Primary Care Case Conferences to Mitigate Social Determinants of Health: A Case Study

from One FQHC System

Running Head: Case Conferences to Mitigate SDOH

**Precis:** This article describes perceived benefits, facilitators, and challenges in conducting

interprofessional team case conferences in primary care settings to address complex patients'

social needs.

**Takeaway points:** 

Case conferences are a feasible and acceptable approach to understanding patient's complex

social needs. Participants reported that case conferences helped to mitigate the effects of these

social issues and that they foster better inter-professional communication and care planning in

primary care.

Little research has explored how non-face-to-face team approaches, such as case

conferencing, can be successfully implemented particularly within value-based

reimbursement environments.

• This study advances healthcare organizations' and providers' understanding of the

benefits and challenges of case conferencing in primary care settings.

Successful case conferencing requires administrative support and organizational

resources.

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### **ABSTRACT**

**Objective**: Given the increasing difficulty healthcare providers face in addressing patients' complex social circumstances and underlying health needs, organizations are considering teambased approaches including case conferences. We sought to document various perspectives on the facilitators and challenges of conducting case conferences in primary care settings.

Study Design: Qualitative study using semi-structured telephone interviews

**Methods**: We conducted 22 qualitative interviews with members of case conferencing teams, including physicians, nurses, and social workers from a Federally Qualified Health Clinic, as well as local county public health nurses. Interviews were recorded, transcribed, and reviewed using thematic coding to identify key themes/subthemes.

Results: Participants reported perceived benefits to patients, providers, and healthcare organizations including better care, increased inter-professional communication, and shared knowledge. Perceived challenges related to underlying organizational processes and priorities. Perceived facilitators for successful case conferences included generating and maintaining a list of patients to discuss during case conference sessions and team members being prepared to actively participate in addressing tasks and patient needs during each session. Participants offered recommendations for further improving case conferences for patients, providers, and organizations.

Conclusions: Case conferences may be a feasible approach to understanding patient's complex social needs. Participants reported that case conferences may help mitigate the effects of these social issues and that they foster better inter-professional communication and care planning in primary care. The case conference model requires administrative support and organizational

resources to be successful. Future research should explore how case conferences fit into a larger population health organizational strategy so that they are resourced commensurately.

**Key Words:** case conferences; social determinants of health; primary care; care coordination; team-based care; patient support

#### INTRODUCTION

In an effort to improve the health of patients, health care providers are increasingly offering direct support for individuals with complex social and health needs. <sup>1,2</sup> These efforts are rooted in the growing body of knowledge that describes how social determinants of health (SDoH) affect outcomes. Insufficient transportation or financial resources, living in adverse environments, and/or the lack of access to healthy food, clothing, or other basic resources are critical determinants of well-being and preventable healthcare utilization. <sup>3</sup> However, these social needs have complex etiologies that require longitudinal interventions to mitigate. <sup>4</sup> Problematically, a routine primary care encounter which focuses on the acute reason for the visit provides insufficient time to adequately address complex social needs. As a result, little progress is made towards addressing the underlying exacerbating condition - frustrating both patients and providers.

Team based care may be an effective approach to address a complex array of challenges stemming from SDoH. Case conferences, which employ interdisciplinary team meetings to foster a consensus on individual patient's health management plans, have been used to address social factors and to facilitate referrals and care coordination.<sup>5</sup> A recent study examined the impact of case conferences on patient outcomes and found reductions in the probability that a case

conference patient would have an emergency department visit in a given month or a hospital admission. Case conferences differ from traditional interdisciplinary approaches or care coordination practices by bringing a wider arrange of clinical and nonclinical professionals together for coordination and decision making. Participants often include primary care or specialist physicians, nurses, dieticians, and social workers. Research from primary care settings suggests that the perceived benefits from case conferencing including improved awareness of team-members' capabilities and expertise as well as community-based social services to support patients. However, the use of case conferencing remains low and little is known about how this approach can be successfully implemented. Sibbald and colleagues (2013) reported that interdisciplinary team-based care requires improved organizational communication and processes. Challenges include reconceptualization of how healthcare organizations consider the organization of care teams, expansion of perceived accountability for patients' total wellbeing, and more inclusive decision making processes. More research is needed to inform best practices in implementing case conferencing.

Given the perceived challenges and feasibility questions related to team case conferences, health organizations may be hesitant to implement this strategy within primary care settings. To further explore team case conferences and inform organizational decision-makers, this pilot study documented key experiences with case conferences in primary care settings where this approach for high-risk patients is encouraged, but not required. We sought to better understand the perspective of providers and stakeholders who actively participate in this type of team-based approach. More specifically, we explored the challenges and benefits of team case conferences as described by primary care providers, social workers, and public health nurses through

interviews. Findings may be of interest to medical directors, clinic administrators and others interested in the potential for case conference approaches as a potential strategy for mitigating the effects of complex social needs on patients' health.

### **METHODS**

Study Design and Population

We qualitatively explored experiences with case conferencing in primary care Federally Quality Health Center (FQHC) settings affiliated with a safety net health system in the Midwest. Within this health system, team based case conferencing on patients with complex health and social needs is encouraged in primary care settings, although not all providers participate in this approach. Thus, we sought support from organizational leaders in the health system to help identify primary care providers who were actively leading case conferences. From there, we used a snowball technique of identifying other key members of these team case conferences. We interviewed case conference participants including physicians, social workers, and public health nurses. After obtaining informed consent, all interviews were conducted via telephone and recorded with permission. Interviews took place between February and November 2019. Individuals were invited via email to participate in an interview. The study was approved by the Institutional Review Board at the university of the primary author.

#### Interview Guides

Two interview guides were developed for this study – one for members of the primary care team (physicians/nurse practitioners/social workers) and public health nurses (see Appendix A).

Guides were developed after a member of the research team observed three case conference

sessions. Guides were then reviewed by the research team and revised through an iterative process.

Analysis

All interviews were transcribed and reviewed for analysis. Two researchers (VY and HT) first read a subset of the transcripts (n=4) and developed an initial coding system to identify themes reflecting benefits, challenges, facilitators to and recommendations for case conferences. Both researchers then independently coded the remaining transcripts according to the specified themes. Completed coding was reviewed and discussed. Any discrepancies were resolved through discussion and consensus.

### RESULTS

Overall 22 interviews were conducted and were comprised of 10 physicians, 1 nurse practitioner, 8 social workers, and 3 county public health nurses. On average, interviews lasted 33 minutes. Participants represented more than 11 case conference teams that worked across a total of 7 different clinic locations. Case conference teams typically included a physician, a nurse and/or medical assistant, and the clinic's social worker. External participating professionals included a representative from About Special Kids (ASK; an organization dedicated to supporting families of children with special needs), a representative from CICOA (an organization dedicated to supporting seniors and individuals living with disabilities), and a public health nurse from the local governmental agency. As needed, the case conference team is joined by a dietician, mental health provider or psychiatrist, the clinic's legal or financial counselor, and a school nurse if applicable.

On average, each physician/nurse practitioner holds 1-2 case conferences each month during a standing day/time slot, spending an average of 4 hours per month in case conference. The frequency and time length of case conferences was determined by the physician or nurse practitioner, ranging from meeting for 1 hour a once a month to meeting every other week for 4 hours. The number of patients discussed in an hour-long case conference is a function of whether the patients are new to the case conference (which typically requires more time) or whether they are follow-up patient discussions, as well as the complexity of the patient's health and social needs. The number of patients discussed ranges from 3 to 6 per hour-long conference. Participant perceptions of case conferences were coded into the following themes: benefits of case conferencing, challenges to successful case conferencing, facilitators to successful case conferencing, and future recommendations (Table 1).

## Perceived Benefits

In general, participants felt that case conferencing provided benefits to patients, providers, and their healthcare organizations. Half of respondents reported that they perceived that case conferencing provided better care for patients. One respondent noted, "... You just feel like people are safer. They're not going to fall through the cracks and I'm going to get some dedicated time to look at their situation more closely." Another perceived benefit to patients that was reported was how case conferences translated into more patient-centered care. More specifically, one primary care provider stated:

"I think we've become better at being patient-centered, family-centered, in the way we include families and the way we set goals for their care and what our to-do list is for goals...I have to be willing to acknowledge that the family maybe has different stressors

or different priorities based on what they know they need. I could case conference the entire time and never even ask a family [what they need] and then you miss that their priority is completely different than yours ...I call it practicing medicine with humility, of recognizing that patients know themselves better than anybody."

Participants noted that perceived benefits to providers included less burnout, greater job satisfaction, and increased awareness of programs and services available to support patients with complex social needs. One provider stated, "...I have no doubt that case conferencing saved me and my practice and I have no doubts that I can take really good care of very complex patients with my team..." Another provider remarked,

"I am so much happier as a clinician. [I feel] fulfilled because of case conference. I feel like I can actually help people because sometimes it's so overwhelming, the complexity of the social barriers or the medical condition, that in the 15-20 minutes when the patient is here, that it's hard to feel like you're doing anything to move forward..."

In general, study informants valued the engagement and contributions of fellow case conferences participants who operate outside traditional medical care delivery such as support services for children (ASK), the elderly (CICOA), and public health nurses. Participants noted a sense of reduced fragmentation of care and that public health nurses often served as an extension of the primary care providers by visiting patient homes and conducting health and social assessments as well as following up on critical issues such as patient medication adherence. As appropriate, public health nurses reported patient's critical social barriers and impediments to health progress so that the team could adjust the care plan and/or identify additional patient support.

Finally, although noted less frequently, some perceived that case conferences could offer an organizational benefit by reducing patient wait times during physical visits (e.g. in the waiting or exam room). This was referred to as a reduction in cycle times. Because complex issues were being addressed during case conferences, providers reported needing less time for social needs during the patient's office visit – keeping the provider on schedule for other patients.

## Perceived Challenges

Perceived challenges were grouped into 5 subthemes, which were all related to underlying organizational processes and priorities. One reported ongoing organizational challenge was insufficient staff to simultaneously manage case conferences and the ongoing clinic responsibilities. For example, one primary care provider stated:

"Having the whole team [at case conference] is vital... picture everyone running in different directions... nurses helping in one way, the social worker another, me in another, the medical assistant in the fourth way...But the whole point [of case conferencing] is to connect and simplify and eliminate extra calls or confusion...

Unfortunately, the demands of the clinic mean [my nurse] often says she is too busy, and she doesn't mean personally, she means the [clinic] floor is too busy to leave right now."

The ways case conferences are organized, scheduled, and maintained varied across case conference teams. Participants were sometimes unsure of the roles and duties of others in attendance during case conference; and were not always clear regarding who can or should attend, and which patients were to be discussed during an upcoming case conference. One social worker explained: "Sometimes I get [the list of patient names for the upcoming case conference]

a day prior, sometimes a few days prior, and it's usually provided by me repeatedly asking who we're talking about...I like to get it a week ahead of time because that allows me to invite any others that I feel would be pertinent to the discussion."

While primary care providers experienced reduced burnout as a result of case conferences, social workers perceived increased workloads due to the number of tasks they needed to accomplish following case conferences. However, this challenge was reportedly mitigated by teams that employed a "working case conference" approach. Working case conferences were those where attendees understand their role, prepare in advance, and accomplish tasks together *during* the case conference. While this means more preparation time, it reduces the number of tasks that team members (particularly social workers) need to complete following case conference.

## Perceived Facilitators

Participants reported practices that were perceived to facilitate successful case conferences.

Generating and maintaining a list of patients in advance of case conferences was the most commonly reported facilitator. Knowing which specific patients will be discussed during case conference allows time for team members to strategically invite other relevant external team members to case conference. Participants also indicated that it provides time to call the patient in advance to learn of any needs or concerns they would like discussed. Social workers reported that it provides time to compile key information about the patient to aid in the discussion and reduce time needed to look up information during the case conference.

"I find the list [of patients in advance] helpful because I like to... check the payer source, check their appointment history, 'Does their payer source allow them transportation

benefits?'...Then I'll go into their clinical chart and look at some of the clinical information...I'm not sitting there during the case conference trying to do the review."

(Social Worker)

It was noted that the ability to gather relevant patient information prior to case conference aids in facilitating a "working case conference." Participants also felt that approaching case conference as a non-hierarchical team facilitates meaningful case conferences. Participants said that allowing any case conference team member (nurse, medical assistant, social worker, etc.) to add patients to the case conference schedule and to lead case conference discussions contributes to all team members perceiving their role as important.

"...as a provider, if I'm leading it for my patient, I'm more likely to just go in the same circles and the same ways of thinking. By having somebody else lead, you might uncover other issues, other ways of looking at things. I think it just brings more to the table. I see that often where somebody else who just has a different clinical viewpoint or a different relationship with a patient brings up something that I hadn't even thought of or that hadn't occurred to me that's very helpful or meaningful... it really ideally shouldn't be a hierarchy. It should be everybody's coming to the table with equal ground... Because all these different viewpoints really matter, especially with our complex patients who have more needs or more complex needs."

Key organizational facilitators mentioned by participants include administrative support and encouragement. Examples provided included scheduling specific/consistent times for providers to participate in case conferences, supporting case conferences through onboarding/training, and promoting provider buy-in by reinforcing case conference as an organizational priority.

Participants felt that blocking provider case conferencing timeslots and respecting these slots so that all members of the case conference team are expected and encouraged to attend shows that team-based care is valued and prioritized by the organization.

Recommendations for Case Conferences

Participants provided a range of suggestions to improve case conferences. For patients, participants recommended additional informational materials that explain case conference as well as contacting the patients before or during the case conference to check-in on their needs and priorities. One primary care provider said:

"About 60 or 70% of almost all case conferences, I'll touch base with the patient... when [we call patients during] case conferencing... we think we know what the most pressing issues are and sometimes [the patients] have other pressing issues that we're not quite as aware are at the top of the list.... patients appreciate knowing that there's this whole team of people working behind the scenes trying to coordinate their care...."

Several participants recommended electronic health record (EHR) tools and features, including improved communication with health and social service representatives within the EHR. It was also suggested that it would be helpful to have an EHR application that automatically recommends available social services/resources for patients based on their geographic location (zip code) and insurance coverage. This would be particularly useful to social workers who reported spending a considerable amount of their time maintaining up-to-date lists of available services and the conditions necessary to qualify for said services. Social workers were the go-to

source for this information, whereas it was suggested that a searchable repository would facilitate other team members having direct access to this information.

Participants recommended addressing reimbursement and insurance barriers related to case conferencing. It was suggested that more physicians would conduct case conferences and more organizations/administrators would be willing to protect scheduled time for case conferences if there was adequate reimbursement for that time. In addition, participants recommended that organizations develop training, systematic workflow processes, and best practices for case conferences so that there is more consistency and less confusion.

### DISCUSSION

This pilot study sought to explore the perspectives of providers and stakeholders who actively participate in team case conferencing in primary care settings of one health system to better understand relevant benefits and challenges to this type of team-based approach to care. Perhaps one of the most important findings from this work is that primary care providers reported improved job satisfaction and less burnout by case conferencing for patients with complex needs. Provider stress and burnout are challenging issues in healthcare practice today, with social factors as a documented source of complications and frustrations for providers. Our study identified the potential for a reduction in provider reported stress via participation in case conferences. Thus, healthcare organizations may benefit from implementing case conference to simultaneously reduce provider burnout while addressing patients' needs. The Center for Medicare and Medicaid Innovation funded entities ("bridge organizations") to test whether health outcomes could improve by connecting Medicare and Medicaid beneficiaries to

community resources that would address health-related social needs. According to a recent evaluation report of these funded entities, navigating beneficiaries to multiple community resources requires additional time to understand their needs, develop an action plan, and make connections. Team-based case conferencing may offer such a structure.<sup>13</sup>

As the US health care system moves towards greater value-based reimbursement schemes, healthcare organizations may benefit from employing a variety of interventions and systems changes including partnerships with external social support organizations, <sup>14</sup> integrating patient care navigators or social workers into the clinic setting, <sup>7</sup> incorporating behavioral health into primary care clinics, <sup>15</sup> and team-based approaches. <sup>5,8,10,16,17</sup> Most of these approaches rely on tasks conducted by an individual or are conducted independent of the primary care provider. Conversely, case conferences incorporate diverse skillsets, dedicated time for interpersonal communication, and a commitment to longitudinal patient follow-up. <sup>5,8,16</sup> Collaborative and ongoing arrangements may account for the positive perceptions. Individuals often express an affinity for workplace arrangements that allow for shared experiences and frustrations, and teams with diverse expertise tend to be more effective problems solvers. <sup>8,10,16</sup> The value of diverse skillsets was also reflected in primary care providers' and social workers' positive views of the contribution of public health nurses. <sup>5</sup>

As with all interventions aimed at quality improvement, supportive organizational processes are key to implementation and success. Findings indicated a perceived need for clear role assignments to prevent disproportionate burdens on any one staff member and to encourage widespread participation. Evidence from research on highly effective teams supports the need to

structure preparation activities and to ensure relevant knowledge is shared across individuals.<sup>2</sup> More research is needed to determine the most appropriate and effective roles for team members when preparing for and contributing to case conferences. Technology enhancements could better support the structuring and functioning of case conferences. For example, EHR registries could be applied in case conferences. Beyond the clinical data necessary for the management of patients, cases conferences have a strong need to identify and refer patients to appropriate services based on needs, eligibility, and insurance coverage. Because the case conference approach incorporates different providers and outside organizations in the care and life of patients, electronic seamless communication across all participants is key. Problematically, such communication remains an implementation and organizational challenge. <sup>18</sup> Although our pilot study sampled participants from the same health system which encouraged case conferences, clinic-level support varied. Ensuring primary care providers make a commitment could help establish a culture that supports innovative quality improvement efforts and enables providers to advocate for systematizing logistics and structure. Processes for case conferencing extend beyond the actual conference themselves such as determining which patients to include in case conferencing. Future research should examine the use of specific guidance or risk stratification criteria for identifying patients best suited for case conferencing.

Navigating the payment environment for case conferencing outside of the individuals covered by Medicare's chronic care management program was one of the biggest hurdles mentioned by participants who want to meet and sustainably address the complex needs of their patients.

Depending on the program requirements, this may mean getting signed consent from patients and documenting specifics of the case conference in EHRs. It may also mean copayments for patients

 a barrier that has been previously identified in a study of Medicare's non-face-to-face care coordination program.<sup>7</sup>

Strengths and Limitations

As a strength, this is the first study to explore participants' perceptions of the benefits and challenges of team-based case conferencing in primary care; however, there are important limitations to note. First, findings rely on qualitative interviews of individuals who self-selected to engage in team case conferencing and therefore may be subject to respondent biases such as social desirability bias. Input from providers who choose not to participate in team case conferencing as well as details and specifics regarding patient selection for case conferencing are not available. Findings thus cannot speak to the type of patients that would most benefit from this type of intervention in primary care. Further, although interviews were carried out until theme saturation was reached, all interviews focused on one health system, thus limiting the generalizability of our findings. Given these limitations, future studies should examine teambased case conferencing in diverse settings and geographic locations.

## **CONCLUSIONS**

Case conferences may be a feasible approach to understanding patient's complex social needs.

Participants reported that case conferences helped to mitigate some of the effects of social issues on health and that they foster better inter-professional communication and care planning in primary care. The case conference model requires administrative support and organizational resources to be successful. Future research should explore how case conferences fit into a larger population health organizational strategy so that they can be resourced commensurately.

### REFERENCES

- Blumenthal D, Chernof B, Fulmer T, Lumpkin J, Selberg J. Caring for High-Need, High-Cost Patients - An Urgent Priority. N Engl J Med. 2016;375(10):909-911. doi:10.1056/NEJMp1608511
- WHO | Commission on Social Determinants of Health final report. Published online April
  25, 2017. Accessed May 6, 2020.
   https://www.who.int/social\_determinants/thecommission/finalreport/en/
- 4. Solberg LI. Theory vs Practice: Should Primary Care Practice Take on Social Determinants of Health Now? No. Ann Fam Med. 2016;14(2):102-103. doi:10.1370/afm.1918
- Vest JR, Caine V, Harris LE, Watson DP, Menachemi N, Halverson P. Fostering Local Health Department and Health System Collaboration Through Case Conferences for At-Risk and Vulnerable Populations. Am J Public Health. 2018;108(5):649-651. doi:10.2105/AJPH.2018.304345
- 6. Vest, J.R., Blackburn, J., Yeager, V.A., Haut, D.P., Halverson, P.K. Primary care-based case conferences and reductions in health care utilization. Journal of Healthcare for the Poor and Underserved. 2021;32(3):1288-1300. doi: 10.1353/hpu.2021.0132.
- 7. Yeager VA, Wharton MK, Monnette A, et al. Non-Face-to-Face Chronic Care Management:
  A Qualitative Study Assessing the Implementation of a New CMS Reimbursement Strategy.
  Popul Health Manag. 2018;21(6):454-461. doi:10.1089/pop.2017.0196

- 8. Dieleman SL, Farris KB, Feeny D, Johnson JA, Tsuyuki RT, Brilliant S. Primary health care teams: team members' perceptions of the collaborative process. J Interprof Care. 2004;18(1):75-78. doi:10.1080/13561820410001639370
- Darlington Y, Feeney JA, Rixon K. Interagency collaboration between child protection and mental health services: practices, attitudes and barriers. Child Abuse Negl. 2005;29(10):1085-1098. doi:10.1016/j.chiabu.2005.04.005
- Farris KB, Côté I, Feeny D, et al. Enhancing primary care for complex patients.
   Demonstration project using multidisciplinary teams. Can Fam Physician. 2004;50:998-1003. https://www.ncbi.nlm.nih.gov/pubmed/15317232
- Sibbald SL, Wathen CN, Kothari A, Day AMB. Knowledge flow and exchange in interdisciplinary primary health care teams (PHCTs): an exploratory study. J Med Libr Assoc. 2013;101(2):128-137. doi:10.3163/1536-5050.101.2.008
- 12. Kung A, Cheung T, Knox M, et al. Capacity to Address Social Needs Affects Primary Care Clinician Burnout. Ann Fam Med. 2019;17(6):487-494. doi:10.1370/afm.2470
- RTI International. Accountable Health Communities (AHC) Model Evaluation. December
   2020. Available at: <a href="https://innovation.cms.gov/data-and-reports/2020/ahc-first-eval-rpt">https://innovation.cms.gov/data-and-reports/2020/ahc-first-eval-rpt</a>
   Accessed 30 August, 2021.
- 14. Amarashingham R, Xie B, Karam A, Nguyen N, Kapoor B. Using Community Partnerships to Integrate Health and Social Services for High-Need, High-Cost Patients. Issue Brief . 2018;2018:1-11. https://www.ncbi.nlm.nih.gov/pubmed/29320140
- 15. Johnson P, Linzer M, Shippee ND, Heegaard W, Webb F, Vickery KD. Development and Implementation of an Interdisciplinary Intensive Primary Care Clinic for High-Need High-

- Cost Patients in a Safety Net Hospital. Popul Health Manag. Published online August 5, 2019. doi:10.1089/pop.2019.0068
- Tuso P, Watson HL, Garofalo-Wright L, et al. Complex case conferences associated with reduced hospital admissions for high-risk patients with multiple comorbidities. Perm J. 2014;18(1):38-42. doi:10.7812/TPP/13-062
- 17. Xyrichis A, Lowton K. What fosters or prevents interprofessional teamworking in primary and community care? A literature review. Int J Nurs Stud. 2008;45(1):140-153. doi:10.1016/j.ijnurstu.2007.01.015
- Walker DM, Hefner JL, Sova LN, Hilligoss B, Song PH, McAlearney AS. Implementing Accountable Care Organizations: Lessons From a Qualitative Analysis of Four Private Sector Organizations. J Healthc Manag. 2017;62(6):419-431. doi:10.1097/JHM-D-16-00021

Table 1. Perceptions about Case Conferencing

Perceived Benefits	Explanation
Better care	The overall care provided for case conference patients is enhanced.
Reducing fragmentation for patients with complex health and social needs	Case conferences connects siloed health and social service professionals that support complex patients.
Reduced burnout	Providers experience less burnout and more satisfaction with their work.
More patient-centered care	The care provided to case conference patients is specifically focused on patient needs.
Physicians are more aware of services that can support their patients	Through case conferences, providers are exposed to new and various services that are intended to address patient social needs.
Perceived organizational benefits	Providers perceive their participation in case conferences improves their ability to meet organizational expectations in other areas of care.
Public Health participation perceived to be valuable	Including public health in case conferences or utilizing public health services is beneficial for overall care.
Perceived Challenge	Explanation
Insufficient staff/ Case conferences not prioritized	Despite intentions to hold case conference, other aspects of clinical care are prioritized over case conferencing or there are an inadequate number of staff to both support ongoing patient care in the clinic and attend case conferences.
Workload increases	Participating in case conferences adds work/tasks to a member of the team's daily activities
Lack of follow-up or communication barriers with external support providers following a case conference.	Inability to be able to seamlessly communicate and connect with a patient's entire care team or supporting social and health service representatives including public health nurses as they do not have access to direct messaging features that would directly communicate with the case conference team in the EMR.
Unclear role expectations as to who organizes, adds patients to case conference schedules, prepares/reviews in advance, or follows-up afterward.	There is wide variation in how case conferences are organized and managed. Team members prepare for the case conference differently and some do not prepare in advance at all. The same type of team member may prepare differently at one site than another.
No systematic process for generating a list of patient names to discuss in advance	The list of patients to be discussed during an upcoming case conference is not consistently gathered and tracked or not tracked in a manner that facilitates advance preparation
Perceived Facilitator	Explanation
List of patients in advance	Names of patients to be discussed during case conference are determined and documented/provided to members of the team in advance of the case conference.
Explaining case conferences in advance	Patients are informed that they will be discussed in a case conference setting. The purpose of the case conference is explained to the patient
	and they are notified that they may receive a telephone call during the conference.
Working case conference	and they are notified that they may receive a telephone call during the conference.  As a patient case is discussed, members of the care team actively seek appropriate interventions and solutions for patients, completing as much of the work during the meeting as possible.
	and they are notified that they may receive a telephone call during the conference.  As a patient case is discussed, members of the care team actively seek appropriate interventions and solutions for patients, completing as much of the work during the meeting as possible.  All members of the care team (physician, nurse practitioner, medical assistant, nurse, social worker, etc.) are empowered to add patients to
Working case conference  Allowing any health professional to suggest patient names for case	and they are notified that they may receive a telephone call during the conference.  As a patient case is discussed, members of the care team actively seek appropriate interventions and solutions for patients, completing as much of the work during the meeting as possible.  All members of the care team (physician, nurse practitioner, medical assistant, nurse, social worker, etc.) are empowered to add patients to the list of individuals to be discussed during a future case conference and to lead discussions during a case conference.  Prior to completing a case conference session, a plan/date to follow-up on each patient who has been discussed is developed and added to each patient's notes.
Working case conference  Allowing any health professional to suggest patient names for case conference and/or lead discussions during case conferences  Having a plan to revisit patients discussed during previous case	and they are notified that they may receive a telephone call during the conference.  As a patient case is discussed, members of the care team actively seek appropriate interventions and solutions for patients, completing as much of the work during the meeting as possible.  All members of the care team (physician, nurse practitioner, medical assistant, nurse, social worker, etc.) are empowered to add patients to the list of individuals to be discussed during a future case conference and to lead discussions during a case conference.  Prior to completing a case conference session, a plan/date to follow-up on each patient who has been discussed is developed and added to each patient's notes.  Monthly case conference meeting times are scheduled for each provider and blocked in advance. Some meet every week or biweekly on a specific day and some convene once a month on a set day/week.
Working case conference  Allowing any health professional to suggest patient names for case conference and/or lead discussions during case conferences  Having a plan to revisit patients discussed during previous case conferences	and they are notified that they may receive a telephone call during the conference.  As a patient case is discussed, members of the care team actively seek appropriate interventions and solutions for patients, completing as much of the work during the meeting as possible.  All members of the care team (physician, nurse practitioner, medical assistant, nurse, social worker, etc.) are empowered to add patients to the list of individuals to be discussed during a future case conference and to lead discussions during a case conference.  Prior to completing a case conference session, a plan/date to follow-up on each patient who has been discussed is developed and added to each patient's notes.  Monthly case conference meeting times are scheduled for each provider and blocked in advance. Some meet every week or biweekly on a specific day and some convene once a month on a set day/week.  Both the organization and clinical staff prioritize and encourage case conferences, supporting one another, onboarding new clinicians, and prioritizing case conferences.
Working case conference  Allowing any health professional to suggest patient names for case conference and/or lead discussions during case conferences  Having a plan to revisit patients discussed during previous case conferences  Standing schedule block  Cultural climate that supports case conferences  Participant Recommendations	and they are notified that they may receive a telephone call during the conference.  As a patient case is discussed, members of the care team actively seek appropriate interventions and solutions for patients, completing as much of the work during the meeting as possible.  All members of the care team (physician, nurse practitioner, medical assistant, nurse, social worker, etc.) are empowered to add patients to the list of individuals to be discussed during a future case conference and to lead discussions during a case conference.  Prior to completing a case conference session, a plan/date to follow-up on each patient who has been discussed is developed and added to each patient's notes.  Monthly case conference meeting times are scheduled for each provider and blocked in advance. Some meet every week or biweekly on a specific day and some convene once a month on a set day/week.  Both the organization and clinical staff prioritize and encourage case conferences, supporting one another, onboarding new clinicians, and prioritizing case conferences.  Explanation
Working case conference  Allowing any health professional to suggest patient names for case conference and/or lead discussions during case conferences  Having a plan to revisit patients discussed during previous case conferences  Standing schedule block  Cultural climate that supports case conferences  Participant Recommendations  Improved communication between providers and other health care/social service providers	and they are notified that they may receive a telephone call during the conference.  As a patient case is discussed, members of the care team actively seek appropriate interventions and solutions for patients, completing as much of the work during the meeting as possible.  All members of the care team (physician, nurse practitioner, medical assistant, nurse, social worker, etc.) are empowered to add patients to the list of individuals to be discussed during a future case conference and to lead discussions during a case conference.  Prior to completing a case conference session, a plan/date to follow-up on each patient who has been discussed is developed and added to each patient's notes.  Monthly case conference meeting times are scheduled for each provider and blocked in advance. Some meet every week or biweekly on a specific day and some convene once a month on a set day/week.  Both the organization and clinical staff prioritize and encourage case conferences, supporting one another, onboarding new clinicians, and prioritizing case conferences.  Explanation  Having intuitive and seamless means of communicating with all providers and health/social support representatives regarding case conference patients.
Working case conference  Allowing any health professional to suggest patient names for case conference and/or lead discussions during case conferences  Having a plan to revisit patients discussed during previous case conferences  Standing schedule block  Cultural climate that supports case conferences  Participant Recommendations  Improved communication between providers and other health care/social service providers  Contact patients during CC or reach out before the CC to check-in on their needs	and they are notified that they may receive a telephone call during the conference.  As a patient case is discussed, members of the care team actively seek appropriate interventions and solutions for patients, completing as much of the work during the meeting as possible.  All members of the care team (physician, nurse practitioner, medical assistant, nurse, social worker, etc.) are empowered to add patients to the list of individuals to be discussed during a future case conference and to lead discussions during a case conference.  Prior to completing a case conference session, a plan/date to follow-up on each patient who has been discussed is developed and added to each patient's notes.  Monthly case conference meeting times are scheduled for each provider and blocked in advance. Some meet every week or biweekly on a specific day and some convene once a month on a set day/week.  Both the organization and clinical staff prioritize and encourage case conferences, supporting one another, onboarding new clinicians, and prioritizing case conferences.  Explanation  Having intuitive and seamless means of communicating with all providers and health/social support representatives regarding case conference patients.  Contacting a patient via phone during an active case conference to determine current patient needs and barriers. Discussing case conference with the patient beforehand to determine relevant priorities.
Working case conference  Allowing any health professional to suggest patient names for case conference and/or lead discussions during case conferences  Having a plan to revisit patients discussed during previous case conferences  Standing schedule block  Cultural climate that supports case conferences  Participant Recommendations  Improved communication between providers and other health care/social service providers  Contact patients during CC or reach out before the CC to check-in	and they are notified that they may receive a telephone call during the conference.  As a patient case is discussed, members of the care team actively seek appropriate interventions and solutions for patients, completing as much of the work during the meeting as possible.  All members of the care team (physician, nurse practitioner, medical assistant, nurse, social worker, etc.) are empowered to add patients to the list of individuals to be discussed during a future case conference and to lead discussions during a case conference.  Prior to completing a case conference session, a plan/date to follow-up on each patient who has been discussed is developed and added to each patient's notes.  Monthly case conference meeting times are scheduled for each provider and blocked in advance. Some meet every week or biweekly on a specific day and some convene once a month on a set day/week.  Both the organization and clinical staff prioritize and encourage case conferences, supporting one another, onboarding new clinicians, and prioritizing case conferences.  Explanation  Having intuitive and seamless means of communicating with all providers and health/social support representatives regarding case conference patients.  Contacting a patient via phone during an active case conference to determine current patient needs and barriers. Discussing case conference

Final published article available at Yeager, V., Taylor, H., Menachemi, N., Haut, D., Halverson, P., Vest, J.R. Primary Care Case Conferences to Mitigate Social Determinants of Health: A 22 Case Study from One FQHC System. Am J Accountable Care. 2021;9(4):12-19. https://doi.org/10.37765/ajac.2021.88802

Incentivize/guide billing processes for CC	Reimbursement for provider's time spent during case conferences is limited and varies widely across patient's insurance coverage. For case
	conferences to be sustainable, reimbursement or incentives must be appropriately set.
More systematic workflow/consistent staff	Organization and management processes of conducting a case conference should be documented and consistently followed. These
	processes should include guidelines for staff participation and expectations for preparing in advance for case conferences.
Case conference resource finder that has geographic and payer	Understanding the number and intricacies of various available health and social services. Given the influence of insurance coverage on
filters/ Better understanding of resources	access to these services, an EHR application that automatically suggests appropriate resources for each patient is perceived as valuable.
More participation from physicians	Having more physicians develop and engage in case conferences for their panel of patients

# Appendix A

# Guide 1: Interviews with Clinicians Working with Public Health Nurses as a part of Case Conferences

## **Background**

Can you start by telling me a little about which locations you are a part of case conferences and for how long you've been involved? Are these adult or pediatric case conferences? How often do they meet? What percentage of these are you able to attend in person (on average)?

## Case conference operations and goals

- 1. Can you describe the goals of a case conference?
- 2. What is your contribution to case conferences? What role do you fulfill?
- 3. How important are contextual factors to the work you are doing to support case conferences and patients (e.g., information about patient neighborhoods; homes; social networks)? Is this information usually available to you?
- 4. In your opinion, what has been the *impact* of case conferences?

# **Referrals and Activities of Public Health**

- 5. Have you been apart of case conferences in which a public health nurse attended the meeting?
- 6. If no, have you been a part of a case conference where a public health nurse was called or they were discussed/planned into activities? Please describe.
- 7. Are you aware of the specific public health services that are being or have been used in relation to case conferencing?
- 8. Do you think these public health services are needed (appropriate) to support clinicians and patients in improved health?
- 9. Are the services that public health offers case conferencing able to complement existing expertise or are they duplicative?
- 10. Given these experiences, what kind of ways has public health contributed to case conferences?
- 11. Any sense of the *impact* of public health participating in the case conferences?
- 12. Do you have any particular success stories involving public health you can share?

#### **Information needs**

- 13. Thinking about a typical case conference, what kinds of information do you need? (*Probe: health, community information, history, etc.*)
- 14. How is that information used in the case conferences? How does it fit in your decision-making or action items?
- 15. Do you typically have all that information available during case conferences? What is missing/what are the gaps?
- 16. Whose job is it to supply that information?
- 17. Based on your experience, who typically provides you the most useful information?
- 18. How is the information typically shared with or received from public health (verbally, email, etc.)
- 19. After the case conferences, is there consistent follow-up from public health? Describe the communication methods and typical time frames for communication/response.

# Organizational learning

- 20. What is the format of reporting on case conferences to the health department or the public health nurse? Weekly? Monthly? Verbal? What is the content?
- 21. Has being a part of case conferences alerted you to or increased your awareness of new public health issues in the community?
- 22. Have you or your agency explored adopting any new programs or policies in response to working more closely with public health?
- 23. Do you think the case conferences have been valuable to the health department?

- 24. Do you think the case conferences have increased the level of understanding between the Eskenazi Health and the health department?
- 25. What would you change about case conferences in an ideal world? What should continue?
- 26. Are there any ways that public health could help more or be more effective in this work? What's holding this back?

#### **Guide 2: Interviews with Public Health Nurses Involved in Case Conferences**

### **Background**

Can you start by telling me a little about which locations you attend/have attended case conferences and for how long? Are these adult or pediatric case conferences? How often do these meet and, on average, what percent of these are you able to attend?

### Case conference operations and goals

- 27. Can you describe the goals of a case conference?
- 28. What is your contribution to case conferences? What role do you fulfill?

### **Information needs**

- 29. Thinking about a typical case conference, what kinds of information do you need? (*Probe: health, community information, history, etc.*)
- 30. How is that information used in the case conferences? How does it fit in your decision-making or action items?
- 31. Do you typically have all that information available during case conferences? What is missing/what are the gaps?
- 32. Whose job is it to supply that information?
- 33. Based on your experience, who typically provides you the most useful information?
- 34. How is the information typically shared/received (verbally, email, etc.)
- 35. After the case conferences, with whom do you typically follow up? Describe the communication methods and typical time frames for communication/response.

### **Referrals and Activities of Public Health**

- 36. What kind of ways has public health been able to support case conferences? What specific public health services are/have been used?
- 37. Are these the things you think are needed (appropriate) to support clinicians and patients in improved health?
- 38. How important are contextual factors to the work you are doing to support case conferences and patients (e.g., information about patient neighborhoods; homes; social networks)? Is this information usually available to you?
- 39. In your opinion, what has been the *impact* of public health attending the case conferences?
- 40. Are the services that public health offers case conferencing able to complement existing expertise or are they duplicative?
- 41. Do you have any particular success stories you would like to share?

## Organizational learning

- 42. What is the format of the reporting on case conferences to the health department? Weekly? Monthly? Verbal? What is the content?
- 43. Has being a part of case conferences alerted you to or increased your awareness of new public health issues in the community?
- 44. Have you or your agency explored adopting any new programs or policies in response to this work?
- 45. Do you think the case conferences have been valuable to the health department?

- 46. Do you think the case conferences have increased the level of understanding between the health department and Eskenazi Health?
- 47. What would you change about case conferences in an ideal world? What should continue?
- 48. Are there any ways that public health could help more or be more effective in this work? What's holding this back?