [respondent-specified] provider(s).

Interviewer Note: All interviewees will be able to answer the questions in this section.

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan's Federally Qualified Health Centers

Partners: MPCA & UofM

6. Please describe your health center's partnership(s) with [specified] provider(s)?

Your partnership activities? Your health center's roles & responsibilities? Your partners' roles & responsibilities? Other participating organizations' roles & responsibilities? Can you tell me about how leaders are involved? Who? Their roles and responsibilities?

7. How did your health center come to partner with [specified] provider(s)?

What motivated your health center to partner with [specified] provider(s)?

Priorities, initiatives, and resources. Your health center's priorities? Partner/community priorities? Funding? Technology? Quality improvement initiatives, Person-centered medical homes, HRSA/NACHC/MPCA

External policies, regulations or mandates, financial incentives, medical guidelines and/or recommendations.

What Federal, state, or local policies influenced your health center's decision to partner with [specified] providers? Reimbursement schedules? Public or benchmark reporting? Medical guidelines? or Other national initiatives?

8. What are the barriers and facilitators to having a successful a partnership with [specified] provider(s)?

What is working? Major milestones? Key accomplishments? What is not working?

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan’s Federally Qualified Health Centers

Partners: MPCA & UofM

Now, we will discuss the data infrastructure (technology, data systems, standards & policies) used to support your work with [specified] providers.

Interviewer Note: This section is appropriate for the following staff roles: data and quality improvement, practice management, and executive leadership. Most direct care and supervising staff will also be able to answer these questions. If not, skip to the next section.

9. What information do you share with your [specified] partner(s)? How do you share it?

Technology used, data systems & standards, data reporting guidelines, performance measures, MiHIN SDOH standards: PRAPARE, Accountable Health Communities, other

10. Describe the rules and procedures that guide data [access and] sharing with [specified] providers?

How do you protect your data? Who permits access to [specified] data? Who controls the use of the [specified] data? Where did the rules and/or procedures originate? HRSA? 42 CFR Part 2 – substance use disorder. Why?

Organizational [governance] structures, policies, and procedures. Formal or informal partnership agreements, clinic policies and procedures, data access permissions, data use agreements, lead agency model with data stewards, committees, community assemblages, data networks or consortiums, government quality measures

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan’s Federally Qualified Health Centers

Partners: MPCA & UofM

11. What are the barriers and facilitators to using the technology and data systems [data infrastructure] that support your work [specified] providers?

Organizational priority, leadership engagement, staff technical expertise, changes to workflow, supportive learning climate, data standards, data policies, data use agreements, access and sharing permissions, patient privacy

Now, we will discuss your health center’s use of the information exchanged with [specified] providers.

Interviewer Note: This section is appropriate for interviewees in the following staff roles: data and quality improvement, practice management, and executive leadership. Most direct care and supervising staff will also be able to answer these questions. If not, skip to the next section.

12. Describe what your health center has done with the patient data from your [specified] provider(s) to improve care coordination?

Populate the EHR; Make referrals; Create cohorts of patients for targeted interventions; monitor patient progress; Use for team treatment and service planning; predictive analytics

13. Describe the barriers your health center has faced internally using the patient data and information obtained from your [specified] providers?

*Organizational priority, **leadership engagement**, staff technical expertise, limited practice resources, challenging workflow changes, technological issues and limitations*

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan’s Federally Qualified Health Centers

Partners: MPCA & UofM

Now, we will discuss your health center’s use of the patient information exchanged with your [specified] providers to improve panel and population health management.

Interviewer Note: This section is appropriate for the following staff roles: data and quality improvement, practice management, and executive leadership. Some direct care and supervising staff will also be able to answer these questions. If not, skip to the next section.

14. Describe the technological challenges to using the data exchanged with your [specified] providers to improve panel and population health management?

Technological expertise, vendor and platform selection, funding for technology, lack of common data standards, incentives for data sharing and technology adoption

15. Describe the workforce challenges to using the data exchanged with your [specified] providers to improve panel and population health management?

Professional knowledge and expertise, community capacity, internal staffing, practice workflow, opinion leaders, leadership engagement, technical expertise. Are you having difficulties hiring people with technological or technical expertise?

Now, we will discuss your health center’s participation in SDOH initiatives and activities to help shape policies, laws, regulations, and investments (public & private) in the community related to population health.

Interviewer Note: This section is appropriate for the following staff roles: data and quality improvement, practice management, and executive leadership. Some direct care and supervising staff will also be able to answer these questions. If not, skip to the next section.

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan’s Federally Qualified Health Centers

Partners: MPCA & UofM

16. Describe partnerships, groups, networks, or data consortiums your health center is involved with to promote policies and activities that facilitate SDOH data exchange and interoperability?

Who are the key stakeholders? How are the groups structured? What are group priorities? What are the group goals? Initiatives? Community activities? Major milestones? Key accomplishments? MiHIN & MQIN

Now, we will discuss your health center’s involvement in activities that promote new financing strategies and other capacity building initiatives to address health and social needs.

Interviewer Note: This section is appropriate for the following staff roles: data and quality improvement, practice management, and executive leadership. Some direct care and supervising staff will also be able to answer these questions. If not, skip to the next section.

17. Describe payment models or other financing strategies implemented by your health center or in your community to address social needs and manage population health?

Payment models that incentivize collaborations; CQI initiatives; Community assessment of assets & resources; State Innovation Model (SIM) & Community Health Innovation Region (CHIRs)

18. Describe practice models or workflow changes implemented by your health center or in your community to address social needs and manage population health?

Team planning; new care coordination models; CHW program – value-based contracts for SDOH; care delivery

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan’s Federally Qualified Health Centers

Partners: MPCA & UofM

Finally, we will discuss how your health center has incorporated SDOH data into patient care.

Interviewer Note: This section is appropriate for the following staff roles: data and quality improvement, practice management, and executive leadership. Most direct care and supervising staff will also be able to answer these questions. If not, skip to Question 22.

19. Describe how your health center’s chronic disease management programs (e.g., diabetes, hypertension) have responded to patient SDOH needs?

Which programs use SDOH data to coordinate care? Which programs use SDOH data for panel and population health management?

20. How is the SDOH screening and referral data shared with these programs?

21. What drove your health center’s decision to incorporate SDOH data into these programs?

Policy and incentives; external mandate; patient needs; performance measures; CQIs; health center priority / supportive culture

Process. Planning/execution are random or systematic; priority driven; strategic planning and execution; focus on care that is more easily integrated; provider availability; capacity for responding to care; action supported by technology

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan's Federally Qualified Health Centers

Partners: MPCA & UofM

That concludes the interview questions.....

22. Is there anything else you would like us like us to know about your health information technology capabilities or partner activities to address SDOH?

Thank you for participating in the interview. We value your response. The gift card will be processed and sent to your home address. If you have any questions about the study, please don't hesitate to contact me.

Project: Responding to Patient Social Needs in the Digital Era: A Study of the Cross-Sector Partnerships and Health Information Technology Capabilities of Michigan’s Federally Qualified Health Centers

Partners: MPCA & UofM

Data Use

HIT Capability	Risk Adjusted models	Value-Based Care	Population Health Initiatives	Continuous Quality Improvement	Reporting & Reimbursement
Data Use	Risk stratification & panel management	Risk adjusted payment models	Multi-sector prevention & community capacity building	Improve service & patient outcomes	Third party reporting
Data Type	SDOH/medical data	SDOH/medical data	SDOH/community data & claims data	SDOH/community data & claims data	SDOH & claims data
Technology	EHR product “add on”				
	Azara - Data Reporting and Analytics				
	Other commercial software				
	Tools of a secure data network				
	Other – TBD from survey				

Data Management Practices & Policies

HIT Capability	Data Management and Information Exchange Practices and Policies		
Data systems	Separate data systems	Linked data systems	Integrated information systems
Practices	No shared access	Shared access and some tracking capabilities	Formal data management policies
	Limited shared access	Shared access, tracking, & exchanging capabilities	Formal data management policies, standards, and accountability measures
Policies & Incentives	Data access policies (screening & tracking)	Data management policies (tracking & exchanging)	Information exchange & data use policies
			Established measures, reporting and analytics